Improving implementation and the evidence base for the ELD

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Abstract

The goals of this project were to broaden the evidence base for the national level implementation of the Environmental Liability Directive (ELD) and find the key entry points, where improving the effectiveness of the implementation might be possible. Our researchers in the 27 EU countries have collected more than 700 electronically available sources of literature, 190 hard copy books and articles dealing with the ELD and with related environmental liability issues. They also performed more than 120 interviews in this project.

The problems analysed in the study include the availability of the ELD specific information in the Member States, the scarce use of the ELD laws in the specific, narrow sense, and also the time consuming and costly nature of these procedures. The almost totally missing ability and willingness of the operators to pay the costs directs our attention to develop the ELD systems towards ensuring more effective prevention in connection with the seemingly dangerous, not seldom reckless operations.

We were seeking for solutions in examining the institutional conditions of implementation of the ELD, the substantive legal tools (definitions, liable persons, strict liability, causational chain, defences) and the procedures (reporting the pollutions, inception of the cases, evidence gathering, measures, implementation/enforcement and follow up). We have pointed out the great capacities in raising awareness and forming positive social attitudes in connection with the ELD, as well as encouraging the participation of the concerned communities and the environmental NGOs.

Abstract in French

SUMMARY FOR THE EUROPEAN ELD RESEARCH

Introduction

The first wave of large comparative European studies on the transposition and implementation of the ELD relied primarily on the national ELD reports issued by the ministries responsible for environmental protection, this way harnessing first of all on the data and knowledge of the national ELD officials. After more than a decade of practical use of the Directive the time has arrived to survey the field experiences, too. In this new research the national experts in the 27 EU countries used multiple alternative sources of information, such as

- scientific (mostly environmental law) literature and conferences,
- statistics, other than ELD specific ones (such as environmental criminal statistics or statistics of the large insurance company networks),
- data from general state of environment reports and from reports on the status of waters, nature, and soil,
- reports with and studies of NGOs focusing on environmental liability matters (such as the networks and national branches of Justice and Environment, Greenpeace or World Wide Fund for Nature),
- reports and interviews with ombudspersons partly or wholly responsible for environmental protection and public health (having hundreds of relevant complaints from citizens, also running independent researches),
- information from other non-governmental State organisations, such as National Auditing Agency or the public prosecutors' offices and last but not least
- a new methodology that all of our researchers applied in smaller or larger extent, the Big Data, namely reports, analyses, pamphlets from the electronic media, Internet communications from local communities and business groups and many other interesting and representing together a valuable source of information (the available sources of ELD data are surveyed in more details in Chapter 1).

The main question of this research is how the implementation of the ELD could be made more effective. A strongly related issue is, why the authorities in most of the Member States insist silently or overtly on using the old environmental liability laws and more or less neglect the national level ELD laws. The other side of the coin is that the ELD does have a line of comparative advantages to the old liability rules and this is also clearly seen from the national studies (Chapter 2). The preference of the old system has several subjective and objective reasons of economic, political, and legal-technical nature. Therefore, it was useful to see the attitudes of the several stakeholders and social groups towards the ELD (Chapter 3). Afterwards we examine the most important infrastructure elements for successful implementation of the ELD: existence of ELD specific, properly staffed, trained and equipped (in technical and legal terms) institutional background (Chapter 4), strong enough and consequentially implemented substantive laws of environmental liability, including the lack or partial existence of organic fitting of the new ELD regulations to the existing system of environmental liability laws; also we examine here what the interrelations are of the environmental liability rules with the issue of the orphan sites, mostly kept outside the scope of our ELD laws (Chapter 5). Further effectiveness factors are the well enough designed procedures that would not end with a decision, but follow the events

until the environmental problem of the polluted sites are fixed (Chapter 6). Other important procedural viewpoints are timeliness (Chapter 7) and costs of the ELD procedures and measures (Chapter 8). Finally, a key element of the effectiveness of the national ELD laws, public participation has to be examined, having in mind that the concerned local communities and environmental NGOs should not only have a mere legal possibility to initiate of and take part in the ELD procedures, but also have to have the proper capacities to do so (Chapter 9).

In all chapters we have a section 'B' where we collect and analyse the observations and the suggestions of the 12 selected national researchers for the in-depth phase of this project. Furthermore, we are having section 'C'-s, as well, where we survey further examples and suggestions for developing the legal texts and the implementation thereof in connection with environmental liability. Primarily, we quote the European Parliament 2017 resolution on the application of the ELD[1] (RES) and reflect to its points in the mirror of the findings of this recent project. Thereafter we analyse some more scientific efforts, including the Irish EPA & ICEL Conference on Environmental Law Enforcement (ICEL), the studies of the Justice and Environment network (J&E), as well as some articles dealing with the US Superfund laws (CERCLA and its amendments), for the sake of gaining a wider outlook and comparison[2], especially because the two decades older American legislation has piled up grades more practical cases than the ELD.

[1] European Parliament resolution of 26 October 2017 on the application of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (2016/2251(INI)

[2] As part of the preparation to the present project, our CERCLA study has been put together in 2020 with the support of the National University of Public Services, Budapest.

Content

I ELD numbers in the EU countries

Our questions to the country experts were in this chapter:

- what kinds of databases, statistics, and other information sources on the ELD implementation exist in their countries?
- we asked them, too, as far as possible, to look at the available facts on the environmental incidents or events damaging biodiversity, water, land (and air where applicable) apart from the official sources.

Access to information will be examined also, more specifically, as part of the system of public participation, in Chapter IX.1, focusing on the question how the concerned public can have passive (upon request) information on environmental liability matters. Here, in Chapter 1 we examine the availability of all kinds of ELD relevant information for more general purposes, such as research or policy-making and also in broader circle of sources, such as databases or statistics. As concludes, in Chapter 1 researchers were interested mostly in the system of aggregated data and availability of analyses thereof, while in Chapter IX.1 they focused on access to ELD information in individual cases.

The frames of the present project, however, did not allow for an overall, exhausting survey of the data on implementation of the ELD in the Member States – this was not necessary either, because the governmental report-based projects had performed this task already. Yet, on a much wider basis of information sources, this research could ascertain the reliability of these earlier collected data and establish a better basis for comparison and also for making suggestions in the in-depth phase of the project. Our task, therefore, was basically to use alternative sources of information on environmental liability matters and add new findings and insights to the already available ELD data.

ELD data flow

We found some countries, where the data flow from official sources on ELD is quite acceptable (SWE, EST), while the general experience was that despite the growing pressure from the data consumers, mainly the Commission itself, in the majority of the countries there is *no ELD database* at the relevant authorities or if it exists, it is *not of the proper quality*. We received the simplest 'no' answers about the existence of ELD database (SLO, LIT, DEN, ROM, MAL) or even worse, an explanation that there are structural problems excluding the existence of such a database, such as frequently changing and insecure organisational frames (NED), lack of full collection of more general, basic data about the facilities that perform industrial activities (CYP), or just because the given country overtly denies the application of the ELD or in effect fails to do so (CZE, DEN respectively).

Even where available, serious concerns were raised in connection with the *reliability* of the ELD databases in a line of countries, for instance *some years are missing* (NED, ITA), data are *not specific* enough (BUL) or *certain data are missing, inter alia* because of the statistics cannot handle specific legal terminologies (ITA, LAT, SWE). In other instances data might become *false, misreported or slightly distorted* in the data processing system that is proven when even widely known major industrial accidents were not reported as ELD cases (ROM) or damage cases were registered as threat cases, because of the easier proving of the latter (EST).

In other instances, there is allegedly a really good collection of the ELD data, but it is *not directly and fully accessible* for the general public (HUN, GRE, POL) or accessible, but in a really complicated pathway (NED, LAT). Accessibility of the ELD data in Spain fit into this line – the documents are

accessible, but the content is quite complicated to understand. The data flow from the main official source on ELD in Spain – Ministry of Ecological Transition – about the implementation is acceptable, thanks to the growing pressure from the data consumers, mainly the Commission itself. Any person can find official documents about the implementation of the ELD, which were shared with the Commission or the Spanish Environmental Council. Since 2019, in the website of the Ministry of Ecological Transition one can find publications explaining the juridical framework of the Law on Environmental Liability – which transpose the ELD – and a collection of the ELD cases, but there are no databases or statistics easy to understand. There is a significant amount of technical and financial information on the relevant operators, moreover, there is a practical guide for the general public to start a proceeding on environmental liability, although not easy to find it on the homepage (SPA). Despite the existing hardships, several other researchers were also able to collect meaningful data about the content of the various ELD relevant statistics (ITA, SLO, BUL, DEN, BEL, POL), the results of that will be seen in the following chapters. The other researchers mostly relied on more scattered and less official sources of information. The information about ELD cases might cover:

- competent authority for each case,
- description of the damage,
- identity of the operator,
- parties liable for the damage (both recovered and unrecovered),
- activity that caused the damage,
- type of environmental damage,
- defences applied,
- description of remedial actions,
- date of the incident,
- preventative measures taken,
- financial security instruments,
- closure date of the case,
- location of the damage,
- information for judicial review/judicial proceedings,
- types of claimants,
- outcomes of proceedings,
- parties liable for the damage (both recovered and unrecovered),
- annual costs of the administration (SPA)

Access to ELD data through EU sources

As the country researchers turned their attention from the official domestic ELD information sources to the EU level sources, they often found with an astonishment that often there are much *more and much more informative* data sets in EU, than at home. Moreover, they established, the European ELD information is easier to access to and quite user friendly (LAT, HUN). However, a couple of researchers went after the numbers of their countries on European level in details and found that the numbers reported to the EU do *not always fully coincide* with their information gained from other sources (GER, SWE, LAT, GRE).

Access to ELD data through non-ELD relevant sources of environmental authorities

Encouraged by the EU level research, learning that there must be more data about their countries' ELD system, the national researchers continued the data mining at alternative information sources.

Environmental authorities edit and distribute *several dozens of databases*, for all environmental media and environmental burden types, such as the Seveso Directive information system (CRO). Many of these databases have accumulated decades long experiences and regularly used by the authorities, the subjects of permitting and other environmental administrative procedures, municipalities, operators, real estate business people and the general public. Therefore, these databases are much more valid and trustable than the rare ELD ones with not boiled down enough methodology and no habitual use yet. On the other hand, these non-ELD environmental databases just give partial data on the ELD cases, specific traits of them cannot be revealed from these other environmental databases (GER, HU, GRE). Moreover, as Magdalena Bar, our Polish expert pointed out, it would be extremely difficult task to arrange all of this environmental information into a single database, because of the very different scale and range of data.[3]

Based on these fragments of information, however, more targeted information requests on certain types of ELD data could be sent to the relevant environmental authorities, as the Hungarian and the Slovenian researchers did. The Hungarian colleague has sent the request to 3 separate authorities (the ministry responsible for environment, the chief environmental authority and the chief water management authority) and – not to her surprise – got three different answers ranging from the sheer denial, through the information servicing on the condition of paying a high price, up to the free information for at least a certain amount of data (HUN, SLO). The Polish researcher also asked for information from the generally not accessible national ELD database and actually did receive the requested data. She found though that trends in use of the national ELD rules are declining, partly because of legislative changes (for example narrowing the scope of application of the ELD in case of redefining water, protected areas and soil for the ELD laws) and partly because the NGOs and the relevant authorities have become *discouraged by the difficulties in proving the relevant facts* (POL).

Access to ELD relevant data from non-environmental authorities and non-governmental State bodies and statistics

Starting out from the fact that environmental protection is a cross-cutting field of administration, some researchers could find relevant information in the databases of non-environmental authorities, too (CYP, GER), also in the database of the *ombudsman* responsible for a range of human rights (CYP, EST), and in the reports of the Attorney General about the activities of prosecutors in the field of environmental protection (CRO). *General statistics* were useful sources, too, because they have environmental sections and up to a certain level of details ELD relevant information can be retrieved from them (GER, DEN). Similarly, or even better, *insurance statistics* could offer meaningful results on cases where certain companies were held responsible for environmental pollution (CYP, LAT). Several country researchers could use with good results the *court statistics* (GER, ITA) and the German researchers' effort to look up the *environmental criminal statistics* seemed to be especially fruitful (also in EST and CRO). It would be difficult to believe that out of the thousands of crimes committed in connection with the environment, nature, waste, or waters none were in connection with such damages that would entail an ELD procedure. These data from the environmental criminal statistics are therefore in striking contradiction with the two grades lower numbers the official German ELD data suggest.

[3] Polish national study, page 5

Alternative information sources

Finally, *civil* (NED, HUN, ROM, MAL) and *electronic media* sources (CYP, MAL) could help, too, in forming a general picture of the ELD situation of a country. Generally, experts from NGOs and from the academia estimate that there are much higher number of ELD relevant cases as the official registers or other data from the environmental authorities would reflect (CRO). Considering the above picture of the system of various information sources, we can establish again the well-known fact that in the Age of Information an information monopoly is not imaginable anymore. We have seen that if the environmental authorities fail to collect, process, and distribute ELD relevant information, this would not prevent a researcher to find other relevant sources of information. Even more, our research underlines the importance of the complexity within the (post)modern State: specified authorities' work is supplemented by the work of different State bodies, such as the ombudsmen, the prosecutors, the statistical offices and many others. As a general overview of the very colourful system of information revealed by the country researchers will allow us to make some valid conclusions about the operation of the environmental liability systems in the practice on national level in the following chapters of this Summary. This system is, needless to say, much more than a mere sum of its elements, they form a structure where mutually reinforce each other and determine the effectiveness of access to genuine information in their complex procedures.

I.B Evaluation by the in-depth researchers

Why it is important to amend the information base of our ELD systems

Lack of relevant data and incomplete information about the ELD cases certainly is one of the obstacles to achieve the effective implementation of the ELD. Systemic compilation and availability of such information/data could lead to improved *awareness and understanding* about the ELD requirements. This is needed not only for the purposes of informing society, but even more for *different competent authorities* involved in the implementation of the ELD at national, regional, and local level (Mikosa). Naturally, a register of the environmental liability cases, as an official tool for collection of data on ELD cases shall be publicly available in the widest possible circles. When saying availability we mean also substantial access to the content for all stakeholders, which requirement can be fulfilled by clear and user friendly structure, as well as through distribution of meta-data on the ELD register, calling the attention to its existence, content and use (Kallia).

The difficulty in having a more adequate picture of the number of ELD-cases, this lack of transparency means that *the EU have no clear view* either on how the Directive is applied in the Member States. NGOs and the public have no easily accessible information on what is going on and thus may be excluded from exercising the right to protect their interests. Obviously, there are cases that are not registered as they are handled under some alternative environmental data systems, and not in the national ELD regime. Some ELD-issues are handled voluntarily by the polluter, and maybe then *will fly under the radar*, even when a supervisory authority is involved. Furthermore, *some contaminations are handled solely as civil disputes*, e.g. the concerned communities or municipalities require actions and economic compensation for the areas polluted, and these cases will not be shown either in the national statistics (Bengtsson).

Our Czech colleague expresses his views that access to general ELD data and analyses is also important to raise the awareness of the media and the public, in order to *encourage* them to get acquainted with this system of environmental liability, the grievous social, economic and environmental problems

behind the data and as follows, *activate* the members and organisations of the public. He concludes from the Summary that the basis of the difficulties in implementation of the ELD lies in the lack of experience with this system, absence of tradition and lack of understanding or appreciation of the system. Therefore, it is necessary to actively promote the regulation and bring it to the public's attention (Cerny). Similarly to that, other researchers expressed similar views that wide availability of ELD data might help to further *public awareness and participation* since publicly available information at the moment is often scattered and incomplete (Verheyen).

Harness alternative information sources

In the field of the ELD laws, there is a need for oversight, complaint handling and control that may be exercised by independent ombudspersons as is the case in some member states. Such ombudspersons can play an important role as they are able to identify recurring problems in the implementation of the ELD and inconsistencies in the handling of ELD cases by different authorities. An ombudsperson should be afforded adequate competence and budget to deepen the understanding of the case in forensic and legal terms (Verheyen). The Portuguese expert widens the same idea when suggests a more comprehensive ELD information system, which ideally should comprise interinstitutional information from both from the relevant administrative authorities (i.e. not only the competent authority, not even only from the environmental authorities) and the environmental cabinet of the Public Prosecutor integrated in the justice system and also from complaints to the ombudsperson (Amador).

A further important source of information for initiating ELD procedures are proceedings that have led to criminal or administrative sanctions. Environmental crimes and administrative offences often cause environmental damage. At the same time, sanctions relating to environmental crimes or offences are much more frequent than ELD procedures, suggesting insufficient exchange of information. Therefore, collaboration between ELD and other authorities as well as prosecutor's offices is desirable (Verheyen). However, in case of an environmental crime, where environmental liability concerns might be raised, there might exist another opportunity, possibly applied parallel to the information chain with the prosecutors. Most cases of more serious environmental damage are dealt with by the police. As early as when a criminal complaint is filed with the police regarding a crime entailing environmental damage, the competent authority shall have an immediate information from the police, while at the end of the investigation, the file should be sent to the competent authority, too. Content wise, we suggest that the police be obliged to provide basic information on the case determined by the law, so that the competent authority can start and carry out its own investigation in due time, and act in the field of prevention and remediation of environmental damage under the ELD laws the most effectively (Wilfing).

Further legal and practical changes necessary for more effective environmental liability information systems

In order to feed the ELD databases, there shall be an explicit legal enshrinement of the *obligation of the operators to provide the exactly specified documentation* to the competent officials responsible for handling the publicly accessible ELD registers at the competent authorities (Kiss). The unfortunate omission of the ELD itself to require certain information be provided to the public should not be merely accepted without further thought. As outlined above, the EU acquis provides clear legal grounds for the development of such a register, and the situation in the majority of the Member States in respect to the implementation of the ELD, in particular has proven that there is a real need for further data,

even before one can consider the best legislative changes needed on the ground in this country (Schmidhuber).

It is not enough, however, to collect and proceed information on the already polluted sites, but our legal subjects (relevant authorities, concerned communities, operators and NGOs) need wide and detailed enough data in order to establish the *baseline condition of the affected environment*, thus having stronger position in the cases where environmental pollution occur (Kiss, Cerny, Verheyen). At first glance the second part of this suggestion seem to be unrealistic, because it would require to find the proper sources, and to bring different information systems on the same platform. However, considering wide range of available sources of ELD relevant information surveyed in our Summary, Chapter I above, it is just a matter of legal obligation, all the information exist, and the technology to bring the necessary information on the same platform is at hand, too.

Broader basis of ELD relevant information could be formulated if the governments merged the information obtained by the administrative state bodies with regulatory environmental competences regarding potential environmental liability from industrial operators, legal and natural persons under the obligation to submit, on an annual basis, several kinds information depending on their activity or on the use of natural resources they carry out including, for example, monitoring of pollutants, waste produced, use of water and environmental reports, besides the mandatory administrative set of proceedings they must comply with in order to obtain the required licenses and authorizations for their respective activities. The information on ELD cases included in the reports available in the homepage of the environmental regulatory competent authority should be complemented by a database with the treatment of data in a statistic and searchable manner in order to allow a clear view and chronological analysis of all the ELD cases registered over the years. More detailed information could be achieved through effective interinstitutional cooperation. The ELD statistics regarding the complaints or cases that were registered by the stakeholders in the electronic platform of environmental incidents should be integrated in a database interlinked with the justice statistics database and with environment statistics from public bodies responsible for official national statistics (Amador).

Mandatory ELD registers, information content of the homepages of the relevant environmental authorities

Authors support the most obvious solution, which has been on the desk of the decision-makers for long that it should be made obligatory for generating data on the Directive's implementation, both at the national governments and for the European Commission. The regulation should encompass the *methods of data gathering*, covering the most possible information sources (Kiss, Verheyen).

According to the *Annex VI of the ELD*, mandatory information on environmental damage cases represents only a fraction of information that would be worth compiling (Mikosa).[4] Our authors consider the examples of websites on ELD operated by the competent national authorities to be particularly important element of the mandatory ELD information systems. The Czech researcher points out that the public websites containing publicly accessible register shall contain inter alia:

- *the operators* performing activities according to ELD, Annex No. III, *the operations* they operate, including the basic characteristics and documentation;

[4] Annex VI contains indications on the information referred to in Article 18(1) that shall cover cases of environmental damage under this Directive and reflect on: a fact about an incident, type, and an activity from which a damage occurred to any of ELD resources.

- information about *cases of environmental damage*, ongoing *proceedings*, imposed preventive and remedial *measures*, information about *follow up activities and results* achieved by the remediation measures, etc.;
- in addition to the content of an informative nature enabling public scrutiny, the website should also contain *educational materials,* including basic information on legislation, possibilities of involvement, etc.;
- publishing examples of *good practice* could be also helpful (Cerny);
- databases on incidents should include environmental damage *cases dealt with under old sectoral law* since the line to ELD cases is often blurry (Verheyen);
- lessons learned from *already settled cases*, if compiled systematically in a database and communicated widely, are likely to facilitate and encourage application of the ELD requirements. Information in such database must be *systematically updated and be subject to annual quality checks* which is often not the case at the moment (Mikosa).

It seems also important to pay attention to the *technical side and functionality* of the website such as user comfort, including easily searchable database (Cerny). In 2019 ISPRA (the national environmental agency of Italy has created an environmental damage report, which the European Environmental Agency has acknowledged as a best practice in that field. The report underlines the importance of addressing the problem of lack of a widespread knowledge of the topic of Environmental Damage, which is an obstacle for the fulfilment of the goals of a thorough environmental liability system. A Report on the State actions for the environmental damage prevention and remediation, based on the review of the assessed cases of damage in the years 2017 and 2018, represents a useful tool for understanding this complex topic, its issues and perspectives. The report focuses on quantifying and repairing damage, managing damage reports and challenging environmental crimes. It is aimed that the responsible department of ISPRA specialised in environmental liability matters will issue the report in every two years (Delsignore).

As concerns the necessary legislative techniques, a duty to set up ELD databases could be achieved by either amending the ELD or Art. 7 (2) of the Directive 2003/4/EC *on public access to environmental information*, which already prescribes the active dissemination of certain information, which is a close, but more general concept compared to the requirement of ELD registers (Verheyen). It may also be prudent to implement a two-tier approach whereby the information that shall be public according to the Directive 2003/4/EC would be made freely available to general public while, access to the rest of the database would only be provided for competent authorities and other pre-defined groups of users, if appropriate (Mikosa).

The Austrian researchers in our project go a step further than the above described ELD centered information system and suggest creation of *a centralized register covering ELD and related sectors*. According to their proposal, on national level a central, overall national register should be created, in which information concerning active and past environmental damage cases are published that fall both under the ELD and applicable sectoral legislation (in particular, cases concerning environmental damage that are normally treated under water or nature protection laws). Such a portal should be hosted on the website of the chief environmental agency. This agency usually hosts and maintains many other environmental data-bases in the country (Schmidhuber).

The information from this database should be both easily available and navigable. It should be clearly linked with information as to how to file an environmental complaint under the ELD regime, too. Links should be provided not only to the Environmental Ministry itself, but also ideally to each of the

competent ELD authorities, as well as other relevant environmental and other administrative bodies. This would be in harmony with Article 5(1)(a) of the Aarhus Convention mandates for its Parties that its "public authorities possess and update environmental information which is relevant to their functions." Similarly, Article 5(1)(b) of the Aarhus Convention stipulates that Parties shall establish mandatory systems so that there is an adequate flow of information to public authorities about proposed and existing activities which may significantly affect the environment. Article 5(1)(c) of the Aarhus Convention, furthermore, requires that information be provided to the public in the case of imminent threats to human health or environment and information so as to take measures to prevent or mitigate such harm. This is different from the other forms of active information servicing, because the relevant authorities are not only required to approach the public actively (without being requested so), but also ensure that the targeted communities and people have received the information in due time, understood that and act accordingly. This 'super-active' information distribution is highly relevant for the ELD cases, too. Finally, article 4 of the Kyiv Protocol on Pollutant and Release Transfer Registers (PRTR) mandates that countries provide for a publicly accessible *national pollutant release and transfer register*. The latter instrument has been implemented by the EU as well, and thus applies also to the Member States not only as a matter of international law, but also as EU law. This feature raised by the Austrian researchers highlight a really sensitive side of the environmental information systems generally: there are plenty of overlaps, which results in enormous waste of resources both on the side of the operators obliged to report the same or very similar set of environmental data in multiple times, and on the side of the authorities, which have to process much larger amount of information that it would be necessary (Schmidhuber). Paradoxically, a more streamlined information environmental liability reporting obligation could put the authorities into the position to the stakeholders to provide more elaborated information (Kallia).

At the same time, it must be noted that even if rationalised, there still would remain several databases, where information on the environment in a country is published and the status of environmental media is monitored from several, but interconnected reasons. In this regard, these databases may provide invaluable information to each other and for designing and initiating potential ELD cases. However, as valuable as these resources are in terms of information concerning the state of or possible deterioration of specific environmental media (water, nature/biodiversity/soil), they still fail to sufficiently ensure that all the environmental problems are properly prioritized and effectively handled. This is where a comprehensive and central data base should come into the picture, in particular as regards to the connectivity to concrete polluting activities and establishing or identifying those actors, which need to be held into account with the polluter pays principle so as to properly serve the implementation of the ELD in the Member States (Schmidhuber).

I.C Other sources

The ELD Resolution of the European Parliament

RES Point 1. Acknowledges the importance of the Commission's studies and reports regarding the assessment of the implementation of the ELD and its impact on the Member States as well as of its recommendations for the effective and coherent implementation of the directive by giving priority to harmonisation of national solutions and practices in a wider legal liability framework; welcomes in that context the development of the Multi-Annual ELD Work Programme (MAWP) for the period 2017-2020;

The European Parliament points out the importance of not only collecting the environmental liability relevant data systematically, but also of the continuous analysis of them with the lead of the Commission. Importantly, environmental liability data encompasses not only data strictly related on the transposition and implementation of the ELD, but also a 'wider legal liability framework'. National solutions and practices shall be harmonised with this wider framework.

RES Point 38. Calls for the establishment of a publicly available European database of cases of environmental damage governed by the ELD modelled on, for example, the Irish reporting system whereby cases of environmental damage can be notified online, in order to create greater trust in the ELD system and to ensure better implementation; considers that such a public database would enable stakeholders, operators and citizens to become more aware of the existence of the ELD regime and its enforcement and would thus contribute to better prevention and remediation of environmental damages;

39. Recommends that, in order for public databases of ELD cases to be easily accessible and effective, they should be set up in accordance with the following criteria:

– they should be available online and additional information pertaining to the cases should be granted upon request,

– each country should have a centralised database rather than separate databases for every region,

– notifications about new incidents should be immediately published online,

– each case registered in the database should include information about the name of the polluter, nature and extent of the damage caused, prevention/remediation action measures taken or to be taken, proceedings carried out by/and or with the authorities;

Our Summary study is extensively dealing with the content of the possible ELD databases, too. While it is a progressive suggestion, as all the other ones in the Resolution, some legislative steps and implementation measures based on it would deserve greater attention. The first indent in Point 39 is a succinct and very apt sentencing of the necessary interplay of the active and passive side of environmental information servicing. As concerns the suggestion in the second indent, we note that the central and regional (local) databases do not exclude each other, they might go hand in hand, the lower level ones might be necessary, too, in the spirit of subsidiarity principle and out of practical reasons, namely to ease the search and survey of data, whereas it is a general experience that the members of the public might be lost in too large and detailed databases. Finally, the responsibility of immediate publishing of notifications would mean that the authorities shall send the notification as soon as they verified the validity of those. We have to note here, that in those cases where immediate responses are needed because of direct danger to the health of the people exhibited to the effects of the pollution, such a validation shall be made in a very quick, expedited procedure.

RES Point 49. Calls on the Commission, in the context of a review of the ELD, to consider whether it might impose an obligation on Member States to submit reports every two years on the application of the directive;

More frequent reporting would mean more data and feedback opportunities on the implementation of the ELD in the Member States. In the same time, such a legislative change would redirect the

attention of the national environmental law authorities to the necessity of having specialised personnel for the environmental liability matters, at least on national level.

Justice and Environment opinion

In the 15 years last since the ELD entering into force, it kept being the generally accepted tenet that the most important hindrance of the effective implementation of the ELD is that we do not know enough about the procedures in the Member States, at the individual authorities and in the scene of the polluted sites. In its 2015 study J&E expressed its consent with that general opinion and added that it is a *basic right for the concerned communities to be fully and timely informed* about the environmental dangers in the vicinity of their settlements and houses. Moreover, *transparency* is a basic component of *good governance*, together with *accountability*. Both would enhance the trust in the work of the authorities and the willingness of the communities to cooperate with them. Also, on the level of the Union, the achievements in implementing the ELD should be more systematically compared, the best, as well as the worst practices should be shared. We should not forget about the economic side of the availability of the good quality information on the ELD matters, amongst others because the insurance companies could design their offer packages more safely that would enhance the financial guarantees in the environmental liability cases. Also, ELD information would make the real estate market more balanced and foreseeable, not least influencing the level of environmental awareness of the people.

In 2017 J&E formulated its opinion more harshly, politically. They expressed their views that no major stakeholders are duly active in information servicing concerning the ELD cases: the authorities find it too difficult, complicated, it is not the most successful branch of the environmental administration, so they do not boast with it; the operators are not hurrying to report on their own wrongdoings, quite understandably, while the members and organisations of the public are ignorant about the national ELD rules and do not invest in researching the alternative information sources of the Internet about the possible environmental liability cases. However, lack of data on the implementation of the ELD is part of a vicious circle: amidst the thick silence about the ELD no one feels the urgency of doing something in this field, moreover, local communities directly concerned with environmental liability cases remain unable to defend themselves with this legal tool. J&E is aware that a possible legal change that would make the collection, process and distribution of the ELD relevant data is one of the main point of discussion in the field of environmental liability on both the EU and national levels, and supports a detailed, concrete enough amendment on this matter. They also join to those experts, who call the attention of the *even playing field* aspects of this issue, namely that those operators that continue reckless waste management and pollution practices would get unfair market advantages for those who follow the relevant environmental protection rules.

I.D Chapter summary

Findings

In the majority of the countries there is no ELD database at the relevant authorities or if it exists, it is not of the proper quality, fullness and reliability, also not easily accessible or comprehensible for the public. Too much data en masse without detailed explanation of the information content might not serve the purposes of an ELD database either.

Our research underlines the importance of the complexity of data systems, within the circumstances of the (post)modern, information age State, where information monopoly is impossible. If the environmental authorities fail to set up a comprehensive ELD data base, the interested communities will collect the necessary data for their purposes, with growing ease. Where demand for data and information, there will appear the proper channels to serve it. We see already the first signs that the pressure from the data consumers, including the Commission itself, results in evolvement of such solutions.

Environmental authorities edit and distribute several dozens of databases, mostly about permitted operations, monitoring data and status ('immission') information. It is a difficult task to arrange all of this environmental information into a single database, because of the very different scale and range of data, but considering the exponential development of the information technology in our times, it is far from impossible. Legally, data protection and ownership rules might also raise difficulties, but not unsurmountable ones, either. Data are available at other, non-environmental administrative bodies (such as water management, mining, forestry, fishery authorities), too, furthermore at other State offices, including general or criminal statistical services, databases of courts, prosecutors, ombudsman institutions. Furthermore, private sources, such as insurance statistics, and the widest alternative media sources offer an abundance of information on the ELD cases.

Suggestions and observations

On the input side, an explicit legal enshrinement of the obligation of the operators to provide the exactly specified documentation to the competent officials responsible for handling the publicly accessible ELD registers at the competent authorities seems to be necessary. Naturally, several ELD data might come from compound databases created out of the above mentioned various sources. When designing the ELD information database, overlaps should be avoided, especially the multiple responsibilities of the operators to report, which results in enormous waste of resources.

According to the researchers taking part in this project, on national level a central, overall national register should be created (in harmony with RES 38), in which information concerning active and past environmental damage cases are published that fall both under the ELD and the applicable sectoral legislations. Naturally, notifications about new incidents, especially those, which represent imminent threat to the environment and for the health and properties of the people, should be immediately published online (RES 39) and with any other effective tools.

The operating ELD databases should have clear and user friendly structure, as well as the necessary meta-data on the ELD register, calling the attention to its existence, content and use, in an easily searchable database manner. The ELD database shall appear on the homepage of the CA (primarily the central one, but the database could be broken down to regional databases, too, see RES 39 and our comments thereof). It should be clearly linked to other databases with which the joint application is impossible, as well as should content information as to how to file an environmental complaint under the ELD regime, too. The researchers of the project have collected information about the possible content of the ELD databases and also made their suggestions in this respect.

As concerns the EU level legal modification to introduce the mandatory ELD registers (possibly more broadly than Annex VI of the ELD), our researchers suggest that it should encompass the methods of data gathering, covering the most possible information sources, too. References should be made to the international and national level Aarhus and PRTR laws as both bolster the needs for the ELD registers. On the EU level, with a more harmonised data collection and distribution system the national

achievements in implementing the ELD should be more systematically compared, the best, as well as the worst practices should be shared and exhibited.

Interconnections with other chapters

Chapter II: as it is repeatedly underlined by the ELD experts, scarce information, lower level social awareness and a failure to use of the ELD laws go in vicious circles;

Chapter III: as we will see in the coming chapters, systematic and well searchable ELD databases are the basic conditions of public awareness and understanding about the Directive;

Chapter VI: in the concrete ELD procedures, where the CAs gauge the damages, determine the necessary measures and calculate the costs, they would need the proper baseline data. Cooperation of administrative and other State bodies, should also take place first of all via regular exchange of ELD relevant data;

Chapter IX: for the environmental NGOs and the concerned communities to follow the relevant events of environmental pollution and threats in their vicinity and to decide when and how they should interfere, comprehensive ELD data systems would be needed, too.

II Using other laws than national ELD laws for possible ELD cases – overlooking the comparative advantages of the ELD

Our questions to the country experts were in this chapter:

- what are the possible reasons of using other (old, but parallelly existing) environmental liability laws rather than the national laws implementing the ELD?
- we were interested in knowing the views of the national experts about the comparative advantages of the ELD laws, which make them worth using more in the practice.

Similarly to several others, almost half of the Member States, no ELD case has been reported in France until 2020. In its report, the French Government concludes that the absence of any case of direct implementation of the Directive 2004/35/EC cannot be interpreted as revealing total absence of implementation or an incomplete implementation of the provisions of the said directive, in particular with regard to its preventive and scientific aspects, as well as the influence it exerts on the legal practice of environmental liability. (FRA). This report, while many experts would disagree with its conclusions, warns us to the necessity of a balanced evaluation of the scarce implementation of the ELD in the national environmental laws.

Relationship between the liability rules of old sectoral laws and ELD is not always clear

The legal relationship between the new laws implementing the ELD and the decades old sectoral laws of several kinds of environmental liability is quite *complicated and seldom clarified fully* (LAT, EST). In the opinion of the Estonian researcher, Kaarel Relve, the national environmental liability system is

incoherent, inter alia, the national ELD Act has not been well integrated with other liability schemes.[5] Up until the borders between these two fields of law are so much unclear, we cannot be surprised that the *authorities wish to stay on the safe side* and the application of the ELD laws will be restricted to the smallest possible segment of the cases in the practice (LIT, CRO).

In some countries, however, the laws implementing the ELD are *formally subordinated* to the environmental liability provisions of existing sectoral laws (GER, AUT). The German ELD implementation act, EDA, for instance, does not apply, if more detailed provisions for the prevention and remediation of environmental damage are provided for by Federal or Länder legislation, or anywhere the EDA is in conflict with the requirements laid down by that legislation. Legislation with more stringent requirements than the EDA also remains applicable, too, naturally (GER). In Ireland, as is generally the case with European Directives in that country, the ELD was transposed by Ministerial Regulations and not by primary legislation of Parliament (IRE). This situation – considering the constitutional rules of hierarchy of legal sources – might encode the formal subordination of the national ELD rules to the sectoral laws, which usually have their basic laws in the form of a Parliamentary act or a Governmental Decree.

If not formally subordinate, the effect will be the same, when the ELD procedure is considered superfluous once an old sectoral environmental law procedure had place in the case (SVK).

We note here that not only the internal relations of the ELD with other administrative legal institutions is unclear, but its connections with the other main branches of law, especially *with civil law is yet to clarify.* Just after the adoption of the new ELD regime, many academics (specialized in civil, public and constitutional law) thought that there would be new hybrid legal regime, but, finally by including this rules in the environmental Code reinforced the sole administrative nature of this new liability regime. The ELD indeed, did not promote a civil liability regime, as it was announced in the 1993 EU Green Paper on remedying environmental damage. Academics and NGO's, who were looking forward to a new form civil liability for environmental damage were disappointed by the final version of the ELD (FRA).

The inertia of the system of environmental liability

The inertia in the system is quite understandable. Environmental liability is not a new concept, environmental and related laws in this field were already in place decades before the ELD was introduced. There are ample *practical and technical examples available, and jurisprudence* is well known by public authorities and other stakeholders concerning liability laws in waste management, water management, water protection, nature protection or soil protection. These old rules are considered by some experts well include the polluter-pays principle, too (AUT). In Austria there is even a 'Law on the remediation of polluted sites' that covers all kinds of contaminated sites and brownfields, and clearly regulates how the clean-up works shall be managed. Similarly, the overwhelming Belgian opinion is that the old legislation is more accustomed to, better known, less complex and *deliver results* that are believed to be in line with the ELD objectives (BEL). These rules said to have proven their value in numerous cases, and, since there seems to be a *large overlap* between the new rules of environmental liability and the older, long existing ones, people might be hesitant to start using the new rules implementing the ELD (NED). Moreover, a further major hindrance to the more widespread

[5] Estonian national study, page 5

application of the ELD rules is that they are seemingly based on a legislative philosophy, which is *not a simple continuation* of the "traditions" (LAT).

Indeed, new, but *organically fitted* ELD legislation can develop our environmental laws considerably, for instance a new Title VI was introduced in the French Environment Code entitled 'Prevention and reparation of certain environmental damages, which is composed of 38 articles and therefore allowed for the implementation of the ELD rules in harmony with the rest of the Code (FRA). Even if so, we have to acknowledge that the system of law has its own internal processes, including a certain resistance against major changes, stubbornly following its own principles, structures and interconnections. This happens in the case of the ELD implementation, too: our legal systems might find it 'system alien' in several aspects. Certainly, the Environmental Liability Directive has a series of comparative advantages, trying to target some deeply rooted shortcomings that prevent our societies to effectively defend themselves against dangerous environmental pollution leaking from polluted, improperly handled and not seldom abandoned sites, but these alternative efforts are not yet welcome by the authorities and other experts and interested parties dealing with environmental damage cases.

Scarce cultivation of the ELD rules

As we have seen above, public authorities have long been accustomed to applying their "specific" laws aimed at protecting individual components of the environment (for example, the Water Act) and continue to apply them as their primary tool to deal with environmental accidents and damage. Only if these specific laws do not ensure redress will they initiate proceedings under the ED Act (SVK). The regulated community, operators of relevant facilities and landowners with pollution problems are not unhappy with setting aside the ELD for the time being. Even some NGOs have pronounced that their attention is more focused on cases of environmental damage posing a risk to public health or cases of environmental crimes, rather than to the pure damage to the environment as interpreted and applied in the ELD (ITA). The number of ELD cases in Spain has grown since 2007, from 9 cases in the 2007-2013 period to 30 cases in the 2013-2019 period, which is a positive outcome revealing a higher use of the Directive. However, experts point out that the use of the sectoral laws is still prevailing (SPA).

The ELD rules are *not cultivated* in our legal systems. We lost the historical momentum where there was a social expectation and a higher-level expert attention to the brand new rules at the time when they were being introduced into the national environmental laws. Since then there have been no ELD cases and no jurisprudence has been formed, in which the new rules could have been discussed (NED, SPA). Low level application of the ELD rules and lack of their full understanding proceed in a vicious circle. Authorities refrain from using the ELD rules in several cases, because they are too complicated, and in other cases because of a lack of awareness of their existence or applicability (DEN, SPA).

It might be taken natural that the concerned *operators try to avoid the ELD, too.* It was noted in this project that in recent cases of soil pollution, when there were relatively small spills of dangerous substances or fuels that could be treated relatively easily within a limited period of time, the operators strived to contain and clean up the pollution on their own, in order to avoid that they could become ELD cases (BEL).

We have learned that the legal arguments for not using the full capacity of the ELD are quite complex. The national experts in our project have completed several dozens of interviews with independent experts and with governmental officials giving their voices under the Chatham House rule, and also looked up various other sources of information and found a line of substantive and procedural legal arguments against the practicality of using the ELD laws. These arguments might be very convincing in

themselves, indeed. However, when we put them together in a branch, some of them seem to be controversial, other arguments seem to be self-reinforcing in a circular way: we are not using, because not knowing the ELD, and *vice versa*.

Usual legal arguments for not using the new ELD laws

Naturally, the legal-sociology considerations discussed in the above paragraphs have their reflections in the deliberations of the legal profession, too. We are going to arrange our survey of these legal arguments according to the substantive and procedural types of arguments. *Substantive* legal viewpoints start with lack of enough *specificity* in the new ELD laws. Authorities and even NGOs consider the old sectoral regulations as *more elaborate, prescriptive, and containing specific instruments* to deal with individual cases of environmental damage including remedial measures and tools for monitoring and sanctioning (CZE). This argument in great part interrelates with the previously mentioned lack of application, which does slow down the organic integration of the ELD rules into the system of environmental law.

Other substantive legal arguments revolve around the key concepts of *prevention and flexibility.* Critics miss from the ELD some due diligence and avoidance provisions and general clauses authorising the competent authority to take the necessary measures to prevent environmental damages. The failure of the ELD is especially outstanding in comparison with the centuries old water laws. However, prevention measures do exist under the ELD legal regimes, but are rarely applied in practice, due to the existence of sectoral legislation, where preventive measures are foreseen and regularly prescribed much earlier, in the permitting procedures, e.g. by the German Federal Immission Control Act or in environmental and spatial planning procedures. In environmental and related administrative permit or planning procedures, potential environmental threats can be effectively detected and avoided based on a sound prognosis (GER).

Another trait experts miss from the ELD laws is *flexibility.* Pre-existing water laws can provide a high standard of protection and at the same time grant extensive and flexible powers of intervention to the authorities (GER). This is, however, again vastly depending on time of implementation. New regulations tend to be casuistic, rigid, while old, accustomed laws can conveniently allow more and more leeway for the trained and experienced administrative officials.

Similarly to the previous point – as a further childhood disease of them – ELD laws are blamed for rigidity also in the sense of their *too narrow scope of application*, an overly meticulous interpretation of the terms and the conditions of the environmental liability rules. For instance, the Czech ED Act is applicable only in cases of accidents or pollution of the environment from *a clearly identifiable source*, not in cases of damage where such a causal link cannot be established (CZE, SPA). The scope of ELD in Finland is also considered too narrow, too. It seems that environmental authorities, ELD Centres want to use it only in the very big cases. The criteria for official ELD cases therefore seem to be too high (FIN, SPA).

The most frequently cited example of the above described rigidity is the *restrictive definition of environmental damage* and the criteria that need to be observed for the application of the ELD laws. Such terms that the seriousness of the environmental effects might leave the authorities in uncertainty about the possibility of using the ELD, therefore, as usual, to remain on the safe side, they fall back on the old laws (SVK). In this issue the narrow scope of damage excludes also negative variations in the natural causes or the damage resulting from intervention relating to the normal management of sites, and this also was mentioned as a reason to abandon the national ELD rules (NED). The threshold for

intervention on the basis of the existing definitions of old soil legislation is usually much lower. It is believed that the vast majority of those cases handled by soil protection law could not be considered ELD cases, because it has not been demonstrated that the land contamination "creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms" (BEL). Possibly, there is a lot of environmental damage that are not covered by the ELD, because it is out of scope (e.g. climate change, waste as such), or it is the result of a very *large number of acts or omissions* that, if taken individually are relatively small, but taken together, cause a general deterioration of the environmental quality (including air pollution, but in many other instances, as well) (BEL). *Incremental damages* also stay separate from the ELD procedures, or at least may be less likely to be assessed as ELD cases (DEN).

In the light of the above criticism we cannot be surprised that the old rules are generally deemed *more stringent* than the provisions of the ELD law. In addition to that, on the ELD side there are more concrete fields of weaknesses, too, for instance that the EDA only covers soil damage which causes a health hazard, this way it falls far short of the old soil protection laws, which, similarly to the Belgian example above, cover any harmful soil alteration in the sense of an impairment of soil functions (GER).

Substantive legal problems go in tandem with *procedural problems.* The old, sectoral rules usually set procedures for the situations of accidents, which are *more specific* than the procedure according to the ED Act (CZE). While *proof* is generally troublesome in the highly technical, complicated environmental cases, occurrence and exact circumstances of environmental damage is especially difficult to prove. As defined by the ED Act, environmental damage is a *measurable* change in a natural resource or a measurable deterioration in its function, while this is problematic because the authorities usually do not have data on the *original state* of the source and therefore cannot measure the change (CZE, SPA). In other words, the basic problem here is lack of baseline data (BEL, EST, SPA), which is almost unavoidable in connection with natural habitats, considering that some of the changes in the habitats might just go unnoticed, because of species that are not very visible for long (BEL). Undoubtedly, it is *easier to prove the breach of certain legal obligations* set out in the relevant operating permit, based on the Water Act, the Waste Act or in more complex cases by the IPPC Act (CZE, SPA). It is especially hard *for NGOs* to bring forward the required evidences for demonstrating that environmental damage exists in the sense of the ELD (NED). Due to the limited knowledge and experience of all parties involved, the procedures spend much time on the very issue whether the ELD regulations are applicable or not (AUT). These procedural problems take a lot of time and resources from the actual tasks to respond to an environmental emergency situation raised by a seriously polluted piece of land.

Another almost unavoidable procedural problem of a new legal institution is the *time limits* it uses. The German EDA only applies to land damage caused after April 30th, 2007. The Soil Protection Act, however, instead of the act of contamination focuses on contaminated sites, where operations causing contamination might have stopped long time ago, but the environmental problem is still present. Thus, this old law is imposing retrospective as well as prospective liability (GER). The national ELD Acts cannot be applied either to old environmental burdens, as it is put too simply, the law cannot be used retroactively (CZ E, SVK).

Finally, we have to mention a sensitive procedural argument on the side the old environmental liability laws. Some researchers point out that there is *no public participation* or at least much less in these cases than in the new ELD procedures. In Austria, for instance, all the alternative environmental liability laws, of which the Water Management Act is the most frequently used one, have a trait in common, namely that there is no public participation in the remediation process (AUT). Similarly, affected parties and NGOs have less chances to participate and voice their concerns in these old, sectoral procedures

in Germany either (GER). Researchers cannot reinforce, neither deny that lack of public participation can be an incentive for certain authorities to opt for the old environmental procedures, rather than the ones implementing the ELD.

Based on all of these factors, the main problem is under-usage of the ELD, while in some rare cases the opposite problem has emerged, too, just bolstering the criticism about the *vague borders* between the old and new environmental liability laws from the other side. Some ELD requirements are applied to other environmental damage cases making the procedures rather cumbersome or even precluding to hold the operator liable due to the limited scope of definition on "environmental damage" integrated in the national law in accordance with the ELD (LAT). According to a couple of leading French scholars, there is not even a real liability can be found in the way ELD has been transposed into French law. Contrary to what was supposed to be the effect of the ELD, its practical implementation has led to a *too wide margin of discretion of the environmental authorities*, and it is sometimes used to free certain operators from liability. The State is acting, they say, like a screen, and decides whether or not the mechanism of reclaiming obligation should be implemented. Both the Directive and its implementing national laws were received very positively by the industrial sectors, most exposed to these problems (chemical industries sector, in particular). Independent experts felt, on the contrary, that given their wording and the multiple exceptions they provided, these provisions were written so as not to be applied (FRA).

Comparative advantages of the new ELD rules

ELD was not by chance fought for more than a decade. One can hardly believe that this effort would have made, if everything had been in order in connection with handling the seriously polluted sites in Europe. Its necessity is acknowledged by all the experts, while the ELD in effect has some new traits or has the ambition to implement existing concepts of the European environmental laws more effectively.

One of the biggest added value of the ELD to the development of the European environmental laws is its major contribution to the administrative and judicial *recognition of pure ecological damage*. Many academics papers and projects regularly proposed this acknowledgement as early as since 1975, starting with promoting the recognition of the ecological damage in civil law, but it has been for long time considered as irrelevant. In France, one of the major environmental case is the Erika Case in which, for the very first time, the authorities and courts recognized the very concept of pure ecological damage in 2012, undoubtedly under the influence of the newly introduced ELD laws (FRA). These thoughts lead further to the *principle of ecological solidarity* that was actually inserted in the Environmental Code of France in 2016, in connection with biodiversity, nature and landscape. It offers a renewed human-nature relationship as lays the foundations of the theory of natural commons, which independently from the controversial concept of legal personality of the elements constitutive of the environment, offers the identification of an entity that is part of an ecosystem as *res communis*, interacting with a living community (composed of humans and non-humans). To avoid the appropriation of the natural environment and to face the failures of the State for protecting it, this legal path is quite promising. Legally recognizing the interest of the common (distinct of the individual and general interest), concretely admits the existence of this entity and, therefore the interest to defend the natural common. It follows the objective of sharing, and living together in peace (FRA). A further comparative advantage of the ELD is that it *offers solutions to complex environmental damage incidents*, when the damages affects various natural resources, where the sectoral laws can only be effective when a single resource is damaged (SPA).

The *polluter pays principle* is widely known in the society, because it overlaps with people's sense of justice and usually requires that the persons responsible for environmental and natural damages shall be held liable. In certain matters within environmental protection – especially nature protection, for instance in the case of deforestation or the destruction of habitats of well-known species – people can be better involved emotionally and seem to be willing to participate actively in the environmental liability cases, even if they are not aware of the complicated legal background. In the public perception, however, the "liability for environmental damage" often stops at the stage of *penalizing* the polluter. (HUN, POL, LAT). It may been said, polluter pays principle in these cases is restricted to a more general "polluter suffers" principle. The ELD's genuine and consequential polluter pays principle approach, however, might mean a progressive development. Indeed, administrative sanctions for pollution under the sectoral environmental protection laws are enforcing the polluter pays principle, as well, in many cases without considering fault or negligence of the polluter, while their calculation is more mechanical and, mostly the payment of administrative charges goes into the State budget or in better cases into earmarked environmental funds, rather than turned directly to the recreation of the polluted natural values (EST). In other words, the polluter pays in these cases, too, but not exactly for the remediation of the polluted natural resources.

Another more consequential element of the ELD is the *full remedy and compensation* of the environmental damages. The Latvian national researcher, Zaneta Mikosa has emphasized[6] that the elements left from the old system are dominantly focused on calculations of "losses to the environment" (or to biological diversity) applying "fixed rates" instead of full (three steps) remediation. Moreover, "fixed rates" are not connected closely enough to the entire amount of costs needed for remedying environmental damage. One could say again that the old system rather functions as a part of financial "penalty" for damaging or creating the risk to damage the environment, in line with other kinds of administrative and criminal liability (LAT). The old "command and control" methods of environmental laws were criticised as ineffective and concentrating only on controlling the polluting behaviour of the operator, rather than on preventing and remedying the environmental harm or paying the costs of prevention and remedy (MAL).

The ELD *names the types of activities and operators* that shall be prepared to respond social and legal demands for preventing and if not successful, be a subject of strict liability for the full damage and costs. This is an important step for *transparency and accountability* in the economic fields (BUL). Also, limitation of liability is put under inquiry, when several ELD regimes allow for *removing the "corporate veil"* and let some fresh air behind the scenes where the economic decisions are actually made. These major structural elements of the new environmental liability laws might induce some strong resistance from different segments of our societies, but at the same time trigger on some healthy procedures, such as the recognition of dangerous activities in some economic fields that used to be almost fully immune from responsibility, such as mining and waste management. Reasonable economic policies and self-protection of these and many other branches of industry and service sector, however, might lead to formation of pools, risk sharing, development of new insurance products and other technical and financial security measures.

A proper implementation of the ELD undoubtedly demands *higher level education from law enforcers.* Requirements of the ELD as has been transposed into the national laws, as well as difficulties of applying a quite complicated technical, professional system of several kinds of remediation all require high level of expertise from the ELD officials (LAT). On longer run this will be beneficial for the whole branch of environmental administration.

[6] Latvian national study, page 7

In the sectoral environmental laws, the protection level is uneven, while the ELD tries to bring the several elements of the protection of the waters, nature, and land on the same platform. This levelling is especially beneficial *for nature protection,* even according to those who are at the opinion that the old environmental liability laws are more effective (GER).

As several national researchers in this project noted, the modern views and the fresh approaches reflected in the ELD, which is reflected in handling the large pollution cases *attract publicity* (DEN, FIN). Indeed, the ELD has elements, such as those in connection with public participation, which seem to effectively appeal public attention and educate the people about the real importance of major environmental problems in the lands they use or they gain several ecological services from.

II.B Evaluation by the in-depth researchers

Formulation of solid legal practice of the ELD implementation

Our starting point is that the most important legal-sociology factor for the scarce application of ELD-transposing legislation is that authorities are used to applying their old statutes, which they know better, and where they have clearer legal guidance. An obvious and long discussed practical solution to that problem is to provide *guidance and education*, instructing civil servants on the comparative advantages of the ELD regime, and on when to use it instead of sectoral law. For that purpose, guidelines could be established by the EU-Commission or national environment authorities, which can be used to systematically compare the level of protection offered by sectoral law on the one hand and the ELD on the other hand. Such guidelines should highlight the differences in applicability, requirements and legal consequences of the different legal regimes, for example in tabular form. Complementary training sessions and workshops for officials of environmental authorities would be useful as well (Verheyen). *Capacity building activities* should include training on practical application of the requirements as the results of interviews suggested the questions (and misunderstandings) are primarily related to practicalities rather than theoretical concepts. Detailed explanations needed on the issue what is considered to be “redress” for the environment in case of damage covered by the ELD (Mikosa).

Taking into consideration the difficulties the competent environmental authorities struggle with in establishing and managing ELD cases, it will be up to the *superior level authorities* to monitor the practice and to react if any mal-practice can be observed. Even if these monitoring authorities have limited experience on where the level of severe damage ought to be put, thus initiating the adaption of ELD-rules, they might have more focused resources (financial ones, equipment, training etc.) therefore they might become the hub for future changes in the legal practice (Bengtsson).

The best training is *‘learning by doing’.* It does not help if we train officials in detailed, expensive and time consuming programs as truly effective ELD trainings would be, once they see a very few ELD cases in their practice, because of too scattered institutional arrangements or because of periodic reorganisation of the environmental administrative bodies (Schmidhuber). The mainstream environmental NGOs have similar considerations of starting virtuous circles, when aiming at to create *pilot-cases* at the courts that may orient future cases and the practice of the environmental authorities. (Bengtsson).

Using together the old and new environmental liability laws in a concerted, harmonised way seems to be a quite realistic suggestion, if we underline that this would not be a white card to continue the faulty legal practice that has been followed so far in the majority of the EU countries. The use of old sectoral legislation regulating environmental damage is not a problem as such, and certainly preferable where it offers a higher level of protection. In some cases, however, the ELD regime will be superior to sectoral laws, particularly because it demands full remediation of environmental damage and aims at consequently implementing the polluter pays principle. It appears, however, that in most Member States the ELD is not applied cumulatively under such circumstances either, even though it sets binding minimum requirements. Preferably overall legislative solution would be needed, but detailed enough practical guidances could bridge the time until that happens (Verheyen).

Possible structural legislative changes

Some researchers, bravely, but, after all, quite logically point out the possibility of the simplest and most radical solution: the elimination of the old rules regarding the management of environmental pollution/damage. Indeed, the two competing legal regimes shall not remain in place without clear legislative instructions for long, after more than a decade of the implementation of the ELD and the national versions. Just contrary to the solutions mentioned in the above parts of Chapter II, namely that the national legal practice labels the ELD rules as secondary ones, the application of the ELD laws might exclude the national sectoral rules on environmental liability in all cases, where an incident falls under the scope of the ELD (Kiss). The ELD laws could get this way into the position of *lex specialis* in their relationship with the old sectoral laws of environmental liability. The sectoral laws may then be the tools of dealing with damage to water, soil, habitat etc. problems, which are appropriate for the nature of the damage. This would maintain, however the unifying purpose of the ELD, to form the overall frame of the environmental liability procedures (Cerny). At present, the authorities might be afraid to initiate an ELD process and to risk this way that the process will not lead to the determination of liability under the ELD, which would thwart all their work. Until this legal arrangement stays, the procedure under the sectoral laws is a safer way for them. An alternative solution could be, however (also entailing legislative changes), to clarify the priority of the ELD laws above the sectoral ones, and to ensure that, if liability under the ELD is not proven in the proceedings, it will still be possible to infer it under sectoral laws. (Cerny, Verheyen).

On the other hand, the ELD should learn the lessons of the last 10-15 years, *and build in as much as possible from the existing old laws*. Indeed, the criticism of the ELD for having insufficient content that does not cover all the important details of application, seems to be well based in several instances. One specific place, where the critical remarks regarding the current text of the ELD might be right, is *prevention*. There is certainly a reference to so-called preventive measures (Article 5), but generally environmental law perceives prevention of pollution and harm to the environment in a much broader sense (Kiss). We note that encompassing *environmental principles*, not only the polluter pays principle, but also precautionary principle, prevention principle, integration principle, sustainable development principles and public participation principle, would raise the level of integration and effectiveness in the implementation of the Directive. Naturally, the concept of these principles is already present in the ELD, but it should be made more explicit. Another aspect, where the ELD has inbuilt, and almost unavoidable shortcoming, is time. While cases where the majority of the legally relevant facts (not the pollution and damage, notably) happened before the adoption of the Directive the old sectoral (or in certain countries a general environmental damage law from 1986) will apply today (Delsignore).

In Denmark in 2017 an expert committee regarding the future structure for the environment and food legislation made the following recommendation: “The environmental damage rules should, as far as

possible, be brought together in one law applicable across ministerial areas. It will be an advantage that the Environmental Damage Act is formulated in such a way that the Act regulates all case processing steps and thus to a large extent can stand alone. A collection of the provisions in a cross-cutting environmental damage law will also mean uniform provisions on the subject of liability and the basis for liability, which will reduce the risk of different interpretations." It appears conceivable that the Government at some stage will take an initiative to amend the national ELD regime accordingly. In that case, the combination of a new ELD Law and a less complicated legal structure could be an incentive for the authorities (including supervisory bodies etc.) and other stakeholders to embrace the rules (Andersen).

Contrary to the above suggestions, continuation of the separate application of the old sectoral laws and the new ELD based laws would mean that public authorities dealing with pollution and damage to the environment under specific laws (Water Act, Agricultural Land Protection Act, Nature and Landscape Protection Act) would have to distinguish between cases, where there is an imminent threat of environmental damage or environmental damage within the meaning of the ELD and other cases where there is other damage and pollution to the environment. The former cases would have to be referred to another office under almost all national institutional settings. This preliminary assessment of cases by public authorities acting under special laws, the transposition of the cases, and the subsequent assessment by the competent authority under the ED Act, would also cause delays in the prevention and remediation of environmental damage (Wilfing).

Naturally, any legislative changes are subject of the level of public attention and political will. If it the ELD rules around 2007 did not stir up enough interest in the media and in more general public fora, it appears extremely unlikely that PR-campaigns, awareness-raising, educational programs etc. will have a significant effect at this stage. This implies that it will be difficult to successfully *re-launch the rules* and to find the necessary political willingness for such an initiative. Such an effort would encompass legislative changes, creating a new generation of more systemic guidelines on practical implementation of the ELD, but also strong political tools, such as introducing completely new incentives, as well as exert pressure from outside on the responsible authorities to apply the rules in all instances when the clearly defined conditions are present. (Andersen).

After some experience is gained through applying the ELD (or avoiding from applying) it would be advisable to reassess national legislation through *a procedure relatively similar to the EU Commission REFIT process* in order to examine whether and to what extent (or why not) the implementing legislation achieves the goals set by the ELD. It could also help to elaborate guidance or norms (where appropriate) for distinguishing between ELD and non-ELD cases (Mikosa).

Possible changes of some details of the ELD legislation and legal practice

The authors in the project pointed out some details in the ELD legislations, where changes might be necessary. The narrow focus of the ELD definitions and the scope, including the high standards of meeting the ELD definition of environmental damage, would be difficult to overcome without legislative changes. As for soil damage, the requirement of resulting health hazards runs counter to the approach of the directive to effectively prevent and remedy environmental damage and should therefore be deleted (Verheyen).

They also expressed an opinion that the mere use of laws instead of ELD is not a problem, provided that the results achieved, and the measures at authorities' disposal are not less strict and efficient than those offered or ensured by ELD. In other cases, however, where the above conditions are not met

and the ELD goals are not achieved by the old laws, probably the case should be treated as falling under ELD (provided that the required criteria for environmental damage and liability are met) and consequently the application of the old sectoral laws only – as non-compliance with ELD. This in turn would lead to potential infringement proceedings against the Member State (Bar).

II.C Other sources

The ELD Resolution of the European Parliament

RES Point B. whereas Article 191(2) of the TFEU stipulates that Union policy on the environment must aim at a high level of protection and must be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay;

C. whereas Article 11 of the TFEU stipulates that environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development;

E. whereas Article 37 of the Charter of Fundamental Rights requires that a high level of environmental protection and the improvement of the quality of the environment be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development;

In the Preamble of the Resolutions several points addresses the most relevant environmental legal principles apart from the polluter pays principle. Indeed, a consequential, substantial use of these principles is a key to the harmonised, coherent implementation of the national ELD laws and the older, sectoral laws on environmental liability.

RES Point 3. Notes that several Member States failed to comply with the deadline for transposing the ELD and that only by mid-2010 had it been transposed by all 27 Member States;

4. Considers that, owing to the discretionary powers awarded in the ELD and to the significant lack of clarity and uniform application of key concepts as well as to underdeveloped capacities and expertise, the transposition of the ELD into national liability systems has not resulted in a level playing field and that, as confirmed in the Commission report, it is currently totally disparate in both legal and practical terms, with great variability in the amount of cases between Member States; is therefore of the opinion that additional efforts are required to enable regulatory standardisation to take place across the EU;

5. Notes that this lack of uniformity is also due to the generic nature of the ELD, which was drawn up along the lines of the framework directive model;

6. Regrets that, in spite of the action taken by the Commission concerning late transposition and issues relating to non-conformity, and that, in spite of the ELD's extreme flexibility, seven Member States have yet to resolve a number of non-compliance issues;

7. Notes that inconsistencies among Member States in how they report cases of environmental damage that triggered the application of the ELD can be attributed to the application of their national legislation instead of the ELD;

The Resolution examines here the possible reasons of application of the national environmental liability systems that are based upon the existing old sectoral laws, rather than the ELD. They include the too broad discretionary powers allowed in the Directive, lack of clarity of the main concepts, underdeveloped capacities and expertise (Point 4). Late transposition (Point 1) and continuing non-conformity with the ELD is also due to the 'extreme flexibility' of the Directive (Point 6).

This situation is considered as endangering the level playing field in the common market of Europe and therefore additional efforts needed to achieve regulatory standardisation (Point 4). The Resolution raises that the framework directive model could allow too much leeway for the Member States in such an important, socially-economically vital issue as strict and consequential enforcement of the liability for polluted sites that harm or endanger the environment and the health of the concerned people (Point 5).

We note here that the findings in the present project has underpinned these general statements and added multiple more features and reasons of continuing preference of the old, sectoral environmental liability laws to the ELD.

RES Point 27. Calls on the Commission to determine what rules are necessary to establish a clear and irrefutable distinction between those cases in which the ELD is applicable and those in which the national standard should apply, where this is more stringent;

While our findings show that the interplay between the old sectoral rules and the ELD laws is much more complicated, more stringency can be one of the leading viewpoints in selecting the ways of procedures in individual cases.

The EPA-ICEL Conference

The Hon Mr Justice Frank Clarke, Chief Justice of Ireland noted, however, that the fault does not lie solely with IE but also partly with the EU as EU Directives are not always clear. Ireland continues to struggle to implement EU law, in part due to *fragmented environmental policy and legislation*.

This observation of the Chief Justice of Ireland closely overlaps with one of the main conclusions of our project on the possible solutions of discrepancies between old, sectoral and new, ELD based environmental liability laws, that is a more coherent use of both sources or, from another angle, a more organic fitting of the national ELD laws into the tissue of the relevant environmental administrative legal sources.

Justice and Environment opinion

While J&E lawyers widely criticised the ELD legislation and the practical implementation thereof, in their 2015 study they acknowledged their deep conviction that the Environmental Liability Directive is a valuable tool of halting further derogation of the European environment and safeguarding the national resources of the continent. Before the ELD, they continue, there has not yet been any similar legal tool for an overall environmental liability system that strives to realise the polluter pays principle so consequentially and uniform way throughout the European Community. Before the ELD in the

majority of the Member States there was no similar legislation, especially the quickly ruining biodiversity was a neglected field of protection, which is put into the forefront by the new environmental liability laws. Also – they continue – the ELD is innovative in tracing back the pollution that leaves from the polluted sites. This comment of the J&E has been widely quoted in several official materials about the ELD, amongst others in the 2016 REFIT analysis of the Directive.

Also in that study, J&E has examined the institutional conditions of the effective implementation of the ELD. Their key point was that in itself the competent authority will not be able to achieve the polluter pays principle and eradicate pollution of the priority sites at least, unless cooperates with the relevant other authorities, such as nature protection, soil protection, water management, mining and other authorities in the field of agricultural and industrial administration. The most important fields according to the European public interest environmental lawyers would be the survey and evaluation of the polluted sites and selecting the most effective measures of remedy or prevention of further pollution. This way they could avoid double efforts and situations when the measures of different authorities work against each other. Information exchange would be the basis of cooperation, while in the practice we witness fierce competition and jealous protection of databases at each branch of administration – no wonder, data is a valuable asset and no organisation is inclined to pass it further for free. J&E underlines that even the administrative officials are, quite understandably, not enthusiastic about forming and operating several committees, the properly integrated implementation of the ELD would demand more or less regular meeting between the officials in charge from the concerned authorities.

As concerns the necessary structural changes that would integrate the new and old environmental liability laws J&E wrote in 2016 that the principles of environmental law – not only the polluter pays principle – shall play a leading role in those harmonisation works. While several legal institutions, especially definitions of the ELD are of vague nature or strange for the practitioners accustomed to the old sectoral laws, where the basic legal interpretation tool might lie in these principles. Principles of environmental law shed light on the purposes of the legislators and on the social interests the given piece of law is to serve. Principles furthermore serve a coherent legal practice, for which there is a great demand in the field of the environmental liability laws. Apart from the polluter pays principle the J&E lawyers offer the consideration and regular use in the legal practice of the precautionary and prevention principles and the principle of rectifying pollution at source. Even more general constitutional principal rules, such as the right to health and to clean and healthy environment might come into picture in these cases, with the reference to Article 35 of the Charter of Fundamental Rights of the European Union. Furthermore, principles in connection with intergenerational justice shall be taken into consideration, too, in close connection with other elements of the group of sustainable development principles.

The 2017 J&E study adds to all of these that the modern, progressive elements of the ELD, such as the three parts of remediation and compensation of the environmental damages and the special stress on public participation should be fully maintained when a national legislator harmonises its existing environmental liability laws with the ELD. This harmonisation shall not take place in a formal, „copy paste" way, it should rather base on the systematic mapping of the advantages and disadvantages of the old and new environmental liability regimes within the circumstances of a given legal system. At any rate, the situation where the old and new liability laws work parallel, without scarce exchange and cooperation, even competing with each other, should be avoided.

CERCLA study

The reason behind the polluter pays principle is that under a competitive market, it is considered that the social benefit is larger when social costs related to environmental issues are internalized compared to when the costs are ignored. It is also considered that firms could receive benefits both in their modernisation and technical development and in the field of social-economic networking. Environmental liability enforces developing new, creative procedures, which save rough materials, recycle waste or make them secondary products, this way enhance productivity and profitability. On the social side, environmentally responsible company policy helps maintaining a strong brand image, and establish stronger social/stakeholders relationships when they have appropriate consideration for environmental costs. The social side entails with better consumer evaluations and easier connection to the economic chains both on the input and on the output sides, as sociology and economic researches have proven it (Shimamoto, 2019).

II.D Chapter summary

Findings

The problems of scarce implementation of the national ELD laws started primarily with the way of transposition of the ELD. The relationship between the liability rules of old sectoral laws and that of the ELD has not always been clarified, and the national ELD laws are not well integrated with other liability schemes. Moreover, in a couple of countries the laws implementing the ELD are formally subordinated to the environmental liability provisions of the existing sectoral laws.

There are a row of legal sociological phenomena our national researchers revealed:

- customs: in the case of the old sectoral laws ample practical and technical examples available, jurisprudence is well known by the public authorities and other stakeholders;
- inertia: in the system of the environmental liability the old rules are more accustomed to, perceived less complex and delivering results more calculable;
- lack of needs: there is a large overlap between the older, long existing ones and the new rules of environmental liability, therefore the latter ones seem superfluous;
- system alien: the ELD is based on a different legislative philosophy, which is not in harmony with the ‘traditions’, not organic;
- slow and hesitant introduction: in the years right after the ELD laws entered into force we lost the historical momentum, where there was a social expectation and a higher-level expert attention to the brand new rules;
- scarce practice: owing to the above reasons, the ELD rules are not well enough cultivated in our legal systems, which reproduces many of these reasons in a vicious circle.

Legal arguments include substantive and procedural ones:

- too general: the substantive legal viewpoints start with lack of enough details in the new ELD laws, many consider the old sectoral regulations more elaborate, prescriptive, and containing specific instruments for remedial measures, monitoring and sanctions;

- too special in the same time: the ELD has too narrow scope of application, an overly meticulous interpretation of the terms and the conditions of the application of environmental liability rules (examples include the requirement of clearly identifiable source, the restrictive definition of environmental damage and the seriousness of the environmental effects);

- lack of flexibility: critics miss from the ELD some due diligence and avoidance of danger provisions, as well as general clauses authorising the competent authority to take the necessary measures to prevent environmental damages;

- weakness in prevention: in the old system the preventive measures are foreseen and regularly prescribed much earlier, in the permitting procedures, environmental and spatial planning procedures;

- empty spots: failure to handle small, but together meaningful sources of pollution, as well as incremental damages;

- too high standards of proof: on the procedural side environmental damage is especially difficult to prove, especially because the authorities usually do not have baseline data – it is easier to prove the breach of certain legal obligations set out in the relevant operating permit, based on the sectoral laws or by IPPC laws.

The arguments for introduction of the ELD were unquestionable, though: the old environmental liability laws were ineffective in protecting our natural resources and in leaving an acceptable environment to the following generations. Unfortunately, the fact that it was necessary, does not mean that the ELD could fulfil all the expectations. One of the biggest added value of the ELD, however, is an administrative and judicial recognition of the concept of pure ecological damage. The consequential, systematic realisation of the polluter pays principle and the introduction of strict liability are also frequently mentioned as new, valuable elements in the Directive. A strive to achieve full remedy and compensation of the environmental damages is also something to appreciate. Transparency and accountability in the economic fields, also that several old ways of limitation of liability is put under inquiry, including a possibility of removing the "corporate veil" are also progressive elements of the ELD regimes. The ELD tries to bring the quite different elements of the protection of the waters, nature, and land on the same platform.

Suggestions and observations

The key point of the solution of the stalemate in the implementation of the ELD is to encourage, urge the environmental authorities to proceed with more ELD cases. Formulation of solid legal practice of the ELD implementation might be supported by providing general guidance and education, instructing civil servants on the comparative advantages of the ELD regime, and on when to use it instead of sectoral law, whereas some of the training sessions for civil servants should be a condition of working on this field. The superior level authorities should monitor the practice and to react if any mal-practice can be observed. A targeted attention on the ELD from non-administrative state organisations, such as ombudspersons and prosecutors, would be a valuable contribution to the even development of the ELD practice in many countries.

It is more difficult to achieve, but system wide legislative changes could be of use, too. A legal solution that is opposite to the present one in at least a half a dozen of EU countries would be needed: the application of the ELD laws should exclude the national sectoral rules. This is very difficult, because it would need an absolutely clear-cut differentiation between the cases falling under the new and the old environmental liability rules. Alternatively, using together the old and new environmental liability

laws in a concerted, harmonised way seems to be a realistic suggestion, if we underline that this would not be a white card to continue the faulty legal practice and apply some legal safeguarding methods for it. Such a harmonisation could take place in a concerted set of measures in all of the EU countries (RES 4). This work needs a painstaking modification of dozens of environmental laws and regulations and should be planned through a procedure relatively similar to the Commission's REFIT process.

The authors in the project pointed out some concrete details in the ELD legislations, too, where changes might be necessary. The narrow focus of the ELD definitions and the scope, including the high standards of meeting the ELD definition of environmental damage, would be difficult to overcome without legislative changes. As for soil damage, the requirement of resulting health hazards runs counter to the approach of the directive to effectively prevent and remedy environmental damage and should therefore be deleted.

In the Preamble of the Resolutions several points addresses the most relevant environmental legal principles, not only the polluter pays principle. Indeed, a consequential, substantial use of these principles is a key to the harmonised, coherent implementation of the national ELD laws and the older, sectoral laws on environmental liability. Such principles include the requirement of high level protection of the environment, the precautionary principle, the prevention principle and the principle that preventive action should be taken, and the environmental damage should be rectified at source of pollution, and finally, the whole set of concepts of sustainable development (RES B, C and E).

Interconnections with other chapters

Chapter I: availability of the ELD information in an organised and easy to use database encourages and enhances the use of the ELD laws;

Chapter III: a connection with the authority system is visible in that a harmonised environmental liability system will entail with cooperation between the environmental and the relevant other authorities, such as nature protection, soil protection, water management, mining and other authorities in the field of agricultural and industrial administration;

Chapter V: streamlining the substantive ELD laws, especially the definitions wold be a basic condition of their more widespread use. Also, reference provisions in the ELD laws to the old sectoral laws would make easier of the use of both of these fields of laws;

Chapter VI: there is a deep interconnection between the effective use of the ELD and solving the procedural problems thereof, especially the problems of evidence taking;

Chapter IX: there are intricate interrelationships with public participation, too: once the members and organisations of the public would encounter less legal and technical hardship in the ELD cases, they will be more willing and able to use this legal tool, and actually become the engines of the more widespread practice of the new environmental liability rules.

III Understanding and appreciation of the ELD by the stakeholders

Our question to the country experts were in this chapter:

- how much known and what is the general attitude concerning the ELD in the local communities, general public, as reflected in the media, environmental officials, officials of non-environmental administrative branches, judges, economic circles, and NGOs.

When the national researchers prepared their answers, many of them used Big Data sources, meaning targeted online search or search of several library catalogues (CYP, GER, SLO, BEL) in order to see how widely the idea of the polluter pays principle based environmental liability is spread in our societies in general, as reflected in the media, in the writings of business entrepreneurs, the scientific world, as well as amongst the officials of the relevant authorities and other State bodies and also in the NGOs.

ELD in the media

Our first research target was the media, we examined the *presence* of the ELD topic and the level of *understanding*. It was found to be hardly covered in the mainstream media (GER), the information flow is rare and, accordingly, not suitable to *impact the society and raise awareness* on ELD cases (CYP). In other countries the media seemingly consider the environmental liability topic too bureaucratic, dull (SWE, GRE). General knowledge of environmental liability legislation is scarce, especially where the public cannot ascertain that the given law is effective in handling serious environmental pollution cases. The Law on Environmental Liability was enacted in the time of two very important accidents in Spain - such as the Prestige ship and the Aznalcóllar mine next to the Doñana National Park - and it did not serve to get those responsible to pay for the damage caused to the environment. It must be borne in mind that the law has many exceptions in its application and does not work very often. There has not yet been any paradigmatic case at the national level that has served to publicly present the virtues of the environmental liability law (SPA).

We are aware that it is not always appealing for the media owners and redactors to depress their readers with dark stories of slowly but surely leaking ooze that poison the living world around. In the medieval age it was called “kill the messenger” when it brought bad news, today we speak about psychological defence mechanisms, such as repression (‘we do not talk of it, it will not disturb us’) or shift in time or space (‘it is not happening to us now, but somewhere else’). As no single article could be found in the Cypriot media on the harmful health effects of a major asbestos mine pollution, let alone the relevant national laws or the EU Directive, the national researcher also suspected that self-censored media tries to avoid to challenge any legal or economic interests, while it is true that they remained silent in the successful cases of site restorations, too (CYP). These barriers are broken through in some countries at a point, namely in connection with serious risks to the health of concerned local communities. Such cases might become everyday topics in the mass media and in the local Internet media networks, too (ITA). The growing awareness of environmental health threats and damages is connected with pesticides in France. As a consequence for the well organised and wide publicity, around 60 mayors prohibited on their communes the use of pesticides at all. Some suspicious cases of environmental health diseases are regularly highlighted in French newspapers. Bundles of clues tend to confirm the link with endocrinal disruptors and various cases of cancers, of genetic damages notably (FRA). Interestingly, the social-psychological defence mechanisms are also idle in respect to the historical places, especially when their fate is closely attached to certain historical events. The public is more aware of the law and cases on the removal of old environmental burdens, especially in the Central and Eastern part of Europe, where polluted sites left from the communist era are often subject to media attention (SVK).

It was also reported from other countries that awareness of the public at large of cases entailing environmental damage is growing, although the ELD legislation is too complex to be understood by the public. However, the basic concept of the ELD, the polluter pays principle might be more widely known and accepted, which fact might pave the way for the ELD to become more widely known in the society (BEL, POR, MAL). Naturally, specific media segments of select stakeholders are aware of the ELD directive, such as environmental journals and leaflets for ELD decision-makers and environmental officials of concerned big companies (SLO). A key point here would be the existence of a circle of specialised environmental journalists, whose interest is invested in slowly raising social attention to environmental liability matters (SLO).

Knowledge of the ELD in business circles

We could collect quite colourful set of information about the awareness and knowledge on the ELD in business circles, while we have to realise that at the time being it is not a generally discussed topic there. Larger economic operators are heard in general that they might be willing to take financial and organising measures to prevent their environmental responsibility, if the amounts invested into such measures seem to be reasonable in a "win-win" or "low hanging fruit" logic (HUN). An internet research in Portugal in this project resulted in similar results: large mining and waste management companies seemed to be well aware of the rules of the national ELD law. That is however usually not the case for smaller enterprises and operators (BEL). The Big Data research in several countries has revealed that environmental liability as a business offer from consultant or technical service companies is an existing, but seldom appearing topic represented by 3-4 occurrences in the first 50 findings (SLO, HUN). Consultants said in the interview to our researcher that their clients for the time being do not have any particular problems with environmental liability, because rarely any accidents occur that would fall under this category (BUL). Also, in an interview the impression was expressed that the ELD has contributed to the development of insurance policies (BEL). Finally, the Austrian research revealed a relevant NGO conflict resolution effort, that harnessed the situation that the companies would *insist that neither the media nor authorities get involved* in their ELD-type occurrences, as far as possible, but they would rather conclude an agreement with the concerned local community and NGOs to clean up the pollution and arrange the claims that emerge (AUT).

ELD in sciences

In *academic* circles ELD itself counts to be an emerging popular topic for research, especially for lawyers (with civil law or environmental specialisation), but also for economists and engineers (HUN). As it is a complex law, it represents a professional challenge, and therefore the ELD is well received by the scientific legal literature that is producing various books, also some experts have specialised in the ELD matters (SPA). Some law firms also publish their evaluation on the effects of the ELD, with partly scientific, but rather business ambitions, therefore, no deeper analyses occurred on this topic from them (LIT). An online search of the relevant library catalogues brought poorer results, meaning that the new ELD research results have not yet found their way to the mainstream professional literature (BEL). A similar survey in the collective catalogue of German libraries revealed only two special legal commentaries on the German ELD law, EDA, which were both published in 2013 and have not been updated since then (GER). Resource analyses of the library catalogues have had no results in further two countries (CYP, LAT). However, in other countries environmental liability seems to be popular and is the subject of several important monographies (POL) and even considered an upcoming topic in the legal and professional literature and a popular issue of multidisciplinary scientific conferences (POR).

ELD and the authorities

Within the circle of the environmental authorities the awareness of the ELD rules and their application did not increase during this period, rather the opposite, after a surge of interest in the beginning of the decade, attention tapered down by now (DEN). Officials still miss some more *guiding judgments* from their high level environmental administrative bodies and courts, especially from the Supreme Court (SWE), as well as a need was expressed for a clear technical guidance especially on remediation, but also on the logic of the ELD requirements that would explain the different approach to handling environmental damage cases from the practice as existed before (LAT). Such guidance would be especially necessary, considering that misunderstandings or full ignorance of the ELD issues is quite widespread amongst all kinds of the stakeholders, including the authorities, too (GRE). Lack of implementation guidance of the directive led the authorities refrain from using the ELD laws that was perceived too complicated that they did not understand them (DEN). The opinion of Czech officials is that "the ED Act is a typical piece of legislation adopted to meet the obligations of the EU law, but not up to the level to be truly applicable and that it was not necessary as the older legislation is sufficient" (CZE). Even amidst the overwhelmingly negative opinions, a certain level of *appreciation for the strength and ambitions* of the ELD was expressed, because of its establishing a new framework for liability and compensation for pollution damages, with the immediate priority for a change in the behaviour of operators and increasing the level of prevention and precaution (GRE).

ELD and courts

From the *courts* we have received some positive feedbacks, too, as their practice subsequently has become rather extensive and the borderline for what is or is not possible to require has to a great extent been clarified (SWE, SLO), while other countries reported very few court decisions concerning their ELD regimes, therefore a minimal level of interest of the courts towards this topic was established (GER). The pioneering CJEU ruling[7] was expected to give the otherwise lesser known ELD mechanism a broader base of potential agents/applicants and boost its effectiveness in the cases of permitted plants, but has yet to create new cases, even after three years (AUT, SWE). Our Spanish researcher has the impression that in civil service circles and the legal profession generally, the national ELD law has not been duly disseminated and is largely unknown by the authorities (environmental or other relevant authorities), staff lawyers, prosecutors, and judges (SPA).

How much NGOs know about the ELD?

The expectations that *NGOs* had originally placed in the ELD/EDA regime – particularly with regard to biodiversity damage – have not been fulfilled in Germany, they are not aware of the national ELD provisions or how they work, and they solely rely upon the older procedures that they used before (GER). An NGO interviewee emphasized for the Dutch researcher that most *polluters are not pressured sufficiently* or at all to compensate for the damage they caused, and that this has been the case for many years due to the government's pro-business attitude (NED). Another NGO opinion also found the core of the causes in the practice of the environmental authorities, saying that the environmental damage is not so much the consequence of incidents, but systematic problems, which derive, inter alia, from the tendency of the CAs to issue *environmental permits without adequately identifying and*

[7] Case C-529/15 – Judgment of the Court (First Chamber) of 1 June 2017 (request for a preliminary ruling from the Verwaltungsgerichtshof — Austria) — proceedings brought by Gert Folk

taking into consideration of the impacts of the regulated activity (EST). NGO representatives furthermore expressed the view that they do not have access to sufficient background documents to initiate or help in ELD procedures. They also *do not believe that their initiative would lead to implementation of the procedure* according to the ED Act by state authorities when the state authorities use different legislation, and the change is unlikely (CZE). Despite the efforts of the Ministry of Ecological Transition, which has developed a progressive technical assistance for operators, neither the local communities nor the environmental NGOs have been aware enough of the advances and legislative changes in the area of environmental responsibility, aimed at large companies, or in relation to the financial guarantees. In reality, the ELD law has been seen as a source of bureaucratic environmental obligations for companies, but not as an opportunity to solve environmental accidents in a different way (SPA). NGOs have expressed scepticism especially with the overly complicated legal side of the ELD laws, which might have the main reason of that no NGO cases have been won so far (GER), while in other countries NGOs had some successes in the courts (FIN, GRE). The "danger" of being dismissed and then burdened with the costs of the proceedings is a deterrent for NGOs when considering the possibility of challenging a decision on environmental damage (DEN, CZE). Taking all of these hardships into consideration, we cannot be surprised that most of the NGOs decide to allocate their scarce resources to other fields of environmental protection (SWE, DEN) and many of them expresses confusion or sheer ignorance with the ELD tools of environmental protection (ROM, HUN, LAT, LIT).

Need for awareness raising

Interviews revealed a greater need for *capacity building and awareness raising* efforts from the government but also from the mainstream professional environmental NGOs[8]. For the time being there is no information campaign aimed at raising public awareness about the environmental liability topic (CZE), while a civil effort was reported to raise public awareness through organizing conferences and seminars on environmental liability matters, even reaching out to small villages in cooperation with the local cultural associations (GRE). We can see also a decline in the interest in taking part in ELD related training courses (DEN), while in newer environmental training materials no ELD related topics were found (NED). Other than governmental State bodies, such as the ombudsman might effectively support public awareness raising, informing and activating society in a local or national dimension on environmental issues, including ELD matters (GRE, HUN).

III.B Evaluation by the in-depth researchers

Systematic capacity building efforts for all stakeholders

We have established that social and expert level awareness of the facts of environmental liability and the available legal tools is a key issue of the effective implementation of the ELD. Awareness raising and clarification of the situation of the ELD implementation in a country shall take place in a well-designed manner. Targets, content of messages shall be systematically planned. Targets should include all the stakeholders, as we have noted already, with special stress of the administrative professionals

[8] Note that capacity building as a vital part of the system of public participation will be discussed in more details in Chapter 9.3.

dealing with environmental liability cases most closely. In many countries, there are specialized (environmental) journals or other types of media specialized on environmental topics (often supported by state funding) that could well cover information relevant to the ELD cases and environmental liability issues (Mikosa).

Authors point out that awareness raising and capacity building strongly interrelates with the full availability of quality information on environmental liability discussed in Chapter I. National registers, also containing information from EIA procedures, which contain baseline information, might help to further public awareness and participation since publicly available information at the moment is often scattered and incomplete (Verheyen). Also we have seen that attitudes of the officials at the decision-making authorities might be a determining factor of using the old sectoral laws rather than the national ELD rules (Cerny). Apart from Chapters 1-2 above, references were made to the following chapters too. Capacity building of all stakeholders and the necessary legislative and practical changes in the implementation of the ELD go hand in hand (Schmidhuber). The same idea was expressed by other authors, too. The primary task should hence be to provide *a clear legal framework*. Once this is ensured, the only possible solution seems to be ensuring sufficient support to the authorities by the states, and provision of *guidance and training for the officials*. This, of course, would require investment, both in time and capacity. However, it is necessary that the states acknowledge the importance of dealing with environmental damage and the related need for such investments. States will only be willing to do so, if they are fully aware of the importance of addressing environmental damage, as well as of the benefits that ELD provides over traditional sectoral laws. It is therefore also *a task for the EU institutions* to emphasize the importance and benefits of the ELD over sectoral laws and to convince states that it is appropriate to invest in ensuring functioning ELD processes (Cerny).

As concerns the *form of guidelines on the European level*, our experts were starting out from the examples of the implementation of the Aarhus Convention a Commission Communication. This could be a notice similar to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on improving access to justice in environmental matters in the EU and its Member States. Such a tool would be the best output that could equally orientate Member State legislation, guide implementation practice and raise public and expert awareness in environmental liability matters (Kiss). A similar view is that, while the added value of applying EU-rules is not self-evident, a Commission Notice could be one example how to raise awareness, and in the end resulting in a better application (Bengtsson).

Other researchers also refer to the Commission level, but more on the practical side that in order to effectively convey they messages and support the proper implementation of the ELD in the Member States, it would be particularly helpful if international lawyers, including present or former employees of the Commission, could take part in the country level trainings (Schmidhuber).

Targets

The first and primary targets of capacity building should be *the officials* themselves who deal directly or indirectly with environmental liability cases (Schmidhuber). It is observed that the civil servants, in regional authorities, are not competent enough to support the stakeholders to implement environmental legislation, when questions arrive on specific environmental issues, such as the ELD (Kallia). In order to align their knowledge of the EU acquis, *mandatory courses* for competent authorities should be established and propagated for the Member States. This could be managed by the Commission as well, perhaps via the European Environmental Agency. This may also fit into the mandate of IMPEL (European Union Network for the Implementation and Enforcement of

Environmental Law), and can enhance its range of activities (Kiss). Other researchers also pointed out that there are ongoing efforts and institutional preparedness, which could be of help. IMPEL, for instance has an ongoing project on Water and Land Remediation, which is close to our topic (Bengtsson).

A major sector whose active participation in ELD issues is key is the *business sector*. There have been deficiencies revealed by this Summary on the side of businesses relating to the ELD. This should be remedied undoubtedly, and for this an Information Centre on Environmental Liability should be set up and operated by the Commission. While it should be a joint effort of the concerned sectors, its mere existence would be a sign that the EU supports the implementation of the ELD actively, via raising the awareness of the regulated community (Kiss). To raise awareness about the ELD requirements among companies (irrespective of size or type of ownership), one needs to facilitate the enforcement of relevant legislation in a way that demonstrates the inevitability of liability in case of environmental damage. One way of achieving this aim is through advancing practice (application of the ELD) and proactively promoting information on cases where operators that caused environmental damage, were held liable, and undertook remediation measures (Mikosa). Business sectors, like financial or insurance sectors should be encouraged to incorporate environmental, social and governance (ESG) factors into investment decision-making, their awareness on environmental liability issues is just part of these broader projects of their corporate social liability (Amador).

ELD on the one hand is a practical tool to be applied by public authorities, but it is also a subject of *academic research*. To inspire more activity in the analysis of environmental liability, *a prize* should be founded for academic research pertaining to environmental liability issues by the European Commission. Even a specific funding program could be set up, within the Horizon funding scheme, for research on ELD and related matters. Along with this, it would be useful to involve into the awareness raising activities specialized organizations such as the EUFJE, the AEAJ or the ERA. Such training events could also be extended to technical experts whose job is to monitor and evaluate environmental damage. Their invaluable knowledge of environmental damage cases could be harnessed to have a common understanding of the notion of damage, as well as how best to treat several kinds of damage (Kiss).

It is crucial that information on environmental issues, including on damage cases and remediation measures be also covered by *media* outlets that have a far wider reach (Mikosa). The relatively low level of knowledge by the media organs on the ELD cases adds to the sub-optimal level of effectiveness of the Directive, since the low coverage of ELD cases results also in a lower level of public awareness that negatively feeds back into the implementation of the ELD. This could be overcome by training to the media organs to be organized by the Commission, similarly to issues relating to access to environmental justice. While in those matters, such trainings and conferences do work, it can be an inspiring example for ELD experts and practitioners as well (Kiss). Even is countries such as Greece, where the media are sensitive on environmental issues, they are not aware of the provisions of the ELD Directive. So the media do not inform the public about environmental accidents and polluted sites, as well as the remediation measures with the ELD. It is proposed that the Ministry of the Environment should organize information campaigns in collaboration with the Union of journalists (Kallia).

National level *judges* has been recognized as playing a key role in the implementation of EU environmental law. The capacity of national courts to guarantee the correct and efficient application of EU environmental law is an essential factor for addressing the legitimate expectations of EU citizens in this domain. For several years the EU Commission has supported a project in cooperation with national judges in the field of environmental law. Within that project cost free workshops were provided for national judges, but also for prosecutors in the field of environmental law. Since 2012 the

project has been managed by the Academy of European Law (Europäische Rechtsakademie, ERA). Workshops has been arranged inter alia for the topics of water law and waste law, quite recently also workshops during the autumn 2020, on EU Waste Legislation and Protection of the Environment through Criminal Law. The current period is running out though, and we cannot be sure whether or not it yet has been decided which organization will be responsible for the project during the up-coming period. There previously has been discussions within this organisation to provide workshop also directly focusing on the ELD, but so far the practical need for such education has been regarded as too limited (Bengtsson).

Via EJTN (European Judicial Training Network), also supported by the EU Commission, in cooperation with ERA and AEAJ (Association of European Administrative Judges) there also has been arranged cost free workshops for judges in the Member States, inter alia, containing lectures and case studies relating to the ELD. A suggestion then would be that in the upcoming period for the Judges programme, a series of workshops could be arranged where the main focus is on the ELD. The main purpose of these workshops was to raise awareness of EU environmental law and policy and to provide a forum for the exchange of knowledge and experience. A further objective was to involve the national Judicial Training Centres in order to enhance, in the long term, the benefits of this EU programme (Bengtsson).

Methodology and content

The key methodology and content elements we would highlight are:

- Talks and roundtables for all participants, centred around the ELD, including best practices from all European countries;
- A key emphasis on the benefits of the ELD vs. other older, sectoral national/EU based instruments;
- Ways of enhancing awareness and understanding of the importance of public participation in the ELD cases, including standing for affected persons and members of the public/NGOs in remediation procedures;
- Access to legal remedies for the participants shall be emphasized in the training materials, including implementation of Article 9(3) of the Aarhus Convention, which feature would open the perspectives of the officials for the whole legal enforcement system (Schmidhuber);
- The content of the courses should cover scientific contents, too, as a minimum the notion of damage and the available remediation and restoration techniques;
- They also should contain best practice examples whereby the participants could learn the best way to cope with environmental damage, and all its implications (time, costs, enforcement, public participation, and the like) (Kiss);
- The linkage to other Directives is important, and such trainings can preferably have a horizontal focus, and be connected for example to the new Directive on drinking water, to be adopted, the Framework Directive on Water, Directives on Biodiversity, the IED and/or the waste law Directives, but also regarding chemicals and the close connection to requirements on EIA, to criminal law and generally the enforcement of EU law (Bengtsson).

From data collected in the European Environment Agency, in addition to their own sources of information, national NGOs could establish the national ranking of the ten industries/installations which are the main sources of air and water pollution in the country thus contributing to forming a general picture of the ELD situation of the country (Amador). Indeed, such a civilian effort to publish

the names of the '*dirty dozen*' might be a very effective tool to call the attention to the media and the general public for the worst polluted sites and the environment and health problems they cause.

III.C Other sources

We have learnt that neither the Parliamentary Resolution, nor the relevant legal literature pays attention to the importance of the attitudes of the media and the key stakeholders concerning environmental liability matters.

III.D Chapter summary

Findings

The scarce presence of the ELD topic in the media and the level of understanding of it are not suitable to impact the society and raise awareness about environmental liability matters. This topic seems too bureaucratic, dull, with many complicated legal conditions and exceptions, while the public cannot see any spectacular results. It is true, too, that dark stories, unstoppable, approaching threats are difficult to break through the perception threshold of the media with. Exceptions, however, can also be found. In the European countries environmental awareness is growing, as the public and the media learns to handle the ecological, systemic messages not only in black-and-white tones.

We learned about the attitudes of the major social-economical stakeholders, too. Business leaders can be approached with reasonable "win-win" or "low hanging fruit" messages urging for structural changes in their operations to prevent environmental liability. In the same time they are keen to keep the media, the NGOs and the authorities away from their ELD-type occurrences, as long as possible.

As concerns the academia we got a mixed picture, it seems that where the scientific research policies support the ELD picture with scholarships or earmarked research funds, scientists can be interested in writing studies and analyses, but is really sporadic yet, unfortunately. Something similar happens amongst the officials at the relevant administrative bodies and amongst the judges charged with environmental liability cases: they still expect more professional incentives and guiding judgments from their higher level environmental administrative bodies and courts.

The professional NGOs interviewed express disappointment in their expectations when they witness that the ELD laws haven't brought significant changes in the practice of preventing and remedying large scale environmental pollutions concerning lands, waters and the nature. On the other hand, they themselves do not hurry to cultivate the ELD, rather tend to focus on legal institutions that they consider more effective tools of prevention, such as spatial planning and permitting procedures. Frequent failures in initiating ELD cases further reinforce their negative attitudes.

Suggestions and observations

The approach of surveying the social attitudes in this project was systematic, yet, we think that there is a primary need for capacity building and awareness raising amongst the environmental NGOs at all

level, because they might be the easiest and cheapest multiplicators of our messages towards the media, local communities and the other segments of our societies.

As the knowledge on the legal and practical ramifications of the ELD is scarce in most of the levels of the national administrative systems, they might not be able to reach quick progress without the help of the European level organisations. Experts on the Commission level could trigger off and thereafter enhance the effectiveness of the national level capacity building programs. Large European professional organisations and networks should have a key role, too, and actually they play already a significant role in organising environmental legal and professional trainings. The specialised organisations and sections of administrative and environmental judges are especially active and can offer some positive examples already.

Awareness raising about environmental liability is also a missing spot in the business sector, notwithstanding the size or type of ownership. The methodology here could be a mixture of cooperative and confrontative elements, some researchers suggest a 'dirty dozen' type awareness raising campaign, which would be a gate opener for other, systematic awareness raising and training efforts.

As concerns the scientific sector, interest of the researchers should be raised and oriented by EU and state level subsidized research programs, prizes and scholarships. A similar target group would be the specialised environmental journalists, where the environmental liability campaigns could be organised in collaboration with the national and Europe wide unions of journalists.

Finally, the national researchers of this project have offered a serial of concrete proposals and examples in respect to the content and methodology of the awareness raising and professional training campaigns. The core of such programs should be a proper balance between the legal-procedural and natural science content.

Interconnections with other chapters

Chapter I: the media activity in the field of the ELD is in great part dependent on the quality and availability of the official ELD information;

Chapter II: as we have seen, key role players attitude is determined by their waiting for more elaborated practical guides. This leads back to the necessity of well organised and planned programs with clarification of the differences between the ELD laws and the older sectoral laws of environmental liability. Also, the fixed attitudes of the officials in charge determines the selection between the new and older legal tools;

Chapter VIII: attitudes of the business CEOs is a key factor of formulating and using financial security tools;

Chapter IX: capacity building has a rich methodology developed for the civil sector based on the Aarhus Convention, which experiences could be used more generally in supporting the public knowledge and positive attitudes about the ELD.

IV Authorities charged with ELD cases

Our questions to the country experts were in this chapter:

- which are the authorities/departments in lead position, also in contributing position in the ELD cases?
- what is the real or estimated capacity of these authorities for ELD cases (existence or lack of special ELD units, their staffing, professional training, coordination of central and regional authorities involved etc.)?
- what are the special non-governmental State bodies that might have significant impact on individual cases, as well as on the general practice in the field of ELD (such as ombudspersons, prosecutors, state auditing bodies, high courts and constitutional courts, prosecutors' offices)?

As our Slovenian national researcher, Senka Vrbica established, "the national ELD cases are so complex that as a minimum they demand the cooperation of the officials that know the state of the environment, measuring and assessment (experts in the field of biology, chemistry, physics) and officials that can carry legal and procedural aspects of the case (officials with the authorisation)".[9] Such cooperation should take place within the authorities or departments specialised on ELD matters, as well as between several authorities with several focuses in their work. In this chapter we survey the central and local authorities dealing with ELD issues, and non-governmental state bodies that can effectively support this work, too, in order to see their capacities, preparedness, and the ways they can cooperate with each other in the complex ELD cases.

National level ELD authorities, their functions and working conditions

The national level authorities responsible for leading the implementation of the ELD could be the ministry responsible for environmental protection and/or the chief environmental authority. The division of tasks is usually as follows: the principal and major work is done by the ministry, while the administrative type decisions are carried out by the chief environmental authority. The borders between these two types of tasks are not always totally clear.

The *ministry* responsible for environmental matters might have a single responsibility as environmental protection, such as the Ministry of Environment (LIT, POL, CZE, SVK) or the environmental tasks on ministerial level might be combined with other portfolios. In Slovenia, the ELD policy and regulation is managed by the Ministry for the Environment and Spatial Planning (SLO). In Latvia, the Ministry of Environmental Protection and Regional Development elaborates transposing legislation and could provide guidelines or methodological manuals for the enforcing authorities, but there are not any such materials with respect to the ELD implementation (LAT). The Federal Ministry for the Climate is the Austrian focal point, and is responsible for collecting data and sending them to the European Commission. It serves also as an information hub for competent authorities (and theoretically: the public) on the interpretation and implementation of the ELD (AUT). In Malta, the Ministry for Sustainable Development, Environment and Climate Change is the lead authority (MAL). Such compound chief authorities include furthermore the Ministry for Environment and Energy in Greece and in Croatia, the Ministry of Economy and Sustainable Development and in Luxembourg and the Ministry of Sustainable Development and Infrastructure (GRE, CRO, LUX). As we see, there is *seldom a clear portfolio* assigned to the ministry dealing with environmental protection and these arrangements might exert serious influence on the preparedness, available resources, and room of

[9] Slovenian national study, page 6

manoeuvring at hand for the top environmental administrative leaders.

Within the ministry or the chief environmental body there are usually certain *departments or sub departments* that are assigned for the ELD related tasks, such as State Secretariat for Environmental Affairs within the Ministry of Agriculture in Hungary or the Coordination Office for the Implementation of ELD in Greece, while in Portugal in the Chief Environmental Agency there is a special ELD unit called the Division for Environmental Liability and Contaminated Soils (HUN, GRE, POR). It might be a serious problem where there are no specialised departments or at least sub-departments for ELD matters (SLO, GER, CYP, AUT, BEL), but the ELD cases are handled only as a secondary responsibility by biodiversity, land and water (GER), nature and waste (SLO) personnel, or even worse, decided on a case by case basis.

The opposite direction development is known, too, when units (either central or regional) are built up called "competence centres" in the particular field of ELD laws to concentrate the competence and methodological governance therein (LAT). [10] In Lithuania, the Environmental Protection Department under the Ministry of Environment controls whether natural and legal persons comply with the requirements established in the laws and other legal acts regulating the protection of the environment and the use of natural resources, including the liability matters of producers/importers/operators. The same Department organizes and carries out preventive activities, elaborates transposing legislation and could provide also guidelines or such type of methodological materials to enforcing authority, but there has not any such material issued yet with respect to ELD implementation (LIT).

Examples of the *national environmental agencies* in such arrangement include SEPA in Sweden or in the Czech Republic the Environmental Inspectorate, or the Polish General Environmental Directorate (SWE, CZE, POL). In some countries, the competent authority actually handling individual ELD cases is the chief environmental authority, such as the Slovenian Environmental Agency (SLO). The main competent authority enforcing the ELD in Latvia is the State Environmental Service, which has responsibility for implementing any ELD requirements with respect to relevant environmental damage cases. It consists of the headquarter and the regional units, each of them being responsible for one specific environmental issue as "competence centre", next to covering all other tasks. The competence centre for the ELD is the Supervision Department of the Headquarter Office (LAT).

The usual *functions* of the national level environmental body (the ministry responsible for environment and/or the chief environmental authority) in the field of the implementation of the ELD are as follows (first in the line we overview the functions that are more relevant for the ministry, as proceeding down the list the tasks becoming more typical for the chief environmental authorities):

- *international cooperation and exchange in ELD matters and handling transboundary cases (*CZE, SLO, AUT, SVK, EST, SPA*),*
- issuing *guidance* to authorities on national, regional, and local level (SWE, GRE, LAT, SPA),
- organization of *training* seminars on ELD (GRE, SPA),
- *information servicing* (collection, processing, distributing) nationally and internationally (SWE, GRE, CZE, AUT, SVK, SPA),
- *supervision* and issuing mandatory instructions to lower level environmental administrative bodies (SWE, GRE, CZE, SVK),
- ensuring basic *equipment* for inspections to regional authorities (GRE),

[10] It is very recent development; thus, it is difficult to assess how and whether effective, including no guidance or other methodological materials issued by the assigned competence center yet.

- managing *cases of national importance*, exceptional-particular significance, or cases between regions (GRE),
- organisation and funding the *cleaning up* of sites where no operator is available to order to do so (SWE),
- *coordination* with other authorities relevant for the implementation of the ELD (SWE, GRE),
- managing the ELD *cases* of the country, if any (CZE, LIT, SLO),
- *monitoring* environmental emergency situations (SWE, GRE, HUN, ITA, SPA),

Certainly, it is not enough if there is a formal legal assignment on ministerial or chief administrative level to handle ELD matters, proper *working conditions* ensured might be a key factor of successful ELD practice in a country. Such conditions mean first of all enough well trained and experienced staff. It is difficult to tell from outside that for a concrete authority in a concrete country how many employees would accomplish the ELD tasks most effectively, but decreasing the staff, while the amount of work might not foreseeably decrease, seems to be a bad sign at any rate. In Greece, after not having experienced practical problems in the work of the environmental agency, in 2018 they reduced the number of experienced employees with more than 50% of the original staff (GRE). Similarly, it is problematic when, even if the posts are maintained, they are not filled in, in a long-term vacancy situation (LIT).

Non-environmental authorities in the ELD cases

ELD cases are too complex to handle by a single department. Therefore, there are, as a rule*, non-environmental authorities* responsible for certain ELD related tasks on national and regional level, too. They include:

- *nature protection* authorities if different from environmental authorities: National Parks Administration and the Nature and Landscape Protection Agency (CZE), National Park Directorates (HUN, POL), Nature Conservation Agency (LAT), Nature Protection Service of the Republican National Guard (POR), Administration of Nature and Forests (LUX);
- *soil protection* agencies: National Geological Survey (SWE), Starost (regional self-governance official) (POL);
- *plant protection and biosafety* agencies: State Plant Protection Service (LAT), Service Biosafety and Biotechnology (BEL), Board of Gene Technology (FIN);
- *forestry* authorities: Forestry Departments within the government offices supervised by Hungarian Food Safety Office (HUN), Regional State-Owned Forests Directorate (POL), Forest Guard (ROM);
- *water management* authorities: Agency for Marine and Water Management (SWE), Ministry of Interior and Water Management Directorates (HUN), Regional Water Management Board and the Maritime Office (POL), Administrations of Hydrographical Regions (POR), National or District Water Administrations (ROM), Water Management Administration (LUX);
- *chemical safety* authorities: Chemicals Agency (SWE);
- *fire extinction and catastrophe prevention* authorities: Civil Contingencies Agency (SWE), Ministry of Interior (HUN), Fire and Rescue Department under the Ministry of Interior (LIT);
- *spatial planning* authorities and bodies: National Board of Housing, Building and Planning (SWE), General Inspection of Agriculture, Sea, Environment and Land-Use Planning (POR);
- *public health* authorities: Ministry of Health (CZE), public health policy administration services within the district office of County Governmental Offices - supervised by the National Public

Health and Medical Officer Services (HUN), Regional State Sanitary Official (POL), Health Board (EST);

- *transport* authorities: Federal Public Service Mobility and Transport (BEL);
- *mining* authorities: Regional Mining Office (POL);
- *police*: Forest Corps (which has been absorbed by the *Arma dei Carabinieri* in 2016) and Port Police (ITA), Police Corps (MAL);
- *defence* authorities: Ministry of Defence (CZE).

These non-environmental authorities might have independent ELD tasks or just a consultative status in the ELD procedures started by the authority specified for the ELD cases (SLO). What is especially important in such an arrangement is to avoid rivalry and overlapping measures between neighbouring authorities and rather determine a clear leadership and division of tasks normatively. Some countries perceived this need and established some *organisational solutions* to that. Since 2017, several agencies with tasks in the enforcement of the national ELD laws form the National System for Environmental Protection, a new organizational model of interaction between the Italian National Institute for the Environmental Protection and Research and regional and provincial agencies for environmental protection (ITA). In France inspection activities are conducted jointly by the Ministry responsible for environmental matters, the French Biodiversity Agency and the National Office for Hunting and Wildlife and they are supported by the national police. To improve coordination between the activities of different control officers, France developed the OPAL convergence tool, which, through improved data collection, significantly enhanced the management and efficiency of the control plans (FRA). The organisational structure in Spain for the implementation of the ELD is complemented by the establishment of a Technical Commission for the prevention and remediation of environmental damage. This body, attached to the General Directorate of Biodiversity and Environmental Quality of the Ministry for the Ecological Transition, is tasked with ensuring collaboration between the central government and the regional authorities to exchange information and advice on the prevention and remediation of environmental damage (SPA).

In Latvia, in certain ELD cases when the complexity of them demands the concerned vertical (central, regional, and local) and horizontal (environmental, forestry and possibly other) authorities form an ad hoc commission (LAT). In a more flexible arrangement, in the event of environmental damage or an imminent threat, if more than one administrative body has competences, consultations shall be held between these administrative bodies in order to ensure that promote the best possible coordination between the decisions/measures to be taken. The administrative bodies themselves decide on a case by case basis, which body is responsible for coordination (NED). Usually the ministry responsible for the environment or another national level body issues guidance about the steps of harmonisation of the efforts of several kinds of authorities in the ELD cases. However, general administrative procedural rules on the positive collision of competences can be of help, too, as a last resort (BUL) and even courts can decide who shall be the competent authority when more than one claims this position (GER).

Non-governmental state bodies

There are non-governmental state bodies with supervisory (such as monitoring the work of authorities and their civil servants), controlling, complaint handling, advocacy etc. responsibilities, which might exert a significant contribution to both the general formation of the policies and structures of ELD implementation and not seldom to better solutions in individual, mainly precedent cases, too. Such bodies are:

- Parliamentary *Ombudsman* (SWE, GRE, HUN, LAT, POR, EST), Commissioner for Administration and Human Rights (CYP) or State Ombudsman (AUT) – this latter ombudsman is formally part of the province's governmental system, but acts independently and can even sue the environmental authorities in individual cases;
- Chancellor of Justice (SWE)
- Public *prosecutors*' offices (HUN, LIT, ITA, LAT, FRA)
- *State Audit* Agency (CYP, LAT, LIT, HUN)

We have to underline that these organisations are representatives of the whole State, mostly affiliated directly with the national parliaments, have high prestige and generally accepted high level of expertise in constitutional, administrative legal and in certain professional matters, too. They are *independent* from the Government in many aspects, fiscally (usually having their own budget line in the national budget or even a legislatively fixed annual budget), in organisational terms (their personnel is usually recruited and supervised only by the head of the office and they do not receive instructions from any governmental authorities) and, sometimes forgotten but really importantly, in methodological aspects, too. This latter means that they almost never represent formally a stage of administrative supervision of the decisions of the governmental authorities, or an extraordinary remedy against them, neither they follow the procedural line and customs determined for the administrative bodies by their respective procedural rules, other laws and guidelines. All of these independence factors ensure a valuable control of the environmental authorities *inter alia* in the ELD cases. Independence as a basic requirement is sharply appearing in the French national study to this project, too. Emilie Gaillard underlines that one of the main reason of ineffectiveness of the environmental liability laws in France is that the system of administrative institutions do not provide independent control between the State and the operators: the ELD cannot be really effective nor useful, if the State is at the same time the controller and the judge. An ombudsman for the environment or for future generations would mean a definite step forward in the opinion of our French researcher[11].

A further valuable trait of the non-governmental State bodies is their holistic, result oriented approach. As the Cypriot state audit body is described by Jorgos Sbokos, our national researcher, its environmental control is usually *a combination of financial control, compliance control and management control* at the same time, related to a specific issue related to environmental governance[12]. Law on Waste provides though that Environmental Auditors have the power to require the termination of all operations for as long as the violations defined by the Inspector continue to exist or agree on a programme of environmental remediation with an operator. The agreement can be ruled by both private and/or public law (CYP). This latter example shows that for some time the non-governmental state control bodies are powered with the *possibility of strong measures*, while other instances (such as the experiences of the former Ombudsman for Future Generations in Hungary) show that even if they possess it, they are not inclined to use this power too much. Indeed, such extra entitlements are controversial, because paradoxically they might undermine the methodological independence of the control bodies, while they usually have a much smaller office, not specially equipped for operative environmental protection work, so they even take the risk of committing major faults when for instance halting the implementation of certain administrative decisions.

Even if having limited capacities or legal constraints on their own decisions, with the help of their high prestige and exceptional preparedness, such State bodies can exert significant beneficial effect on the practice of the implementation of the ELD in a country. Moreover, when summarizing their

[11] French national study, page 10-11
[12] Cypriot national study, page 14

experiences from the individual cases, they might raise the need of general policy and legislative changes from the government (HUN). Many of these bodies are in continuous and intensive connection with local communities and environmental NGOs, also they have widespread connections with universities, so they can bridge the civil, as well as the academic knowledges towards the governmental decision-making procedures.

Naturally, there are plenty of room to increase the effectiveness of the participation in the ELD cases of the non-governmental State offices, as for instance in Poland, even if a criminal case investigated by public attorneys may seemingly fulfil the criteria of environmental damage, too, the prosecutors usually fail to notify the competent Regional Director for Environmental Protection. This might be a result of the lack of awareness of the ELD laws or lack of proper internal guidelines within prosecutors' offices (POL). Prosecutors have the authority to investigate and prosecute responsible individuals or company of environmental damages. There are two specialized prosecution offices in France both for serious or complex environmental cases, and for cases related to sea pollution. There are also specialized prosecutorial jurisdictions in public health and coastlines (FRA). The Eighth Additional Provision of the Law on Environmental Liability provides for the intervention of prosecutors in order to get the enforcement of the law. We know some examples in the Region of Murcia where the Prosecutor's Office in the Regional Court asked in 2020 the regional authority to start an environmental liability proceeding regarding the case of the polluted coastal lagoon of Mar Menor (SPA).

Lower level authorities

Within the environmental administrative system, concerning certain tasks or certain types of cases the bulk of the responsibilities are decentralised on the regional, or in a few countries, to the local authorities (SWE, SLO, LIT). The concerned *regional authorities* might be an independent environmental authority (GRE, ITA, BEL) or part of a general administrative body (HUN, SWE, FIN), while even such bodies might conclude an agreement to nominate one of them for the rare ELD cases, this way achieving a specialised, more experienced personnel to deal with them (SWE).

As concerns the *working conditions* of the regional level authorities the following features were described:

- some *parallel responsibilities* exist with complicated tasks of information exchange and coordination (GRE, CZE);
- *frequent reorganisation* and mergers with other administrative tasks make the ELD work less specialized and visible: with the mining supervision authority in Greece, with a general administrative body responsible multiple administrative tasks in Hungary, and/or shifting the ELD tasks amongst several authorities with partly environmental portfolio (GRE, HUN, MAL), also plans of recent or near future reorganisation of major ELD related administrative bodies were reported (CRO, EST);
- *understaffed*, while getting more tasks and the staff keeps decreasing (GRE, HUN);
- the official's *little practical experience* hinders the enforcement of liability rules (HUN).

Local authorities, having even less trained and experienced staffs for such cases, are mostly performing only partial tasks in the ELD procedures, most importantly the revealing of the ELD cases and notifying about them the regional or national environmental authorities (DEN, FIN, BUL). Exceptionally, however, local authorities might be entitled to perform the whole ELD procedures (AUT, FIN in the Åland Islands). In some countries local level authorities do not have any ELD related tasks at all (GRE, HUN), while in the Netherlands, there is no general rule on the distribution of the authority rights, the competent authority shall be in all cases the administrative authority that is authorised to grant an

environmental permit for an installation in question, and that could be the regional or the local level one, as well (NED).

Courts

Finally, *courts* play a decisive role in forming the practice of implementation of the ELD in a given country. Even if there are special environmental courts in a country, the too little number of the ELD cases will not allow for further specialisation (SWE, FIN). Judges have high legal qualification and the national researchers are convinced that whenever they receive a key ELD case, they are able to handle the facts and the relevant laws and issue precedent setting decisions (AUT, LAT). Having said this and generally agreed, some researchers raised the possible beneficial effect of targeted ELD trainings for certain judges (ITA).

IV.B Evaluation by the in-depth researchers

Integration

In the earlier chapters we have clarified that a clear distinction between the functions, scope and the procedures of the ELD laws and the old environmental liability systems is necessary. Clarification and arrangement of the relationship between the ELD laws and the sectoral laws should be logically followed by *coordination and effective cooperation between the various authorities*, whose scope of authority is concerned. This could be supported by the provision clearly defining the competencies of the various authorities in the system of environmental liability (both under the ELD and in broader sense), the stages in which they are involved, and ensuring subsequent guidance, suggestions and examples of good practice. Ensuring such co-operation would also require capacity building for the authorities, as well as some kind of primarily national level legal requirements of exchange of data and co-operation (Cerny, Mikosa, Bar). These opinions show how much the topics of Chapters I-IV of the Summary are interwoven. It is important to notice that even if the procedures emanating from the ELD are not always directly applied, it does not mean that the spirit and main objective of the Directive are totally disregarded. Even when the ELD then will not be "given the credit" for the work done, to remedy or restore an area, in practice the main purpose and ideas behind the Directive might be fulfilled. This means that ideally the ELD also when it's not directly applied may have an important role, hoovering in the background, thus contributing to give the authorities courage and strength to fulfil their duties (Bengtsson).This is kind of a hidden, informal coordination, which takes place by the organic type of procedures within a system of legal rules.

Insufficient *flow of information* and lack of coordination between different authorities appears to hinder the detection of ELD cases and the initiation of ELD procedures in many member states. ELD relevant information and competences are scattered across different (environmental and other) authorities on the several levels of administration. Such splits of competence will often be owed to the basic (federal) structure of a member state, and are therefore to some degree unavoidable. A general problem, however is the scattered competences regarding ELD cases within the very environmental administration, too. In the event that the current system remains i.e. the existence of the ED Act and the parallel existence of other special laws, meaning that the cases of imminent threat of environmental damage or environmental damage continue to be prevented or remedied in accordance with special laws (Water Act, Agricultural Land Protection Act, Nature and Landscape Protection Act),

we propose to enshrine the obligation of the environmental authorities to review whether the case falls within the scope of the ED Act and whether the measures taken comply with the requirements of the ELD Directive. If these measures do not meet the requirements of the ELD Directive, the competent authorities under special laws refer the case to the competent authority under the ED Act so that further measures can be taken already in harmony with the ED Act. Also in the cases falling within the scope of the ED Act that are dealt with by another public authority under a special law (for example under the Water Act), we propose that the competent authority under the ED Act have the right to assume jurisdiction and decide that the case will be solved only according to the law on ED and not according to a special law (Wilfing).

There is, as concludes from the above, a need for oversight, complaint handling and control that may be supported by *independent bodies, such as ombudspersons* as is the case already in several member states. Such ombudspersons can play an important role, as they are able to identify recurring problems in the implementation of the ELD, and inconsistencies in the handling of ELD cases by different authorities. An ombudsperson should be afforded adequate competence and budget to deepen the understanding of the case in forensic and legal terms (Verheyen).

Increase the resources to key authorities and officials possibly involved in ELD implementation

Small number of ELD cases and lack of special units go together in a circular causation. In Austria, for instance, there are currently about 90 district administrative authorities, which serve as the competent authorities for ELD implementation, and many of the individuals employed at these authorities work on such cases only in a small part of their working time. However, it would be a procedurally effective measure to already start to build-out of a group of specialized officials and experts, particularly those officials who have been already undertaking investigations and remedial measures in the fields of water, waste, and nature conservation. This should be undertaken to support these officials, so that they are aware of and understand the complementary application of the ELD (Schmidhuber).

The administrative field of the ELD cases is quite special in terms of workload: in some cases at some environmental authorities there are no environmental liability matters arising, while all of a sudden there could be one or more cases that demand great attention and resources from the officials. As concludes, it is not only about the training on and knowledge of the ELD requirements as analysed in the above chapters, it is much connected with availability of human resources within understaffed competent authorities that perform environmental control and other duties of environmental authorities, and have to switch to (suddenly) occurring environmental damage cases, mobilizing its staff to deal with one incident or another that often is above the daily workload of involved authorities. Thus, workflows and workload planning that takes into account a need for readiness in cases of environmental damage are increasingly important. Use of digital tools whenever is possible (controls, permitting, reporting) can also help free up some capacity of competent authorities and streamline the focus on prevention (Mikosa).

For the Member States it would be an important signal if a similar institutional development would take place *on EU level*. A separate institute dealing with ELD cases across the EU should be set up within the European Commission. The EC DG Environment should host a separate unit, called for instance Institute for Environmental Liability that would be entrusted with the task of collecting and analysing data from all across the EU relating to the implementation of the ELD. This unit could also be in charge of raising awareness of stakeholders on ELD, as well as preparing background research and draft documents for DG Environment in environmental liability issues (Kiss).

Our Greek researcher has surveyed the issue of the institutional development of authorities responsible for environmental liability matters. Her primarily focus is *the central organisation* of the environmental authorities, because the unforeseen number and size of the cases, as well as the complex professional challenges of them would require a strong and flexible central environmental administration.

At the national level responsible for the implementation of the ELD Directive is the Ministry for Environment and Energy and the Coordination Office for the Implementation ELD (COIEL). COIEL is under the General Directorate for Inspections of the Ministry of Environment and Energy. COIEL is handling cases of national importance, exceptional-particular significance or cases among regions. COEIL is working in collaboration with the environmental inspectors. A total of 15 Inspectors and 4 Administrative Officers served in the Department of Environmental Inspection during 2018, while in 2011 their number was 35. COIEL is therefore under-stuffed and is impossible the handle the actual number of cases which are under the ELD Directive. Naturally, the workload can be statistically best described by the number of cases of environmental damage or imminent threat of damages (soil, water, air or protected species and natural habitats), which, as reported up to end of 2018 is 154. The actual number, is, however, estimated to be much higher by the experts.

At the regional level responsible for the implementation of the ELD Directive are the Decentralized authorities, specifically the Regional Committees for the Implementation of Environmental Liability (RCIEL). RCIELs are based in each administrative Region of Greece and are handling cases within their territorial competency (13 regional committees). This scheme has two serious problems. At first the regional environmental authorities are under stuffed and at second, the Committees have not enough stability for the continuation and the necessary power to handle the long-standing and large extent ELD cases in regional bases. The non-permanent nature of the Committees raises serious delay problems, too.

The need to hire more environmental personnel at national and regional level is demonstrated also by the Annual Reports of the activities of the Independent Authority and in its Special Report on "Entrepreneurship and Environmental Protection" (2016). It is mentioned in the relevant reports (quoted in earlier parts of the Greek in-depth study) that many units operate for long periods without having the legal permits and approvals or in excess of them and without having pollution prevention systems and suitable facilities for the treatment of the generated waste. At the same time, the administrative services are delaying to monitor the terms of the installation and operation of the companies and the environmental terms, or even are not monitoring at all. This is due to lack of staff, both in the central, but mainly in the regional services, as well as to lack of training and specialization of the existing staff, also to serious shortcomings of computerization and logistical infrastructure (measuring instruments, laboratories, and even means of transport). These problems result in the inability to carry out substantial inspections and systematic monitoring.

It is proposed therefore that:

A) the government should hire and train more civil servants at national and regional level, in order to handle environmental and ELD cases;

B) the parliament should modify the law and authorize a permanent body to implement ELD at regional level. This permanent body should obtain and further develop the ELD relevant experiences at regional level (Kallia).

A similar in-depth analysis was made by our Slovakian expert. He established that the competent authorities do not have the capacity and ability to search for cases that fall under the ED Act and thus are not informed about cases.

District office employees do not have the capacity and ability to search for cases that fall under the ED Act. For example, the only case of the imminent threat of environmental damage, which was dealt with by the District Office in Galanta (overturning of a fuel truck and subsequent leakage of diesel into the soil and groundwater) was notified to the district office not on the initiative of the operator, but on the basis of direct contact by the Slovak Environmental Agency that learned about the case from the media. According to the interview, the Ministry of the Environment learned about certain cases from the media and then asked the district office whether it had been notified under the ED Act and called on the district office to act ex officio under the ED Act.

The core problem is that the competent authorities under the ED Act (i.e. the District Offices, mentioned in the Box) do not have enough staff to deal with ED cases. At most district offices, only one employee deals with the ED Act, in addition to other tasks (for example, waste management). Also due to the lack of professional staff at district offices, the environmental damage is often easier and faster prevented or remedied by procedures under other special laws protecting individual components of the environment (water, soil, habitats). Proceedings under other laws (Water Act, Agricultural Land Protection Act, Nature and Landscape Protection Act) are more efficient and faster because environmental pollution and damage under these laws is also addressed by "emergency services", which are available non-stop, 24 hours a day. For example, the Slovak Environmental Inspectorate is able to deal with environmental damage and pollution 24 hours a day and immediately come to the site of environmental damage, issue instructions to eliminate environmental damage or eliminate environmental damage itself using its own experts and technical facilities (e.g. mobile laboratory). Contrary to this, the competent authorities under the ED Act (district offices) do not have an "emergency service" and are dependent on the Slovak Environmental Inspectorate and their experts and technical facilities. This raise again the necessity of harmonisation of the activities of the relevant authorities, as well as formation of institutionalized, solid information exchange procedures (Wilfing).

Minimalizing the administrative burden for the ELD cases

We have to take into consideration that most authorities have a heavy workload, limited resources and strong requirements to work with efficiency, backed up by general requirements on timeliness and several others. It's important therefore that the administrative burden is minimized and restricted to measures really needed and not observed by practitioners as additional tasks they don't see the benefit of. The way that the national legislation and the upper level authorities present and introduce the ELD requirements thus is very important. Systems for reporting, for instance, must be easy to apply and the result should be easy to get access to, in order to make the professionals realise the usefulness of the information exchange system, inter alia by allowing to make comparisons and learn the most effective ways of managing the ELD cases (Bengtsson).

In certain instances national authorities strive to minimize their administrative burden on their own, and this is not always in line with the basic purposes of the ELD. Legislation of Latvia might be the case in point to demonstrate just one of the examples of problematic integration of the ELD requirements with the "old" system. Latvian law accepts that a pecuniary compensation is a completely legal and even required way of "remediation". Today, this turned out to be a dominant approach, and is not difficult to see why. The authorities can easily use the "flat rate" of emitted amount of pollutants

(predefined in the Governmental Decree rules) and calculate “losses to the environment” based on quantities of resources that could not be extracted from the environment or applying a “price” on species killed due to the emission/incident. There are two major problems with such “alternative” approach (apart from the fact that it is not really ‘remediation’ as required by the ELD): firstly, it does not reflect “the costs” the operator shall be obliged to cover; secondly, the amounts paid to the state budget (if it gets paid at all) does not return back to the environment for remediation purposes of damage caused (Mikosa). In our views, such ‘simplification’ of the environmental liability procedures might not stay in place for long, this would require clear legislative instructions.

Environmental courts

It is a longstanding discussion that environmental court cases would require specialised courts or at least some chambers or groups of judges who do understand and able to apply the environmental legal policy considerations of the country and the EU. It is a long way to go, but the first step is most certainly the specialised training of selected administrative judges. The focus of such trainings might be general environmental law or on more advanced level some specific fields, such as environmental liability. It was mentioned earlier in Chapter 2 that EJTN (European Judicial Training Network), also supported by the EU Commission, in cooperation with ERA and AEAJ (Association of European Administrative Judges) has started free workshops for judges in the Member States relating to the ELD. The main purpose of these workshops is to raise awareness of EU environmental law and policy and to provide a forum for the exchange of knowledge and experience. A further objective is to involve the national Judicial Training Centres in order to enhance, in the long term, the benefits of this EU programme (Bengtsson).

IV.C Other sources

The ELD Resolution of the European Parliament

RES Point 45. Recommends the establishment of specific independent authorities to be vested with management and monitoring powers as well as the power to impose penalties laid down in the ELD, including the possibility of requiring financial guarantees of potentially liable parties, taking into account the specific situation of the individual potential polluter, for example, with regard to environmental permits;

46. Calls on the Commission and the Member States to ensure that the ELD adequately supports efforts to achieve the objectives of the EU’s Birds and Habitats Directives; insists that the authorities responsible for environmental inspections must be involved in the implementation and enforcement of environmental liability law;

Specialisation and relative independence (or at least a separate section with different job description from the other sections) of the authorities dealing with environmental liability matters is a widespread from the authors of the present project, too, while they phrased several alternative solutions based on compromises with the present administrative arrangement situations. Even if the ELD authorities or sections are relatively independent they cannot effectively operate without close cooperation with the other relevant administrative bodies, amongst others with those responsible for environmental inspections.

RES Point 47. Calls on the Commission to step up its training programme for the application of the ELD in the Member States and to set up helpdesks for practitioners providing information, assistance and assessment support for risk and damage evaluations; recommends in addition that guidance documents be adopted to help Member States transpose the legislation correctly;

Crosscutting training programs and cooperation schemes with the relevant authorities and the competent authorities in environmental matters seem to be also a key element of the effective implementation of the Directive. While the specialisation of the environmental authorities, their departments or smaller units is an important condition of the effective implementation of the ELD, the harmonisation of the very scattered national practices would indeed demand EU level training efforts, too.

The EPA-CIEL Conference

Mr Chief Justice Frank Clarke provided his views on the question of setting up an environmental court in the model of the Commercial Court, Clarke CJ said that he thinks it is a good idea. He argued against setting such a court up as a separate institution as it can lead to siloing and could prevent cross-fertilisation with other areas of the law, from which environmental law benefits. He said that an environmental court following the model of the Commercial Court as a branch of the High Court with a dedicated specialist division of judges with expertise in environmental law would be a welcome innovation.

The Irish chief justice offers a balanced solution on raising the role of the courts in enhancing the effectiveness of the implementation of the ELD.

IV.D Chapter summary

Findings

The national level authorities responsible for leading the implementation of the ELD could be the ministry responsible for environmental protection and/or the chief environmental authority. If they are both concerned, usually the principal tasks belong to the ministry, while the administrative type decisions are carried out by the chief environmental authority. The borders between these two types of tasks are not always totally fixed. International cooperation, guidelines, policy papers, trainings mostly belong to the ministries, handling the earmarked funds, if any, information services, monitoring and managing priority cases, as well as coordination and supervision of the legal practice are done by the chief authority in the majority of the EU countries.

In some countries, however, within the ministry or the chief environmental body there are no specialised departments or at least sub-departments for the ELD matters, but the ELD cases are handled only as a secondary responsibility by biodiversity, land and water, nature and waste personnel or others. The vague organisational background might entail with shortage in financial means and in specially trained officials. Where the units are properly separated or has specialised departments, the competence and methodological governance are concentrated therein. Contrary to that, where the insecurity of the structures is prolonged by frequent reorganisations and decrease of resources, including loss in specialised staff, the implementation of the ELD is less effective.

Considering the inherent complexity of the ELD cases, they cannot be managed without the contribution of the other relevant administrative branches with agricultural, industrial, public health and safety portfolios. In such a situation cooperation and rivalry with overlapping measures might be both possible. Harmonisation of the work can be supported by joint commissions, small coordinating units that might grow and merge the hitherto coordinated bodies or parts of them, as well as by ad hoc commissions for the necessary vertical and horizontal coordination. Where such institutional solutions are missing, case by case procedural decisions shall be brought in the cases of collisions of competences of positive or negative nature.

Implementation of the ELD laws is greatly supported by certain independent non-governmental state bodies with and exceptional preparedness and high prestige (offices of ombudspersons, prosecutors, state auditors). They perform various tasks, such as monitoring the work of public authorities, handling complaints about their procedures, in a combination of financial control, compliance control and management control. Not seldom these state/parliamentary bodies have strong civil connections, scientific networks for fulfilling think-tank functions, too.

In the implementation of the ELD regional and local level administrative bodies are not typical, because of the small number of cases and scarcity of resources, especially the lack of trained, experienced professionals. They might be responsible, however, some part tasks, in order to give credit to the subsidiarity principle and the closeness/locality principles (i.e. the environmental problems to be solved as close as possible to the locality of them).

Suggestions and observations

As a start, we think the national legislators would need to clearly define the competences of the various authorities in the system of environmental liability (both under the ELD and in broader sense), the stages, in which they are involved and formulate straightforward legal requirements concerning exchange of data and co-operation. If the legislator wishes to ensure a stronger position to the ELD – similarly to the proposals to ensure the clear supremacy of the special ELD laws when there is room to apply them – it should enshrine the obligation of the environmental authorities to review whether the individual cases fall within the scope of the national ELD laws and whether the measures taken comply with the requirements of the ELD Directive in case the cases are dealt with by another public authority under a special law (for example under the Water Act). Furthermore, in the latter cases we propose that the competent ELD authority has the right to assume jurisdiction and decide that the case will be solved only according to the law on the ELD and not according to a special law (RES 45 is in harmony with these proposals).

Whichever version is chosen, the legislator should keep in mind the requirements of minimalizing the administrative burden for the ELD cases. We have to take into consideration that most authorities have a heavy workload, limited resources and strong requirements to work with efficiency, backed up by general requirements on timeliness. Systems for reporting, for instance, must be easy to apply and the results should be easy to get access to, in order to make the professionals realise the usefulness of the information exchange.

Researchers of our project consider it a progressive practice when oversight, complaint handling and other control mechanisms are performed by independent bodies, such as ombudspersons or state auditors. They are in the position to identify recurring problems in the implementation of the ELD, and inconsistencies in the handling of ELD cases by different authorities. A connecting proposal is that within the regular court system, specialised environmental courts or chambers should handle the ELD

cases – while it seems to be out of the frames of such a single legal institution, we cannot imagine that a general administrative or civil law court or chamber could handle such sophisticated legal and factual matters on a satisfying level. Any court system could introduce a couple of judges into this field of law with the help of the available national and international level training facilities.

Finally, for the Member States coping with the difficult structural-institutional tasks of the implementation of the ELD, it would be an important signal, if a similar institutional development would take place on the EU level. A separate institute dealing with ELD cases across the EU should be set up within the European Commission for the wide range oversight and support of the national level implementation work.

Interconnections with other chapters

Chapter II: as we have pointed out already, division of tasks between the old sectoral and new ELD based environmental liability laws determine the structure of the authorities, as well as the division of the workload and their cooperation channels and methods;

Chapter III: awareness raising and specialised training programs represent basic conditions of the necessary changes and developments in the institutional structures of the implementation of the ELD;

Chapter V and VI: the structure of the environmental liability authorities discussed in the present chapter is strongly interrelated with the substantial scope of the ELD laws and the procedures they run;

V. Substantial legal institutions

V.1 Relevant definitions

Our questions were in this chapter:

- what are the definitions of imminent threat and damage and the definition of activities subject to national environmental liability laws in the national laws in comparison to the ELD?
- what are the other relevant definitions in the national laws?

Definitions are the basic elements of law that determine the scope of the regulations. The ELD definitions are quite complicated, because they strive to bridge solid natural science terms towards the respective legal terms. Member States when harmonising their laws with the ELD seemingly had two ways to choose. One is the verbatim transposition, which cannot be criticised for lacking the exact and punctual implementation of the European legal text. The other way was a more organic, interpretative transformation, which might allow better understanding and implementation by the subjects of law. However, disputes about punctuality and narrowing the scope of the Directive, are almost unavoidable, especially when new elements appear in the definitions. Even if most of the relevant definitions seem to be quite similar to each other and to the definitions of the Directive, we have to be attentive for instance to *additional adjectives* frequently applied by the national legislators.

As every words and phrases count, we analysed the relevant directions by their elements signing them with individual (1…) numbers. Numbers with hyphen (1') mean several alternative versions of the same legislative term. In the national legal texts, we apply the same numbers for the same definition elements, but where we experience changes, we add question marks (1?) or plus sign (+). Naturally, where the national law uses different terms, their connotative fields are unavoidably different, and that raises questions about the correct transposition (where in many times the questions will be answered confirmatory, though), while when the scope of a definition is indisputably broader than that of the Directive, we just have to establish that the national legislator used her right to ensure broader protection for certain aspects of the environment.

Below we examine first the definitions of primarily substantive legal importance (damage, environmental damage, significant environmental damage, protected species and habitats, occupational activities, imminent threat and protected species), thereafter the definitions of procedural aspects of the ELD (prevention and remedy and also costs).

Definition of damage

An abstract definition for *damage in general* sounds in the Directive as follows.

'damage' means a (1) measurable (2) adverse change in (3) a natural resource or (1') measurable (2b) impairment of (3b) a natural resource service which may occur (4) directly or (4b) indirectly;

In the following table we summarize some of the relevant results of the country studies:

	(1) measurable	**(2) adverse change**	**(3) natural resource**	**(2b) impairment**	**(3b) nat. re. service**	**(4) direct**	**(4b) indirect**	**Comment**
CRO	x	harmful effect, negative change	natural goods	-	x	x	x	
SVK	x	x	x	deterioration	function	x	x	
SLO	x	negative change	special component of the env.	*major* impairment	any of its functions	x	x	
CYP	x	x	x	degradation	nat. re. related service	x	x	
CZE	-	loss	-	weakening	natural functions of ecosystems	-	-	reference on sources and effects

LAT	quantitatively or qualitatively	*significant* adverse changes	x	x	functions of nat. services	x	x	added elements recently
LUX, ROM, POR	x	*x*	x	x	x	x	x	
SPA	X	X	X	damage	X	X	X	*including that caused by airborne elements*
EST	x	*x*	x	x	for the benefit of another natural resource or the public	x	x	

We see two major parts in the definition: 'adverse change in a national resource' and 'impairment of a natural resource service'. While 'adverse change and 'impairment' has less significant differences, the damage in a 'natural resource' itself or in its 'service' refer to slightly different natural phenomena. In the table above, national definitions seem to use synonyms to 'adverse change' such as 'negative change', 'loss,' which all might be disputable. Similarly, instead of 'impairment' we see 'degradation' and 'weakening', where we cannot even exclude artefacts owing to several directions of translations (at least in two rounds: from the ELD text to the national law, from the national law to our national).

Other examples of using synonyms include 'natural resources' called 'special components of the environment', while 'natural resource services' are translated into 'functions' (of components of the environment or of ecosystems). Taking into consideration that the term 'national resource services' refer to the ecological services concept, and as such creates a linkage to the polluter pays principle in those cases where the damage is not easy to readily express in financial terms, these alterations might be substantial, but progressive.

On the other hand, the term 'major impairment' in the Slovenian definition might narrow down the scope of the implementation without doubt. The Latvian term of 'significant adverse changes' seem to have an additional adjective that narrows the scope of the definition, too, at least at the first glance. However, in this case it might be just a transposition from the general definition of 'environmental harm' where the adjective 'significant' is present indeed.

In other cases, where the adjective 'measurable' is missing, we might conclude a broader scope definition than that of the ELD, which is also a progressive feature.

The Spanish ELD law brought here the term 'including that caused by airborne elements' creating a solution in which air pollution is not included within the scope of regulation as such, but any nature pollution that caused by polluted air, it is (SPA).

Environmental damage

The term 'environmental damage' partly overlaps with the definition of 'damage' above. Out of this fact, some countries have merged these two definitions for the sake of simplicity. Furthermore, a tendency was seen to gain national definitions for 'environmental damage' in a more concise way than that in the Directive.

(a) damage to (a4) protected species and natural habitats, which is any damage that has (a1) significant adverse effects on (a2) reaching or (a2b) maintaining the (a3) favourable conservation status of such (a5) habitats or (a5b) species. The (a1) significance of such effects is to be assessed with reference to the baseline condition, taking account of the criteria set out in Annex I; (…)

(b) 'water damage', which is any damage that (b1) significantly adversely affects:

(i) (b2abc) the ecological, chemical, or quantitative status or the (b3) ecological potential, as defined in Directive 2000/60/EC, of the waters concerned, (b4) with the exception of adverse effects where Article 4(7) of that Directive applies; or

(ii) the environmental status of (b5) the marine waters concerned, as defined in Directive 2008/56/EC, in so far as particular aspects of the environmental status of the marine environment are (b6) not already addressed through Directive 2000/60/EC;

(c) land damage, which is (c1) any land contamination that creates (c2) a significant risk of (c2b) human health being (c2c) adversely affected as a result of the (c3) direct or (c3b) indirect introduction, (c4) in, (c4b) on or (c4c) under land, of (c5) substances, (c5b) preparations, (c5c) organisms or (c5d) micro-organisms;

	(a1) significant adverse effects	(a2) reaching	(a2b) maintaining	(a3) favourable conservation status	(a4) protected	(a5) species	(a5b) natural habitats	comm.
NED, MAL, IRE, SPA	x	x	x	x	x	x	x	
CRO	impact	achieving	x	x	x	x	x	
CZE, SVK	x	x	x	x	x	x	x	

POR								
HUN	x	-	-	-	any env. media	any env. media	any env. media	
SWE	serious adverse effects	x	x		x	x	x	
SLO	major damage	-	-	-	special components of environ.	special components of environ.	special components of environ.	as determined in env. laws
LIT	negative change	-	-	-	environment or it (listed) elements	environment or it (listed) elements	environment or it (listed) elements	
GER	-	-	-	-	-	-	-	referring to sectoral laws
ITA	-	-	-	-	-	-	-	using the damage definition
LUX, ROM	x	x	x	x	x	x	x	except authorised before 2004/2011

	(b1) significant adverse effects on waters	**(b2a) ecological status**	**(b2b) chemical status**	**(b2c) quantitative status**	**(b3) ecological potential**	**(b4) exempt. WFD Art. 4(7)**	**(b5) env. status**	**(b6) marine waters apart from WFD**	**comments**
NED IRE	x	x	x	x	x	x	x	x	

POL	significant negative impact	-	x	x	x	x	-	x	water bodies
SVK	x	x	x	x	x	-	x	-	
CRO	x	x	x	x	-	x	x	x	including damage caused in accordance with special regulations in the field of water management
CZE	x	x	x	x	x	x	x	x	x
HUN	x	-	-	-	-	-	any env. media	-	landlock
SWE	x	x	x	x	x	x	x	x	x
SLO	major adverse impact	x	x	x	x	x	special components of environ.	special components of environ.	
LIT	negative change	-	-	-	-	-	environment or it (listed) elements	environment or it (listed) elements	
GER	-	-	-	-	-	-	-	-	referring to sectoral laws
ITA	include undergroud waters falling	-	-	-	-	-	-	-	using the damage definition

	out from WFD								
LAT	change in water status	-	-	-	-	-	-	-	only due to an incident
SPA	X	**X** Surface- and ground waters	**X** Surface- and groundwaters	**X** Surface- and groundwaters	**X** Artificial and heavily modified water bodies	**X** Article 39 of Royal Decree 907/2007	**X**	**X** Marine waters apart from Water Act	
LUX	-	x	x	x	x	-	-	-	
ROM	x	x	x	x	x	-	-	x	

	(c1) land contamination	**(c2) significant risk of**	**(c2b) adversely affected**	**(c2c) human health**	**(c3) direct intro.**	**(c3b) indirect intro.**	**(c4abc) in, on, under**	**(c5abcd) subst. prep. org. micro.**	**com.**
CRO	x	x	x	x	x	x	x	mixtures, too	
POL	x	x	x	x	-	-	-	-	bound to thresholds
NED, SVK, IRE	x	x	x	x	x	x	x	x	
CZE, SPA	x	x	x	x	x	x	x	x	

HUN	any env. media	-	x	-	-	-	any env. media	-	
SWE	x	x	x	x	x	x	x	x	
SLO	special components of environ.	-	-	-	-	-	+	-	
LIT	environment or it (listed) elements	-	-	-	-	-	environment or it (listed) elements	-	
GER	-	-	-	-	-	-	-	-	referring to sectoral laws
ITA	-	-	-	-	-	-	-	-	using the damage definition
LAT	soil and subsoil	x	x	x	x	x	x	x	
GRE	x	x	x	x	x	x	x	x	
LUX	any land contamination	x	x	human being	x	x	x	x	
ROM	x	x	x	x	x	x	soil and subsoil	x	

The most important simplification, which in the same time means the broadening of the scope of the ELD in the national laws, is that instead of detailed references to certain environmental elements and the circumstances, under which these elements belong to the categories of the ELD, national laws just say 'any environmental media' or 'components of the environment' or just 'environment', while for the sake of clarity, its most relevant elements are listed as examples. Another way of simplification is a reference to the definition of 'damage' for general use in the meaning of 'environmental damage', too, or the reference to detailed definitions already existing in the relevant branches of the national environmental law.

The term 'significant adverse effects' is altered in some national laws as 'serious adverse effects', 'major damage', 'substantial adverse effects' or the simplest 'negative change'. These simplifications mean that at the same time the majority of the national laws neglected the rest of the details of the

definition of 'environmental damage' in the ELD, such as (a2) reaching or (a2b) maintaining the (a3) favourable conservation status of such (a5) habitats or (a5b) species in respect to nature, and the similar details for water and soil, too.

Some national ELD laws created the term 'including that caused by airborne elements' creating a solution again, in which air pollution is not included within the scope of regulation as such, but any nature pollution that caused by polluted air, yes (ROM, SPA).

In some countries the ELD laws shortcut the description of the water damages with simply referring to the sectoral legislations, for instance to the status of a surface or underground water body in such a manner that when the prescribed status class of the surface water body thereof changes for worse, it should qualify as water damage (EST, CRO). More generally, almost every national level definition of the kinds of environmental damages refer to the national sectoral laws, which on the one hand harmonizes the several branches of environmental law, on the other hand, however, makes the definition difficult to interpret and operationalize in concrete individual cases.

Magdalena Bar, the Polish national researcher notes[13] that the reference to deterioration in the status of bodies of water (and not of "water" generally) makes the damage to waters very hard to prove, as finding that a single incident caused the deterioration in the whole body of water is quite difficult.

Significant environmental damage

A line of countries uses the term 'significant environmental damage', lifting the adjective 'significant' from the text of definition to its title (FIN, AUT, LAT, ITA). However, additional elements appear, such as the damage caused by genetically modified organisms (FIN) and human health, as a major part of the significance test is brought to the main text from the relevant annex (AUT, LAT). Also, in the family of definitions of environmental damage, the Greek law contains a collective definition of 'environmental incidents' to all cases of environmental damage notwithstanding that they fall under the scope of the ELD law or not (GRE). In order to facilitate the application of this recent law, the Ministry responsible for environmental protection published methods of evaluation of environmental harm. The Ministry guidance distinguishes between severe harm and harm of lesser severity (FRA).

Protected species and natural habitats

" protected species and natural habitats" means: (a) the species mentioned in Article 4(2) of Directive 79/409/EEC or listed in Annex I thereto or listed in Annexes II and IV to Directive 92/43/EEC;

(b) the habitats of species mentioned in Article 4(2) of Directive 79/409/EEC or listed in Annex I thereto or listed in Annex II to Directive 92/43/EEC, and the natural habitats listed in Annex I to Directive 92/43/EEC and the breeding sites or resting places of the species listed in Annex IV to Directive 92/43/EEC; and

(c) where a Member State so determines, any habitat or species, not listed in those Annexes which the Member State designates for equivalent purposes as those laid down in these two Directives;

Protected species and natural habitats are defined in some countries with the verbatim transposition of the definition of the ELD (FIN, CYP), while from the Finnish definition a minor detail ('increasing') is missing. In other countries *not only Natura 2000 territories,* but all territories under nature protection

[13] Polish national study, page 8

are part of the definition (such as LAT and ITA and also AUT following a court order). Contrary to this, other countries have not extended the scope to include nationally protected species or natural habitats (FRA). As concerns the significance test, the German solution offers a shortcut instead of a complicated description and deliberation of a line of criteria: 'any biodiversity damage beyond negative variations is considered significant' (GER).

Occupational activity

"occupational activity" means any activity carried out in the course of an economic activity, a business or an undertaking, irrespectively of its private or public, profit or non-profit character;

As concerns the term 'occupational activity' the Austrian Supreme Administrative Court recently ruled - interpreting the Annex III in the light of the overall purpose of the ELD - that even cleaning and construction works preparing for the operation of an Annex III activity are covered by the scope of the Directive (AUT), while in Germany the courts had some more conservative standpoints, over the interpretation of the term 'occupational activity'. Some national courts had ruled that the term did not cover public services performed in the general interest, such as construction of roads. After the domestic courts contradictions, the CJEU has ruled that the concept of 'occupational activity' also covers activities carried out in the public interest pursuant to a statutory assignment of tasks (GER). An expansion of the ELD logic could be considered in the development of the relevant French law, though, to oil damages on soils. The French government issued a decree in 2012 relating to the safety, authorization and declaration of public utility of gas, hydrocarbon and chemical transport pipelines, in particular in order to submit to this regulatory regime "no-fault" liability the transport by pipeline of natural gas, liquid or liquefied hydrocarbons or chemicals (FRA).

Term of imminent threat

'imminent threat of damage' means a (1) sufficient likelihood that environmental damage will occur in the (2) near future;

Modern, positivist laws usually have difficulty with handling probability of future events. This hardship is reflected in the definition of 'imminent threat of damage'. For element (1) we have 'objectively reasonable probability' (GRE), 'substantial likelihood' (SLO), 'sufficient (real) probability' (LIT), while in other countries this element is transposed verbatim (CYP, GER, LUX, ROM, CRO, SVK, POR, POL), also in Italy, but with additional text 'which has to be scientifically proved' (ITA). In Sweden there is no generally accepted definition on the ELD's "imminent threat of environmental damage" (SWE), while the Hungarian law defines 'threat to the environment' as "imminent threat of environmental damage" whereas the adjective 'imminent' comes down from the title of the definition to the content of it (HUN).

As concerns the definitions of the procedure, discussed below, national legislations contain less definitions, partly because of these definitions deemed unnecessary for most of them, as being self-understood. However, some of these definitions might be quite vital in defining the scope of the ELD procedures.

Definition of preventive and remedial measures

'preventive measures' means any measures taken in response to an (1abc) event, act or omission that has created an (2) imminent threat of environmental damage, with a view to (3ab) preventing or minimising that damage;

"remedial measures" means any action, or combination of actions, including mitigating or interim measures to restore, rehabilitate or replace damaged natural resources and/or impaired services, or to provide an equivalent alternative to those resources or services as foreseen in Annex II;

In this respect we have examined a couple of examples, where the transposition is almost literal, except that in one case the 1abc elements are left out, reflecting the consideration that it is irrelevant what caused the threat (HUN), or there is a synonym 'reduce' instead of 'minimising' (ROM). The other definitions only use some synonyms, but in essence they are exact copies of the ELD definition (SLO, LIT, NED, CYP, LUX, SVK, POL). The Austrian definition simplifies the prevention definition to almost a tautology, but the practical evaluation from the researchers found it in essence equivalent with the ELD (AUT).

As concerns the twin definition, on remedial measures, we have found only literal transpositions (HUN, LIT, ROM). The German researchers, Roda Verheyen and Johannes Franke quoted some relevant court decisions[14] which highlight that the distinction between preventive and remediate actions (Art. 5 and 6 ELD) has become legally relevant for determining the competent authority as well as in the context of standing. The Higher Administrative Court of Hamburg has ruled that under the German EDA, *NGOs do not have standing to call for preventive, but only for remedial action*. Also, other administrative courts have assumed that, on the federal level, *different authorities are competent* for preventive measures on the one hand and remedial measures on the other (GER).

Other relevant definitions

'Regeneration, including natural regeneration' means in the case of protected waters, species and natural habitats the restoration of damaged natural resources and/or damaged services, and in the case of soil damage, the elimination of any significant risk with negative effect on human health (ROM).

V.1.B Evaluation by the in-depth researchers

Standardisation of definitions

There are quite some concepts that are differently defined or applied with respect to environmental damage cases and might therefore be excluded (or sometimes wrongly included) under the requirements of the ELD. At this moment, the most important concepts are covered by detailed examination and explanations contained in the draft of the *Commission Notice* on "environmental damage." It is, therefore, assumed that adoption of the Notice might facilitate common understanding on them and thus help to make needed adjustment for reflecting the ELD concepts in accordance with the requirements of the Directive (Mikosa). Undoubtedly, the 'Guidelines providing a common understanding of the term "environmental damage" (…)' which draft had been prepared by the

[14] German national study, page 9

Commission are of great importance and have a huge potential to improve the situation. However, certain additional clarifications regarding damage to protected species and habitats would be useful. The Commission's Guidelines indicate that the assessment of damage should be "area-specific or population-specific" (see e.g. para 108). It would be useful to specify what does it exactly mean (Bar).

It has been revealed by studies including the Summary that the definitions, especially the notion of damage to the environment would need *a standard explanation*. While this is clearly the case, it does not necessarily have to take the form of an amendment to the Directive. A Commission Communication (an extension of the present Notice) would be equally useful and with a number of guiding information it could orientate practice towards a more standardized, therefore more effective direction. Such a document could contain a number of issues, including a list of typical damage occurrences, for which the readers could learn and apply it to their specific case. It could have natural connections and overlaps with the Recommendation 2001/331/EC of the European Parliament and of the Council of 4 April 2001 providing for minimum criteria for environmental inspections in the Member States, and besides the clarification of the definitions, could contain targeted suggestions and advice to environmental inspectors, how to conduct site inspections or how to create an inspection plan, taking into account the ELD's special requirements (Kiss).

In Denmark it has proven important to have a clear guidance on how to decide whether an incident falls within the ELD rules or not. For this purpose *the comprehensive explanatory note*, which was issued in 2008[15], has proven very useful in those few instances where the authorities have actually assessed incidents according to the ELD. Environmental incidents usually are complex, therefore in almost all cases it will be possible to challenge whether the ELD rules are in fact applicable. A comprehensive explanatory note or a similar document on national level will help resolving a lot of issues and to focus the attention on central aspects. Furthermore, it might be useful to incorporate into the national explanatory notes comparative analyses, especially with a view to develop best practice instruments (Andersen).

Significance test and other bottlenecks in the definitions

The most viable legislative change that would make the national ELD laws more effectively used is *broadening the definition of "environmental damage"* since the rigidity of the definition is the most frequently cited reason for legal uncertainty on part of the competent authorities. As for soil damage, the requirement of resulting health hazards runs counter to the approach of the directive to effectively prevent and remedy environmental damage and should therefore be deleted (Verheyen).

Authors point out the interrelationship between limited use of the national ELD laws and the difficulties of *interpretation of the open definitions* of the Directive, especially the word 'significant'. Vagueness of certain definitions and lack of reliable statistics are also closely interrelated, and owing to them it can be assumed that many procedures actually will pass unobserved or be noticed at a stage too late to be able to have any adequate influence on, and possibility to protect the environment and the rights of citizens (Bengtsson).

There are quite many indications that '*preventive actions*' as stipulated by the ELD (Art.5) have not been applied effectively or required by a competent authority; uncertainties on the legal institutes relevant in case of pre-damage stage might be among reasons. It appears that requirements on

[15] Guidance from the Danish Environmental Protection Agency No. 4 2008 - The Environmental Damage Act's concept of "damage", available in Danish at https://www2.mst.dk/udgiv/publikationer/2008/978-87-7052-794-1/html/indhold.htm

preventive action tend to be linked with the concept of “significance” as the concept relevant for defining “environmental damage”. However, the concept of “significant” damage has been proved to be difficult for implementing and thus impeding application of the ELD with respect to occurred damage. Hence, it claimed to be even more difficult at the stage when just “imminent threat” exists that such damage might occur, which, according to the ELD, would fall under the reference level of “significant”, except with respect to imminent threat of land damage as the reference level to a risk to human health does not suggest major problems for the assessment prior a damage (Mikosa).

A positive experience is brought about a decision of the Italian Supreme Criminal Court that established in a concrete case that liability is only configurable in so far as the violation of the rules of conduct has actually had a *significant negative impact on the environment* that means aggravating the pre-existing situation. The Court specifies that this aggravation exists whenever there is a condition of functional imbalance, incident on the natural processes related to the specificity of the matrix or ecosystem themselves, and a condition of "structural" imbalance related to the decay of the state or quality of the same ecosystem (Delsignore).

The problem with the vagueness of the definition of “*environmental damage*” (according to the ED Act the damage has to have “serious adverse effects”) makes the competent authorities hesitate whether they can proceed under the Slovakian ED Act. As concludes, not a single case has been so far classified as "environmental damage". A concrete example highlight the practical problems here.

> The definition of environmental damage is interpreted and applied in practice in such a way that exceeding the statutory limits for water or soil pollution does not automatically mean that water or soil damage has had a "serious adverse effect". Regarding protected species or habitats, there was a case where 1,006 fish died as a result of the discharge of wastewater from a wastewater treatment plant, but only 2 dead fish were protected. The death of 2 protected fish was not assessed as a "serious adverse effect" on the favourable conservation status of the protected species and was therefore not considered as "environmental damage" (Wilfing).

In order to make it easier for the competent authorities to assess whether environmental damage has occurred (whether the damage has had “serious adverse effects”) we suggest to develop specific methodologies (system of thresholds – e.g. set a precise limit on when "serious adverse effects" occur), through which the competent authority itself could determine whether environmental damage has occurred (in terms of the definition of environmental damage given in the ED Act). For example, for the purpose of assessing the "seriousness" of adverse effects on protected species or natural habitats, a threshold of 266 EUR symbolic nature protection value is considered as a "starting point", which is the minimum threshold of "minor damage" set by the Criminal Code (Wilfing). There are various options possible, i.e. taking into account population of a species or area of a given site type in relation to:

- given Natura 2000 or other protected sites,
- regions (e.g. of the similar size as those created as NUTS 2 for the purpose of statistics, although it should be taken into account that the exact borders designed for statistical purposes may be irrelevant for purposes related to nature protection),
- countries territory,
- biogeographical region within the EU borders,
- EU territory.

Perhaps it would be useful to indicate in the Guidelines that significant adverse effect (e.g. significant decrease of population of a species) observed in whichever of the above areas (i.e. even on the site or regional level) shall be considered a damage to protected species/habitats. Such approach seem to be in line with Annex I, second indent, to the Directive (Bar).

The term '*measurable*' adverse change in a natural resource or 'measurable' impairment of a natural resource seems problematic as the authorities believe that they cannot measure the change or impairment, if they do not have the input data on the original condition. It therefore seems appropriate to establish a specific procedure for cases, where it is difficult to establish the initial situation, for example on the basis of the presumption that the damaged components of the environment were in good condition before the damage occurred, or the presumption that it was in a condition which is common in the given place. Authors suggest to provide guidance on European Commission level about how to establish specific procedure for cases where it is difficult to determine the initial situation and therefore it is impossible to measure the adverse change in a natural resource or impairment of a natural resource (Cerny).

National level efforts in wrong direction

In some EU countries chief environmental authorities and courts have noticed the necessity of further refining the definitions of the ELD, but in certain cases they seem to use this opportunity to *narrow the scope* of application of the Directive under their legislation. As regards the definition of water damage, for instance, the parliamentary materials at the federal level in Austria indicate that the national ELD law (B-UHG) shall only cover imminent threats and sudden damages – and that way slow and gradual deterioration does not fulfil the criteria for environmental damage. As such, situations that may well produce an imminent danger of environmental damage, and without question fall under the ELD, are not clearly and unambiguously laid out under the B-UHG. Thus, our Austrian colleagues recommend that the national legislator clarify that such an exception for not permitted *gradual deteriorations* is not in conformity with the ELD, if at some point the threshold in question is reached or even exceeded (Schmidhuber).

V.1.C Other sources

The ELD Resolution of the European Parliament

RES Point 2 Observes with concern that the findings of those reports give an alarming picture of the actual implementation of the ELD and notes that the directive has been transposed in a patchy and superficial way in many Member States;

The Resolution uses the strong adjectives 'patchy' and 'superficial' to the quality of transposition of the ELD into the national laws. This qualification primarily refers to the substantive parts of the national ELD laws and we can establish that the definitions, as one of the main indicators of punctual transposition of an EU environmental law reinforce this statement from the European Parliament, while the following parts of the substantive national ELD laws reflect a similar picture, too.

RES Point 8. Observes that the effectiveness of the ELD varies significantly from Member State to Member State;

9. Points out that the different interpretations and application of the 'significance threshold' for environmental damage are one of the main barriers to an effective and uniform application of the ELD, while precise data on administrative costs for public authorities, including data on the application of complementary and compensatory remediation, are limited, quite divergent, and for businesses, not available at all;

10. Deplores the fact that under the ELD, incidents are defined as 'serious' only if they give rise to deaths or serious injuries, with no reference to the consequences for the environment; highlights therefore that even if it does not give rise to deaths or serious injuries, an incident may have a serious impact on the environment, by virtue of its scale or because it affects, for example, protected areas, protected species or particularly vulnerable habitats;

Further concretising the reasons of lack of effectiveness (Point 8) of the ELD the Resolution blames first of all the vague definitions of the Directive, especially that of the elements of 'significant' and 'serious' (Point 9 and 10). We do not see, however, that the significance threshold would be widely attached to human deaths or serious injuries (Point 10), not even within the soil pollution rules, where, indeed, the ELD is often criticised as being too anthropocentric. We do see, however that the scale of effects is positioned too high that discourage some Member States from using the ELD rules, while the size of the cases, concerning the cost and timeliness of the pollution cases will be examined in this Summary later in Chapters VII and VIII. Our country researchers, however, raised many concrete examples where the definitions quoted by the Resolution and other definitions, as well, are vague and transposed and interpreted quite differently in the various national legal systems.

RES Point 20. Welcomes the fact that, as regards the application of the ELD in relation to protected species and natural habitats, half the Member States apply a broader scope (Belgium, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Luxembourg, Poland, Portugal, Slovenia, Spain, Sweden, and the United Kingdom);

While this project focussed on the practical implementation of the ELD, and did not copy here the results of earlier legislative surveys and the findings of the 2016 REFIT analysis, our researchers also established that in the field of nature protection the national legislators felt an urge to broaden the scope of the ELD. This phenomenon fits into a more general trends of broadening the scope of the ELD through progressive interpretation of its definitions.

RES Pont 24. Calls for the ELD to be reviewed as soon as possible and the definition of 'environmental damage' laid down in Article 2(1) of the directive, specifically with regard to the criteria relating to determining adverse effects on protected species and habitats (Annex I), and to risks of water damage and land damage, to be revised with a view to making it sufficiently effective, consistent and coherent to keep pace with the rapid evolution of pollutants from industrial activities;

25. Calls on the Commission to clarify, define and set out in detail the concept of 'significance threshold' and to assess differentiated maximum liability thresholds for activities, in order to standardise the application of the ELD, making it uniform in all Member States;

26. Calls on the Commission to provide a clear and coherent interpretation of the geographical scope of ELD 'favourable conservation status' (EU territory, national territory, natural landscape area); considers, in this respect, that a site-specific approach is necessary to ensure correct and effective implementation;

In harmony with its statements in connection with the limits to effectiveness of the ELD, the Resolution sentences some concrete legislative and interpretation suggestions. However, in Point 25 and 26 it

enters into such details issues of the definitions of the ELD, which did not emerge in our practical research program specifically, but these points could be read together with our findings in Chapter 5.1 of this Summary.

Justice and Environment opinion

J&E 2011 The Justice and Environment lawyers in their 2011 study started the deeper analysis of the then new text of the ELD with comparison to earlier, similar legal texts of high professional prestige. They established that the Lugano Convention had a broader scope, because encompassing all the *dangerous activities* ensuing from any economic activity and having *a broader concept of environment* including air, too. In addition to that, the Convention, similarly to the UNEP guidelines[16] did not separate the definition of environmental damage from any harm in human life, health and property.

CERCLA study

The American environmental liability system applies *'disposal'* instead of 'damage' when determining the objective scope of its regulation. Damage, in our view, could be a broader term than disposal, furthermore, it notates a later phase of the environmental harm (result, rather than activity leading to it), and is passive, impersonal. As we will see, the legislative solution of 'disposal' has created a line of uncertainties in the legal practice.

In defining one of the categories of PRPs, CERCLA provides that "any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of" can be held liable for response costs incurred to clean up the environmental hazard (42 U.S.C. § 9607(a)(2) (2012)). In the case where a person initially introduces hazardous substances into the environment, such as by a new spill or new deposit, the activity squarely meets the definition of "disposal." Other than the initial introduction scenario, however, the analysis becomes more complicated and has resulted in two lines of CERCLA §107(a)(2) case law covering „disposal" in the non-initial introduction scenario, depending on how far they acknowledge the passive migration of pollutants. The practical cases so far involve two categories of passive migration: (1) the gradual passive spreading of contaminants, such as contaminant movement through soil or water, and (2) the passive leaking of contaminants from drums, barrels, or tanks into soil or water. This complicated, but still practical scenario has led to various legal disputes, which, we believe the European term would have not entailed.

Furthermore, CERCLA's definition of 'disposal' overlaps and intertwines with the term '*release'*, where 'releasing' encompasses 'disposal', but also reaches more broadly. The term 'disposal' has been defined in the statute since CERCLA's original enactment in 1980 by referring to the definition in the Solid Waste Disposal Act, which in turn defines it with seven descriptive terms: "disposal means [1] discharge, [2] deposit, [3] injection, [4] dumping, [5] spilling, [6] leaking, or [7] placing of any solid waste or hazardous waste into or on any land or water."

Contrary to that CERCLA defines 'release' more broadly with 12 descriptive terms, including five that overlap with the 'disposal' terms as well as the term 'disposing' itself, which makes the mentioned encompassing undoubtful. The term 'release' means "any [1] spilling, [2] leaking, [3] pumping, [4] pouring, [5] emitting, [6] emptying, [7] discharging, [8] injecting, [9] escaping, [10] leaching, [11]

[16] „Liability and compensation regimes relating to environmental damage: a review by UNEP Division of Environmental Policy", December 2003

dumping, or [12] disposing into the environment." As we see now, the definition of 'release' lists additional terms, including 'leaching' and 'escaping', which 'disposal' does not. (Weissman, 2015; Amadon, 2017)

V.1.D Chapter summary

Findings

The set of the definitions of the ELD is very sophisticated, scientifically well based, while difficult to use in the practice. These definitions are transposed into national laws either by verbatim transformation or in an organic, interpretative way. Disputes about the correct transposition might be raised for instance because additional adjectives appearing in the national definitions, such as 'major impairment' instead of 'impairment', or because of synonyms, such as in the place of 'adverse change' 'negative change' or simply 'loss', which latter especially might give a different content to the notion of 'damage'. Similarly, instead of 'impairment' we see 'degradation' and 'weakening', which ones in themselves are not dramatically different from the ELD definition element, but might open a path to diverging interpretations in the practical implementation. This phenomenon highlights that it is not enough to harmonize the definitions, but their full scope of interpretation, with all denotations and connotations shall be centrally instructed if we wish to have an even playing field in the European environmental liability cases.

On the progressive side, we have found national definitions of 'damage' from which the controversial adjective 'measurable' is missing, which solution might forego to a lot of difficulties in proving an ELD case, especially considering the general lack of detailed enough baseline data. One can greet also the definitions adding the phrase 'including that caused by airborne elements' to the terms of 'change' and 'impairment' in the definition of 'damage', too.

In the case of the exceptionally long and detailed definitions of the branches of 'environmental damage' national laws tend just say 'any environmental media' or 'components of the environment' or just 'environment', in order to make the definition easier to handle in the practice. The caveat here is, though, that this legislative technique influences a great part of the relevant branches of environmental law, which might make the definition difficult to interpret in an EU wide coherent way.

Apart from extending the scope of the definitions to air pollution in some countries, almost all of them, with only a few exceptions apply the nature protection definitions in relation to all kinds of protected natural territories, not only those under Natura 2000 (in harmony with RES 20). Similarly, in quite a number of countries, activities other than listed in Annex III are occupational activities and the rules of the ELD refer to them equally.

Suggestions and observations

Definitions of the ELD should be further harmonised on European level, as well as their scope should be broadened either by way of a new legislation on EU or national level, or – to some extent – by a shared legal interpretation. The Commission Notice on 'environmental damage' is a good step forward, its adoption might facilitate common understanding of this basic definition. The Commission's guideline indicate that the assessment of damage should be "area-specific or population-specific" (see

also RES 9 and 10). A possible extension of the present Notice would be useful and could orientate practice towards a more standardized, therefore more effective implementation of the ELD. Guidelines about the interpretation of the definitions should be issued on national level, too. In Denmark, for instance it has proven important to have a clear guidance as early as in 2008, on how to decide, if an incident falls within the ELD rules or not. A totally different approach of the basic definitions in the US environmental liability law, centred on disposal and release, might be a further input to both for future European legislative developments and interpretation work (CERCLA).

The most viable legislative change that would make the national ELD laws more effectively used, would be a broadening of the definition "environmental damage" since the present narrow scope and rigidity of the definition is the most frequently cited reason for legal uncertainty on part of the competent authorities (RES 24). As for soil damage, the requirement of resulting health hazards runs counter to the approach of the directive to effectively prevent and remedy environmental damage and should therefore be deleted.

The significance test is even more difficult at the stage when the task is to establish just an 'imminent threat", therefore in the case of prevention matters a difference test should be used. Also a special definition of the environmental damage and threat should be developed in respect to the instances of gradual deteriorations of the polluted sites. We have clarified in the earlier chapters that input data on the original condition is hardly available in the ELD cases. It therefore seems appropriate to establish a specific procedure for such cases, where the starting point would be the presumption that the damaged components of the environment were in good condition before the damage occurred, or at least that it was in a condition which is common in the given place.

Interconnections with other chapters

Chapter II: in connection with necessary changes, for instance a possible broadening of the scope of the definition of 'environmental damage' it is frequently raised that the rigidity of the definition is the most important reason for selecting the old, sectoral laws by the competent authorities;

Chapter V: definitions determine the scope of the application of the ELD rules, therefore they represent the basic elements for the whole substantive ELD law;

Chapter VI: definitions are also in an intricate relationship with the ELD procedure, especially with evidence taking;

Chapter VII and VIII: the significance test and the costs and timeliness of remedy in the ELD cases are strongly interrelated.

V.2 Responsible persons

Our questions were in this chapter:

- who are possibly responsible parties (owner, previous owners, purchasers, leaser, operator, owner/transporter of the polluting materials or possible others, the specific case of state owner)?
- what are the experiences with the application of joint or several responsibilities and other forms of responsibilities of multiple parties?
- is there a possibility to broaden the circle of primarily responsible parties to the responsibility of those who exerted influence on the operator, including "removing the corporate veil"?

As in the majority of the countries the ELD rules are used together with other liability laws of land, nature and water protection, water and waste management and other branches of administrative law, it is impossible to clearly detach the responsibility rules related solely to the ELD. While the ELD focusses on the operator as a possible liable person, determining the circle of persons widely and also mentioning some other possibilities just optionally, the majority of the Member States have even a much larger group of these subjects, partly based on waste management law and other relevant branches of environmental administrative law.

The operator

'operator' means any (1ab) natural or legal, (1cd) private or public person who (2ab) operates or controls the occupational activity or, where this is provided for in national legislation, to whom (3) decisive economic power over the technical functioning of such an activity has been delegated, (4abcd) including the holder of a permit or authorisation for such an activity or the person registering or notifying such an activity;[17]

Some laws use the terms from earlier environmental liability rules that seem to fit to the ELD system, such as the quite general term of '*user of the environment*', which is someone who is running an activity involving the utilization or loading of the environment or a component thereof (HUN, POL). This approach is applied also in the term 'users of natural resources' (LIT), which similarly allows a much broader scope of persons whose activity might lead to the pollution of lands, waters and nature. Emissions that might lead to the liability of a user of the environment include not only substances or of their mixtures of solutions, but also energies, such as heat, noise, vibrations, or electromagnetic field, as well as living organisms or microorganisms (POL).

A couple of countries found it important to copy all the elements of the definition concerning all kinds of possibly relevant operators, such as public or private natural or legal persons (ITA, ROM, LUX, MAL, SPA), while others underlined the second, more formal (an easier to identify unambiguously) half of the ELD definition (4abcd) referring to the *holder of a permit or authorisation* for such an activity or the person *registering or notifying* such an activity, whereas directly causing environmental damage or immediate threat of such damage (GER). *Public persons* (1d) include public authorities, too, if they perform "occupational activity" such as a municipality that operates a sewage treatment facility (LAT). The *domicile* of a company does not count, it can be recognized as a natural or legal person by a foreign law, too, but shall carry out its activity on domestic territory (BUL, POL). For facilities or installations whose operation has *ceased*, the operator who last operated the installation shall be liable (CRO).

While the most countries take it natural that those who running *transporting* activities also belong to the circle of operators, for instance the Latvian legislation decided to underline this feature, too. In

[17] Note that we are discussing the notion of the operator in more detail in the following chapter.

case of carriers transporting dangerous or harmful goods, they could be held liable as 'operator' depending on the conditions of the case (LAT). Other groups of operators are named in other legislations, such as a person carrying out agricultural production activities in the field of agricultural crops, animal husbandry, horticulture, vegetable farming, forestry and inland fishing, as well as an organizational entity which is not an entrepreneur, for example educational entities or health care entities (POL).

The owner and the possessor of a land

Starting out from a strict interpretation of the polluter pays principle, in several countries there is no direct or indirect responsibility of the *owner* established for the pollution itself (BUL, SLO, ITA, SPA), but the owner or other possessors of land on which environmental damage has occurred shall bear a line of responsibilities even in these countries, too:

- communicate the contamination to the competent authorities (ITA)
- allow remedial measures to be taken to eliminate the environmental damage (SLO) and
- to take the necessary preventive measures (ITA).

Where the responsibility of the landowners exists, their legal position is stringent than that of the operators, regulations determine a kind of *substitute liability* for them. The owner might be held responsible when no other directly responsible person could be found. Where there is an environmental damage or an imminent danger of an environmental damage, but a responsible operator according to the ELD cannot be identified or has no ability to pay, the landowner/user steps into the position responsible person (DEN). If no polluter can be found to address the claims or an order, the landowner has a subsidiary responsibility to cover the costs (SWE). In Latvia, too, an owner of a land may be held responsible when illegal waste disposal is detected in a property and no guilty person found firstly and primarily to be requested to clean-up the land of illegally stored waste. According to the court, a landowner has the "last resort" responsibility (LAT). Liable in the second degree is the owner of the site if it is a different person from the operator and the former cannot be held liable. If there is neither an operator nor an owner to the site at the time of the operation that caused the damage, the legal *successor* of the former owner might be held accountable in certain cases (AUT).

The owner ought to take the appropriate measures in order to avoid the pollution in accordance with *the precautionary principle* and the prevention measures provided in the ELD laws. In many cases, especially in landfill cases, where the actual polluters who illegally deposited their waste, as operators are not possible to identify, therefore the owner of the land will be responsible for the uncontrolled waste disposal (GRE).

The liability of the owner might also be *conditional*. If an imminent threat of, or actual, environmental damage is caused by an operator with the consent or knowledge of the owner of the land, the landowner is jointly and severally liable for carrying out the preventive and remedial measures with the operator that caused the damage. The landowner is not liable if it notifies the competent authority about the imminent threat of, or actual, environmental damage immediately after learning it (POL).

In several countries leasers are in the same legal position as the owners, while their responsibility will not automatically free the owners (SWE, HUN). Before obliging the owner, authorities shall examine the responsibilities *who hold a legal title to possess the land and exert effective control* above its use (usufructuary, long-term leaseholder or lessee) (BEL). The owner, however, might be responsible for selecting and controlling these title holders. The costs of waste disposal shall be borne by the

landowner or the possessor in the event the possession right has been assigned to another person (SLO).

A more difficult position for the landowners when there is a *direct responsibility of the owner* together with any other users responsible for pollutions on their lands, in line with any operators or polluters. By proof to the contrary, liability for environmental damage or for any risk to the environment falls joint and severally upon the person who is registered as the owner or user of the real property after environmental damage or threat to the environment has occurred. These provisions apply to the owners and the possessors (users) of non-stationary (mobile) contaminating sources *mutatis mutandis* (HUN, LIT). As a rule, direct responsibility of the owner shall allow him a possibility to escape from it, too. In Hungary, he can be exempted from joint and several liability with the user of the property if able to name the actual user and to provide proof beyond any reasonable doubt that liability does lie with him. Decisions of the Hungarian Curia confirmed that naming the actual user of the real property is not sufficient to being exempted from the liability, as the owner shall also prove 'beyond doubt' at least that the pollution is not attributable to his own activity (HUN).

Removing the corporate veil

While the operators and in some countries the owners/users of land are the primary liable persons, as ancillary solutions in several countries there are additional rules that allow to include an even broader circle of persons. Responsibility of *parent company* of the operator is a legal possibility when the subsidiary went bankrupt (SWE). In other countries no liability of the company owners is possible. If the operator is a corporate enterprise, establishing the liability of company owners or shareholders either, in general is not possible (AUT). As a third solution, the responsibility of parent companies or owners is established by importing rules from the country's insolvency law. A person to whom decisive economic power over the operation has been delegated under the Insolvency Act, might bear responsibility for the pollution of the controlled company (CZE, SPA).

Liability of company owners, shareholders and executive officers is another possibility to broaden the circle of possibly liable persons. Depending on the form of the legal persons, in some cases liability might be channelled to owners (shareholders) of the legal persons (LIT). In case of collective decisions it is possible that those owners who have supported a resolution (measure) that led to the pollution, which they knew, or should have known – be given reasonable care - will be responsible for that, while those who did not take part in the process of adopting the resolution (measure) or voted against it or protested against the measure, are also exempt from liability (HUN). The court in Slovenia might also disregard the separate legal personality of a company and impose personal liability on shareholders for company's liabilities (SLO).

Directors and officers of corporate entities who commit a breach of environmental law are held liable for the pollution (CYP). When a harmful activity is chargeable to a legal person, the obligations are jointly imposed on the respective top managers (directors, managers or administrators). They have joint and several liability for the damages even if there is fault (guilt) only at one or several, but not all of said persons, without prejudice of the correlative right of recourse, which they can reciprocally exercise, inasmuch the respective degree of fault and the respective consequences are different and provable. When the degree of participation of each liable person is not possible to determine, equal liability is assumed (POR). Liability of senior executives and the position in relation to potential environmental liability of shareholders and parent companies are both applied in the Irish legal practice, but not restricted to the ELD cases. Directors' liability for environmental damage has been considered in a number of cases under the Waste Management Act 1996 to 2011. The director of a

company was held accountable for the remediation and clean-up of a site where he was involved in the management, control and decision making in relation to unauthorised waste activity (IRE).

Contrary to these, in the cases when the responsibilities of inspection or control were neglected, the management should pay fine or in more grievous cases certain individuals from the management could also be punished for the *criminal offence*, but their responsibility in the field of administrative law, more specifically in environmental or ELD laws cannot be raised (SLO). Similarly, the liability of employees and agents, key experts might be limited, first of all in the protection of the debtors. Where an employee or a cooperative member is causing any threat to the environment or environmental damage in their official capacity under employment or membership, liability shall fall upon the relevant employer or cooperative. However, in connection with any threat to the environment or environmental damage caused by an agent, liability of the agent and his principal shall be joint and several (HUN). A different situation is when, according to the German case law, an operator usually cannot be held liable for mistakes committed by his contractors (GER).

Liability of the State

Residual, subsidiary responsibility of the State is in most countries taken as natural, out of constitutional and civil law (final, necessary owner) considerations. Some environmental liability legislations keep it important to underline, however. The State shall provide for the elimination of the consequences of an excessive environmental burden, and shall cover the costs of such elimination if the payment of costs cannot be imposed on the particular or identifiable persons causing the burden (SLO). In Sweden, as the last resort and where a responsible polluter or a landowner cannot be identified or held responsible, a *public funding* may be used. This funding is administered by the Swedish Environmental Protection Agency (SWE). As the local embodiment of the State, *local governments* are responsible for eliminating the uncontrolled waste disposal and for the rehabilitation of the area, if it is located within their territorial jurisdiction, if the payment of costs cannot be imposed on particular or identifiable persons responsible for the burden (SLO, GRE). A special State responsibility is that of the *competent authority,* in case contributory negligence can be established on its side (GRE, CZE).

Consecutive, proportional or joint and several liability

Some environmental laws, such as the Swedish, arrange the groups of responsible persons in *a consecutive order*. It is natural that in the first place the operator shall have the duty. In case there is no such operator, or he has a valid excuse, it will be the user of that piece of land that has the remediation duty. If there is no user or he has a valid excuse, it will be the owner of that piece of land that has the duty (SWE). Similarly in Germany, under the Federal Soil Protection Act the liability imposed on a wide range of persons in a hierarchical manner, including the polluter, its legal successor, the owner of the contaminated land, the lessee or other occupier and, subject to specific conditions, also the former owner (GER).

As we have multiple targets for liability for the polluted lands, where the authority cannot or shall not choose one or the other (in the substitute or cascading cases), it can oblige or sue them together. In such cases the question of proportional or joint and several liability emerges. We have already seen that where the owner's liability is direct, they have this in line with the operators, if any, according to the rules of joint and several liability (HUN, LIT). A similar situation was seen in Portugal about several liable managers (POR). In many countries the possibility of *joint and several liability clearly exists* in the

case of multiple causation, where any responsible parties of contributory causes shall be taken into consideration (CZE, LIT, BEL, GRE, LAT, BEL, SWE, LUX). This possibility seems to be open in certain cases only in respect to individual persons (SLO). In other cases, where distinct liability can be proven, the system of joint and several liability is not applicable, only proportional one (LAT, FRA, SPA). The payment made by any person jointly liable shall be shared with the other liable persons as appears reasonable with regard to the extent to which each of them was responsible for the pollution, and subject to other relevant circumstances. Moreover, an operator who shows that his or her contribution to the pollution is so insignificant that it does not by itself justify after-treatment shall only be liable to the extent that corresponds to his or her share of responsibility (SWE).

It is notable that joint and several liability is a legal institution of the civil law, not primarily of the administrative law, therefore environmental liability laws silently or overtly refer back to the civil law in this respect. As concludes, the legal situation on joint and several liability is determined by an interplay between these two major branches of law. For instance, the Civil Code of Malta provides that 'joint and several liability is not presumed, if not declared by law, it must be expressly stipulated'. Once joint and several liability is not expressly stipulated by the operators and the competent authority specifically for damages and for the costs that arise from the ELD regime, then joint and several liability will not apply (MAL).

Other environmental liability laws impose *solely proportionate* liability on each person responsible for the imminent threat of, or actual, environmental damage (ITA, FIN, SPA). Where it is not possible to assess the share of responsibility, it is apportioned *equally* (FIN). Naturally, those who pay for the whole damage or paid more than their provable share can raise redress claim to the other liable parties in the spirit of further and more accurate internalisation of external costs i.e. to spread the costs among all the polluters. The broader social spread of the burden of damages is also achieved through the financial guarantee's mechanisms (POR).

V.2.B Evaluation by the in-depth researchers

Introduce multiple liability regimes

There is no doubt that the primary responsibility lies with the *operators*. The Summary shows, however, that in several countries there are additional rules that allow to include even broader scope of persons. We believe that such approach is necessary and that the legal regulation should ensure that liability for environmental damage is not limited to the operator, but that it also applies to *other persons* whose actions may have affected the damage, such as company owner, directors, managers, administrators, person with a controlling influence, etc. Their position should correspond to the position of the guarantor, i.e. their responsibility will be inferred if it is not possible to obtain redress from the operator. In this respect we also consider the Swedish example of arranging groups of responsible persons in a consecutive order as interesting (Cerny).

In addition to the introduction of secondary liability for these persons or even consecutive liability of several groups of responsible persons, it is also necessary to set up the legislation in such a way that their liability can actually be inferred. Some national legislations also impose secondary liability on the landowner. This approach is also possible, however, we believe that *the landowner* should be able to release himself from liability, if he proves that he is not responsible for the environmental damage, neither in the form of negligence. In case that the responsible person cannot be identified, or it is not possible to obtain redress from the responsible person, we consider it appropriate for the state to create a fund to finance the redress. This is necessary both because the environmental damage should

not remain unresolved and as an incentive for the authorities not to be reluctant to conduct proceedings in the view that it will not be possible to finance the remedy anyway (Cerny).

The addition of secondary liability of other persons to the operator's primary liability could be supplemented by other tools to prevent the avoidance of liability and ensure redress. We consider the situation where information on the ecological damage to the land is entered in the *real estate cadastre* and made public as well as related restrictions on the possibility of transfer of ownership of such a land to be particularly interesting. Another option is a lien on the real estate properties of the operator to the benefit of the State up to the estimated cost of redress or preferential claim for redress costs in the insolvency proceedings (Cerny).

There might be cases where the more socially just and legally appropriate solution is *the liability of the land owners, rather than the operators*. The landfills are the usually examples for this. While the operators might alter frequently, the owners of such territory seldom change, first because it is a basic task of the municipalities to collect and deposit communal waste, second, because such lands are hardly marketable. Taking this into consideration a present operator should not be responsible for the whole status of the landfill, because he was much less in control the overall status than the owner (Bengtsson).

Part of the Italian jurisprudence recognizes the liability of the owner of the polluted site for the eliminating immediate hazards, even if there is no causality in his activity with the occurred damage. The reasoning underlines that these measures have not sanctioning, but restorative purpose, so they do not presuppose the ascertainment of intent or fault. Some other judges, however, call for the polluters pays principle and are at the opinion that the owner has no liability. This uncertainty has led to the necessity of environmental due diligence reports before buying land and sites, especially when industrial activity was held on them (Delsignore).

We also have to raise the problem to the *European level* and examine it from common market and level playing field viewpoints. The currently quite different national systems can be an obstacle for more equal conditions for the operators, the differences may create unequal markets and hindering a fair competition within the EU (Bengtsson). These all mean that the system of environmental liability shall rely on the broadest possible bases, including all the possibly liable persons, but on the other hand it shall be in the same time, as much as possible, uniform within the EU.

We also have to take into consideration that the European Court of Justice in the preliminary ruling C-534/13 stated the compatibility of the national law (with ELD directive and the polluters pay principle) which provides that in cases where it is impossible to identify the polluter of a plot of land or to have that person adopt remedial measures, the owner of the land (who is not responsible for the pollution) will be required merely to reimburse the costs relating to the measures undertaken by the competent authority within the limit of the market value of the site, determined after those measures have been carried out. The other costs for entire remediation of the damage will be carried by the public authority (Delsignore).

Avoid State responsibility

The present legal situation of the responsible persons for environmental hazards and damages too often results that the bill of remediation is transferred to ‘shoulders of the taxpayer’. This issue is strongly related to the too open possibilities to escape from the position of the liable persons via bankruptcy and also the topic of financial guarantees that would ensure proper coverage of the costs even when the operators, owners and other possible liable persons are unable to respond to their

responsibilities (Mikosa). A compulsory insurance scheme would also to large extent solve issues relating to bankruptcy and the issue of the use of state funds for cleaning up (Andersen).

There are also significant problems associated with the enforcement of financial responsibility in cases where remediation costs were initially borne by the State. The prospects of a successful recovery of those costs largely depend on the (civil law) tools available and are jeopardized by the risk of bankruptcy. It should be noted that the credible threat of financial liability for remediation measures carried out by the state can serve as an incentive for operators to prevent environmental damage or to remediate it themselves (Verheyen).

Clarify the relationship between civil law and administrative law solutions and other legal-technical solutions

As for civil law tools, registering mortgages on real estate and filing liens on movable property is usually available to the state authorities. An interesting approach was reported from Hungary where the state can acquire shares of the operator's company if compensation is not paid in time. Some companies try to escape their financial liabilities through bankruptcy. In at least some of those cases, criminal prosecution might be possible, but it will often be difficult to prove e.g., the malicious intent (Verheyen).

Often several operators and landowners are involved and due to the high costs and complicated factual and legal background – unfortunately, their willingness to cooperate with the authorities and with each other is often rather limited, especially encouraged by the complexity of the facts and the multiplicity of role players (Bengtsson).

An other delicate administrative, as well as civil law issue is that, when in the first hand any operator remedies the pollution, the land owner might get into a situation when his or her *real estate gains in value*, therefore s/he will be obliged to cover the raise of market value of the property. Furthermore, there are strong arguments for strengthening the responsibilities of the operators in the environmental liability cases, in order to enhance the land-owners' due diligence, especially regarding land purchased for occupational activities (Bengtsson).

In several practical cases the operator terminated the operation of his company in order to avoid reimbursing the costs of the preventive measures taken by the competent authorities. This is a tactic for operators who want to avoid paying costs. According to the ELD Act, if the operator is in bankruptcy, the reimbursement of costs is a claim of a "secured" creditor and is enforced in bankruptcy proceedings. However, this does not fully prevent the operator from avoiding liability and paying costs. In cases where the operator (company) ceases to exist without paying costs and without a legal successor, neither there is a holder of authorization for the activity or a person to whom decisive economic powers over the technical functioning of the activity have been transferred under the Bankruptcy Act, we have to consider enshrining the parent company's liability. A parent company is a company that has a controlling interest in operator´s company, giving it control of its operations (Wilfing).

V.2.C Other sources

The ELD Resolution of the European Parliament

RES 13. Stresses that all stakeholders have reported problems in holding operators strictly liable for dangerous activities referred to in Annex III to the ELD, in relation to successors of liable parties ;

The problem of keeping the ELD laws in pace with changes in ownership of facilities or lands involved in ELD cases has been examined in our Summary, too. We do agree that legal mechanisms shall be developed or existing legal mechanisms should be more widely, if necessary, more creatively used, in order to prevent the new operators, new owners of a company or of a concerned land from easily escaping the environmental liability of their legal antecedents. The solution of the Swedish and other environmental laws to make an obligation to introduce the facts of an ongoing environmental liability to the land register was advised as an example to follow by our researchers, too. Similar legal procedures might be made obligatory in the cases for transposition of the ownership of companies or their facilities when having faced environmental liability, in connection with the files at the permitting authorities or at the relevant industrial chambers.

RES Point 30. Calls for any operator benefiting from the carrying-out of activities to be also liable for any environmental damage or pollution caused by those activities;

31. Is of the view that considering the relevance and potential impacts of industry-related disasters and the risks posed to human health, the natural environment and property, further safeguards need to be added in order to provide European citizens with a safe and sound disaster prevention and management system based on risk-sharing, stepped-up responsibility of industrial operators and the polluter-pays principle; calls for an assessment of whether it is necessary to include in the ELD a third-party liability regime for damage caused to human health and the environment ;

32. Calls for the adoption of a regime for the secondary liability of successors of liable parties;

33. Recommends that the option of requiring subsidiary state liability be made mandatory in order to ensure effective and proactive implementation of the legislation;

Such extensions of the definition of operator seem to be a pioneering approach. While these suggestions are in strong connection with the polluter pays principle and the social-economic justice concepts behind that principle, undeniably, for realisation of such a brave legislative steps all the legal ramifications will have to be carefully calculated with. However, a much broader concept of the definition of the operator exists already, for instance in the US CERCLA laws.

Justice and Environment opinion

In the 2016 survey of practical implementation of the ELD J&E lawyers examined 5 countries in detail. They found a very colourful picture of the liable persons under the national ELD laws. Managers, owners, anyone who exerted decisive influence on the operation and on the environmental pollution, the environmental authority and the State as secondary responsible persons might be subject of the ELD procedures in these countries, but in no countries all of them. Furthermore, in some countries the multiple liable persons might be jointly and severally liable as a main rule, in other countries the responsibility is proportional or equal if there are no serious doubts about the fairness of these solutions. The J&E study underlines that only a systemic approach might lead to break-through in the effectiveness of our environmental liability rules. First, there should be an internal system of the possibly liable persons and the several ways of bearing liability for environmental pollution, second, this kind of liability shall form a coherent system with other forms of responsibilities within environmental law, administrative law or even within civil and criminal (petty offence) laws.

CERCLA study

The personal scope of the two environmental liability regimes is also a point, where the American law created a much wider circle of persons potentially liable for the costs of clean-up. CERCLA identifies four categories of possibly responsible persons (PRPs) who are liable for response costs:

(1) the owner and operator of a vessel or a facility,

(2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,

(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and

(4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable (42 U.S.C. § 9607(a) (2012))

The US Environmental Protection Agency (EPA) may attempt to compel legally responsible parties to initiate clean-up or assume remediation efforts and seek cost recovery. Private parties may also pursue cost recovery actions to seek reimbursement for voluntary or compelled clean-ups. Whether the plaintiff is public or private, CERCLA imposes strict liability on defendants found liable for contamination, with a default joint and several liability scheme subject only to limited enumerated defences (Wetmore, 2014).

A major difference in CERCLA in comparison to the ELD is the *ownership liability*, in close connection with the (retroactive) time aspects of the US environmental liability law and the strong social support behind it. In the case Nurad, the Fourth Circuit Court explained this concept in a following way: "§ 9607(a)(2) imposes liability not only for active involvement in the 'dumping' or 'placing' of hazardous waste at the facility, but for ownership of the facility at a time that hazardous waste was 'spilling' or 'leaking,'". The court added that a "requirement of active participation would frustrate the statutory policy of *encouraging 'voluntary private action to remedy environmental hazards*.'" It further explained that, under an interpretation of disposal that requires active conduct, "an owner could avoid liability by simply standing idle while an environmental hazard festers on his property." Furthermore, not only a mere ownership of an already polluted land could entail with liability, but a kind of *witnessing the passive migration of polluting materials into the land* of the owner, too. The Ninth Circuit Court explained that case as follows: "if 'disposal' is interpreted to exclude all passive migration, there would be little incentive for a landowner to examine his property for decaying disposal tanks, prevent them from spilling or leaking, or to clean up contamination once it was found." These extremely coherent, stringent rules were made, however, a little bit softer by the Superfund Amendment and Reauthorisation Act in 1986. It seems clear, through the 1986 SARA, that Congress did not want innocent parties, *who conducted due diligence in inspecting the land*, to be liable under CERCLA (Amadon, 2017; Wetmore, 2014).

Both in the first and in the second groups of the PRPs the owners are in line with the operators as potentially responsible for the clean-up costs. This makes the life easier for the plaintiffs, because they will not have to prove the complicated industrial and nature science procedures as an operation with

certain materials caused damage in the environment. Applying strict liability to an owner may seem a relatively straightforward task, but the authors from US report that in practice courts have struggled to determine ownership liability. CERCLA provides little guidance on the interpretation of the word "owner," defining an "owner" circularly as "any person owning" a facility. However, CERCLA's legislative history makes clear that "owner" is meant to encompass not only "those persons who hold title to a facility, but those who *in the absence of holding title, possess some equivalent evidence of ownership, too*." This situation occurs, for example, when a lessee or a manager of a site exercises so much control over a piece of property that the lessee or manager can be said to be in a same position as the legal title holder of the property. Based upon this idea, courts have extended ownership liability to parties beyond mere title owners (Holms, 2019)

We note here that in Europe the official standpoint expressed by Advocate General Kokott is that the ownership liability *would dilute the polluter pays principle*, whereas we should concentrate on the liability of the operators, in order to force them to pay more attention to the prevention of any pollution. Authors in the European environmental literature, however, doubt that the polluter pays principle should enjoy such an exclusive position in the interpretation of the ELD laws, rather they think that other principles, such as sustainable development and intergenerational justice would dictate a more lenient, broader approach, acknowledging, amongst others, the responsibility of the owners, too, under certain circumstances (deSadeleer, 2015).

PRPs may only escape joint and several liability by proving that the harm is divisible – although, in the spirit of the goals of CERCLA, this is a rare showing that usually has a high evidentiary bar. To determine whether harm is divisible, or capable of being apportioned among multiple causes, courts in CERCLA cases ask whether there is a reasonable basis for determining the contribution of each cause to a single harm. The main argument in these analyses is that Congress intended CERCLA's liability scheme to be governed by the evolving principles of common law. This procedure seems to be less serving the State and community interests for the sake of the individual fairness. In our view, however, once the legislator or a softening legal practice lets operators or PRPs enter endless litigation instead of quick response to the pollution, the basic social interests of quick and effective handling of major pollution sites might be jeopardized. Individual fairness might wait for its turn in such situations where delay might lead to irreversible changes in the environment with hardly calculable further ramifications in public health and living conditions.

The mainstream American researchers deem that it is reasonable to allow that PRP to limit their liability by proving divisibility. They argue that in the case of a successful divisibility defence, it would be more equitable to spread the cost of the remaining orphan shares among as many people as possible (i.e., the taxpayers) rather than forcing a less culpable PRP to foot the bill for contamination they did not cause, simply because they are tangentially related to the site in question. Further, they argue, just as Medicare, unemployment insurance, Social Security, and other programs aimed at bettering the community at large are funded by American taxpayers, effective clean-up of hazardous contamination is of paramount interest for the whole society. Where less culpable PRPs are successful in limiting their liability through divisibility defences and there are no financially viable PRPs who are more culpable, it is said to be fair to allow the government to pay for the remaining orphan shares because the community at large receives the benefit from remediated Superfund sites.

Such arguments might not be fully convincing for everyone. Is that a turn back to the free-market capitalism of the 19th century where clean water, land and pristine nature were free goods available for anyone who were quick enough (and not too scrupulous) to harness them? For centuries, common law courts remained the chief legal avenue for resolving environmental disputes between private parties. American courts eventually labelled these suits as either nuisance or trespass actions. Except

for a rare quarrel over interstate pollution, the burden of pursuing environmental regulation was largely left to the individual disgruntled plaintiff and the extent of his annoyance with his neighbour. At the close of the nineteenth century, however, political and social policies began to influence the course of environmental litigation. Judicial opinions began to engage in equitable balancing between environmental and economic concerns, with a heavy bias in favours of promoting a profitable national market. Instead of following the traditional rule of granting injunctions for established nuisance activities, courts weighed the plaintiffs' property interests against the social utility of the defendant's action. This new method of analysis for common law nuisance actions, combined with the public health crises of the Industrial Revolution, released a wave of federal regulatory legislation across the United States. Larger scale viewpoints, such as the overall interests of quick (therefore cheaper and more effective) remediation of highly polluted sites seemed to overwrite the old and even slightly modified balancing methods of civil law.

Even if so, in America a refined system of the divided responsibility of the PRPs multiple causing environmental damage developed on common law basis with statutory reinforcement. Courts tried to balance between fairness and effectivity with slow shifts between the two factors. However, in the years after the famous Chem-Dyne case, courts rarely found that these conditions for apportionment had been met. Out of 160 cases that were decided before another milestone court case, the Burlington Northern case, only four instances were, in which a court apportioned liability, representing less than two percent of available decisions over a period of thirty years. Before Burlington Northern, apportionment was theoretically available, but practically difficult, making it increasingly uncommon in practice. Once a court rules as a matter of law that there is a reasonable basis for determining the contribution of each cause to a single harm, the defendant must only prove a reasonable basis for apportionment. The burden of proof rests on the defendant. Some courts, however, identified an uneasy fit between traditional tort liability and CERCLA liability. According to them apportionment in CERCLA actions is only possible to the extent that it is compatible with the provisions of CERCLA. Moreover, other courts examined the policy behind CERCLA and found apportionment generally inconsistent with Congress' polluter-pays legislative intent. In yet a third set of cases, the defendant's evidence simply proved an insufficient basis for apportionment, even though the defendant was in fact liable for only a fraction of the contamination.

In a concrete example Wetmore exhibits the difficulties of apportionment. Paul's Auto Yard owned the facility only briefly, and its activity at the site was limited to "*de minimus* moving of contaminated soil" over an exceedingly small portion of the site. The court credited expert testimony indicating that Paul's Auto Yard moved no more than 0.24% of the total volume of contamination on only one part of the property. Whether a defendant's contribution is de minimus or substantial, § 107 liability is presumed to be strict, joint, and several in all types of cases. Unless it can prove an affirmative defence or successfully argue for apportionment, an entity identified as a PRP is liable for the entire costs of remediation incurred by the government. The statute does not provide a de minimus exception. Equitable considerations are to play no role in the determination of whether joint and several liability is appropriate or whether liability should be apportioned between the parties in a given case.

Moreover, even if a court proves willing to undertake an in-depth analysis of *Burlington Northern*'s factual basis, liberalized apportionment does not necessarily follow. For apportionment, plaintiffs must demonstrate factual similarity between the Burlington facility and cases that follow. As the discussion below indicates, this is unlikely. Only three solvent parties — the EPA/DTSC, Shell, and the Railroads — were involved in the Burlington Northern case. Contrary to this, many NPL sites, especially landfills, are contaminated *with a veritable toxic soup from dozens or even hundreds of PRPs*. The Burlington facility covered a small area in a relatively undeveloped location around which there were no

neighboring facilities contributing to site contamination. In addition, EPA's clean-up in this case focused on *only three related polluting materials*, which even could all be remediated using the same method. Soil sampling data from the Burlington site offered *a surprising degree of certainty regarding the sources of groundwater contamination*. Vertical gaps in soil contamination indicated that spills on the Railroad parcel likely did not reach groundwater and thus did not contribute to the costly groundwater remedy. There was scant evidence to suggest any residual soil contamination on the Railroad parcel would later reach groundwater due to the arid climate and the volatile nature of the pollutants. In short, the Burlington Northern site case presented an atypical set of circumstances.

Understanding which parties caused what portion of contamination is extremely challenging. Wetmore gives a useful list of factors to consider. *Sampling* of site media (soil, soil-gas, groundwater, surface-water, etc.) presents at best an incomplete picture. Disposition of contaminants depends on indeterminate variables such as the *rate of migration through various site media*, *attenuation from natural processes*, and *synergistic chemical interactions*. Experts often present competing theories. Rarely, if ever, do models based on site sampling data offer definitive proof of the source of contamination. Even if the source of contamination is known, it does not necessarily follow that definitive proof is available to demonstrate which party is responsible. *Historical records of site operations are rarely complete*. Understanding what happened on a site, when, and who was responsible requires painstaking reconstruction of operational practices. Soil sampling may prove leakage from a drum storage area but determining how much of a given chemical spilled in any one year may prove difficult. Anecdotal evidence is frequently the only information available. Apportioning harm among successive owners is therefore functionally impossible at most hazardous waste sites. Moreover, disputes can and do arise with respect to the choice of remedy and whether one party's release would have been sufficient to necessitate the clean-up. (Wetmore, 2014; Greenberg, 2018; Hockstad, 2019)

V.2.D Chapter summary

Findings

The term 'operator' is basically a factual one, in most of the countries referring to the person who actually used the land where (or where from) the pollution happened. Even if countries who stress the more legalistic approach, and name the holder of a permit or authorisation for a relevant activity, or the person registering or notifying such an activity, will add that these persons are who directly cause environmental damage or immediate threat of it. Whether it is industrial, agricultural or service sector (e.g. transporter) one, private or public, for profit or non-entrepreneurial, domestic or foreign, usually does not matter from the viewpoints of becoming an 'operator'.

The owner of the concerned land can be a liable person, too in several countries, while in other countries not. Even if not liable for the pollution, the owners have some responsibilities stemming from the ownership principle, including immediate prevention of the pollution and the consequences thereof, and reporting to the authorities. Naturally, the owners shall tolerate the necessary works on its land usually with due compensation if she is bearing no liability otherwise. The direct liability of the owners for the pollution could be subsidiary, secondary or could be joint and several with the operator(s) and other concerned owners and users of the land. The owners' liability might be especially present in environmental liability laws other than the ELD, especially in waste management law. On

the other hand, the land owners might free themselves if they name and prove the actual operators who have caused the pollution.

Once the operators cannot be held liable, their legal successors might step onto their place (RES 13). Parent companies, company owners, shareholders and executive officers might be liable, as well, under certain conditions. Contrary to all of this, national legislators are overly cautious to declare the liability of the State or state funds for the prevention and remedy of the environmental pollution, even if several constitutional legal or administrative procedural viewpoints (failure to control the activity, issuing faulty decisions or advices etc.) would bolster such legal path.

When we have more than one liable persons, either because of causing the pollution or the threat together or based on different legal bases, the distribution of the burden is the question to answer in the administrative or court procedures. In some EU Member Countries such persons might have joint and several liability, in the majority of the countries, however, their liability is arranged into a hierarchical order or can be divided in proportional or other ways.

Suggestions and observations

While the overall social interests and intergenerational justice viewpoints (in harmony with RES 31) dictate the broadest and fullest responsibility of all the available role players in the ELD cases, fairness and proportionality principles would support the consecutive liability of the operators and the land owners. The responsibility of the land owners is strongly connected to their exceptional position to control the pollution (by selecting the users of the land, by regularly visiting and examining the activities thereof etc.). Their position, however, might be strengthen by introducing the ELD relevant data into the real estate cadastres, while it is true that in turn no buyer might refer to his being free from responsibility, if bought the land, where the official data had showed the pollution and the available data on the details of that. Experts add that it is far not sure that all the groups of the possible liable persons shall bear the same level of liability for all the directly and indirectly emerging costs. Clear accountancy between all participants of the environmental liability cases is necessary, where not only the losses, but also the gains (for instance in real estate value, in technology development, business connections and good-will) are taken into consideration, too (RES 30 would support this view).

At any rate, the present situation is very divergent across the Member States, which harmfully influences the common market and the level playing ground thereof. Out of this end, further harmonisation efforts are necessary on this aspect of the ELD, too. This could be a quite complex task, however, including the concerted regulations of administrative, civil and criminal law provisions, especially in handling bankruptcy cases and the too frequently experienced other manoeuvres of the possibly liable persons to escape from paying the full costs or any of it. Also, it has to be taken into consideration that apart from the full responsibility of the State (that RES 33 would support), there are several other legal techniques not exhausted yet in Europe: an enhanced solidarity of the branches of industry for their pollution and the wide range of the financial guarantees that avoid the full burden put on the taxpayers. Incentives that encourage or rather enforce a higher level cooperation of the liable persons with each other, with the authorities and with the concerned communities might reveal further social resources in such cases.

The State has a much more proactive role in the US CERCLA system, which results in grades more successfully cleaned-up sites and fully enforced environmental liability decisions. While the American scholars see no problem with the owner liability from the angle of the polluter pays principle, they do

establish a contradiction with this basic principle in the cases, when the parties strive to reach proportional liability instead of the quick resolution of joint and several liability.

Interconnections with other chapters

Chapter III and IX: proper social, political and media attention could reshuffle the gains and losses at the side of the operators and other liable persons in the ELD cases. Public participation might have a similar effect;

Chapter VI: more stringent monitoring and enforcement of the decisions of the Competent Authorities might retailor the company policies facing with the possibility of environmental liability.

V.3 Form and content of liability

Our questions were in this chapter:

- what objective and subjective forms of liability exist in the national laws?
- what is the definition of strict liability for environmental damages in the national law, in connection with burden of proof and with proving or presumption of causational chain?

Strict liability

Objective form of liability for environmental pollution or endangerment is called strict liability or unconditional liability in the national laws. Member States that follow closely the solutions of the ELD have established *objective liability with simply not mentioning the subjective elements* (CZE, BUL, POL, SPA), although some considers it a less effective solution, because it might leave some uncertainty in the concerned legal subjects (CZE), probably that is why other countries consider it important to add that this form of liability is *without fault* (SLO). The Bulgarian researchers expressed the view that objective liability is not a real liability, just a legal technique for distributing social harm in a way that is still perceived by the society as relatively the fairest solution (BUL). We have to add in this respect that in several countries the concept of objective liability is applied in broader scope, for all dangerous activities. Historically the concept was developed in the wave of industrial revolution as a response to the widespread use of dangerous machines of high energy. This objective liability was extended in the second half of the XXth century to those activities which were dangerous to the environment (LIT, HUN). Such countries might use civil law pathways for a certain part of ELD cases, where the plaintiff's role is played by the environmental authorities. This modern form of liability is used together with the fault based form. For instance, Denmark has a differentiated system for several branches of environmental law. Their Environmental Protection Act and the Soil Pollution Act, as well as the Environment and Genetic Engineering Act and the Livestock Approval Act contain the unconditional form of liability in all cases under their scope of regulation, while the Marine Environment Act, the Water Supply Act, the Watercourses Act and the Mineral Resources Act apply both the unconditional liability and the guilt-based liability (DEN).

Causational connection

While fault has not to be proven for objective liability, causational connection between the activity of the operator and the pollution/danger yes, and the burden of proof is on the shoulders of the authority or by the concerned communities/NGOs (POL). In the majority of the countries there is no *statutory presumption* of causation in these cases. One lawsuit in Germany, initiated by an NGO against a forestry company failed before the Administrative Court, because the causal chain between the forestry's actions and the environmental damage (destruction of green broom moss) could not be sufficiently established (GER). A consequential application of the 'polluter pays' principle, however, would require that such a causal link be presumed, while, for the sake of balancing the principle with other principles of our legal system (first of all proportionality principle) and the interests behind them, the authority must have plausible evidences for justifying its conclusions about causation, such as the fact that the operator's installation is located close to the pollution found, and that there is a correlation between the pollutants identified and the substances used by the operator in connection with his activities. There are countries, however, where such a presumption has been introduced, but it is naturally a *rebuttable presumption* (ITA). Even in countries, where the presumption of causality is in principle excluded, there might be cases when in effect the causal link is presumed, as for example, the responsibilities of the owner of land polluted with illegal waste; or a presumption of the responsibility of the operator in cases when protected species are destroyed in the territory under the operator's responsibility (LAT). These latter cases show a close relationship with the responsibility of the land owners and the policy considerations behind it, especially in connection with raising the level of due diligence of the owners.

Establishment of a causal link under a regular evidence taking procedure is divided into two necessary stages: first, establishment of a factual connection, the *conditio sine qua non test* to determine whether the defendant's conduct was a necessary condition for the damage to occur and whether the damage would not have occurred without it, too, and second, a *legal causal link*, such as the general standards of foreseeability of damage for a reasonable person, as well as the nature and value of the violated right or legitimate interest, the protective purpose of the violated legal regulation, and a level of risk that is generally accepted in the everyday life (LIT).

The handling of causational connection is in intricate connection with *the precautionary principle* which generally raises the level of obligation of environmental vigilance. The precautionary principle has to be applied in environmental damage cases in a context of uncertainty. It requires, however, a proportionality estimation, research and provisory measures, too. The causality link is various and really comprehensible as a complex causality, putting in practice various legal logics such as: 'doubt benefits the manufacturer', 'doubt benefits the victim', 'causality recognized by exclusion of all other causes' and 'reversal of the burden of proof' (FRA).

Several country experts noted that causational change is especially problematic in case of *diffuse pollution*, which usually comes from multiple parties, while it is true that in some cases it can come from a single polluter, too. The starting point is, in harmony with the ELD diffuse pollution rule, that the ELD rules shall not be applied in cases, where it is not possible to determine a causal link between the environmental damage and the activity of individual operators (SVK). Similarly to this, but in more details, other national laws describe the elements of revealing the causational links for diffuse pollution cases, such as identifying the exact location of the pollution and the relevant activities of the operators (GRE, ITA, LAT, SLO). The operator shall be liable for the caused damage in the environment or for the imminent threat of danger caused by diffuse pollution, if it is possible to determine the causal link between the caused damage and the activity of an individual operator. An operator performing a

hazardous activity from the list of activities specified in the national regulation on ELD shall be liable for diffuse environmental damage and/or imminent threat of damage only if the authority proves beyond that the hazardous activity was one of the causes of the damage or imminent threat (CRO). Moreover, some legislators would hold it unjust to let all the diffuse polluters out of the loop, just because their ratio of the common causation is doubtful. When it is not possible to individualize the level of participation of each liable operator, it is assumed that they are equally liable (POR).

The inherent uncertainty in proving the causational connection raises the question of *burden of proof*. Anders Bengtsson the Swedish expert of our project points out generally that while in criminal cases and civil cases on compensation for damage the burden of proof is on the charging party (prosecutors, plaintiffs), contrary to them, in administrative cases generally the burden of proof is on the shoulder of the client. For instance, in the case of an application for permits or in cases related to supervision on disturbances or misbehaviour, the operator has to show that the requirements of the relevant administrative rules, such as the Environmental Code has been or will be followed.[18] These general rules might, however, alter in the case of administrative sanctions, especially in such controversial issues that environmental liability. But the turnover might not be full. In relation to the environmental liability matters the practice strives to hit *a balance between the polluter pays and the precautionary principles on one side and the proportionality principles* on the other side, so there is a moving border between the sides of the distribution of burden of proof.

A closely related issue is that the responsibility to clarify the factual and professional background of the cases rests on the shoulder of the environmental authority (SLO, CRO). Similarly to the general rules on burden of proof, in the ELD cases, the authorities simply must adhere to the general administrative law principle (often called *officiality principle*) that public authorities are responsible for gathering sufficient information before they make a decision (DEN). Contrary to this, according to the Austrian practice, the authorities require the complainant to provide proof of causation as well as finding out the perpetrator, when they file an ELD complaint. Even where there is clear that only one operator existed in the given area, this might not suffice for the public authority to see a clear link proven beyond doubt (AUT).

Presumption of causality automatically turns the burden of proof to the polluting side of the cases, though: in some EU countries the damage occurring in connection with a dangerous object or dangerous activities shall be deemed to originate from the dangerous object or dangerous activities, unless it is shown that it was not the case (SLO, EST). At least it is said a 'partial' reversal of the burden of proof, whereby the competent authority must prove a causal relationship between the operator activity and the environmental damage, but the operator, to free himself from responsibility, must prove that the causation did not take place in the actual instance (ITA, CZE).

In Sweden, based on the *precautionary principle*, the general rule under the EC is that there is a reversed burden of proof in environmental matters. This means that it is the party who pursues an activity that must prove that the obligations arising out of the laws on environmental liability are complied with. According to the *proportionality principle*, however, these rules of consideration apply only as long as they are not unreasonable; application of the general rules of consideration should be environmentally justifiable and financially reasonable in each case (SWE). The liable person can remain on the safe side if performs *risk assessments* in due time.

A stricter regime of proof requirements or the presumption or quasi-presumption based systems are not diagonally opposite solutions, they are rather on a continuous line. The evaluation of the evidences

[18] Swedish national study, page 8

on the causal link is based on a likelihood criterion that the harmful activity or event is able to produce the occurred harm, taking into account the concrete circumstances of the case and especially considering the level of risk and danger, the normality of the harmful action, the possibility of scientific proof of the causal process and, finally, if protecting duties were complied with or not. Such a list of criteria of likelihood combines a reduction regarding the creation or increase of risk by the operator with an implicit reversal of the burden of proof. In other terms this is the difference between judiciary and statutory presumptions (POR).

Under any of these legal approaches, in practice it is very difficult to prove causation of the operators, unless the operators do not admit it. This is in close connection with the lack of enough resources and expertise for the ELD departments and officials within the administrative governmental system. The difficulties in access to laboratory analysis and the lack of specialists are barriers towards proving the liability of an operator in several countries (ROM).

Fault-based responsibility

Fault-based responsibility is not too frequently mentioned in the national ELD laws, while in other environmental liability systems this counts to be the basic structure. It is controversial, however, if *unlawful conduct* is required (CZE) or not required for establishing fault for activities not listed in Annex No. 3 of the Directive. However, while the threshold of establishing liability is lower in Germany, according to the court practice the operator can quite easily avoid to be found at fault if performs some formal acts, e.g. hires experts both to deliver reports on potential biodiversity hazards and to monitor the operation accordingly (GER). At this point fault-based liability seems quite dysfunctional for fulfilling the requirements of the polluter pays principle.

On the other hand, fault-based liability makes possible to gauge the *extent of liability*, which ensures a fair and just procedure in face of the polluters. In Sweden, in determining the extent of liability, account is taken of the following factors:

- the length of time since the pollution occurred,
- any obligations on the liable person to prevent future damage provided that the obligations applied at the time of the pollution and any other relevant circumstances (SWE).

Other forms of liability for environmental damages applied parallel to the ELD laws

The above forms of the ELD based environmental liability might be combined with other administrative legal procedures, not addressing liability as such, but contributing to the prevention or clean-up of environmental damage. After all, the laws demanding operators to submit requests for *permits* mean that in the permit decision the features of the operations possibly resulting in environmental damages would be *banned*. Furthermore, the permits require preventive or remedial measures, and if there is still a danger of pollution, the public authority may call for additional measures from the operator (AUT) or apply administrative sanctions (POR). The requirements of the permits are *regularly controlled and administrative sanctions* are imposed on natural persons or legal entities causing pollution or degradation of the environment in breach of the provisions of the national law on environmental liability, irrespective of other civil and criminal liabilities entailed (GRE).

In Estonia (notably similarly to the US legal system of environmental liability), payments are claimed by the Environmental Inspectorate through civil courts. However, the negative side of the general administrative legal sanctions is, in comparison to the ELD, that the payments are not used to rectify

the damage, but contribute to the general state budget (EST, LAT). While *civil law litigation* can also run parallel or instead of the ELD procedure, for enforcing civil liability the plaintiff NGO or local communities need to prove concrete damage and also that the vested interests of the litigating organisation are concerned (NED). While this legal arrangement is criticised in the national legal literature, in Portugal the prohibition of double reparation prevails: the harmed persons cannot claim reparation nor compensation for the invoked damages as long as such damages are repaired (POR). In other countries the principle *ne bis in idem*, might stay within the frames of civil law and would not concern a civil law claim if there were measures on administrative or criminal law level (HUN).

Criminal law has in many countries a *supportive role* to the administrative legal provisions by threatening the most serious administrative legal breaches with criminal sanctions. In Sweden, the lack of an operator to send due notice on an environmental emergency situation to the authority responsible for environmental liability cases might qualify as a crime (SWE). In Ireland, criminal liability is extended even to the cases of elimination of the dangers of environmental pollution. If the preventive measures taken by the operator do not remove the threat of environmental damage, the operator must notify the EPA of the imminent threat and actions taken to date. An operator who fails to do so is guilty of a criminal offence and is liable— (a) on summary conviction to a fine not exceeding €5,000 or imprisonment for a term not exceeding 6 months or both, or (b) on conviction on indictment, to a fine not exceeding €500,000 or to imprisonment for a term not exceeding 3 years or both (IRE).

Criminal liability according to provisions in the Penal Codes of several countries can come to the picture when the offence of the operator is also illegal under any sectorial administrative law she as ELD Act, Water Management Act, Nature Protection Acts etc. (AUT, LUX). Criminal law might play a positive role in reinforcing administrative liability, too. The costs of the authority incurred due to clean-up activities can be requested from the responsible person of the operator in the criminal procedure, too (LAT). Crimes against the environment are defined in the Spanish Penal Code, but the legal conditions of the use of this provision are quite difficult: the environmental damage has to constitute a breach of environmental law, or other provisions protecting the environment (administrative law...), but also it has to be proven that there was a possibility of serious damage to the natural balance (SPA).

Finally, independently from the relevant administrative laws, criminal liability according to provisions in the Penal Code can be used *parallel* to the administrative liability and to the use of the ELD regime (AUT). Parallel use of environmental liability regime if administrative or criminal legal sanctions have been applied, was not in practice in Latvia, but in recent years the trend is changing towards admitting (by the competent authorities) the environmental liability (based on the strict liability regime) and obligations of operators to remedying environmental damage, independently of who and whether the operator has been admitted guilty in accordance with Administrative Code or Criminal Law (LAT).

There is a danger, however, that a part of ELD cases *stop at the point of criminal or general administrative liability* levels with applying penalty if a fault is proved according to Criminal Law or administrative violation sanctions such as fines, suspending or prohibiting certain activities. This way penalty based legal tools, more deeply embedded in our societies might mask the need for implementation of the newer environmental liability rules of the ELD (LAT).

V.3.B Evaluation by the in-depth researchers

Causational chain and burden of proof

As indicated already, we do not conceptualise causational connections and burden of proof a zero sum game, where one person's liability will be proven beyond reasonable doubts and the rest of the participants would totally free from liability and enjoy the results of the remedy of the environment – or no person is found liable, but solely the State would carry the burdens of cleaning of the polluted spots. Rather, for the clarification of the factual background of the environmental liability cases, as well as a proper *balancing of wider and longer run social interests*, the interests of the local communities and that of the operators/land owners shall take part in an iterative, multi participation procedure.

In this regard, some researchers suggest that a guidance should be released to underscore that no such "causal link" is required under the ELD *for simply starting an administrative procedure*, especially when the case is revealed and initiated by a local community or by an environmental NGO. In such cases evidences are simply to be "believably provided", while a legislative clarification could significantly aid procedural economy and secure legal certainty for operators, competent authorities, and prospective applicants for a request for action under the environmental liability regime (Schmidhuber).

The German researchers go even further: they explicitly suggest balancing the interests of the stakeholders in the environmental liability cases. It seems reasonable, they contend, to *split the burden of proof* regarding causation between the authority and the operator using *the concept of prima facie proof* as has been established in many instances by civil courts all over the EU. At the outset, the competent authority would have to provide plausible evidence that there is a strong likelihood that a damage or the threat of damage was caused by a certain activity. This is usually the case where an environmental damage occurs close to an operator's facility and is a typical consequence of the specific activity he pursues. If such prima facie evidence is provided, *the burden of proof would shift* to the operator who would then have to show exceptional circumstances to rebut the presumption. Such an approach is employed by some member states' courts, and strikes a fair balance between the interests of operators and the public considering the inherent danger of the activities listed in Annex III of the ELD (Verheyen). The appreciation of proof of causal link laying in a likelihood criterion that the harmful event is able to produce the occurred harm, taking into account the concrete circumstances of the case and especially considering the level of risk and danger, the normality (in terms of usual processes of the events) of the harmful action, the possibility of scientific proof of the causal process and, finally, if protecting duties were complied with or not. The criterion of likelihood combines a reduction regarding the creation or increase of risk by the operator. This carries *an implicit reversal of the burden of proof*, which means that the plaintiff (or the administrative body) does not need to proof the causal link further, because the risk is materialized in the harmful result through a judgment based on experience (Amador).

In order to harmonize the requirements for proof of causation, it would be helpful to include the concept of prima facie proof in the legal text of the ELD. Otherwise, it remains in the discretion of the national courts to establish rules on the burden and standard of proof, until (and if) the ECJ decides. Until this is done, the *effet utile* of the ELD is to remediate harm and this is currently seldom achieved simply due to procedural standards (Verheyen).

Such interesting ideas that expand the borders of an old legal civil law concept possibly evolve because of the legislative-historical fact that the concept of strict liability has been transported from the civil law to the field of administrative law, and there found itself in new, unused circumstances. That encountering might lead to the above mentioned and similar innovative solutions. A further possible refining of the civil law concept might be that within the institutions and procedures of administrative law a *multi-personal arrangement is almost unavoidable*. As concludes, even the causational chain, or

better say the causational network, will have to be clarified in a joint effort of all the concerned parties, including the authorities other than the competent environmental bodies, as well as municipalities and local communities, whose interests are influenced in the formation and the outcome of the given environmental liability cases.

Authors of the in-depth research believe that the introduction of *a presumption of causation* would not be a too harsh or unfair solution for operators. Private entrepreneurs usually carry out a gainful activity which carries a certain degree of risk to the environment, so it does not seem unfair for them to bear greater risk of a remedial obligation (Cerny).

Multiple causation cases

A great part of the ELD cases in practice are multi party ones, with several operators and other possibly liable persons. The case of *diffuse pollution*, where the overwhelming majority of the harms or hazards are caused by multiple, not seldom uncountable persons can be used as a model for the multiple causation cases. Article 4(5) stipulates: **'this Directive shall only apply to environmental damage or to an imminent threat of such damage caused by pollution of a diffuse character, where it is possible to establish a causal link between the damage and the activities of individual operators'.** This provision might carry the message that the legislator did not wish to extend the circle of responsibility to those, who definitely had some connection to the harm, but this connection is not close enough and might raise difficulties in proving procedures. It is another question, though how much this provision fit to the system of the ELD and to its general social and environmental goals.

Another, similar practical problem is a situation when a given incident or activity causes an adverse effect for a protected species or habitat locally, and when indeed the population of the species (or coverage by a specific habitat type) decreases significantly on the entire country territory, but the general (countrywide) decrease is caused also by other factors. In such situations, the authority sometimes tend to claim that although an activity caused decrease in the population, the population is decreasing anyway in the entire country, so that effect shall not be considered a damage (is treated as caused by diffuse sources). Perhaps it would be useful and justified to specify how to approach this situation, e.g. by clarifying that the general endangerment of a species or habitat does not mean that additional adverse effects caused by an activity should be disregarded (Bar).

Shared liability in case of diffuse pollution or other damages possibly caused by multiple parties represent an additional argument for the social and economic fairness for the business sector. They form a community or pool of share formally or informally when they undertake environmentally harmful or risky activity in the same territory, therefore, it seems to be fair to bear the burden of the consequences, in an equal share, if it is not possible to determine which of them caused the damage or to what extent (Cerny).

V.3.C Other sources

The ELD Resolution of the European Parliament

RES Point 11. Regrets that there are activities with potential negative impacts on biodiversity and the environment, such as the pipeline transport of dangerous substances, mining, and the introduction of invasive alien species, that are currently not covered by the requirement for strict

liability; notes that in particular for biodiversity damage, the activities listed in Annex III do not sufficiently cover the sectors that could potentially give rise to damage;

As the scope of the industrial, agricultural or service activities change, also, as our knowledge of the environment and public health effects of the newly emerging activities broadens, the natural need to expand the scope of legal protection appears. Such social-economic researches fell outside the scope of the recent study, but we agree that it would enhance the effectiveness of the ELD if there were EU level legal mechanisms built in it, in order to enable the legislators to follow on these technical or scientific developments. The national level legal systems are more differentiated out of this end: such technical lists, such as Annex III are usually included in lower level legal sources, such as a decree of a minister, which is much easier to amend, while the body text included in a Parliamentary Act might remain untouched for long.

RES Point 23. Reiterates that according to Article 4(5) of the ELD, the directive only applies to environmental damage or to an imminent threat of such damage caused by pollution of a diffuse character, where it is possible to establish a causal link between the damage and the activities of individual operators; also reiterates that the Intergovernmental Panel on Climate Change (IPCC) had, in its 2013 report, already established a rigorous causal relationship between gas emissions and damage related to climate change and the environment;

As concerns the overly cautious approach of the diffuse pollution cases, our national researchers have signalled their reservations, too. Indeed, in the Information Age, or in other words, Age of Networking, even the conservative legal sciences should acknowledge the strong statistical connections and accept the opinions of scientific experts in this respect. There are several ways of handling diffuse pollution cases in other fields of law, too, including, for instance, the responsibility of the maintainer of a road for the damages caused by the cars using the span of the road supervised by the maintainer, according to the liability rules of civil law or traffic law in administrative law.

RES Point 28. Notes that air pollution harms human health and the environment and according to Eurostat, nitrogen dioxide and particulate matter pollution pose serious health risks; calls in that context for the inclusion of 'ecosystems' in the definitions of 'environmental damage' and 'natural resource' in Article 2; calls, furthermore, on the Commission to consider the possibility of extending the scope of the ELD and imposing liability for damage to human health and the environment, including damage to the air ;

Expansion of the material scope of the Directive to the air pollution cases might become quite possible when the above legal-procedural problems in connection with diffuse pollution are solved.

RES Point 36. Considers that in the context of a review of the ELD, it should be a priority to extend strict liability to non-Annex III activities for all environmental damage with adverse effects, so as to improve the effectiveness of the legislation in implementing the polluter-pays principle and to provide an incentive for operators to undertake proper risk management for their activities; calls in that context on the Commission to establish a register for operators who engage in dangerous activities and a financial monitoring scheme to ensure that operators are solvent;

37. Calls on the Commission to ensure the application of the ELD to environmental damage caused by any occupational activity and to ensure strict producer liability;

40. Calls for the categories of dangerous activities set out in Annex III to be expanded to include all activities that are potentially harmful to the environment and human health;

Extension of strict liability to non-Annex III activities and – for the sake of clarity – to all occupational activities seem to be an organic future development of the environmental liability systems in Europe, while the social-economic feasibility of such measures will have to be examined with the inclusion of all stakeholders. The suggestion of Point 40 seems to point out the stepping stones to this long run program of the development of the ELD text.

RES Point 50. Considers criminal sanctions to be another important deterrent against environmental damage, and notes with regret that Directive 2008/99/EC of 19 November 2008 on the protection of the environment through criminal law is not up to date; calls on the Commission to take action, without further delay, to review that directive's scope so that it covers all applicable Union environmental legislation;

Our project also examined the possible interplay between environmental and other relevant branches of administrative law and criminal law. We found that apart from the direct threat for the perpetrators of the environmental wrongdoers, criminal law might be also an effective tool to make several administrative procedural steps more effective, such as safeguarding the quality and validity of the self-monitoring reports of the operators or punishing those who overlook the instructions of the environmental authorities in the environmental liability matters.

Justice and Environment opinion

In their 2011 paper J&E lawyers have criticized the ELD and the majority of the national ELD laws because of their overlooking the topic of causational chain. Contrary to these laws, Article 10 of the Lugano Convention has a stronger and more effective approach, in which it offers that the courts, when deciding strict liability matters, shall consider the basic environmental threats of the given economic activity, therefore – as the authors evaluate it – makes a step towards a presumption of the causal connection.

Later, in 2017 J&E has come back to the topic of strict liability. They contend that the import of a legal institution from civil law to administrative law resulted in a special hybrid situation. While it is true that proving the negligence or direct will, let alone purposeful behaviour shall not take place in the ELD cases, which makes life easier on the side of the authorities and the interested civil participants, but the administrative legal procedures can hardly cope with the necessity to prove the causational chain in the majority of the cases. In the typical setting of the ELD cases the suspected operator works together with several other operators on the same industrial site, many of them deals with similar activities and handles similar materials. J&E suggests to establish a presumption of causality, bases on the materials used, the technology of an operator, also the administrative history of the operator (what kind of conditions are included in his permit, also, if there are monitoring data available or earlier non-ELD administrative liability cases, sanctions against the company etc.). This way the burden of proof would get onto the side of the operator, who actually has the best position to gather the factual and professional information to free himself from the liability. It would take tremendous time and litigation costs in the majority of the cases (in part of the cases, though, not with the authorities or with the local communities, but amongst the operators on the same site). However, if the legal remedies, as a main rule, have no suspending effects on the ELD decision – which would be a key point in the effectiveness, naturally – this loss of time would not delay the restoration of the polluted sites.

CERCLA research

The US scholars have further analysed the concept of strict liability in more details, taking into consideration of the grades more practical cases, a much more developed administrative and court practice. Apart from the basic ecological purposes, they focus on social fairness and economic feasibility, too. As one of the authors of rare comparative studies, Orlando has pointed out the parallel points between ELD and CERCLA establishing that the Anglo-American jurisprudence and other EU jurisdictions reveal an interesting convergence among the various legal systems' attempts to refine the existing rules of civil liability in order to overcome the substantial hurdles faced by private victims of environmental pollution when establishing the link of causation or the defendant's fault. Particularly in the wake of industrial modernization and the proliferation of environmentally harmful activities, countries in Europe and the US have developed specific systems of strict liability for hazardous activities, although the scope of application of those specific rules is in practice quite different.

In promoting the Congress's deterrent goals, US courts have interpreted CERCLA to cover owners and operators with no regard to causation. When Congress enacted the statute, it purposefully rejected including a causation requirement in section 9607(a) of CERCLA. The lack of causation requirement in the Act means that an ownership liability does not depend on any activity furthering or contributing to the waste contamination at a contaminated site. As the legislative history and courts' interpretation have made clear, there is no causation requirement and, as such, neither an actual control is required for a determination of ownership liability. On the contrary, the trigger to liability under the US environmental law is the ownership or operation of a facility at the time of disposal. As it is seen from all of this, lack of causation is a central element of the heightened level of liability for environmental damage (Holms, 2019).

While the European environmental liability laws are not so consequential in armouring the advocates for cleaner environment with all possible legal tools, Aronovsky expressed his opinion that strict liability beyond doubt goes hand in hand with other reinforcements of the claimants' legal position: „with CERCLA, Congress adopted a tort-like liability scheme that imposed strict, retroactive, joint and several, status-based site clean-up liability on four categories of so called potentially responsible parties (PRPs): contaminated site owners or operators, hazardous substance disposal arrangers or waste transporters." The US system of environmental liability, however, keeps seeking the balance of overwhelming social interests and individual fairness in the environmental liability cases.

In order to be able to evaluate strict liability within the system of environmental administrative law, we need to consider a hypothetically weaker system, and watch how it can cope with problems, such as removing the economic benefits of pollution, approximating the environmental damage caused by pollution, and accounting for the polluter's unique circumstances. It will soon turn out that considering the heavy social interests at stake, too many allowances for the old fault-based liability might go too far. Colin Diver, one of the first scholars to describe the ability to pay concept, was sceptical of this solution, not without reasons. He stated, "[T]he concept of 'ability to pay' is pregnant with a degree of ambiguity that invites arbitrary and capricious application. A set of administrative penalty standards that fails to resolve that ambiguity thus leaves a dangerous gap." As concludes from this concept, polluters might enjoy discounts based on their limited ability to pay. Their better off competitors do not receive these discounts, so the concept results in an economic advantage that favours pollution. These undesirable outcomes stem from a "penalty perspective" of ability to pay, which wrongly focuses on the polluter's future profitability without considering whether the polluter could have complied with environmental regulations in the first place. Diver suggests an alternative to the penalty perspective, arguing that the "compliance perspective" is superior, because it disallows penalty mitigation for polluters that were financially capable of complying when they committed a violation.

The compliance perspective examines whether the polluter could have afforded the cost of compliance with environmental regulations and mitigates penalties for only those businesses that could have not afforded to comply. He also argues that, as a logical consequence of this theory, Congress should authorize the EPA to require environmental penalty insurance in order to better effectuate the compliance perspective. Such a requirement would protect polluters that are too poor to comply and close loopholes for polluters that are (would have been) able to comply.

Dufau lists the requirements ahead of compliance based regime that he considers an amended ability-to-pay regime. First, an effective regime should protect poor polluters and penalize poor-on-paper polluters. Second, an ability-to-pay regime should be administratively feasible and minimize bureaucrats' roles in running the day-to-day operations of the regulated community. Third, and foremost, the compliance perspective would not be superior if, in exchange for the reduction in false negatives, it failed to protect poor polluters. Recall that poor polluters may invigorate markets with new competition, and that environmental regulations may unfairly favour established businesses.

The compliance perspective asks only how much money the polluter had when it chose to violate the law. If the polluter had enough money to comply with environmental regulations at that time, it would face the full penalty amount. This occurs without any adjustment to the underlying calculations of penalty amount. The only change is that the EPA calculates the polluter's ability to pay compliance costs using information on the polluter's profitability at the time of violation. At first glance, the compliance perspective fails to achieve one purpose of ability to pay, because it permits the regulatory death of some businesses. Nevertheless, the compliance perspective is still desirable because the EPA's consequential assessment of the full penalty amount on the long run would change the polluter's behaviour ex ante, minimizing the bankruptcies that occur. Moreover, it is a matter of social justice, in wider terms than economic fairness that the polluter that could have afforded to comply in the first place should answer for the environmental harm that it had caused. (Orlando, 2015; Aronovsky, 2012; Dufau, 2014)

V.3.D Chapter summary

Findings

Objective form of liability for environmental pollution or endangerment is called strict liability, unconditional liability, liability without fault in the national laws, or not called a liability, just simply a legal technique for distributing social harm. This makes possible to prove the liability of a polluter, but not easy, because the other mounting element in such cases, the causational connection between the activity and the harm or danger. When balancing between the wider social interests expressed by the polluter pays principle and the requirements of legal and procedural fairness towards the individual operators, some countries vote for stringent proving requirements, others lean towards the presumption of causality if the correlations in the cases point into this direction. The presumption is rebuttable, naturally. In case of the owners the requirements of due diligence in selecting and controlling the operators and their activities are quite close to a presumption of causation between the failures of the owners and the harmful environmental consequences. The more the possible sources of pollution in a given case, the more difficult to establish causational connection, up to the extreme difficulties in the cases of uncountable sources (diffuse pollution). In some countries, though it is not a requirement of full mapping out of the causational nets for establishing the liability, but it is

enough to prove that a given operator contributed to the pollution beyond doubt. A procedural legal institution is connected to this substantive legal issue: the burden of proof, which changes in harmony with the existence and strength of presumption of causation. Finally, as in all controversial situations in our environmental law we use general environmental legal principles, such as the precautionary principle, balanced with the proportionality principle.

When the environmental authorities or the courts deliberate on the causation they might consider a line of facts in the actual cases, such as a likelihood criterion, namely that how much the harmful activity or event is able to produce the occurred harm (the materials and the technology used etc.), the level of risk and danger, the normality or irregularity of the harmful action, the possibility of scientific proof of the causal process, also the administrative history of the operator, and, finally, if protecting duties were complied with or not. This latter condition leads us to the fault based liability, showing that there is not an absolute clear division between the two forms of liability in the actual practice. A minor shift towards evaluating the culpability of the operator allows for decreasing the full extent of liability, for instance according to the length of time of the pollution, and the observation of the obligations by the liable person to prevent the damage.

The national researchers of this project has established that the application of the ELD usually mated with other legal measures, first of all administrative ones based on a permit that was previously issued to the operator and created a legal tie between the company and the authority, in which control measures might take place, as well as decisions on modification, suspension or halting the operation, with or without further administrative sanctions. In the most grievous cases personal responsibility is initiated according to petty offence or criminal law. Depending on the decision of the materially interested persons civil law litigation may be initiated, too. Such legal actions form a unity from the viewpoints of the operator, so those who design the developments of the environmental liability systems shall take them into consideration, too. Criminal law measures are, for instance, frequently used to bolster the effectiveness of certain administrative legal obligations, inter alia in connection with self-monitoring and reporting responsibilities of the operators (RES 50).

Suggestions and observations

The above facts about the practice of the European environmental liability laws describe the possible ways ahead: a proper balancing between wider and longer run social interests, the interests of the local communities and that of the operators/land owners shall take part in an iterative, that will demand a multi-participation procedure where all the interested parties are encouraged/forced to cooperate. Quite logically, in such a process those who have better abilities and resources to provide evidences should bear more burdens, while the local communities and the victims of pollution, less. The latter parties might have to put into the position to start the ELD procedures with less evidences at hand and trigger off the responsibilities of other participants to produce more evidences for the case. In more legalistic terms, the ELD procedures might start with prima faciae evidences and continue with a shift of the burden of proof to the operator and in certain amount to the relevant authorities, too. Naturally, this approach should be accepted EU wide, so the ELD laws should be harmonized in this term, too, primarily starting out from the effet utile of the ELD.

As a more detailed issue, the results of this survey also support the suggestions of the European Parliament (RES 11) to revise Annex III of the ELD time to time, and adjust is to the new developments of social and economic sectors, as well as to our growing knowledge to the social-ecological effects of the relevant technical methods. Also the researchers in this project has criticised the too rigid present form of handling diffuse pollutions in the ELD (in harmony with RES 23), especially as the technology

of tracing back to the individual polluters is quickly developing, while there are certain legal technologies to find those key persons that could interfere with the diffuse pollution procedures, such as the maintainer of a road or a large agricultural company. As soon as the legislator successfully copes with the problems of diffuse pollutions, the controversial omission of including air pollution from the ELD could be solved, too (RES 28).

Interconnections with other chapters

Chapter VI: this chapter shows a very close interrelation with the procedural chapters, since the concept of strict liability and its practical implementation entails with the procedural questions of evidence taking, especially burden of proof;

Chapter VII: the legal institution of strict liability aims, amongst others, to shorten and streamline the environmental liability cases – it is a different question that in itself this cannot be enough.

V.4 Defences and exemptions

Our question was in this chapter:

- What are the national laws on defences and exemptions and how far they are actually used in the practice?

Differences of exemptions and defences

We noted here the differentiation between exemptions, which are to be noticed by the authorities *ex officio* and defences, which have to be raised (and proven) by the persons stated liable (POL). This, at the first glance, obvious legal differentiation is not so simple in the practice, though. The scope of defences might be interpreted in various ways. Furthermore there are such particularities as the Danish rules that, if a defence is found to be applicable, the ELD rules will not be applied at all, which means that the obligation to take measures under the ELD is not applicable either, while this solution is disputed with at the Commission (DEN). Also, it seems that whenever the national legislations decided to apply the optional defences, they made it mandatory (CZE, GRE, amongst others), although in principle this could have been left to the discretionary decision of the authorities in individual cases considering all the circumstances.

Exemptions

The first group of exemptions of the ELD, such as an act of armed conflict, hostilities, civil war, or insurrection as well as a natural phenomenon of exceptional, inevitable and irresistible character are notated together as *vis maior* or *force majeure* (LIT). While the majority of experts considers it the responsibility of the competent authority, in some countries it seems to be an open question, how the burden of proof is distributed in the case of exemptions (CRO). In a Dutch case of a shipwrecked oil tanker the court also required the owners to prove the bases for the application of a force majeure exemption beyond reasonable doubt (NED). Similarly, in Hungary both kinds of exemptions apply only

if the user of the environment is able to verify the *causational link* between the threat to the environment or the environmental damage and any of the criteria listed amongst the exemptions (HUN). Furthermore, even in the cases, where the user of the environment is exempted from liability, he is nonetheless required to undertake the measures with a view to prevent the threat to the environment or the environmental damage, or to mitigate the adverse impact, and to take the measures as ordered by the authority (HUN). These residual responsibilities seem quite reasonable. Finally, in some national legislations new kinds of exemptions might appear, such as the one which lets legally clean property for banks and other lenders when they acquire a polluted property to protect their security interest by that transaction (SWE).

Defences

In the field of defences, the conditions of *third party defence* are simple and usually taken into the national laws without any difficulties (SLO, LIT, DEN, ITA, LAT) with minor additions, for instance, naming some details of the third party activity, such as act and omission (LIT), describing the scope of defence, namely that it frees the operator under the costs of precautionary, preventive and remedial actions (ITA, SPA) or a clarification of the situation, when the operator performs proper safety measures as a residual duty, and he will be entitled to recover the costs of the preventive and immediate measures (LAT). As concerns the practice, in some countries no such defences were used so far (SLO), while in other countries "blaming the third person" to escape from liability is becoming more and more common, even if no cases have been registered so far, where the operators have successfully evoked this defence (LAT).

We have found little references to the compulsory *order or instruction defence,* except from Hungary where a direct result of the enforcement of a definitive and compulsory resolution of an authority or a final court ruling represent a defence with no further deliberations (HUN).

Contrary to this, the *permit defence* is widely used (SWE, CZE, GRE, SLO, LIT, DEN, ITA, GER, CYP), although sometimes only as a defence of partial effect. Such way the permit defence does not apply for cases of significant environmental damage, where the responsibility of the manufacturers/importers cannot be relaxed this way (LIT), or if an activity has been carried out in accordance with a permit and its conditions, it will be seen only as a *mitigating factor* in determining liability (SWE). Some legislations specify that the permit shall come from an institution authorized by the law, or it shall be an express permit and of full legal force that can no longer be appealed by third parties, such as legal successors (LIT, SPA), while the defence will not apply if the operator has shown irresponsible conduct (LAT, SPA). We have also found Member States where there is no permit defence at all (AUT, LUX, POL, FRA).

The *state-of-the-art defence* can have a partial effect, too. In deciding the extent of liability, the competent authority shall take into account the state-of-the-art defence as a mitigating factor only (SWE, SPA). This defence will be accepted only if the operator has not acted with intent or negligence (LAT) or with intent or fraud (GRE, CZE). The Latvian legislation excluded the applicability of this defence with respect to GMO activities (LAT). France adopted the state-of-the-art defence, which applies specifically to products. The French transposing legislation provides that the defence applies in the absence of fault or negligence, if a product used in the framework of an activity was not considered likely to cause environmental damage on the basis of the scientific and technical state-of-the-art knowledge when the damage occurred (FRA). Some national researchers added that they identified no cases where this defence have been applied/used (LAT). A line of countries' laws exclude the reference to the state-of-the-art defence (HUN, LIT, GER, AUT, FIN, POL).

We have found some peculiar types of defences, which were not included in the ELD. Some of them, such as the *innocent land-purchaser defence*, is well known from international examples, however. If the property was acquired by a person for private residence, the responsibility will be initiated only if the person had actual knowledge of the pollution. The obligations are stronger, when the property was purchased in commercial activity, and the liability would be established when the land-owner ought to have discovered the contamination. It seems to be a primary obligation for the purchaser to investigate the property before she buys it. In practice, however, this obligation is not frequently applied with success (SWE). Naturally, environmental and related administrative laws are full of legal conditions that prevent an operator from paying the damage it caused in the environment. Such is the damage, for instance, which is allowed by national law, or damage to species and habitats that has been identified in advance and permitted on the basis of the national provision corresponding to Article 6(4) of the Habitats Directive (EST). This case differs from the specific permit defence above, where the activity permitted was not originally and directly aimed at causing harm, although this probability might have been silently included, too.

Several countries connect further *conditions* to the acceptance of defences and also *exemptions* from the general cases where they are acceptable. Belgium has adopted in its ELD transposition legislation both the permit and the state-of-the-art defences. However, those defences do not apply in soil clean-up legislations fully. The operator or the user of the piece of land, where the soil pollution originated is not obliged to remediate it only in case he can prove she has not caused the soil pollution and the soil pollution has occurred before she got the land in operation or use. In addition, the owner has to prove that she was not aware and should not have been aware of the soil pollution at the time he became owner of the land (BEL). Similarly in several countries, the condition of the third party defence applies only when the operator has adopted all the expectable precautionary measures (POR, POL).

In Cyprus, under certain conditions, the Minister is entitled to grant *a written amnesty* to the operator regarding the payment of the whole or a part of the restoration cost, after having consulted the competent authority. This extra defence is valid only in cases when she is satisfied from the proof provided by the operator that the latter did not act with intension or negligence (CYP).

Croatia uses the permit defence and the third party defence in *a limited scope*: the operator has to spend on the prevention of the environmental damage or on its clean-up, but has the right for reimbursement of costs of action to prevent or eliminate environmental damage from public authorities that issued a mandatory order or instruction to the operator or from a third party- persons whose actions have caused damage to the environment despite appropriate operator safety measures taken (CRO). Notably, this means further cases or even litigation for the operator, but puts the environment under threat or damaged already in the situation of a more direct protection by the operator. Interestingly enough there was a mistranslation of Point 6 of Annex III of the ELD into the Croatian law, whereas the national version added that only unauthorized water operations belong to the strict liability regime. What follows is that, in accordance with the Croatian Regulation, the operator is not liable for damage caused to water if an authorization has been issued for the activity in accordance with which that activity is performed (CRO). In other words, the authorization has become an exclusive factor (rather an exemption) under the scope of the national ELD law, rather than a defense to be raised and proven by the operator.

Teresa Amador, our researcher in Portugal has described the policy background for Portugal, having adopted both optional permit and state of the art defences.[19] These kind of defences are only allowed if the operator also demonstrates that she had no intent or negligence, acted diligently and in *bona*

[19] Portuguese national study, page 19

fide. This exclusion of liability – usually designated "*risks of development*"- is an outcome of the risk society. If the state of the art still does not allow the polluter, nor the authorities to foresee the damages resulting from a certain economic activity, the polluter cannot be held liable. On the contrary, it should be considered fair that the state, and in ultima ratio, all the society support the operator getting into such nuisance. In short, the rations of the admitted exclusions lay on the just distribution of charges of environmental protection measures and the efficiency of the dissuading effect.

V.4.B Evaluation by the in-depth researchers

Harmonisation in the field of exemptions and defences

Remarkable differences appear to exist among members states' approaches in transposing defences and exemptions; hence, it clearly might be difficult to learn from each other without knowing these differences and context in sufficient detail. This is something to be taken in due account when compiling or presenting "best practices" and sharing with examples to spread knowledge about application of the ELD (Mikosa). It is questionable, how far major differences in the scope of application of the Directive is to be tolerated by the European legislator, even if part of the differences is based on the dispositive rules of the ELD itself.

Clarification of the exact scope of the defences

As we have seen from the above chapters, while the differentiation between exemptions and defences are theoretically clear, in several countries the line between them is quite blurred. For instance, the operator having a permit is commonly accepted as a defence, i.e. one which the operator must affirmatively bring forth. Whereas in Austria this was built into the national legislation, not as an affirmative defence, but rather an issue determining whether damages caused by a permitted activity could even as such qualify as "environmental damage" within the meaning of the legislation at all, thus triggering the application of the ELD, or in a negative case, behaving like an exemption (Schmidhuber).

The ruling in Gert Folk (C 529/15) that seems to have been mostly implemented in Austria insofar, established that water damages that result for permitted activities should be covered by the ELD, unless they fall under a permit duly authorized under article 4(7) of the Water Framework Directive, as implemented in Austrian law. Thus, a "blanket" permit defence is excluded in the area of water protection, unless the specific significant negative effects were not anticipated and considered within the framework of that article. However, it is not always clear what effects are indeed covered by a permit, particularly in the different federal states/provinces. In the federal state of Salzburg the matter of a so-called permit defence has been clarified that it only applies to damages that go beyond those negative impacts, which were determined in the framework of the permitting procedure. Accordingly, any damaging effects, which were not assumed within that permitting procedure, fall under the definition of "environmental damage", even if the activity itself was authorized under a proper permitting procedure. This legislative clarification may be seen as a positive step towards the implementation of the Gert Folk ruling, and could be used as an example for further legislative initiatives amongst the other federal states of Austria, and also can be useful for other EU Member States. At the same time, it is vital to emphasize again that the significant added-value of the ELD and its imposition on the member States that the ELD can cover also pollution that falls within the scope

of a permit in question. Thus, the "Salzburg approach" may be considered as a positive, but not clearly sufficient, clarification (Shmidhuber).

The issue of defences has deep interconnections with the dilemmas of application of the new ELD laws or the old sectoral laws in the Member States. In the latter situation the polluter often is known beyond any doubt, and then the ease of question of establishing liability will also depend on the administrative legal settings. A damage can be result of accidental events, but may also be the result of negligence or intent, sometimes the result by the normal conduct of the activity, accumulation of pollutions in a water area, following the conditions in the environmental permit for the activity (Bengtsson). Similarly, the Czech researcher pointed out that the preventive measures under the ELD are rarely applied in practice, due to the existence of sectoral legislation where preventive measures are usually foreseen and prescribed earlier in the permitting procedures and in greater detail. This is again partly linked to the nature of the ELD process as a unifying process relating the damage to several components of the environment, which logically cannot cover all the specifics as the sectoral laws do. However, this can again be bridged by the incorporation of special tools under sectoral regulations within the ELD preventive processes regarding operations falling under ELD (Cerny). The situation is somewhat unusual for administrative courts (and also for NGOs) because they can generally rely on prior administrative investigations, especially in cases treating particular permits. It therefore seems useful to raise the courts' awareness on this delicate procedural task and to strengthen their capacities to conduct their own investigations (Verheyen).

V.4.C Other sources

The ELD Resolution of the European Parliament

RES Point 34. Calls furthermore for the removal of the options for granting permit defence and state-of-the art defence in order to create a level playing field, promote the polluter-pays principle and improve the effectiveness of the legislation;

As we have seen from the Summary, only a smaller part of the Member States use the permit and even less the state-of-the art defences, furthermore, where they are introduced into the national laws, the legal practice tries to avoid the legal-procedural complications that entail with them, so we think that this suggestion is quite timely and viable.

The EPA-ICEL Conference

Professor Owen McIntyre, a lecturer at the conference expressed his views that the discretionary defences available to MS (permit defence – damage is authorised by the regulatory authority; state of the art defence - not considered likely to cause environmental damage according to the state of scientific and technical knowledge at the time the emission was released or the activity took place) do not support the theory of the Directive as a harmonising measure.

We can see that this scientific approach of the defences is totally in harmony with the opinion and suggestion from the European Parliament.

CERCLA study

Consistent with the broad sweep of CERCLA's liability provisions, the defences in the original statute were extremely narrow. The potentially liable party could avoid liability only by establishing that the release and damage were caused solely by

(1) an act of God;

(2) an act of war;

(3) an act or omission of a third party other than an employee or agent of the defendant.

Once a party is found to be a PRP, only the defences expressed in the statute can absolve her liability. Equitable defences, i.e. defences formulated by the common law system, are not available to defeat liability under CERCLA. However, as a later legislative addition to the third-party defence, the defendant may assert an 'innocent landowner' defence. This defence was created as part of the 1986 also by the Superfund Amendments and Reauthorization Act ("SARA"). SARA allows a PRP to escape liability if it can show that she acquired the land after the disposal of the hazardous substance thereon, and either

(i) did not know, or had no reason to know, of the hazard when he acquired the land, or

(ii) the defendant is a government body which legally acquired the property, or

(iii) the property was inherited.

The US Congress amended CERCLA in 1986 to establish a subset of the third party defence which has become known as the "innocent landowner" ("ILO") defence. Originally, parties seeking to employ the defence needed to show that they had no contractual relationship with the party who caused the release, "exercised due care with respect to the hazardous substance concerned and took precautions against foreseeable acts or omissions of any such third party . . . ." The ILO defence established that a property purchaser, who otherwise meets the third party defence, is not disqualified solely for having a contractual relationship with the seller. If the purchaser can demonstrate that it acquired the property after the disposal or placement of a hazardous substance on the property and that it had no knowledge or reason to know of the prior disposal, then it may escape liability. For an innocent landowner to establish that it had "no reason to know," it must demonstrate that prior to purchase it conducted all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability. In 1993 the American Society for Testing and Materials — an independent standard setting organization subsequently renamed ASTM International ("ASTM") — published a Standard Practice for Environmental Site Assessments that could be used in such cases.

Additionally, ILOs who acquire actual knowledge of contamination have a duty to disclose its existence to the subsequent purchaser of the property. Two similar defences that were enacted in 1986 and added two new categories of property owners potentially eligible for CERCLA liability protection was available for contiguous property owners ("CPOs") and bona fide prospective purchasers ("BFPPs"). Congress explicitly assigned the burden of demonstrating eligibility for each of the defences to the party asserting the defence under a preponderance of the evidence standard. The Contiguous Property Owner Defence was modelled after a 1995 EPA policy statement under which the EPA would not hold a property owner liable for contaminated groundwater from off-site sources if the CPO did not contribute to the release of the hazardous substances, did not have a contractual relationship with the person liable for the release of the hazardous substances, and was not otherwise a potentially liable party. Under the Brownfields Amendments, a CPO of a land contaminated by a hazardous substance

migrating from off-site sources will not be deemed an owner or operator of a contaminated site for purposes of Superfund liability if the following conditions have been met:

• at the time of property acquisition, the CPO had conducted all appropriate inquiry and did not know or have any reason to know that the property was or could be contaminated by a release from the adjoining property,

• the CPO did not cause, contribute or consent to the hazardous substance release,

• the CPO is not potentially liable and qualifies as being "non-affiliated" with the off-site source owner,

• the CPO fulfilled enumerated "continuing obligations."

The Bona Fide Prospective Purchaser Defence is the third – and likely most important – of the three defences in the Brownfields Amendments. To qualify as a BFPP, the property owner must have purchased the property after January 11, 2002, made all appropriate inquiry into the prior ownership and uses of the property before acquiring the property, satisfied the enumerated "continuing obligations", and not be affiliated with a potentially liable party. Further, all disposals of hazardous substances must have occurred prior to the purchase. (Wetmore, 2014; Amadon, 2017; Holms, 2019)

V.4.D Chapter summary

Findings

Vis maior cases are almost universally applied in all EU countries in the environmental liability matters, such as armed conflict, hostilities, civil war, or insurrection as well as a natural phenomenon of exceptional, inevitable and irresistible character. A special exemption is to ensure legally clean property for banks and other lenders, which might be socially-economically reasonable, while it is questionable if fits to the transposition requirements of the Directive. Even in the cases, however, where the authority has established one of the exemptions, the user of the environment might be nonetheless required to undertake certain measures, with a view to prevent the threat to the environment or the environmental damage, or to mitigate the adverse impact.

As concerns the defences, the third party defence is used generally, while the permit defence is used in most, but not in all countries. There is a similar defence, the compulsory instruction one, which is seldom written in the national ELD laws expressly, but can be understood as a stronger version of the permit defence. In some countries the permit defence is only conditional or can only mitigate the liability rather than fully eliminate that. While at the previously mentioned defence the mitigation factor is exceptional, at the state of art defence it seems to be the main rule in Europe. Some countries apply this defence in limited circle, for example in respect to products, others exclude its use in certain cases, such as in connection with GMOs or in case of soil pollution. Further defences, such as the innocent land purchaser defence might be taken from transatlantic sources, while their raison d'etre in the European laws might be questionable.

Suggestions and observations

It is a matter of further discussions, how far major differences in the scope of defences is to be tolerated by the European legislator, even if part of the differences is based on the dispositive rules of the ELD itself. The discretionary right of the Member States might only be limited to use or neglect a certain type of defence, but not to seriously modify its content. On the other hand, defences should be embedded into the national legal systems, their organic fitting might require some additional, detailed rules. We think that many of the above detailed differences in the national laws exceed this limit, and might be found endangering the even playing field requirements. Having taken into consideration these dilemmas, an EU level guidance on the scope of defences and probably also about the differentiation of the exemptions and defences might be necessary (in harmony with RES 34). In respect to the latter, we note that several European countries are in line with the US approach which handles exemptions and defences as belonging to the same category.

Interconnections with other chapters

Chapter II: once an operator or a land owner frees himself from the liability with the help of a defence, some older sectoral laws on environmental liability might still be valid in concern with the pollution in question;

Chapter V: in the legal systems, where the liability for environmental damages is not easy to make operational, defences might have less importance, while where the liability is really strict and widespread, defences gain more room.

VI The ELD procedure

VI.1 Initiation of the ELD procedure

Our questions were in this chapter:

- who are the persons responsible for notification about accidents and polluted sites?
- in what other channels an instance of environmental damage (imminent threat of damage) becomes known to the authority (monitoring activity from the authority itself, a regular routine report from the operator), and what is the significance of other sources in this respect (such as media, citizens, NGOs or other organisations)?

We note here that there are overlaps and interlinkages with other chapters, the liable persons in general were discussed in the substantive legal Chapter 5.2 above, while request for action as a specific way of initiating the ELD procedure will be discussed in the public participation part of the Summary, in Chapter 9.2.

We did not ask the researchers to survey or create statistics on the several ways an ELD procedure start, but some of them were in the position to have an almost exhaustive survey of the cases, especially because there were not too many, for instance 15 of them altogether in the whole country (SLO). As we see in the table the Slovenian researcher put together, the parties that notified the chief environmental authority were: in 3 cases the NGOs, in 2 cases the person who caused the damage, and in one case the Ministry for the Internal Affairs and the Managing Institute for Protected Areas. In

the other 10 cases the authority begun the procedure *ex officio*. Within this latter group in two cases the information arrived from the media (SLO).

ELD cases in Slovenia and the way they started (Source: Senka Vrbica nat. study, p. 5)

	Person causing the env. damage	**Who initiated the procedure**
1.	Elektro Gorenjska d.d.	Alpe Adria Green (NGO) notification
2.	Mountin association of Slovenia	PIC (NGO) notification
3.	DOGA GALVANA, loation Krmelj	Information from the person causing the damage
4.	PUBLIKUS d.o.o., location Komenda	Beginng the procedure ex officio
5.	FRAGMAT TIM, location Podskrajnik	Beginng the procedure ex officio
6.	OKOLJE PIRAN d.o.o.	Beginng the procedure ex officio
7.	Slovenian Railway - infrastructure	Beginng the procedure ex offico
8.	Unknown location Koper, Žusterna	Beginng the procedure ex officio
9.	SUROVINA d.o.o.	Information from the person causing the damage
10.	Industrial zone Laze (25 facilities)	Alpe Adria Green (NGO) notification
11.	Kemis d.o.o.	Beginng the procedure ex officio
12.	Individua person, Črnuče Ljubljana	Notification of the Ministry for internal Affairs,
13.	Trmit d.d.	Beginng the procedure ex officio
14.	Landfill Unično	Beginng the procedure ex officio
15.	Individual person Ljubjana Barje	The managing institute for protected area

According to the Ministry of Environment Report in 2017, the majority of the ELD cases in Spain were initiated ex officio (20) and the rest were communicated by the operators (12) (SPA). Portugal has much more environmental emergency cases labelled as ELD ones. According to 2019 Annual Report of the environmental agency, in absolute numbers, the 33 environmental incidents communicated to it in the year of 2019, the majority were communicated by the operators (26 incidents) and by the directly interested parties (7 incidents), while the rest was initiated *ex officio* (POR).

The cases started by the competent authorities upon their own initiative

One of the most important sources of information on the ELD sites is the *monitoring activity of the relevant authorities* themselves, especially when it is within the frames of a planned, systematic program of revealing of polluted sites. An important solution for revealing the best targets for such a monitoring activity is at hand: the authorities making surveys primarily in their own *archives* to find out where, when and how polluting activities had been pursued in their respective jurisdiction (SWE, FIN). Carrying out *inspections of sites* of natural and legal persons in accordance with the procedure established by legal acts, conducting preventive inspections (possibly with no notification sent to the operator in advance) can be initiated by the authority based on their knowledge or on a systematic plan, as well as following on notifications and complaints from natural and legal persons about places of suspect (LIT) and especially high risk sites (FIN). Such inspections are usually not carried out under the national ELD laws, but rather are guided by sectoral laws. The Irish EPA's report on industrial and waste licence enforcement for 2017 notes that 51 site visits were carried out to investigate environmental incidents (IRE).

In some countries authorities competent in ELD cases do not carry out their own regular monitoring on the regular basis, but may receive information of potential damage from other authorities, in particular from authorities whose special task is environmental inspection, through which they monitor the state of environment (POL). In such cases, the proper training of the personnel of the inspection units, as well as the effective communication channels with the ELD units are vital.

It seems to be useful if the *procedure is formalized and equipped with proper deadlines*, for instance, the operator shall inform the authorities on the measures taken to prevent damage and on their effectiveness within 1 hour from the completion of the preventive measures (ROM), or the competent authority, after receiving serious notifications, shall perform a surveillance on site to clarify the relevant facts and circumstances, related to the imminent threat for environmental damages and shall draw up a written statement on the findings, within 3 days after receiving the information (BUL). Such formalised procedural rules might contain the details of circumstances how *the authority can have access to concerned properties* (SWE). In other countries there is no statutory time limit within which the environmental authority is obliged to examine the notification. For this reason, it sometimes examines the notification for too long. A case was mentioned in Slovakia (the case of the Želiezovce hydropower plant) where the investigation of the notification submitted by NGOs has been going on for more than 3 years and is still not completed (SVK).

The relevant operators running activities that entail certain risks are usually obliged to carry out a risk assessment of individual operational activities and continuously update this assessment in the event of significant changes in operating activities. These *self-assessments* might be excellent sources for the authorities to direct their investigations to the most important hotspots, while it is not everywhere obligatory to automatically (let alone in real time) provide them to the authorities (CZE).

Notification by the operator

If there is an accident or new findings of a possibly significant environmental damage or threat of that, the primary responsibility of the polluter or any other possibly liable persons, including the owner of real estates concerned, is the notification of the competent authority or of several authorities with several (water, soil, nature protection, etc.) competences (HUN, MAL, EST). Considering that such self-reporting obligation might not be always obeyed from the side of the operators, owners, or other persons, this responsibility is usually underpinned by administrative and quite possibly petty offence and even criminal sanctions, too (SWE). On the other hand, some fines connected to the pollution or other facts might be levied or mitigated in the cases when the operator cooperates with the authority effectively (LAT). It is questionable in the practice than in such cases, when there is only an imminent threat of environmental damage, but it is successfully dispelled by the preventive measures taken by the operator, whether she shall send a notification about it or not (MAL, EST).

The content of notification is usually described in detail in laws or guidance issued by the relevant authorities (SWE). The most basic elements of the notification are:

- data about the operator;
- the place, territorial extension and
- type of the caused environmental damage;
- the reasons for the occurring environmental damage;
- expected consequences from the environmental damage;
- the applied measures up to the time of notification;
- other circumstances and facts related to the caused environmental damage – being important upon estimation by the operator (BUL);

- the measures which have been taken by the operator and those still to be taken as well as
- further measures which may be needed for the after-treatment of the area (SLO).

An interesting feature of notification by the operators appears in Ireland. Licensees are obliged to rank all reported incidents in accordance with the classification system provided by the EPA. The classification is based on the incident's effect or potential to impact on the environment. The classification system goes from 1 to 5 with one being a minor impact on the environment up to 5 being catastrophic. Minor incidents (Rank 1) cause no contamination, the effects are localised. Incidents with limited impacts (Rank 2) mean simple contamination and localised effects of short duration. Serious incidents (Rank 3) include simple contamination and widespread effects of extended duration. The most significant incidents are classified as very serious (Rank 4) with heavy contamination and localised effects of extended duration or as catastrophic (Rank 5) causing very heavy contamination and widespread effects of extended duration. Typically, incidents of limited impacts on the environment (Rank 2) and higher will be posted to EPA's website. These notifications are made publicly available online as soon as received by the EPA, in order to alert the public immediately. After EPA's investigation is carried out, the online information on the incident is updated with further details on the necessary actions taken. Notices are, however, archived two months after being updated, and details of all reported incidents are kept on public file at EPA's regional offices and on site at the relevant operator (IRE).

In several countries there are no specific requirements regarding plausibility for showing that environmental damage occurred (SVK). In its response to the notification the authority might demand further data servicing and monitoring activities from the operator (AUT).

Alternative sources of information on possible ELD cases

Alternative sources of information on possible ELD cases include *authorities other than having primary responsibility in ELD cases*, such as dike guards, or the police (HUN), municipality authorities, forestry and cultural heritage bodies (FIN), Environmental Ombudspersons (AUT, EST) or Environmental Auditors (CYP). An obvious channel of information is a collateral note from prosecutors when they handle environmental criminal cases in which they see the further possibility to proceed with the ELD processes, too (ITA).

Notifications, complaints, observations from the *public, their organisations, or municipalities* in the form of letters, e-mails or even video recordings uploaded to *social media platforms* represent important sources, too (HUN, AUT). In the Brussels Capital Region one can contact the Environmental Police through the 112 hotline and the Environmental Agency that further can alert all the necessary services (ambulance, fire brigade, police) involved in the disaster prevention and handling (BEL). Also, with the intent of facilitating public information on ELD sites, in Latvia the authorities developed an app allowing for the members and associations of the society to report directly to the environmental authority any environmental concerns (LAT). In Germany it was recorded that the majority of ELD cases was started after a notification that arrived from the concerned communities or NGOs (GER).

The competent authorities can also be alerted by the mainstream *media* (BEL, LAT, ITA). While it is also noted that in some cases the media can cover widely and extensively certain environmental catastrophe situations, the relevant authorities remain passive, either wait for each other or got accustomed to the noise of public media, which will break through their perception thresholds with more and more hardship.

Commencement of the ELD procedure

Based on the above information, the competent authority shall decide on the official onset of the ELD procedure. At the commencement of the ELD procedure *immediate measures* are taken by the authority. In case of finding significant environmental pollution or endangerment on the site (often in connection with infringement of the requirements of relevant permits) a *complex legal response* has to be performed by the environmental authorities (far extending the scope of the ELD laws), including orders, prohibitions, fines, petty offence sanctions, charging of procedural costs etc.. In certain cases, the monitoring authority has an obligation to notify the prosecutor or police when suspicion of a criminal offence has been established (SWE, CRO, SPA). Another important initial step is to send *official information to other authorities*, which might have relevant competences in the ELD cases, such as water protection, water management, soil protection, nature protection authorities if they are separate from the environmental authority (HUN, CZE, SPA). Thereafter, if not happened earlier, the competent authority alone or with inclusion of the most closely related other authorities usually shall carry out an *on-site inspection* (HUN).

After receiving enough and reliable data on an ELD case, the competent authority

- brings a formal decision on opening the case;
- publishes a notice on the commencement of the proceedings on the public administration portal;
- forwards to the operator both the data already gathered about the case (such as a request for action) and the accompanying comments, and give opportunity to operator to comment the claims in the notification;
- sets a deadline to respond to these data;
- determines whether there is a real threat of environmental damage;
- establishes which operator has caused environmental damage or its imminent threat;
- assesses its significance;
- requires the operator to take preventive or remedial measures;
- orders an in house or official outside expert opinion;
- if the data of the above procedural steps do not bolster the occurrence of an environmental damage or imminent threat of environmental damage, terminate the proceedings in this early phase (CZE, CYP, HUN, CRO, SPA).

Those procedural steps have to be taken in an *expedited way*, not just because the usual urgency of such cases, but also because, until they are finished, the relevant stakeholders of the case are left in full uncertainty about their responsibilities (DEN).

VI.1.B Evaluation by the in-depth researchers

Interconnections with the topic of use of old sectoral laws

As the national researchers pointed out, the authorities may be afraid to initiate the complicated ELD processes, and risk that the process will not lead to the determination of liability under the ELD, which would thwart all their work. In case, however, if the process under ELD laws would not lead to the

determination of liability under the ELD, it should be possible to turn the administrative procedure back to the mode of the sectoral laws, and that possibility could decrease the reluctance of the authorities to initiate the ELD process (Cerny). Similarly, the German national researchers established that insufficient flow of information and lack of coordination between different authorities appears to hinder the detection of ELD cases and the initiation of ELD procedures in many member states. ELD relevant information and competences are scattered across different (environmental and other) authorities on the Federal and state level (Verhelyen).

If environmental pollution or damage occurs, in Slovakia the operators almost never notify the competent authorities (district offices) pursuant to the ED Act. In case of pollution or damage to the environment, they submit notifications to other authorities according to other laws - they submit notifications to, for example, the police or the Slovak Environmental Inspectorate. Operators thus do not report imminent threats of environmental damage or environmental damage to the competent authority – the district office. The reason may also be the vagueness and ambiguity of the definition of the "environmental damage". Even the competent authorities (district offices) themselves are not able to assess whether there has been environmental damage and need opinions of environmental agencies and experts to do so. An other factor of the reluctance to report an ELD case is that it is more favourable for the operator to report environmental pollution under other laws than under the ED Act, because under these other laws he only has to pay a fine for the pollution and will not have to take remedial action, which is costly (Wilfing).

Even more, as we have seen in the topic of commencement of the ELD procedures, we have seen that it is unavoidable that the whole machinery of the concerned authorities and their respective administrative laws start moving when an ELD type environmental emergency situation is notified to the competent authority. This situation underlines again the necessity of better harmonisation of the national ELD laws with a line of the other relevant laws on catastrophe prevention, water, land and nature protection and many others. On the practical side, better information flow and cooperation between the relevant authorities, as well as other state bodies, such as ombudspersons and bodies of criminal investigation, where environmental liability issues frequently noticed (Verhelyen).

Improving information flow about damaging occurrences

As cases of environmental pollution in several Member States are dealt with mainly on the basis of special laws, the competent authorities under the ELD Act will not find out about the cases and cannot examine whether it is necessary to proceed under the ED Act as well. We suggest to establish the obligation of environmental authorities acting under special laws (Water Act, Agricultural Land Protection Act, Nature and Landscape Protection Act) to report any suspicion of imminent threat of environmental damage and any suspicion of environmental damage to the competent authority under the ED Act. In addition to that, most cases of more serious environmental damages are dealt with by the police. If a criminal complaint is filed with the police regarding the crime of environmental damage, the competent authority under the ELD Act does not have access to information from the police file during the criminal investigation until the end of the investigation. The competent authority is often not even aware that criminal proceedings are ongoing. We suggest that the police be obliged to provide basic information on the case so that the competent authority can carry out its own investigation and act in the field of prevention and remediation of environmental damage under the ED Act. (Wilfing).

For effective handling of ELD cases it is crucial that the operators fulfil their obligations, too, concerning the timely (immediately) information to the competent authority about damaging occurrence. Therefore, it is a good practice to introduce legal mechanisms aimed at facilitating such incentives:

- User-friendly and accessible options for quickly informing the competent authority on environmental damage – e.g. those established for other purposes of the society through applications (Apps) used on mobile devices;
- Monitoring equipment/infrastructure improvements including thorough digitalization of processes and tools used by the competent authorities. One indeed needs to consider how to best integrate digital technologies within the monitoring and control systems of environmental authorities. Appropriate funding and learning from other experiences are crucial for expediting this process;
- Public prosecutors have to be informed about the requirements of the ELD, and also be assigned as 'competent authority' for implementing this Directive. Thus, as indicated above, there should be better coordination and information flows between relevant authorities leading two procedures with slightly different purpose, but quite closely related (Mikosa).

Indeed, Article 11(1) of the ELD explicitly makes it possible that the Member States designate more than one competent authority. In Italy, however, an opposite direction seems to work successfully, instead of division of work. With the implementation of the ELD directive in the relevant parts of the Italian environmental legislation, the number of the inquiries for environmental damages has sensibly increased. The new provisions conferred all environmental damage actions to the Ministry of the Environment in a centralised, but quite transparent system, extended the scope of action to the preventive phase of the threat of environmental damage, and introduced the possibility of any interested party to activate the Ministry. Therefore, the Ministry has the duty to consider any reports on damages. The Ministry acts in collaboration with the environmental agency, a special ISPRA/SNPA system, which offers an assessment of reported damages in order to understand the duty to intervene in administrative or possibly also in judiciary procedures. ISPRA created a new model of interaction between ISPRA and the Agencies aimed at ensuring the implementation of the complex technical/scientific activity required by the ELD laws (Delsignore).

Need for systematic environmental inspections

Recently in Greece the "Implementation of the National Plan of environmental inspections" was approved, and a register of works and activities of category 'A' was compiled. These activities, which fall into the category of environmentally more significant ones, have been environmentally licensed from 2012 to 2016 throughout the country. Since 2018, an annual plan is issued for environmental inspections, but is practically non realizable due to lack of stuff. It is proposed that the Greek government should hire civil servants at national and regional level, in order to realize systematic environmental inspections (Kallia).

The competent authorities in several Member States do not have the capacity and ability to search for cases that fall under the ED Act, and thus are not informed about cases. The employees of the competent authorities, especially if they are positioned at the lower level of a more decentralised governmental system, do not have the capacity and ability to search for cases that fall under the ED Act (Wilfing). This topic furthers us to capacity building activities, discussed in several other Chapters of the present Summary (such as Chapter IV or Chapter IX 3).

VI.1.C Other sources

The ELD Resolution of the European Parliament

RES Point 21. Takes the view that among the various causes of the insufficient harmonisation of the ELD is also the failure to provide for the application of a standard administrative procedure for notifying competent authorities of imminent threat of, or actual, environmental damage; regrets therefore that there is no obligation to publish such notifications or information about how the cases were dealt with; notes that some Member States have identified this limitation in their national legislation and thus set up databases about the notifications/incidents/cases; points out, however, that the practice varies broadly from Member State to Member State and is rather limited;

This is a key observation of the Resolution in our opinion. It highlights the importance of the procedural issues and hints – quite aptly – that one of the main reasons of consequential implementation of the old sectoral laws is the weaknesses of the elaboration of the procedural side of the ELD laws. It is also a valuable observation in this point that there are strong interlinkages between the effectiveness of the implementation of the ELD and the proper information flow about the actual environmental liability cases.

VI.1.D Chapter summary

Findings

A smaller part of the cases start with the information from the operator who has caused the pollution, in most cases the competent authority initiate the cases primarily form its own experiences collected from monitoring, reports from other authorities or state bodies, from NGOs or local communities. The best practices for the authorities in revealing the ELD sites are those, which are based on planned, systematic research. Their own archives contain the history of those companies and sites that are worth to revisit regularly. Preventive site inspections, careful follow up of outside information sources on places of suspect and timely first measures in the cases include the best practices we have learnt in this project. In encouraging public awareness and participation several electronic devices might play progressive role, such as an ELD hotline to the competent authority or mobile phone applications for the same purpose.

From legal side, regulations of formal procedures and deadlines for the initiation of the ELD cases might be useful in the practice, and also supporting legal provisions that make clear that the site inspections of the competent authority should not be hampered by the owners or users of the concerned lands and facilities. Several necessary legal-procedural institutions address the problem of willingness of the operators to report the incidents that might fall under the ELD laws. Besides the sanctions of administrative, petty offence or criminal law, the secondary responsibility of the land owners might be an effective tool to raise the portion of the operator reports in the whole amount of initiated ELD cases. The minimal content of the notification is determined in most of the Member State laws.

The commencement of the ELD cases not always happen with a formal decision first, rather a serial of urgent measures taken typically. Quick orders or measures to prevent further deterioration of the

environment shall be performed, notifications shall be sent to the concerned communities and calls for the possible contributing authorities in the fields of catastrophe prevention, public health and nature protection and many others. Thereafter the formal procedural steps might follow, usually far extending the scope of the ELD laws, including issuing administrative orders, prohibitions, fines, petty offence sanctions, charging of initial procedural costs etc..

Suggestions and observations

Two interwoven directions were pointed out by the in-depth researchers in this section: we should raise the willingness of the operators to report the ELD cases to the competent authority and also encourage the other authorities to signal the ELD cases, from which they acquired reliable information. We know that it is more favourable for the operators to report environmental pollution under other laws than under the ED Act, because under these other laws they has a chance to pay only a fine for the pollution, and will not have to take remedial action, or not as thoroughly than under the ELD, which is a matter of cost and time saving for them. While we have seen in the findings of the basic national researchers that there are processes and methodological solutions that make the reporting easier and less bureaucratic, as well as that there is a chance to enhance the legal threats, including criminal ones for the operators who have failed to report ELD instances, yet, at the time being, the results are less then optimal. Once the operators could be almost sure that the other authorities, who do receive the reports or the monitoring information would forward them immediately to the competent authority for the ELD cases, as well as the members and organisations of the public could raise the effectiveness of their watchdog activity, the willingness of the operators to cooperate with the ELD authorities grew.

This situation underlines again the necessity of better harmonisation of the national ELD laws with a line of the other relevant laws on catastrophe prevention, water, land and nature protection and many others. Police and other criminal investigation bodies should send the relevant information to the competent authority, too. This should happen immediately, as soon as they acquire the relevant information, and not at the end of the criminal investigation. The misunderstandings should clarified: 'favour defensiones' and the presumption of innocence should be valid only within the criminal cases, not in its administrative legal consequences.

Finally, when and if the cases reach the competent authority or authorities, the onset and the first urgent measures should be taken in an expedited manner, too. For this, legislators should hit the balance between the solutions of a wider division of the work of the competent authority or centralize the ELD tasks vertically and horizontally for the whole country. An important caveat though, that if the process under ELD laws would not lead to the determination of liability under the ELD, it should be possible to turn the administrative procedure back to the mode of the sectoral laws. This would mean a kind of a safety net: by the decision that a certain case falls under the ELD laws, the environmental authorities would not take the risk of losing the case at all. Any information, data, evidences collected could smoothly forwarded to the other relevant authorities, when the first and primary filter of the initial ELD procedures let them so.

Interconnections with other chapters

Chapter I: notifications and other early measures of the ELD cases should represent a vital part of the national or regional environmental databases, because they call the attention of all the interested

stakeholders that the case they might be interested in, has started, and also orient them about their tasks;

Chapter II: interconnections with the topic of use of old sectoral laws is very strong: inception of the environmental liability cases is a turning point, where the future legal faith of the case is decided;

Chapter III and IV: proper training of site inspectors and other key personnel of the relevant, non-ELD authorities is the precondition of timely noticing the signs of dangerous pollutions at the possible ELD sites and informing the competent authority about those;

Chapter V.1: as the national researchers pointed out, the authorities may be afraid to initiate the complicated ELD processes, and risk that the process will not lead to the determination of liability under the ELD. The vagueness and ambiguity of the definition of the "environmental damage" should be overcome somehow, in order to solve the above problem of selecting the proper legal path;

Chapter V.2: there are overlaps and interlinkages with the provisions on the liable persons, who will be the central figures in the new ELD cases;

Chapter V.4: a failure to report environmental emergency situation and cooperate with the environmental and other authorities, as well as tempering with the data of self-monitoring and self-assessment might lead to criminal investigation;

Chapter VI: timeliness of the first steps in the ELD procedures is a key condition of successful prevention of escalation of the dangerous pollution situations;

Chapter IX.2: request for action is a specific way of initiating the ELD procedure, the content of information to be attached to the request is a subject of debate amongst legal experts.

VI.2.a Measures to prevent or clean-up environmental damage

Our questions were in this chapter:

- what kind of measures are taken in case of an actual environmental damage or imminent threat of damage under the Environmental Liability Directive by the operators or by the authorities (or third parties)?
- if the measures are taken by the operators (or third parties), how far they are determined (consented) by the authorities (e.g. existence of guidelines prepared by the competent authority to facilitate the operator to draft the measures)?
- what are the measures taken in the cases of abandoned, historical or “orphan sites”, how sites are included into the national priority list and how they are handled?

Measures taken by the operators

The *order of responsibilities* in the ELD cases is determined by the fact that the operator is in the position to best know what measures are the most effective under the circumstances of his facilities, therefore he has the primary obligation to take the remedial actions (SWE, GRE).

The first step is that *the operator is obliged* to take immediate actions to *prevent further damage* to environment or to avoid raising the risk of damaging the environment and human health. If the measures are *urgent*, they must be taken without conferring with the authority. Urgent measures are implemented when the threat of imminent damage needs to be removed or to prevent further damage, multiplication and expansion of damage and the *domino effect* (CRO). Thereafter, the operator has an obligation to notify the authority in order to clarify if additional actions are needed (SWE, ITA, CZE). Not only urgent activities are expected from the concerned operator, but he has to *refrain* from engaging in any activity, too, that would pose further imminent threat or damage to the environment in the given situation (HUN).

The second step is determined by the high stake and the need for balancing the interests of urgency with the best calculation of the ramifications of the pollution and the clean-up measures. *Planning the remedy actions* therefore counts to be a key stage. The operator is obliged to prepare the clean-up plans without undue delay, which is more exactly prescribed in Italy: in any case no later than thirty days from the harmful event (ITA). The proposal for remedial measures has to be submitted to the competent authority for approval (LIT, CZE, ITA). Even if no *detailed guidelines* exist for drafting of the remedial action plan in Estonia, the environmental authority in the practice provides guidance based on some general provisions of the national ELD Act. Certain circumstances have to be considered in drafting the plan, such as the likelihood of the success of the measures, and their cost. When selecting remedial measures preference should be given to measures that allow achievement of the baseline condition directly, and in an accelerated timeframe or by way of natural recovery. Upon planning of substitutive and compensatory remedial measures, the remedial action plan must first consider the substitution of the damaged natural resource with an equivalent natural resource. First, it must be considered whether it is possible to take measures that ensure the existence of a natural resource of the same type, quality and quantity as the damaged natural resource. If substitution with an equivalent natural resource is not possible, the natural resource may be substituted with an alternative natural resource. If it is not possible to substitute a damaged natural resource or the benefits thereof with an equivalent one, remedial measures must be found using the method prescribed by the environmental authority on a case-by-case basis (EST). The competent authority maintains a high level of oversight over the recovery programs. The recovery programs are produced by accredited professionals and scrutinized by an expert committee formed by the ministry responsible for environmental protection. After the expert committee scrutinizes the recovery program the ministry needs to issue a compliance receipt (CRO).

The third stage[20] is *taking clean-up measures.* Where environmental damage has occurred, the user of the environment is obliged to take measures to restore the baseline condition, or a similar level as specified in specific other legislations, or to restore, rehabilitate or replace the damaged natural resources and/or impaired services (HUN). The party causing the damage can carry out the measure by itself if he has the proper knowledge and equipment, otherwise the measures are to be carried out by a third party; in certain cases, such as a fire at an industrial plant, the urgency would also prevent the operator from doing the works on himself, in this cases, the relevant state organisation shall take them (SLO). In the case when more than one kinds of damages occurred and it is impossible to undertake simultaneous remedial action regarding these damages, the competent authority may

[20] In principle these three steps should follow each other quickly, but in the practice they might take years (a comment from Csaba Kiss)

determine in its decision which damage should be treated first. In determining the order of taking the remedial action, the authority shall take into account the nature, extent and size of damage and the risk to human health, as well as the possibility of natural repair of natural elements in the area where the damage occurred (POL).

Fourth and utmost, the liable operator shall *bear financial responsibility* for the pollution. The operator having caused site pollution is obliged to accept responsibility for the environmental damage they have caused, and to cover the costs of prevention and rehabilitation (HUN). The whole procedure will *not start in a conflict free manner* in all cases. In the opinion collected from the representatives of the Lithuanian Environmental Protection Department, which view might be shared by many in other Member States, too, liable persons are mostly unwilling to fully restore the environment, they try to restore it as little as possible. They often challenge the instructions, requests, or orders from officials in this regard. It is hard to the officials to gather evidences to prove the damage done, because the activities are easy to conceal. In some cases, it is generally and objectively difficult to assess the extent of the environmental damage due to the lack of laboratories, capable of carrying out certain tests and the lack of primary data on the state of the environment prior to the occurrence of the damage (LIT). A typical case is the 'Vlčie hory"' landfill in the town of Hlohovec, where hazardous waste was illegally deposited in a municipal waste landfill, pollutants (petroleum products, asbestos) leaked from the landfill from loose barrels into the surrounding area and wastewater was discharged from the landfill site. However, the operator repeatedly appealed against the decision of the environmental authority and did not take any precautionary measures. Subsequently he terminated the operation of the company (SVK).

Measures taken by the competent authority

Responsibilities of the competent authority depend on the fact if there is a liable party or not. Even if there is a liable person, the authority might decide to interfere with the case (ITA, GER, LIT). Naturally, the activity of the authority is not optional, where there is an imminent threat of environmental damage in cases totally unattended by the operator (HUN, GRE). In some countries the mandatory tasks of the competent authority are broader: they have to act *when the operator is not carrying out the necessary preventive measures*, the measures taken by the operator are not sufficient, when the operator does not comply with the instructions given by the environmental authority or when the responsible operator is not identified (LAT, LUX, SKV, ROM, SPA). The costs of such authority actions are either included into the general budget of the competent authorities or there are certain State channels through which the authorities shall acquire the necessary funding, such as by a request submitted to the national environmental agency (SWE) or such costs are generally included in the state budget, and there is an application process that might be, however, quite time consuming for the competent authority (GRE).

The competent authority

- *deals with submissions* and requests for actions;
- *identifies and registers cases* of environmental damage, keeps summaries of information on environmental damage or its imminent threat and on preventive and remedial measures;
- *assesses the impact of the planned measures*, including a comparison of alternative risk mitigation or elimination procedures, and an estimate of the financial costs, also the time taken for each alternative; the competent authority might suspend the procedure for imposing remedial measures until the assessment has been submitted;

- *approves the proposed remedial measures* or impose additions or amendments , where explicit consent is needed, if the measures are different from that of the instructions of the authority;
- *issues decisions on imposing preventive measures or remedial measures*, imposes instructions or other measures determined by the law, especially invite the operator to take the necessary remedial measures within a specified period of time and provides him with instructions to be followed in their implementation, order the operator to take remedial measures, set their conditions and set a deadline for their implementation;
- *monitors compliance* with the obligations set out in the relevant environmental liability law and also determined by the decisions of the authority;
- *decides on the reimbursement* of costs;
- evaluates the opportunity to reach an *agreement* with the operator;
- imposes *fines* for offenses (CZE, SWE, ITA, LAT, SPA).

It is important to note that environmental authorities are usually too short of resources, therefore there are only exceptional cases, where they *must* interfere, in any other cases they just *may* do so. In Portugal, for instance, the environmental authority *shall* subsidiary intervene at the expense of the liable operator, when the severity and consequences of damages so require (and recovery of expenses seem to be ensured). As the last resort it *may* intervene in three cases: when the operator fails to comply with the legal obligations; when it is not possible to identify the operator; or finally when the operator is not obliged to support the costs, that is in the cases of the exclusion of payment obligation. The authority also only *may* intervene in case of extreme situations harming persons and property, the so called environmental state of exception, but these situations only legitimate the action of the competent authority when aiming at reasonable results that could not be reached by any other means, in particular compliance with the rules of the national ELD legal regime (POR).

Orphan sites

The notion of the orphan sites is conceptualized by the Portuguese environmental authority as follows:

- any measurable adverse change in a natural resource or measurable impairment of a natural resource service where it is not possible to apply the polluter pays and liability principles,
- a situation of environmental degradation would be at stake, resulting from release of pollutants over time and/or in an uncontrolled manner,
- the question of responsibility of the State emerges for safeguarding the respective rehabilitation,
- however, any intervention should be preceded by an identification and quantification, through analytic methods, of the pollutants in such sites, which would aim at enclosing their spatial distribution at length and in depth (POR).

Such orphan sites might or might not fall under the scope of the national ELD laws, depending primarily on the time dimensions of the cases. Key elements of this definition, however, compared to other ELD sites is that the authority has to acknowledge that the available resources for clean-up of these orphan sites are very scarce at the time being, therefore the State has to strongly *prioritize* them, as well as it has to restrict the goals of remediation to halting the further spread of the pollution and prevent any damages to human health. Even if so, the matter of orphan sites should not be removed from the social and political agenda, therefore a clear picture on them is indispensable as the following example from Portugal shows.

According to information from the Government, following the Plan for Intervention in the Stone Quarries in Critical Situation, in November 2019 the majority of the 191 stone quarries at risk had complied with the measures approved: seals, signalling and works. 150 stone quarries lacked signalling having the signalling works been carried out in September 2019 by the Company of Mining Development (Empresa de Desenvolvimento Mineiro – EDM a private company owned by the Portuguese State*)*; 185 stone quarries needed seals to prevent entries and all the respective owners were notified. 164 stone quarries complied with the seals measures. Criminal complaint has been filed to the Public Prosecutor in the case of 21 stone quarries that are not complying with the measures and are still lacking seals. Nevertheless, the competent authority will implement such measures on those 21 stone quarries through intervention of EDM, which was scheduled for late December 2019 and April 2020. The cost of this intervention is covered by Environment Fund and the it will be further charged on the owners of the stone quarries; 153 stone quarries needed major intervention including projects and works to strengthen structural safety: 132 projects were brought foreword by the owners of the stone quarries to structurally strengthen the slopes of the stone quarries and the approval process is complex 35 were already approved in mid-November 2019, the remaining projects were scheduled to be approved late 2019 in order the interventions begin as soon as possible. The length of these kind of projects is very variable, ranging from 6 months to 6 years (POR).

We would like to underline that the mandatory or optional activities of the competent authority, when there is no liable party or unable to take measures are closely interrelated with the broader topic of *historical sites*. The old, polluted sites are generally out of the scope of the national ELD laws, while in the mirror of some findings, especially in respect to brownfields, we have to acknowledge that retroactivity is not a black and white matter. Old pollutions might cause environmental damage now, for instance because of their spreading finally reaches the sensitive layers of water, soil, or nature. Also, they offer certain solutions to scarcity of industrial lands if the laws and procedures are at hand to manage such complicated matters.

The size of the problem of the historical sites is well described by a study in Lithuania. This example shows also the difference between the numbers determined by the State, responsible for cleaning up the orphan sites or the more objective data of a scientific organisation. However, the differences are partly because of the vague terminology borders between orphan and historical sites.

According to the data of the Lithuanian Geological Survey, on 31 December 2019, there were 12,514 potential pollution hotspots, with the total area of 26,527 ha (0.41% of the territory of Lithuania). The total area of this territory is 10,807 ha. In more than half of these areas, activities were *ceased in 2000 or earlier*. Economic activities were discontinued in 6,189 territories, but only 1,770 (28.5%) were studied, of which only 281 (4.5%) were investigated in detail. According to the data provided by the Lithuanian Geological Survey, in about 50 % of investigated areas contamination of soil or groundwater with hazardous chemicals was identified. Major pollutants are petroleum products, pesticides, heavy metals, polycyclic aromatic and halogenated hydrocarbons, detergents and phenols. By 2020 only 117 contaminated areas were remediated, i.e. only 13.2 % of investigated areas, where pollution with hazardous substances has been identified (3.8% of contaminated territories, where economic activities have been discontinued). 53 of them were remediated using EU and municipal funds - 10.3 million EUR were used. According to the Lithuanian Geological Survey, 432.568 million EUR would be needed to remediate all contaminated sites. However, there are no data available concerning the application of any form of environmental liability in these cases. (LIT)

As concerns the composition of the abandoned sites nationally, an old (2003) Hungarian set of data might still be informative.

Activity	Share of contaminated sites
Landfills	41%
Industrial/commercial objects	31%
Storages of technological materials	14%
Agricultural areas and objects	7%
Other activities	7%

Unfortunately, in Hungary accounting of longstanding pollution cases has halted since 2003 (HUN). In some other countries reliable statistics exist only on the sites successfully cleaned-up already. There are no *available data for the orphan site* since 2016 in Greece. The only period is between 2012-2015, from which we have data, but only concerning cases that were remediated with funding from the Green Fund in the framework of the Urban Rehabilitation program (GRE). The Slovenian researcher also could acquire trustable personal information from the ministry about the old, polluted sites. Based on a provision of the Environmental Protection Act, special sites of degraded environment can be designated by the government. Although the country has at least five such areas according to professional NGOs, only one site was officially designated. There is still no list on historical or abandoned, "orphan sites", and their remediation is not addressed yet. According to the principle of the subsidiarity, measures are to be taken by the local community or if it is not able to do so, by the State, while as the ministry's legal expert emphasized, the provision is not further elaborated in detail, so the system is not yet functioning – it first needs some changes of the more general legal background and the availability of proper financial sources. In Slovenia in 2017 the Ministry for the Environment and Spatial Planning wanted to address these old burdens in the draft of the new Environmental protection act and to establish a special financial fund and yearly plans for remedial measures, but this initiative has not been successful so far (SLO).

Contrary to these examples, in Sweden a national programme is in place with the aims to detect and to decontaminate polluted areas, mainly sites that were/has been used for industrial purposes or as waste deposits. This activity is *well documented on regional basis* with all municipalities involved. The relevant statistics are reliable and there is a good view over the individual sites (SWE). In Romania, keeping the register of polluted sites is *decentralised* at the county levels. The county list of potentially contaminated sites represents the situation at county level of potentially contaminated sites, which is permanently updated and accessible to the public, while there is a summarized national list, too (ROM). There is a register in Latvia, too, established according to the Law on Pollution in 2001, aimed at conscripting polluted sites as well as "potentially polluted sites". It has been established in connection with incentives to identify abandoned, as well as historical sites requiring the environmental authority together with municipalities to identify such places and register them in a publicly available register, which takes place since 2004. At this moment there are 3500 sites altogether from which 240 are confirmed as polluted sites where remediation measures need to be taken. Usually, these are sites where state and different public funding sources are raised to remedy them. Prioritization of sites to be cleaned is done by the Ministry of Environmental Protection and Regional Development (MEPRD) taking into account the assessments and suggestions submitted by the State Environmental Service and opinions of the municipalities, if appropriate. At this moment, there are plans for cleaning-up 5-6 sites in accordance with the available funding (LAT). Relatively good statistics were reported from Germany. According to the 2019 common national statistic on contaminated sites, which is provided by the soil protection authorities of the *Länder*, there is a total

of 19.728 contaminated sites nationwide. 5.342 sites are currently being handled. Since 1988 altogether 36.096 sites have been remedied (GER).

Just as an example about a small part of the problem, in 2019 there were 44 abandoned mine tailings ponds threatening the environment in Spain. The Spanish ELD law introduced the creation of two funds to compensate for damages caused to the environment, both with limited scope of application. First a ''Compensation Fund for Environmental Damages", administered and managed by the Consortium of Insurance Compensation. It is financed by the contributions of the operators who have concluded an environmental liability insurance, an increase on insurance premium. The Compensation Fund covers the damages that has taken place during the insurance period for any claims after the insurance is not valid. The second financial security tool is a 'State Fund for the Remediation of Environmental Damages', which is for the remediation of the damages that have been caused to certain natural resources (waters, sea shore) in the public domain of State ownership, only when the operator is not required to bear the costs of preventive, avoidance and restorative measures (SPA).

Representing a huge financial burden, orphan sites have to be *prioritized*. The National Environmental Protection Agency of Romania assigns a risk score to each contaminated site included in the national list of contaminated sites. Based on the risk score, the Agency prioritizes at national level the contaminated sites in order to carry out the remediation projects that are financed based on the selection criteria considering their eligibility and relevance (ROM).

There is an important interplay between environmental law and land protection law in Sweden, in respect to the prevention of uncontrolled change of ownership of polluted lands. For areas that are so seriously polluted that, in view of the risks to human health or the environment, it is necessary to impose restrictions on the use of the land or to prescribe other precautions, the responsible authority can declare the area an environmental hazard zone. Such a designation will be noted in the *land register* and the authority imposes restrictions on the use of the area. Such restrictions may include carrying out obligatory environmental investigations and notifying the environmental board prior to the transfer of the land to another person. When the pollution has been remediated and the risk to human health or the environment has been eliminated, the environmental authority will lift the ban (SWE). Similarly, in case of change of the legal ownership of the land, on which an activity with potential contamination took place or is taking place, its owner has the obligation to make available to the potential buyer the preliminary investigation report of the potentially contaminated site, accompanied by the decision of the county agency for environmental protection (ROM).

Brownfield development

A way out from the longstanding problems of orphan sites could be offered by the brownfield remediation cases. Brownfields represent a separate case of the abandoned sites, where the economic motivation can be strong to revitalize the polluted lands, while the long-term economic risks are difficult to handle, too. The Greek report describes a State brownfield revitalization program. So far 45 brownfields have been remediated with funding from the Green Fund (1.5 million EUR) in the period 2013-2017 (GRE). In Hungary, in order to facilitate the reuse of polluted sites, the following steps are planned by the Government: forming the legal definition of 'brown-field areas' in construction law, collection of data on brown-field areas and formulation of recommendations for medium-term development policy instruments. This plan, however, has not yet been realised (HUN).

VI.2.a.B Evaluation by the in-depth researchers

Measures to be taken

We have seen that the remediation or preventive measures taken by the operator or by the authorities (contracted out to third parties or with their own personnel) are a matter of high level and very complex expertise, and as such, decided by a really narrow professional circle. Indeed these matters cannot be decided by the local communities, while we think that those national researchers who say that even this side of the ELD procedures *should be more transparent*, are totally right. It is crucial that information on environmental issues, including on damage cases and remediation measures be also covered by media outlets that have a far wider reach. Moreover, the representatives of the competent authorities need to have a deeper insight into such expert matters, therefore they should be trained and advanced professionally, in order to be able to actually decide on appropriate remediation measures suggested by the professionals (Mikosa). These capacity building efforts should not be exhausted in technical professional issues, but rather should encompass wider social-economic issues, too. Also a balanced legal approach should be taught: measures taken in an ELD case should be in harmony with the other relevant branches of environmental and other administrative laws, as well as in certain cases petty offence, criminal law aspects of the ELD cases should be taken into consideration.

Researchers urge for greater stress on *preventive measures*. Preventive measures under the ELD are rarely applied in practice, due to the existence of sectoral legislation, where preventive measures are usually foreseen and prescribed earlier in the permitting procedures and in greater detail (Cerny). On strategic level, others suggest either to include the prevention principle into the relevant legal texts on environmental liability, or to make it sure with practical guidelines that principle is widely used by the authorities (Kiss).

Others point out the *quasi-contractual* nature of the way measures is decided. A regime where the operator shall submit to the competent authority a proposal of the reparation measures to be adopted which in turn determines the measures that shall be implemented, might indeed have a quasi-contractual nature: both the determination of measures according and the imposition of duties to urgent reparation/minimization (competent authority giving instructions to the operator to adopt measures) can be judicially challengeable and judicially suspended (Amador). It's important however, to take into consideration when measures are designed that the *administrative burden* is minimized and restricted to measures really needed, and not observed by practitioners as additional tasks they don't see the benefit of. The way the administrative decisions present the remedy/prevention requirements, thus is very important, too (Bengtsson).

Orphan sites

We have seen the elaborated definition of orphan sites, but to put it into the simplest way, orphan sites are those that are abandoned either legally or physically or both. These sites might be quite typically historical ones, too, with this term merely referring to the longstanding nature of the pollution problem at a site. Natural researchers suggest the following, more elaborated definition of the orphan site: 'any measurable adverse change in a natural resource or measurable impairment of a natural resource service where it is not possible to apply the polluter pays and liability principles'. In such case a situation of environmental degradation would be at stake, resulting from release of pollutants over time and/or in an uncontrolled manner. In the cases where it is not possible to identify the liable operator the question remains whether the State would be responsible for safeguarding the respective

rehabilitation. The question also remains regarding in what way it is perceived that orphan damages could be covered by the ELD regime (Amador).

Researchers naturally interconnect the topics of orphan sites and *brownfield development*. If a polluted, abandoned land is attractive for any purpose and subject of construction works, the exploiter will be obliged to notify the supervisory authority on his/her plans on activities in a polluted area and subsequently be required to take precautionary measures and to clean up (Bengtsson).

VI.2.a.C Other sources

The ELD Resolution of the European Parliament

RES Point 15. Stresses that problems persist regarding the application of the directive to large-scale incidents, especially when it is not possible to identify the liable polluter and/or the polluter becomes insolvent or bankrupt;

The problem of orphan sites is touched upon both by the Resolution and in our project, too, and we could just echo the necessity to consider, at least on policy level, all cases of environmental liability, notwithstanding of the old or new laws actually applied for, neither the time of perpetration, nor the availability of a responsible or liable person.

Justice and Environment opinion

In their 2011 study J&E lawyers point out that the UNEP Guideline, rather than leaving the clean-up of the orphan sites on the discretion of the environmental authorities, suggest the US solution, namely that the authorities should perform the necessary remedial or prevention works and acquire the proper legal tools to reimburse their expenses from a wide range of possibly liable persons. This system of a wide range of liability should rest upon the four categories of possible liable persons as determined by CERCLA and the relevant case law in the US.

CERCLA study

The term “brownfield site” is broadly defined in the statute as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” For many years, older cities in US have struggled to revitalize the decaying inner city industrial areas that past owners have largely abandoned. These environmentally contaminated properties, commonly known as brownfields and estimated to number in excess of 450,000 properties nationwide, often lie idle, with no productive economic activity and no contribution to the community’s tax base. Moreover, brownfields are often quite valuable lands, because of their good location, with availability of commercial connections and trained labour force, as well as some remaining and still usable infrastructure on the spot. Real estate investors and developers are afraid to acquire and redevelop these properties because of the sweeping liability scheme of CERCLA. The mere fact of becoming an owner of the property would automatically make a purchaser a potentially liable party under CERCLA.

As early as in the nineties, American environmental legal scholars increased their outcry against CERCLA for unfairly penalizing anyone who owned or had ever owned land contaminated by hazardous waste disposal sites. The result was, they said, that many of these sites, known as "brownfields," were largely neglected by the private developers who could most afford to purchase and rehabilitate them. In 2002, Congress addressed the rising concern that the far reach of CERCLA's liability scheme had set back the original legislative purpose of cleaning up and restoring hazardous waste sites across the United States, by enacting the Small Business Liability Relief and Brownfields Revitalization Act and instituted a variety of exemptions to Superfund accountability. The 2002 Act created new defences for brownfield redevelopers and contiguous property owners to provide incentives for investors to purchase and re-develop usually vacant or mothballed parcels of industrial or commercial property in economically depressed downtown urban areas that sit idle out of fear by potential investors that the property is possibly contaminated. There are certain guideposts demonstrate that brownfields redevelopment can occur while satisfying the reasonable steps condition. These guideposts can be plausibly interpreted to mean, for example, that when brownfields redevelopment occurs, steps taken during site development to prevent public exposure (e.g., erecting fences), to maintain elements of any existing response action (e.g., not damage existing physical measures in place such as 'caps' or remediation apparatus), and to work in consultation with environmental agencies are the types of steps needed to demonstrate appropriate care during site redevelopment.

EPA's Common Elements Guidance offers its own view of appropriate reasonable steps. First, it acknowledges that determining reasonable steps is essentially a fact-based, site-specific inquiry. It then provides examples of reasonable steps, such as (1) maintaining contaminant migration controls (e.g., not removing or damaging slurry walls, hydraulic barriers or other controls that limit contaminant migration) and (2) repairing a cap where a prior remedy relied on the cap.

In enacting the Brownfields Amendments, Congress wanted to break the link between new property owners who were not involved with the contamination on the property and the CERCLA liability provisions. But Congress was unwilling to give developers of these properties a free pass. Congress expected the new owners to act responsibly in addressing the existing contamination by imposing a series of continuing obligations as the price for receiving CERCLA liability protection. These continuing obligations were not to be equated with the stringent requirements imposed on potentially liable parties under the CERCLA liability scheme, but were common sense requirements aimed at exercising appropriate care to address urgent environmental risks before and during the redevelopment process to minimize the risks from those conditions at reasonable cost. (Weissman, 2015; Hockstad, 2019; Aronovsky, 2012)

VI.2.a.D Chapter summary

Findings

The operator is in the position to make the quickest and best measures to prevent further damage to environment and to avoid domino effect. He also will have to refrain from any activity, which would deteriorate the situation or hinder the administrative procedures to follow. Any measures except the urgent ones need careful planning and close control from the relevant authorities. Important elements of such plans are the information exchange with the authorities, performing clean-up activities within the prescribed deadlines and sequences, and in the required quality. These elements might be

supervised by a committee formed from the representatives of the participating authorities and other stakeholders. The general experience throughout the Member States is that the liable persons are mostly unwilling to fully restore the environment, they often challenge the instructions, requests, or orders from officials in this regard. It is hard to the officials to gather evidences to prove the damage done, because the activities are easy to conceal, therefore they are in difficult situation in the almost unavoidable legal disputes.

While the responsibility of the State for the status of the polluted sites is not fully clarified, in certain cases, such as a fire at an industrial plant, the urgency would prevent the operator from doing the works himself, and it is taken as natural in such cases that the relevant state organisation shall perform the urgent tasks of saving the society from further, escalating damages. Generally, however, with a few exemptions in a couple of countries, the competent authority is not bound to take measures on its own in case the operator fails to do so. Yet, the competent authorities have a series of important tasks in supervising the remedial or preventive measures.

The orphan sites, which are not simply abandoned by the operators and/or owners, but, in more exact legal terms, the sites where it is not possible to apply the polluter pays and liability principles, are totally left to the State. In this respect we can learn a lot from the experiences of US CERCLA, while the majority of the traits of their handling the orphan sites is dependent upon a quite different legal background. Identically, however, in both systems, the procedure starts with putting together a national priority list. Such NPLs consider the capacity of the pollutants to spread out and cause major environmental and public health problems, but other social-economic and political aspects cannot be excluded either. As we see, in a couple of countries the task of conscripting abandoned sites with significant environmental problems is decentralised to the regional or even the local municipality level. While in the majority of the Member States the NPLs are up-to-date and serve as a good basis for continuous, systematic work on the abandoned sites, unfortunately, in some countries there is no more NPLs prepared or updated, which is an overt acknowledgement that the State has no resources for them at the time being. Creative legal techniques, which would help in these difficult situations include the use of the land registers to control the change of ownership of the NPL lands and create incentives for clean-up, and also State policies targeting brownfield development (RES 15). As concerns the latter, very wide range of experiences collected after that CERCLA was amended for better handling brownfields, should also be taken into consideration.

Suggestions and observations

For the very specialised work of planning, supervising and in certain cases performing the measures on the polluted sites, a highly trained personnel is necessary. Their training should cover not only the technical details, but the substantive and procedural legal ramifications, too. Focus on prevention of environmental pollution or further pollution should have a bigger stress in these trainings, as well as in the practical implementation of them.

Whichever level the given ELD laws determine the measures of prevention or remedy taken, they should be transparent, the complex social-political and technical-economic issues should be highlighted for and discussed by the concerned communities and other stakeholders, whenever the urgency of the cases allow for, in a timely manner, in other cases after the most urgent measures were taken. Even the connection between the competent authority and the relevant operators might be of a deliberative, contractual nature in many stages of the ELD procedures.

Many experts in the literature and also those interviewed in this very project contend that such an expedited State intervention that is possible and practiced under US CERCLA, would achieve in a significant change in the attitude of the liable operators, because hitherto their vested economic interest would dictate to take the measures on their own, as quickly and fully as possible, in order to exclude State organised measures, which are really costly.

Interconnections with other chapters

Chapter III and IV: the proper selection of the participating authorities and their preparedness for the ELD cases is a matter that determine the success of the measures taken in the ELD cases.

VI.2.b Scope of measures

Our questions were in this chapter:

- are the measures directed at full 'prevention' or 'remediation' (restoration of the damaged natural resources to their baseline condition) or only at halting the activity and eliminating immediate hazards?
- what type of remediation takes place, only primary remediation, or complementary remediation and compensatory remediation, too?

While in the previous chapter we concentrated on the legal-procedural aspects of the ELD cases, in the present chapter we deal mostly with the actual clean-up activities, while acknowledging that these two issues are strongly interrelated. We took note also that the use of the three kinds of remediation will strongly influence the time and cost of the procedures, which issues will be examined in Chapter VII and VIII below.

Typically, in the determining and implementing the remediation and prevention measures in an environmental emergency situation ELD laws and older, sectoral laws – not only liability ones – have a close interplay. Slovakia up to now have had 3 ELD cases. One was managed totally under the national ELD Act, while in the other two cases remediation was carried out under the Water Act and the environmental authority only issued a decision under the ELD Act (not to impose any additional measures), after the imminent threat of damage had already been remedied in accordance with the Water Act (SVK).

Remedial or preventive measures

Examples from the country studies show that the competent authority may order the operator to perform a line of remedial or preventive measures.

- The most natural measure is *limiting or ceasing the polluting activity* of the operator (SWE). Even this most natural practical measures might not be so obvious in every countries. The researcher for Cyprus, Jorgos Sbokos, for instance, made an internet research for finding cases when the authority terminated the activity of any polluting operators, using a keyword search

"suspension of operation", "termination" and "padlock". The results referred solely to one production unit of pastry products and milk-based confectionery in Langadas. No other results matched the keywords (CYP).

- Measures might be arranged for *preventing or restricting the use of certain substances*, preparations, organisms or micro-organisms to other recipients, distribution of substances or preparations (CZE).
- Measures might be bound to *certain results* objectively fixed in the decision, such as instructing the operator to excavate soil for decontamination, to restore a riverbed into the baseline status, removal of substances, preparations, organisms or micro-organisms from soil or groundwater, removal of contaminated soil containing substances, preparations, organisms or micro- organisms etc. (CZE, SWE).
- Other types of measures might not be bound to concrete results, but *only to activities*, such as ordering to remediate what is needed for the polluted area to no longer constitute a risk to human health, reduction of the concentration of substances, preparations, organisms or micro-organisms to such a level that their presence in soil does not present a serious risk of adverse effects on human health (SWE, CZE).
- It is also natural that the authority wishes to analyse and follow up the fate of the polluted site, therefore orders the one responsible for the remedy to provide it with information, through *measurements, monitoring* activity or at least issuing the existing documentation regarding the case (SWE).
- Another type of remedies might be called *passive remedies*, where the natural attenuation to a risk-free state in less than 5 years might take place and the only measure of the authority addresses establishing of the conditions for them (CZE, SWE).
- To stop obstructions of the operator by selling the property, the authority additionally may let the order be registered in the *land register* so it will be liable to any new landowner (SWE).

The *criteria of selection* of remedy measures is summarized in accordance with the ELD text:

- impact on human health and safety,
- implementation costs,
- the likelihood of successful remediation of the environmental damage,
- the level of prevention of environmental damage in the future, and
- the level of possible avoidance of unintentional accompanying damage in the implementation of the remedial action,
- benefits a specific part of the environment or its functions,
- the integration of social, economic, cultural, and other relevant factors specific to the area of environmental damage,
- the time it will take to effectively repair the environmental damage,
- the likelihood that the environmental damage area will be restored to the reference condition, as well as
- the geographical link with the area affected by the environmental damage (SLO, BEL).

Other countries made further elaboration on the viewpoints of costs, whereas the competent authority has the right to decide that no further remedial action will be taken, if the cost of the remedial action to reach the baseline condition, or a similar level, would be *disproportionate* to the expected environmental benefits (BUL). There are pollutants that represent very long turn threat to the nature and human health (such as mercury, arsenic, cyanide, chromium, lead), but could be stored in such a high amount that their removal seems to be impossible, therefore they are insulated or are stored, for example in old salt quarries. There, the geological movement of rocks might raise concerns

and is particularly worrying for the safety of the quality of the groundwater resources and raising the question of our responsibility towards future generations (FRA).

Discretional elements cannot be excluded from such complicated and multiple issues as measures to be taken in the ELD cases (SWE). Similarly, it gives enough *leeway to the authorities* that in soil clean-up cases various regional laws determine the objectives of the remediation measures. The objective of a soil remediation project is to realise the guiding values for soil quality, which have been set by the Government. These values correspond to a concentration of pollutants or organisms in or on the soil, which permits the soil to perform all its functions without any restrictions. In case those values cannot be reached by applying soil remediation techniques according to BATNEEC, the soil remediation should at least result in a better soil quality than before. In case there is a residual risk, restrictions concerning the use of the land can be imposed. In another region the level of remediation will depend on the future use of the plot. Another applicable type of administrative measures can, as the case might be, just stop or prevent pollution/damage, without having more remedial measures. There is a large discretion for the authorities in applying those measures (BEL).

Restoration works after the Villasanta oil spill
In 2010, an oil spill of a mixture of hydrocarbons (oil/fuel oil) from an oil depot in Villasanta (Monza province – Lombardia Region-Northern Italy) had environmental consequences for the Po and Lambro rivers. The immediate consequences of the spill consisted mainly of a 'black wave' of hydrocarbons, affecting a World Wildlife Fund for Nature (WWF) protected area and some urban parks along the stretch of the nearby river downstream from the treatment plant, as well as Natura 2000 bordering sites. 10 specimens belonging to two different species (cormorant and mallard) that were recovered in the hours following the event subsequently died of poisoning, not only from ingesting the hydrocarbons but also from transcutaneous absorption or inhalation. Monitoring studies were carried out, involving different technical bodies both centrally and at the local level, with the goal of assessing the extent and impact of the discharge of hydrocarbons on the various environmental media (water, sediment, aquatic plant and animal communities). The emergency measures included actions to preserve wildlife, such as the removal of birds from wildlife reserves by means of helicopter fly-bys. Specific actions attempted to stop the flow of water from the wells of the hydraulic barrier and to allow the recovery of a quantity of product upstream from the sewage treatment (with 1,250 tonnes retrieved from the treatment plant of the town and 300 tonnes recovered from the yards of the oil depot, totalling some 1,550 tons of product). Of the remaining 1,050 tonnes of oil released into the river downstream from the treatment plant, 100 tonnes were recovered by means of curtains across the river, with a further 450 tonnes recovered at the dam on the second river. About 500 tonnes were scattered along the rivers between the treatment plant and the sea, with more than 300 km of river courses impacted. (ITA)

Primary, complementary, and compensatory measures

As concerns the types of remedies in terms of the three categories of the ELD, the main purpose of primary measures is *full remedy or full prevention* of environmental dangers within the frames of primary remediation. The German Federal Soil Protection Act provides that responsible parties (e.g. polluters and owners) are obligated to remediate the soil and contaminated sites, and any water pollution caused by harmful soil changes or contaminated sites, in such a manner that no hazards, considerable disadvantages or considerable nuisances for individuals or the general public occur in the long term. Contrary to that, Annex II of the ELD only demands that the contaminated land no longer poses any significant risk of adversely affecting human health (GER). Full remedy is required in Greece,

too, for damages in the quality of water and biological diversity, where the objective is to restore the natural resources to their baseline condition. From the studied cases and the monitoring data of ELD implementation, it is concluded that the Greek cases have been remediated using the primary measures (GRE).

However, full remedy is not always reasonably possible, even if the acknowledged purpose of implementing measures for remediation of environmental damage is to restore damaged special parts of the environment or their reduced functions to a reference state, authorities might fall back on getting to it as close as possible, and to compensate for temporary losses of special parts of the environment or their functions, until their recovery to the reference state (SLO). The cases analysed and discussed indicate the trend for actions to "stop" at the point of primary remediation that has taken place even if no defined aim of remediation is achieved (LAT). Regarding liability outside the ELD, usually, the measures are taken to *prevent any harm to human life and health*. This does not mean that all of the pollution will be ordered to be removed, but rather that grave damage should be prevented, or the site restored to reach acceptable levels (AUT).

If it is not possible to restore them to the baseline condition, the operator shall *complement* for loss of environmental values. The damaged natural resources and/or impaired services shall be replaced by an equivalent alternative to those resources or services, whose cost is equivalent to the estimated monetary value of the lost natural resources and/or services. This can be done on other places than the location of the damaged site (SWE, HUN).

Users of the environment shall undertake *compensatory remediation until the completion of remedial measures take place*, in order to compensate for the interim loss of natural resources and services pending recovery of the damaged natural resources and/or impaired services (HUN).

A road accident with widespread nature damages and its multiple ways of restoration
An accident occurred in *Witry* in the Walloon Region, a tractor and sprayer filled with a pesticide where involved in a road accident and the content of the sprayer was discharged in the surrounding prairies and in the drains of the roadway, polluting further on a rivulet, tributary of the river *Sûre.* Because environmental damage occurred in two Natura 2000 areas, with significant negative impacts for the *Sûre* pearl mussels and tick mussels (75 % destroyed), restauration measures have been imposed by decision of the Director General of the *Service Public de Wallonie Agriculture, Ressources naturelles et Environnement* ("SPW") of 11 June 2019. The decision, the result of a process started in 2015, included primary, complementary, and compensatory restauration measures. The primary restauration measures, to be implemented by the operator at his own expense, encompassed polluted earth excavation, installation of a water collection and filtration device, measurement, and monitoring campaigns. The growing of *Sûre* pearl mussels and tick mussels has been delegated to a subcontractor of the SPW. Every year those mussels are introduced again in the River. In the River *Sûre* case, not only primary remediation measures haven been imposed, but also complementary and compensatory measures. Those complementary and compensatory measures have to be taken over a longer period and are expected to be fully completed between 2024 and 2029. It was possible to define those measures because an intensive scientific monitoring in the *Sûre* Valley is conducted since 2002 (BEL).

Some national researchers reported on *poor or no remedy at all in the practice.* According to the Deputy Commissioner for Future Generations interviewed by the Hungarian researcher, in the work of the national authorities, the ratio of measures directed at prevention to remediation measures is negligible. This was also confirmed by a Greenpeace Hungary interview, referring to cases, where the competent authority was notified on the imminent threat to the environment, but no prevention and remediation measures have taken place so far, neither primary, interim, complementary or

compensatory ones by the user of the environment or the authorities (HUN). After the ELD was transposed into the Latvian legislation by the new Environmental Protection Law (2006), it was aimed at introducing another, new "logic" of the remediation of damage by requiring three type of remedying measures to be taken in order to remedy environmental damage (primary, complementary and compensatory) instead of previously traditionally dominant approach of calculating the "losses to the environment". The latter meant applying fixed rates according to some type of methodology not directly related to costs of the damage in the environment, which is paid by the polluter. These "losses payments" paid into the state budget, which, since 2002 is not anymore earmarked for environmental purposes (LAT).

VI.2.b.B Evaluation by the in-depth researchers

Enhancing the quality of remediation of the polluted sites

Authors call the attention to the specificity of the ELD in respect to the aim of the remedy, as being a legal tool that *most consequentially* tries to address the water, land and nature consequences of the pollution of the industrial and other sites. This way, even when the old sectoral laws, rather than the ELD will be "given the credit" for the work done, to remedy or restore an area, in practice the main purpose and ideas behind the Directive may be fulfilled (Bengtsson). The conditions of entrenching effective remediation are not fully ensured yet to this. The necessary first step would be to *insert specific procedural provisions into the sectoral laws*, such as Water Act, Agricultural Land Protection Act, Nature and Landscape Protection Act, concerning the prevention and remediation of environmental damage, which meet the requirements of the ELD Directive. The public authorities would continue the well-established way of working, only these processes would be improved and more detailed to meet the requirements of the ELD (Wilfing).

Furthermore, it would be necessary to start to build-out *a solid network of officials* and experts, whose responsibility includes investigations and remedial measures in the fields of water, waste, and nature conservation (at the level of the provinces and the districts), so that they are aware of and understand the complementary application of the ELD. This understanding encompasses the transparency of the procedure and participation of the members and organisations of the public, as well (Schmidhuber). This topic is strongly interrelated with *the training needs of the officials*. While the topics of the courses needs further refining, they should cover as a minimum the notion of damage and the available remediation and restoration techniques (Kiss). *Information on good practices*, in particular on complimentary and compensatory measures are very much needed. This can be concluded from the discussions with the competent authorities that are indeed willing to learn about good examples with details on type of measures assigned and carried out in the ELD cases (Mikosa).

What level of restoration shall be our target?

The Summary raises an interesting question, as to the state, to which the damaged environmental compartment is to be returned. Different approaches have emerged in national legislations, in particular full remedy or restoration to *a state that no longer causes any risks*. Another approach could be a duty to bring the damaged component of environment into *a favourable state*, i.e. to bring it even to a better state than it was before the damage. It is clear that the ELD should primarily aim at *full redress*. However, it may not be possible in all cases. In such situations, other kinds of *compensation*

should be made by the operator. On the other hand, it probably would not be fair to ask the operator to do more than repair the damage caused by him, i.e. to bring the damaged component of environment to a better state than it was before the damage event. An other, more modest, economically feasible solution is to remedy the polluted site at *a level that it would not influence its environment negatively*, while itself remains basically unchanged (via several insulation techniques). The Summary shows, however, that in a number of member states there is *usually poor or no remedy* at all in practice. Such situation should be particularly avoided when the Government calibrates its ambitions concerning the restoration level (Cerny).

Prevention

According to the Summary, preventive measures under the ELD are *rarely applied in practice* due to the existence of sectoral legislation where preventive measures are usually foreseen and prescribed earlier in the permitting procedures and in greater detail. This is again partly linked to the nature of the ELD process, as originally designed by the European legislator, as a unifying process relating to the damage to several components of the environment, while the practice has proven that the ELD cannot cover all the specifics as the sectoral laws do. However, this can be bridged by the *incorporation of special tools under sectoral regulations*, bringing them into harmony with the ELD preventive processes, regarding the operations falling under the ELD (Cerny).

As a result of such further harmonisation legislation, operations under the ELD should be subject to special regimes, including special risk assessment and preventive control measures by public authorities, as important elements of prevention. However, there are states (including CZE), where the *absence of an official register* and explicit legal enshrinement of the obligations of the ELD operators to provide information, perform risk assessment and attaching other documentation in this register leads to the impossibility of effective control by public authorities. Without such a register the competent authorities cannot determine with certainty, which operations fall under the ELD and focus on them in their control activities. Therefore they are forced to conduct inspections “blindly”, in the majority of the cases. This is of course reflected in the effectiveness of the control, and the ability of the authorities to detect potential threats or non-compliance with protective measures by operators in a timely manner (Cerny).

We consider the appropriate setting of control mechanisms to be one of the most important elements of prevention. For this purpose it is necessary to establish a clearly defined *plan of controls* by the authorities with a prioritization of more risky operations. The EU law and subsequently the national legislation on the ELD could establish a basic obligation to set the time frames used. The plan of controls or rather method of its formulation could be determined in detail in interim control rules of the authorities. In order to alleviate the burden on the authorities, and to raise the awareness of the operators themselves, it is appropriate to introduce *effective and obligatory self-assessment and self-monitoring* of the operators and, as mentioned above, duty to provide the outcomes to the authorities within clearly defined terms. These obligations could be in principle laid down directly in the relevant laws and in detail in implementing legislation (Cerny).

VI.2.b.C Other sources

CERCLA study

In the contemporary environmental liability law CERCLA and OPA[21] represent a progressive departure from a monetary evaluation of environmental damage based on the diminished value of natural resources to a restoration-based approach, whose ultimate aim is to return the injured natural resources as far as possible to the baseline conditions. OPA explicitly provides that natural resource damage be measured on the basis of the costs of restoring, rehabilitating, replacing or acquiring the equivalent of the damaged natural resources, and on the costs for the assessment of the damage. Furthermore, in line with the perspective of repaying the public for the whole value of the impaired natural resources, CERCLA and OPA include compensation for the interim losses of resources from the time of the incident until the full recovery. Under OPA, a restoration-based approach is also the preferable method for the valuation of such interim losses. The recognition of the loss of natural resource services is very relevant, as it implicitly acknowledges the inherent value of natural resources and their importance for the public and for other resources and ecosystems. The ecosystem approach, on the other hand is not the final say of the environmentalists, who could be satisfied with the social appreciation of the intrinsic value of the environment, while they are afraid that with this gesture, certain natural objects might become a subject to market operation, so far that those who could afford, can buy the rights to damage or even ruin them.

Let alone the ideological difficulties, nature services calculation might cause methodological problems, too. From a pragmatic point of view, as restoration costs are easier to estimate, it allows the bypassing of the difficulties and complexities in placing a monetary value on natural resources, thereby addressing the criticisms aimed at the various available economic valuation methodologies. However, from an economic and cost-benefit perspective, it has been argued that the downside of a restoration and replacement methodology is that the costs of restoration may in some cases significantly exceed the value of natural resources or, conversely, may underestimate the bio-physical damage suffered by natural resources; similarly, in some circumstances restoration costs may not entirely reflect the social and cultural value of natural resources, as these elements are not always predictable; indeed, especially in the case of off-site restoration, where the impracticability to achieve full restoration of the injured resources lead to replace them with equivalent resources at an alternative location, the benefits would not necessarily accrue to the affected population living in the original location of the damage. Sophisticated models based on system analysis should solve this dilemma in order to reach fair and effective solutions to the problems caused by environmental pollution. (Orlando, 2015; Glasenapp, 2019)

VI.2.b.D Chapter summary

Findings

Measures target certain results objectively fixed in the decision, such as limiting or ceasing the polluting activity, preventing or restricting the use of certain substances, excavating the soil for decontamination, restoring a riverbed into the baseline status, removal of substances, preparations, organisms or micro-organisms from soil or groundwater and like. These measures might differ that they either demand concrete results or they are satisfied with certain activities from the operator. In

[21] Oil Pollution Act ('OPA'), 33 USC §§ 2701ff., Section 1006(d)(1)

some cases the natural attenuation of the polluted environmental elements to a risk-free state is enough, while in other cases it is not always possible to remove all the pollutants, safe insulation or making the pollution inert with certain chemical or physical processes will do.

The decisions on the prescribed measures consider the impact on human health and safety, as well as the implementation time and costs, which would not be disproportionate to the expected environmental benefits. The likelihood of successful remediation of the environmental damage, on one hand and the integration of social, economic, cultural, and a line of relevant factors specific to the area of environmental damage, on the other hand, should be balanced. We have found a certain level of discretion, which is unavoidable in such complicated cases, but the leeway of the competent authority might be grades less than that of in the old sectoral laws on environmental liability.

As concerns the system of primary, complementary, and compensatory measures, in the mirror of the above viewpoints, full remedy of environmental damages or full prevention of hazards are not totally full actually. Several viewpoints explain, and eventually decrease this meaning the goals determined in Annex II of the Directive, such as: no hazards, considerable disadvantages or considerable nuisances for individuals or the general public occur in the long term. Even to restore the natural resources to their baseline condition might be much less than the requirement of the ELD, namely that the pollution shall no longer pose any significant risk of adversely affecting human health. Furthermore, while baseline conditions are not always available, restoration of the functions of the natural resources to a reference state seems also a reasonable alternative.

While in the majority of the Member States at least the primary remedy can be considered as the standard, in several countries the remedy actions stop at the point of some remediation, even if no defined aim of remediation is achieved, let alone that no compensatory and complementary efforts are made – according to independent observers, such as ombudspersons or major international NGOs.

Suggestions and observations

Authors of the project suggest that even if the old, sectoral environmental liability laws are used in certain cases, the goals of the measures prescribed in the ELD laws should orient the efforts and determine the evaluation of the results. Out of this end, special substantive and procedural rules should be inserted into the tissue of the national water, nature protection and land protection laws, including the basic professional requirements of the officials working for such authorities, as well as the rules of information exchange and professional connections with the ELD competent authority.

Prevention seems to be a less cultivated part of the measures. For this purpose it would be necessary to establish a clearly defined plan of controls by the authorities with a prioritization of more risky operations. Therefore the concept of prevention could be broadened within the ELD system, in order to include measures way before the actual, measurable dangers emerge.

Interconnections with other chapters

Chapter I: an official register of the operators is a condition of the work of the competent authorities to detect non-compliance and initiate measures in all the cases belonging to the ELD;

Chapter II: sectoral legislation, where preventive measures are usually foreseen and prescribed earlier in the permitting procedures and in greater detail, will play a determining role in selecting the measures in the ELD procedures;

Chapter III and IV: the training of the authorities supporting the work of the competent authority should encompass the definitions of damage and the available remediation and restoration techniques in respect to their skills to take part or in some cases manage the restoration of the polluted sites.

VI.3 Other procedural aspects

Our questions in this chapter targeted the procedural aspects after the onset of the ELD procedures, which might include

- evidence taking,
- the role of experts,
- the decision itself and
- application of legal remedies.

We have to add that four major procedural aspects of the ELD laws will follow in later chapters: implementation and enforcement (VI.4), timeliness of the procedures (VII), costs (VIII) and public participation (IX).

Evidence taking

Ágnes Gajdics, the Hungarian expert of the project pointed out that the principles of general administrative procedural law that are relevant in the ELD procedures, too: "In environmental administrative proceedings, the general provisions of administrative proceedings and the specific environmental provisions apply. Where the information available is insufficient for bringing a decision, the authority shall initiate a procedure for taking evidence. In administrative proceedings all evidence is admissible which is suitable for ascertaining the relevant facts of the case. The facts which are officially known to the authority and which are of common knowledge shall not be evidenced. The authority is free to define the means and extent of the evidentiary procedure and may assess the evidence available at its own discretion."[22] Embeddedness into the tissue of administrative procedural laws might hinder the ELD rules from fully turn the burden of proof to that side, which generally would have much more abilities to reveal the relevant facts, namely the operators and the landowners.

Within the broader frames of general administrative procedure laws, ELD cases have some specificities, however, in order to reinforce the procedural position of the environmental authorities. The evidence taking procedures of environmental damage or endangerment cases is unimaginable without *site inspection*. The supervisory authorities, in order to perform their tasks, have to have *access to properties, buildings, other structures and means of transport* for the purpose of carrying out investigations and taking other measures. Ultimately, the supervisory authority may be assisted by the police. During an inspection on the site, the representative from the supervisory authority can take evidences, such as *photos and samples*, can hear *witnesses, make official notes and protocols* etc. (SWE, POL). In the event of serious indications suggesting that *books, registers, documents, writings* and other evidence of the harmful event are located in premises other than where the harmful event

[22] Hungarian national study, page 20

has occurred, the chief environmental authority may request the authorization for the *search of these premises* from the competent judicial authority (ITA).

Considering the usually long individual history of the ELD cases, *documentary evidences* are also very important. Activities that requires a *permit* for environmentally harmful operations, must annually deliver an *environmental report* regarding the licensed activity, which reports might be looked up in case of a pollution event, together with other documents describing several stages of the operation that led to the pollution (SWE).

Not all the evidences are to be collected directly by the authority or the complainants, *evidences produced by the operator* play an important role in the ELD cases, because of the monopole situation of the operator in having access to certain data and knowledge. The operator of an activity is obliged to submit information to an inspector upon request, provided that the information is necessary for the performance of an inspection task (SWE, POL).

On the other hand, considering the high financial and moral stakes of the ELD cases *guarantees of legality of evidence taking* must be enhanced. The legality of the authority's evidence taking measures is frequently questioned, therefore it is vital that everything happen according to the protocols and standards of evidence taking (SWE). These rules might be quite complicated and require additional professional training for the officials. While all of environmental liability facts are difficult to prove, some types of cases, especially where the discharge of pollutants can be traced with hardship, turn out especially difficult. Water damage, for instance, in the sense of the ELD might be quite problematic to clarify, because of the notion of water damage in itself, the different kinds of thresholds provided for by the WFD, and, above all, the complexity of the data (e.g. on the spread of the pollutants in the surface and underground waters, the directions of flow and mixing with other pollutants) (BEL).

The role of *experts* in environmental liability cases is determining. In the majority of cases analysed and discussed through interviews, experts would be involved by both the competent authority (while assessing the damage and remediation measures), and the operator, submitting proposal on the remediation measures as well as performing them (as the case may require). The consultants employed by the operator would not be under the control of the authority in respect the competence needed, so there is a risk that the *private evidence investigation* subsequently would not be accepted (LAT, SWE). The environmental authority can appoint an expert from the ministerial offices or, taking into account the financial resources available, as well as the complexity and speciality of the cases, and appoint an independent expert (ITA, POL). As highlighted by the NGOs and the Deputy Commissioner for Future Generations during the interviews, too, expertise is crucial in ELD cases. WWF Hungary, however, referred to that capacities and expertise of the officials of authorities having competence in ELD cases cannot be considered as sufficient (HUN). As an interviewee noted, environmental damage notifications by NGOs are handled differently by several authorities. In some cases, the authorities have conducted their own professional investigations following a report, in other cases, they have asked the notifying NGOs themselves to provide the necessary evidence (GER).

Cooperation of the competent authorities and other authorities

It stems also from the complexity of the ELD cases that cooperation of the competent authorities and other authorities must take place in the majority of these administrative procedures, as it was noted in Chapter II earlier. There is a procedural legal obligation for the relevant supervisory authorities to cooperate and to coordinate actions. This obligation is of special importance when at a site one or more operators run several activities, which fall under the jurisdiction of *different supervisory*

authorities (SWE). In Italy, the chief environmental authority works on the ELD cases in collaboration with *the regions, the local authorities,* and any other public authority that is entitled to participate, such are *the prefect, the prosecutor, the forestry corps and the carabinieri.* In 2017 the most important cooperating agencies have established the National System for Environmental Protection that represent a new organizational model of interaction between the competent regional and provincial agencies for environmental protection. While the chief environmental authority is the body entrusted, through a Ministerial decree, with the power to investigate and assess cases of damage and/or a threat of damage, it can and does also request any other public bodies with adequate competence to ascertain the facts and to identify the transgressors (ITA). In Ireland the Competent Authority has a strong lead position in harmonizing the efforts of several authorities in an ELD case. Where there is environmental damage or an imminent threat of environmental damage, the Regulations require public authorities to comply with requests for information from the EPA on the performance of their statutory functions in relation to the prevention or remediation of environmental damage. The *EPA can also issue directions requiring the public authority to carry out such action* related to the function as the EPA considers necessary for the purposes of preventing or remedying the damage. If the authority fails to comply with such a direction, the EPA can carry out the action itself and recover the cost from the public authority (IRE).

In Portugal environmental authorities have undersigned several cooperation protocols with the public prosecutors' offices: the signatory authorities are committed by this institutional protocol to identify and/or implement articulated measures aimed and preventing or eliminating situations of environmental danger. The cooperation programs are assessed annually, evaluating the mutual support, availability of technical information, the work of experts and their reports, the parties organise technical meetings, documentation analyses, specialized intervention and development of capacity building actions aimed at the staff of both kinds of authorities (POR).

In several countries there is a *general guidance of the inter-agency cooperation*. In Greece the chief environmental authority has issued a circular in 2011 for the cooperation and coordination of the competent authorities on matters concerning the implementation of the national environmental liability law, which describes the responsibilities of the national and regional environmental competent authorities and defines the framework for the cooperation of those agencies with the environmental inspectorate. This way there are no practical problems reported in the cooperation, no overlapping or negative competence collisions among the competent authorities (GRE).

Legal remedies

After the decision is brought, legal remedies are typically applied in the ELD cases. Considering the size and importance of these cases, level remedies are handled at the highest administrative levels, and the court revision has an elevated importance, too. Almost all combinations exist Europe wide: one or two instances on the administrative level and one or two levels of court remedies. In Italy for instance, according to a special modification of the General Administrative Procedure Act, regular legal remedy is not open for issuing a complaint against the decision of the chief environmental authority to the Ministry, the party in the procedure can begin the court procedure at Administrative Court directly. As an extraordinary remedy, however, the operator (and not the other parties for the administrative case) can resort to both judicial and non-judicial remedies. The system of non-judicial procedures provides for an *extraordinary* and residual way of appeal, so-called Appeal before the President of the Republic, through which only the legality (not the merits) of a definitive act of the environmental authority can be challenged. The appeal before the President of the Republic can be filed within 120 days from the notification of the contested decision (ITA). The operators, with regard to which the competent

authority took preventive actions or remedial actions, may also appeal to the Flemish Government against the decisions concerning these actions. The appeal should be issued to the Flemish Government within 30 days of the day of receipt of the contested decision (in the Walloon Region this should be done within 10 working days). The Flemish Government will make a decision on admissibility within a period of fourteen days after receipt of the appeal (in the Walloon Region within 10 working days). Within a period of 90 days after the declaration of admissibility of the appeal, the Flemish Government takes a decision on the appeal. If the decision on the submitted appeal is not made within a period of 90, the appeal is deemed to have been rejected. The decision of the Flemish Government can be appealed before the supreme Administrative Court (Council of State) within 60 days (BEL).

While the Italian and Belgian system of fora seems to be very compound, on the other extreme, in Hungary, since 1 March 2020, administrative decisions of the environmental authority are taken in single instance proceedings with no exemption, i.e. the decision of the environmental authority is definitive and can be challenged only before the court within 30 days from its delivery (HUN).

In Sweden more weight is put on the courts. The decisions on local level can be challenged through administrative appeal to the County Administrative Boards (CAB). The decisions from the CAB taken in the first or second instance can be challenged at one of the five Land and Environment Courts (LECs). Some kinds of cases are heard at the LECs in first instance. The rulings from the LEC may be brought to the Land and Environment Court of Appeal (LECA) which is the final instance in environmental cases that has started at authority level. Cases that has started at the LEC, such as civil disputes and certain licensing cases in connection with environmental liability, may, via the LECA, be appealed to the Supreme Court as the final instance. In all cases appealed to the LECA and the Supreme Court, exhaustion of the administrative appeal is a requirement (SWE).

Courts are usually *not bound by the facts established by the administrative decisions.* The ability of the court to re-examine the ELD cases in depth may be categorized as an *inquisitorial* procedure, i.e. an *ex officio* examination of the cases at hand. The Court may refer to other grounds for its decision than the claimant has invoked in the appealed cases, and by a *reformatory* process, in principle is put in the same position as the first deciding authority, and may alter the disputed decision or put a new decision in its place (SWE).

In environmental cases *regular legal remedies might proceed with suspensive effect or with injunctive reliefs.* The appeal of the orders is in accordance with the Code of Administrative Procedure, which ensures for the appeal a suspensive effect, but it is possible to include in the decision an order of its preliminary implementation for immediate prevention of the expansion of damages in the public interest (BUL). Under other jurisdictions, however, taking into consideration of the urgency of the arrangements of the ELD sites, the appeal is *non-suspensive* (BEL). The Irish Regulations provides that a person on whom a direction is served may appeal against the direction to the District Court in in which the direction was served within 7 days beginning on the day on which the direction is served on him or her. In determining the appeal the judge may, if he or she is satisfied that it is reasonable to do so, confirm, vary or cancel the notice. Where, on the hearing of an appeal, a direction is confirmed, the judge by whom the appeal is heard *may, on the application of the appellant, suspend the operation* of the direction for such period as in the circumstances of the case the judge considers appropriate (IRE).

An interesting legal sociology phenomenon was highlighted by Tapani Veistola, the Finnish national expert: *court procedures might discourage the administrative authorities.* In a concrete case, during illegal works to find minerals in Natura 2000 sites Romppaat and Mustiaapa-Kaattasjärvi in Lapland in 2010-2011 using of heavy machines caused a significant loss of orchid species and other damages for

forest habitat type boreal taiga in 2015. The environmental authority made a decision on for restoration actions and compensations. However, the regional court rejected the decision in 2017. The environmental authority did not make a complaint to the Supreme Administrative Court, but could not uphold its earlier decision either. That is why this case is not officially classified as a real ELD case anymore (FIN). These experiences are reinforced by several cases of public interest environmental lawyers in other countries, too (HUN).

Transboundary procedures

Considering that the ELD cases are typically of large scale, *transboundary effects* are not rare, which feature entails transboundary procedures, with special cooperation of the authorities on several sides of the state borders. Where environmental damage affects or could affect the territory of the Republic of Slovenia and another Member State, the Ministry (and the chief environmental inspectorate) must send a notification to and cooperate with the competent body of such State, exchanging information and data required for the prevention, limitation or remediation of damage. The competent body shall notify the European Commission, too, on the environmental damage that has occurred and propose the adoption of preventive or remedial measures. The Ministry (or the inspectorate) shall require that the person causing the environmental damage to reimburse the costs arising from implementation of preventive or remedial measures outside the Republic of Slovenia, too (SLO). The Belgian national study has revealed several transboundary cases, either between the regions within Belgium or with neighbouring countries, such as the Netherlands, Luxembourg, or France. Internally, Belgium has introduced a transboundary *alert procedure* of the River Scheldt Treaty, within the frames which, inter alia, the source of pollution can be identified or monitoring of the environmental damage to water and biodiversity has been carried out. In Belgium, the Walloon Region has a border with the Grand Duchy of Luxembourg and similarly with France, and they share several river watersheds. The national authorities in these countries and states have to alert each other in case of an incident concerning these watersheds. They also have to take the necessary protective or remediation measures in a concerted way, with the coordination of those national authorities, where the bulk of pollution or endangerment happened. On the other hand, the authorities where the operator sites, will have to impose the necessary measures against him and make steps to recover the costs. In practical cases authorities on both sides of the border each have appointed lawyers to represent their interests in possible transboundary criminal and/or civil cases to recover damages. In a concrete case described in our research, the Flemish authorities have decided to introduce a complaint with an investigation judge in another region and constitute themselves as a *civil party* (BEL).

VI.3.B Evaluation by the in-depth researchers

Making evidence taking more effective

Authors interconnect the topic of ELD databases and the proof in the practical procedures of the liability cases. Experts in the cases could use these *databases* as starting points in their work, this way making their conclusions well-based and comparative, enhancing the reliability and professional quality of their opinions. This is indeed an issue relevant *for establishing baseline conditions* allowing for assessment whether an environmental damage has occurred. Lack of these baseline data – or inability to collect them by the competent authorities – may result in discontinuation of proceedings.

Also, in the absence of relevant data, in case of request for action submitted by a citizen or a NGO, the authorities expect them to submit relevant information (evidence), which exceeds their capacity. Therefore any hints on the possible sources of relevant data on a national or EU level would be useful. Also, any kind of co-operation between different authorities possessing various information allowing for interchange of data would be valuable (Bar).

Furthermore, while we are concentrating in this chapter primarily on the soft (subjective) kinds of evidences, where the most procedural problems might emerge, researchers have emphasised here the importance of *hard (objective) evidences*, too, such as sampling of soil, water, drillings, inventory of damaged natural values, samples of animal and plant species etc. (Kiss).

Collaboration of several State bodies in the ELD procedures

As it was mentioned in earlier chapters, an important source of information for initiating ELD procedures are proceedings that have led to criminal or administrative sanctions. *Environmental crimes and similar type of administrative (petty) offences* often cause environmental damage. At the same time, sanctions relating to environmental crimes or offences are much more frequent than ELD procedures, suggesting that effectiveness of exchange of information should be enhanced and a closer collaboration between ELD and other authorities, as well as prosecutor's offices is desirable. In that respect the Portugal example, where the environmental authorities have signed cooperation agreements with prosecutor's offices, should be followed by other countries, too. Being able to build upon criminal or administrative investigations can *mitigate some of the forensic problems* associated with ELD proceedings, too, for example regarding causation and fault. Also, effectively combining sanctions on the one hand and remediation obligations under the ELD (or other sectoral law) on the other hand would establish comprehensive accountability for environmental damage comparable to criminal and also civil liability for the violation of individual rights (theft, assault) (Verheyen). In harmony with that, amongst the practical suggestions experts underline the necessity of *guidelines to support of coordination* and effective cooperation between various authorities including guidance clearly defining the competencies of the authorities, the stages in which they are involved and suggestions and examples of good practice (Cerny). In Italy the environmental agency (the ISPRA-SNPA system), together with the territorial agencies, do have a specific role concerning the assessment of the damage and the identification of the best measures to be adopted in the administrative procedures or the opportunity to open or intervene in the judiciary proceedings. Recent cases show that there is a close *cooperation and dialogue of the public authority with the private parties* concerned in the ELD cases, in order to identify the best measures (using all the different possibilities). The dialogue should help in finding a common solution which could easily subsequently been implemented (Delsignore).

Cooperation of several branches of administration would be desirable *on EU level, too*. There are instances when an environmental damage is linked with other misconducts, especially regarding the use of EU funds. In those specific cases, all EU bodies, with special regard to the OLAF, should intervene and within their sphere of powers, make sure that such wrongdoings are discontinued. The actual involvement of OLAF is still to be researched, the cooperation of all EU bodies may result in a more effective enforcement of the ELD (Kiss).

The role of experts in the ELD procedures

Even the competent authorities (district offices) themselves are not able to assess whether there has been environmental damage and significant adverse effects, and need opinions of environmental

agencies and experts to do so. They are in a way dependent on the opinions of the experts, whose examinations might take long time to develop. But even specialized environmental agencies and experts themselves are often reluctant to state in their expert opinions that water or soil damage had a "serious adverse effect" and that environmental damage has occurred, due to the unclear definition of environmental damage. Often they only state in the expert opinion that statutory pollution limits have been violated, for example, under the Water Act. However, such an assessment is useless for the purposes of assessing the occurrence of environmental damage (Wilfing).

The role of the courts in the ELD procedures

National judges has been recognized as playing a key role in the implementation of EU environmental law. The capacity of national courts to guarantee the correct and efficient application of EU environmental law is an essential factor for addressing the legitimate expectations of EU citizens in this domain. The EU Commission has been supporting a project on cooperation with national judges in the field of environmental law. Within that project there has been provided cost free workshops for national judges but also for prosecutors in the field of environmental law, including environmental liability issues, while it should be getting bigger stress in designing the curricula (Bengtsson).

VI.3.C Other sources

The ELD Resolution of the European Parliament

RES 22. Emphasises that compensatory regimes must be able to address transboundary claims effectively, rapidly, within a reasonable timeframe and without discrimination among claimants from different European Economic Area countries; recommends that they should cover both primary and secondary damage caused in all affected areas, given that such incidents affect wider areas and may have a long-term impact; stresses the need especially for neighbouring countries, which are not members of the European Economic Area, to respect international law regarding environmental protection and liability;

Without explicitly quoting it, the Resolution refers to the Espoo Convention, whereas the leading principle of the transboundary environmental assessment procedures is that, as far as possible, the environment, the rights and responsibilities of the authorities and the concerned communities in the affected countries shall have the same position as that of in the country of origin. This principle is reflected in the EU laws on the environmental impact assessment, while the principle is widely used in environmental protection administrative procedures other than EIA.

CERCLA study

Once a PRP has been identified, the US EPA may utilize one of three enforcement mechanisms to initiate a clean-up at the contaminated site:

(1) under Section 104, the EPA may undertake emergency remediation measures in order to clean up a hazardous site and then sue liable parties for reimbursement for the clean-up costs;

(2) under Section 106, the EPA may issue a judicial or administrative order compelling one or more potentially liable parties to perform a clean-up of the contaminated site; or

(3) the EPA may enter into a voluntary settlement agreement with a liable party to remediate the site.

The order of the list in the law, contrary to the usual legislative logic, might not indicate a priority order, because the American administrative law enforcement bodies, especially the environmental protection units prefer the voluntary agreements, not seldom with involving not only the polluter, but local communities and NGOs, too. Considering furthermore the above described financial situation, the firstly mentioned solution must be the rarest one. Yet, if the EPA decided to remediate the contaminated site without first identifying a liable party, the agency may bring a Section 107(a) recovery action against PRPs to reimburse their response costs. If PRPs either cannot be located or are insolvent, Superfund money will be allocated to fund the remediation of the site. Despite Congressional appropriations, Superfund sources are limited, so it is crucial for the EPA to locate and establish that a PRP is liable to avoid depleting the Superfund. As Holms established, having money immediately available from a liable party would be a game changer. (Holms, 2019)

CERCLA had established a trust fund called the Superfund meant to finance the remediation of hazardous sites, or Superfund sites, when the EPA cannot locate liable parties or liable parties are insolvent. When the Superfund was first established, dedicated taxes placed on polluting industries and general taxes financed the Superfund. Unfortunately, CERCLA's taxing authority expired in 1995. Since 2001, general appropriations constitute the largest source of revenue for the Superfund. In the past decade, the EPA allocated $243 million per year to Superfund clean-ups, but it is estimated that $335 to $681 million per year would have been needed to clean up contaminated sites. From this point the American and European currents flow together again. With such limited funding, it is important that those liable for the contamination, and not the Superfund, bear the costs of the clean-up. Congress passed CERCLA under the theory that those culpable for the contamination of lands should be liable for remediating them. (Holms, 2019)

VI.3.D Chapter summary

Findings

In the complex environmental liability cases the whole arsenal of the evidences take part, especially site visits and revealing the documentary history of the polluting facilities. Highly trained experts play a key role bot at the side of the authorities, at the operators and also at the other stakeholders in the ELD cases. General administrative procedural principles of evidence taking, such as officiality, free selection and evaluation of the evidences and the acceptance of commonly known facts will apply in environmental liability cases, too. ELD laws, however, contain a serial of specialties in the field of procedure, primarily some rules that allow the shift of the burden of proof to the operator at least partly and under certain conditions. Because of the high stakes and the almost unavoidable remedy procedures, legality of all the procedural motions is carefully examined by the superior authorities and courts almost in all of the environmental liability cases. Remedies are handled usually at the highest administrative levels, and the court revision is performed by higher level regular courts or by special administrative, seldom environmental tribunals. Considering the urgency of the ELD cases, the revision procedures are usually expedited, or in some cases the suspensive effect of the legal revisions is lifted generally or by individual decisions on the implementation of the administrative decisions on the measures.

While the exchange of information and cooperation of the relevant authorities is indispensable in general, too, within a formal administrative procedure they will have to work together, too. This might take various procedural forms, such as performing a formal role in the procedure of the competent authority, including a co-decision role, or just sending official opinions or evidences for the ELD procedure. Several authorities might share the responsibilities over the environmental liability cases also in parallel procedures or consecutive ones, where they use each other's data and experiences in the concrete matter. Several authorities are taking their respective roles in implementing the necessary measures, too, in order to eliminate environmental harm or danger. The cooperation of the relevant authorities might take an institutionalised form of several intensity, from lose cooperation agreements and MoUs to the organisational ties with rights and responsibilities fixed by the law. A medium level solution can be the issuance of official guidelines of cooperation issued by the relevant ministry or chief authority, usually in agreement with the other involved leading bodies.

Observations and suggestions

The in-depth researchers point out that trustable data by which the authorities are able to establish the baseline conditions at a site is the basic precondition of the successful poof of the facts and proper legal conclusions in the ELD cases. While cooperation between the several interested authorities in the environmental liability matters is important generally, the contribution of the police and other criminal investigation bodies is especially important, because the technical, as well as legal supremacy of the evidences collected in the criminal procedures.

In the sophisticated procedures of environmental liability laws cooperation of the parties is very important, the formal ELD administrative procedures therefore contain a lot of consultancy elements, amongst others about the kinds and depth of the examination of the evidences. The dialogue between the authority and the other stakeholders contributes to reaching such decisions that are accepted and well implemented by the parties and in the same time serve the social-ecological interests of the concerned communities the best. The elevated role of the experts in the ELD cases was acknowledged by the researchers of this project, too. It is always difficult to bring into the same platform the probability evaluations of the technical sciences and the need for absolute predicaments in law, which

situation might result in the impoverishment of the richness of technical details for the sake of legal certainty.

Interconnections with other chapters

Chapter I: ELD databases form the basic starting point in the proving procedures in the ELD cases;

Chapter II: It stems from the complexity of the ELD cases that cooperation of the competent authorities and other authorities must take place in the evidence taking processes of the majority of these administrative procedures;

Chapter VI: even specialized environmental agencies and experts themselves are often reluctant to state in their expert opinions that water or soil damage had a "serious adverse effect" and that environmental damage has occurred, due to the unclear definition of environmental damage.

VI.4 Follow up procedures to ensure that the damage is prevented or remedied and paid for

Our question was in this chapter:

- What kind of follow-up measures are taken to ensure that full repair (or prevention) of the damage actually happens, and/or to make the person who caused the damage fully reimburse what is due from him under the administrative (public) liability law.

Monitoring

Monitoring starts with controlling the appropriateness of the plan made by the operator to restore the site. The implementation of the recovery program, i.e. compliance of measures with the recovery program, might be secured through an oversight of an accredited professional, different from the one producing the recovery program. After the implementation of the recovery program, a reasoned opinion on the compliance of implementation is produced. Based on this opinion by the accredited professional, and the environmental authority brings a decision based on it, establishing that the recovery program has been implemented (CRO). The control of the implementation of the recovery plan might be *an iterative procedure*. If it becomes evident that the extent of environmental damage exceeds the damage identified or that a mistake has been made in preparation of the plan, then the environmental authority has the right to make amendments to the plan. It also may decide that further remedial measures are not necessary, if the authority considers it guaranteed that there are no further substantial adverse effects, or the costs of any additional remedial measures would be disproportionate. The environmental authority declares the plan implemented (by an administrative decision), when the measures have been taken, and the natural resource and its benefits have been restored, substituted or compensated (EST).

In many times, however, ELD sites cannot be restored with one set of measures. Follow up activities from the authorities with the help of the concerned communities and the operators themselves just start with *implementation monitoring*, and continue, if applicable, with the enforcement of certain treatment measures that turned out to be necessary in addition to the originally planned remedy and

prevention measures (GRE). *Monitoring design* includes in particular the methodology, scope, frequency, design of points or networks of monitoring objects and monitored parameters with regard to the method of demonstrating the achievement of the objectives of remedial measures (CZE). There are some safeguard mechanisms in connection with monitoring: the proposal for the remedial measures prepared by the polluter includes also the proposal for monitoring and reporting on them; one of the primary remedial measures can provide supervisory services, and services for monitoring the situation in the concerned area (SLO).

If not earlier, in the decision closing the ELD case, the environmental authority orders the operator itself to carry out certain monitoring activities and survey of the procedures of the harmed elements of the environment (EST). Depending on the results of this *self-monitoring*, further measures may be ordered (DEN). The competent authority, therefore, has to be involved in the implementation of all the ELD decisions, and has to follow up on remediation and monitoring actions taken by the operator (LAT). We note that self-monitoring responsibilities might ensue generally from the sectoral environmental procedures or from an EIA decision, as a part of the permit for the operation (ROM). Unfortunately, in the practice, authorities usually consider their tasks be over with the administrative decision in force, and fail to spend time and resources on regular monitoring. In some cases the authorities might not even analyse the information on the completed action, which are submitted by operators (POL).

In some countries there are no specific provisions about monitoring the implementation of the remedial measures in the ELD laws, but the general provisions of the administrative procedure law on inspection and enforcement will apply. Sectoral environmental laws, such as soil protection legislation, can provide for stricter monitoring rules, and a formal post-remedy evaluation procedure with the inclusion of certified soil remediation experts, and this way the monitoring phase of the case can be *closed with a formal decision* from the competent authority (BEL). In other cases, the Administrative Court might decide on how far to keep the monitoring obligation in force, and possibly prescribe a final report in a concretely determined future time (FIN).

All of these monitoring efforts and affiliated procedures might be summarized in a *guidance document* as in 2009 the Swedish environmental agency developed three separate guidelines for the works in connection with *after treatment* of polluted areas. After-treatment liability according to this guideline shall mean that the person, who is liable for the pollution shall, *to the extent reasonable*, carry out or pay for any after-treatment measures that are necessary in order to prevent or combat subsequent damage or detriment to human health or the environment (SWE). We note, that ensuing from the logics of ELD, there are different criteria of full implementation of the ELD decisions in respect to water and biodiversity on one hand, and in connection with land contaminations on the other. In case of damage to water and damage to biodiversity the remediation is perfect, when experts can confirm the achievement of the assumed ecological effect, while in case of damage to land it is enough if the operator confirms that the prescribed remediation measures have been completed (POL).

Non-confrontational and confrontational tools of enforcement

If the polluted site is not cleaned-up properly and not kept in the status prescribed by the ELD decision, the competent authority usually first tries *non-confrontational tools of enforcement of compliance*. This can include fact-clarification correspondence, official warning letters, personal meetings, and also technical, methodological support of the liable person, inter alia, by information or any other means to facilitate that the operator fulfils his or her responsibilities (SWE).

Having exhausted the non-confrontational tools, the *confrontational tools of enforcement* may come into the forefront. The authority, if needed, might impose new or stricter measures in order to have the addressee to comply with what is required. Also, if it deems necessary, the authority may impose *conditional fines* to an order and if the negligence of the addressee continues, apply the fine connected to each time or period the order is disobeyed, so it would be possible to impose several fines related to the same activity (SWE, POL). In principle, substitute fulfilment of the obligation is also an available enforcement tool, which means that the authority appoints some other persons/company to perform a given tasks of the required remedial action, on the expense and risk of the liable operator. Imposing a fine, however, is much more widespread in the practice, because it is much easier for the authority, as it does not require additional organising work (POL).

Several countries use in this phase the rules of the *general administrative procedure*, whereas, if the obligation set out in the decision of the administrative body is not voluntarily fulfilled, administrative enforcement may be initiated. Enforcement can be carried out on the basis of an enforceable administrative decision or an enforceable settlement, which both represent the so-called '*enforcement legal title*'. In such cases the chapter of the general administrative code on the enforcement for non-monetary performances might become especially relevant. Administrative authorities are generally obliged to order enforcement *ex officio,* if the decision issued by them is not respected. If they fail to do so, citizens can turn to a superordinate administrative body, asking them to take measures against inaction of this body (HUN).

The so called *non-monetary obligations* can be enforced by:

(a) substitute performance in the case of substitutable services,

(b) direct enforcement in the case of irreplaceable transactions, in particular by eviction, removal of movable property, or

(c) imposition of coercive fines (CZE).

In harmony with this, if the liable operator does not fully restore the damage, or does not adopt the remedial measures in the prescribed terms and conditions, the environmental authority determines the costs of the activities necessary to achieve the complete implementation of the prescribed measures, and orders the operator to pay the corresponding sum within a deadline of sixty days. The Ministerial order has to be adopted within 180 days from the notification to the responsible person of the initiation of the follow-up investigation, and in any case within the deadline of two years from the assessment of the environmental damaging event (ITA). Enforcement of the follow-up measures might be initiated by the concerned NGOs, too. In Germany an NGO has used the national ELD Act to sue an authority for the enforcement of an order, which the authority had issued to a railroad company under ambient environmental quality control and water protection laws. The court found this legal path viable, but the claim was rejected, because, in the Court's view, the conditions for enforcement were not yet met in the specific case. The case illustrates, however, that NGOs can make use of the national ELD laws to demand enforcement of preventive or remediation orders issued by authorities (GER).

Lack of effective enforcement is still a problem in several countries. The NGOs and the Deputy Commissioner for Future Generations interviewed were at the opinion that follow-up of the implementation of measures determined by the ELD decisions of the authorities is not efficient. Lack of capacities and low resources of authorities hinder the enforcement of their decisions taking in ELD procedures. Furthermore, collision in competences may also result in that the user of the environment is not actually forced to perform the measures ordered (HUN). The national study in the Netherlands also reported about concrete cases, where no follow up procedures took place (NED).

Covering the costs of remedy and follow up measures

Where no enforcement of the activities and follow up measures contained in the ELD decision, yet the decision has successfully implemented, we can be sure that the State covered the necessary costs. In such cases the revenues might still be collected from the liable persons, and this is the last resort of these cases, the *implementation of the financial side of the ELD decisions.* The easier cases are where the liable persons have some assets that allow the State to satisfy its financial claims. Civil law tools of recollection of the money that is owed to the State include *exaction of the costs from the responsible party through real estate lien, mortgage, or other civil law tools.*

If the costs of preventive and/or remedial measures had been financed from the central budget instead of the user of the environment, the environmental authority has to *file a lien on the real estate* properties of the user of the environment to the benefit of the State up to the amount financed. If such properties fail to cover the sum financed from the central budget, the environmental authority files a lien also on the movable assets of the user of the environment, too. The lien can be cancelled if the polluter reimburses the amount (HUN). A lien can furthermore be established on the polluters' property or bank guarantee requested for securing the payment to the environmental authority in the amount of the estimated costs of measures to be taken, if the authority has to carry them out itself. In addition to that, it can claim the reimbursement of the costs of the implementation of measures it has carried out by itself within five years (SLO).

Under the ELD legislation in Flanders, the Region can recover its costs from the operator by writ of execution (that can be and usually is contested by the operator in court, though). To secure the recovery of costs the region has a general privilege over all movable property of the operator, and can register a legal mortgage (BEL). Where the user of the environment is a business association, the Government may adopt a public resolution on that the State acquires securities embodying *shares in the business association* in question as a compensation for its claims arising from environmental fines, if unpaid by the prescribed deadline, instead of attempting to recover such claim, up to the amount specified, subject to agreement with the holders of shares in the business association liable to pay the fine in question (HUN). We note, however, that not all of these new and effective civil law tools are widely applied in all of the European countries.

Bankruptcy

It is known that several entrepreneurial companies try to *escape from their financial liabilities ensuing from the ELD cases through bankruptcy.* Greenpeace Hungary officials mentioned during the interview with them that in most cases users of the environment do not own sufficient financial resources or assets which would cover the potential damages, which their activity may cause. Moreover, in several cases, where the possibility of environmental damage occurs at a company, the user of the environment *declares bankruptcy* or goes into liquidation, and the authority – not taking the necessary measures in time – is not able anymore to enforce financial claims against the company (HUN). We note that the perpetrator of such deeds, if the bankruptcy is proven to be constructed to escape the liability, might be a subject of a criminal procedure.

There are some other examples analysed where the costs of remediation measures were not fully reimbursed, as the full procedure on environmental liability as required by the ELD was not carried out, and a legal shortcut turned out impossible (LAT). In some cases, using *endless legal procedures* have the similar effects as bankruptcy. In a Dutch case the liable operators wanted to assume full

responsibility and were involved in litigations and counter-litigations on matters of liability between them. It required a special commission to make parties reach a compromise. Yet, the polluter has escaped prosecution (the company bankrupted, and the company owner went missing) and thereby has not been held accountable nor paid any reparations (NED). In the bankruptcy cases *some claims enjoy privileges* ahead of the other claims. Such are the privileges for the claim of the state against the operator for the incurred expenses for performed preventive and remedial measures. The receivable enjoys the right of preferential satisfaction before the other receivables of the State for instance fines, taxes, fees, customs duties, as well as is collected by the order of public receivable from the National Revenue Agency (BUL).

In the cases where companies defend themselves with bankruptcy against the reparation and sanitation costs, they in principle have to be covered by the Government, the concerned Province and Municipality. In such cases criminal investigation and prosecution can be started against employees at the company, who wear personal responsibility for the lack of behaviour of the company as liable operator. We note, however, that it is not always feasible to use criminal law against white collar criminals. In a Dutch case, for instance, the several charges that were raised by the public prosecutor against the managers of a liable, but bankrupt operator, were declared inadmissible (NED).

VI.4.B Evaluation by the in-depth researchers

More emphasis should be put on the practical implementation of the ELD decisions

Requirements of follow up to ensure that the aim of remediation has been achieved, are crucial parts of the ELD goals. Therefore, the obligations aiming a better cooperation between the competent authority and liable person in after-treatment (remediation) stage should be strengthened (Mikosa). It is necessary to ensure that, once the remedial measures were imposed or a recovery program approved, they are really implemented and the remedy is secured. In addition to rigorous control by the authorities, self-monitoring and obligatory reporting to the authorities seems to be appropriate tools for this purpose. This obligation should also be strictly enforced and infringements sanctioned. The EU and the Member States should also *provide for sufficient capacity to control the implementation* of corrective measures and put more emphasis on monitoring the implementation of corrective measures and ensuring sufficient personnel and other capacities (Cerny). The authors are in unison that implementation of the ELD decisions is extremely difficult. This opinion is especially reinforced by the experiences of a high ranked administrative judge specialised in environmental cases. He established that restoration of the contaminated sites is very difficult and time-consuming, due to the very high costs usually involved. This means that the addressee often will have objections regarding most or every factors to be re-considered. Also the operators are very reluctant to cooperate with each other, with the authorities and with the concerned communities in the ELD cases. In sum, the authorities meet a lot of difficulties to overcome these difficulties in order to succeed and have the concerned areas finally decontaminated and restored (Bengtsson).

Researchers call the attention that the control of remediation measures implemented by the operators can be complicated and often *requires continuous and lengthy monitoring* that might discourage or overburden environmental authorities. This is especially true for smaller authorities with low resources. They offer multiple ways of reinforcing the resources available for a better implementation of the ELD decisions. In Greece, the need to hire more environmental stuff at national and regional

level is demonstrated also by the Annual Reports of the activities of the Independent Authority and in its Special Report on "Entrepreneurship and Environmental Protection" (2016). It is mentioned in the reports that many units operate for long periods without having the legal permits and approvals or in excess of them and without having anti-pollution systems and suitable facilities for the treatment of the generated waste. At the same time, the administrative services are delaying to monitor the terms of the installation and operation of the companies and the environmental terms, or even are not monitoring at all (Kallia).

The first practical solution to mitigate this problem is to provide general instructions and *guidelines*, preferably by the highest competent environmental authority on Federal or state level, *that can support and structure monitoring efforts* by competent authorities and be useful in aligning of the practice of different regional authorities. Some *orientation regarding the timeline* of remediation should also be included, to ensure continuous follow-up, which has been reported to be a significant problem. Additionally, another promising approach would be to *strengthen the "watchdog" role of NGOs*. Participation and access to justice rights also apply on the level of monitoring and enforcement of remedial measures. Therefore, NGOs can support and complement the authorities' monitoring efforts, especially where resources are scarce. This would, however, require sufficient information on where and how remediation was ordered, which takes us back to the necessity of a comprehensive ELD database (Verheyen).

Interrelations with other issues in the research

Effective implementation of the ELD decisions is the final and utmost purpose of the ELD laws. As concludes, many, if not all of the topics discussed in this research summary, should serve this purpose in a concerted way. Indeed, our in-depth researchers were well aware of the necessary of such a holistic approach and suggested complex considerations. First, information about cases of environmental damage, ongoing proceedings, imposed preventive and remedial measures, information about follow up activities and results achieved by the remediation measures serve as indispensable *feed-back mechanisms for the authorities* and for the other role players in the ELD cases (Cerny). Other researchers point out the strong interrelationship between *public participation* and effective implementation of the ELD decisions. Access to information enables NGOs to demand the initiation or continuation of ELD procedures as well as monitoring and enforcement of remediation (Verheyen). Similarly: the *affected persons and members and organisations* of the public should be ensured to take an active role in the remediation procedures (in contrast to current procedures under water and nature protection, which foresee no such participation) and lend more social support and prestige to the environmental authorities when they fight for actual cleaning up of the seriously polluted sites (Schmidhuber).

A further important connection to the topic of implementation was highlighted: ELD related *training* events should also be extended to technical experts whose job is to monitor and evaluate environmental damage and implementation of the ELD decisions. Along with this program, NGOs should also receive targeted capacity building and awareness raising in environmental liability issues, in order to make sure their contribution is based on expert knowledge and their involvement in ELD cases enhances effective implementation of the decisions (Kiss).

Finally, there is a natural connection between implementation of the ELD decisions and *recovery of costs thereof and the financial mechanisms*, for instance, a compulsory insurance scheme would also to large extent solve issues relating to bankruptcy, and the necessity of use of state funds for cleaning up the polluted sites (Andersen).

Handling bankruptcy cases and other attempts to escape from liability

The Summary shows that in a number of member states there is usually poor or no remedy at all in practice. Such situation should be particularly avoided. It is necessary to ensure that, once the remedial measures were imposed or recovery program approved, they are really implemented and the remedy is secured. In addition to the rigorous control by the authorities, self-monitoring and obligatory reporting to the authorities seems to be an appropriate tool for this purpose. This obligation should also be strictly enforced and infringements sanctioned. The state should also provide for sufficient capacity to control the implementation of corrective measures (Cerny).

One of the most difficult legal barriers to cope with is the limited responsibility of the corporate personalities. Bankruptcy and similar manoeuvres of the operators on company law basis make impossible to implement the ELD decisions on the operators and leave restricted possibilities to target other companies within an organization or to physical persons within the operators organization. These issues organically lead us to the deeper scrutiny and discussions on an *expanded responsibility for the land-owners*, putting stronger requirements to conduct proper due diligence, especially regarding land purchases for occupational activities. Such problems and solutions have far reaching economic and legal ramifications, therefore would preferably be solved by establishing *common rules on EU level*, rather than nationally, aiming at a general and balanced fulfilment of the polluter pays principle (Bengtsson). According to the Slovakian ED Act, if the operator is in bankruptcy, the reimbursement of costs is a claim of a "secured" creditor and is enforced in bankruptcy proceedings. However, this does not fully prevent the operator from avoiding liability and paying costs. Therefore, the proposal of the Slovakian researcher for a solution is that, if the operator company ceases to exist without paying costs and without a legal successor, neither there is a holder of authorization for the activity or a person to whom decisive economic powers over the technical functioning of the activity have been transferred under the Bankruptcy Act, we have to consider enshrining the parent company's liability (Wilfing).

In connection with bankruptcy, the interplay between administrative and *criminal law* emerges from a new aspect: in some cases, where companies try to escape their financial liabilities through bankruptcy, criminal prosecution might be possible, while it is true that the *mens rea* e.g., malicious intent) could often be difficult to prove (Verheyen).

It is a good practice to follow by other countries, too, when information on the ecological damage to the land is *entered in the real estate cadastre* and made public as well as related restrictions on the possibility of transfer of ownership of such a land, in order to prevent the owner/operator from getting rid of the polluted lands and the polluting facilities on them (Cerny, Bengtsson).

VI.4.C Other sources

The ELD Resolution of the European Parliament

RES Point 35. Calls on the Commission to come forward with a proposal for environmental inspections at the European level without further delay;

It seems to be a natural extension of the logics of follow up activities on the side of the authorities that serve the actual implementation and enforcement of the ELD decisions and the financial liability

thereof. However, as usual, direct interference of the European environmental protection administration into the national level cases raises a lot of constitutional type of questions, settling down whose might take considerable time and efforts.

RES Point 44. Suggests that tax relief or other favourable arrangements be introduced for companies which successfully endeavour to prevent environmental damage;

A typical non-confrontational enforcement tool is mentioned amongst the suggestions of the Resolution. While criticism from the authors of national reports in our project concerns the less stress on prevention in the rather end of pipe (actually: a very long pipe) environmental liability systems, such suggestions should be built in these systems as widely as possible.

The EPA-ICEL conference

Prof Owen McIntyre discussed the Environmental Liability Directive, setting out to identify the true primary objective of the Environmental Liability Directive and to assess its effectiveness. It is unclear whether the legislative rationale of the Directive was to act as a harmonising instrument or an enforcement mechanism, although Prof McIntyre suggested that it is more of an enforcement mechanism.

We have seen in the findings of the national experts on the practical implementation of the ELD laws that in monitoring, follow up, taking implementation and enforcement measures, the competent authorities must rely upon primarily the old, sectoral laws, which have better developed procedural provisions on these measures. From this angle, therefore, our practical research did not bolster the theoretical conclusions of Prof. McIntyre, who himself addresses the topic of the primacy of the old environmental liability laws in Ireland, too.

Richard Macrory, emeritus professor of University of London opened his presentation with an overview of the three structures of the environmental courts and tribunals in England: The specialised environmental tribunal set up in 2010; the specialised planning court set up in 2014; and the to-be-established Office of Environmental Protection. Environmental regulation is a devolved subject and so his presentation focused uniquely on England. In England Upper Tribunals hear cases on questions of law and judicial review with possible appeal to the Court of Appeal. He said that Tribunals are more specialised, more flexible and less formal than ordinary courts, which makes them an ideal setting for dealing with environmental law.

The English solution for creating a specialised court and ombudsman like institution for supervising the decisions of the administrative bodies in environmental cases offers more varieties of solutions for the environmental procedural laws, where the ELD cases just further underline the sophisticated nature of the environmental cases, primarily because of the combination of technical, social, economic and legal questions in them.

James Connolly SC, Chairman of the Planning, Environmental & Local Government Bar Association of the Bar of Ireland addressed the criticisms of the present system – that non-specialist judges are less efficient and that the judicial review framework is too limited. To the first criticism he responded that the system as it is functions. He said that non-specialist judges weigh up evidence from experts on diverse subjects all the time, meaning that non-specialist judges are not necessarily less efficient. On the second criticism he responded that local authorities and An Bord Pleanala have sufficient expertise to make judgements on planning, which left the High Court to judge the rationality of any decision and the decision-making process.

We think that these arguments can be often heard in the disputes above the necessity and possibility of specialised environmental courts. While these arguments seem to be less principal than the arguments for the special courts, one should not underestimate the inertia of the existing structures both in the State administration and in the court systems.

VI.4.D Chapter summary

Findings

Monitoring of the implementation of the ELD decision is a stage of the administrative procedure with a couple of special rules. Inter alia conflict of interest rules emerge from several aspects: those who design the monitoring plan, should be different and independent from those who accept, also from those who implement and control it. Monitoring is an open ended procedure in the most environmental liability cases, shall continue until the full recovery of the environment or elimination of the threats happen. In some countries the competent authorities bring a decision on the closure of the monitoring stage of the case – this is important, because a formal decision might be subject of participation of the concerned parties and legal remedies might take place, too.

Part of the monitoring activities might be decentralised, also local municipalities and the concerned communities play important role in them. Unfortunately, in some cases the authorities consider their tasks be over with the administrative decision in force on the measures themselves, and fail to spend time and resources on regular monitoring at all, or, in other instances, formally accept the report of the operator on the finalisation of the measures on the site.

Non-confrontational enforcement tools include fact-clarification correspondence, official warning letters, personal meetings, and also technical, methodological support for the liable person (see also RES 44). The confrontational tools might include imposing new or stricter measures, fines. In principle, the authority could perform the necessary measures on its own or by a proxy, on the risk and expenses of the obliged person, but in the practice it is rare.

The costs of the procedure and the remedy or prevention measures in principle can be remunerated by civil law or fiscal law tools. Civil law tools of recollection of the money that is owed to the State include exaction of the costs from the responsible party through real estate lien, mortgage, or other civil law court cases. The fiscal law in most of the countries allow the State to simply deduct the sum from the bank account of the company in debt, under certain circumstances. Even if the available legal tools seem to be numerous and quite effective, in practice they might trigger off newer lengthy legal remedy procedures in the long history of a typical ELD case or the defendant might escape to bankruptcy or liquidation. While the State debtor enjoys preferential satisfaction under the bankruptcy laws, the remaining money at the company might not be enough to cover full expenses of an ELD case. The owners and managers might be a subject of a criminal procedure in the cases where their malign behaviour is proven, especially when they have a history of similar bankruptcy manoeuvres. Researchers of the project added, however, that it is not always easy to handle this cases by criminal law, the environmental liability matters might be too complicated for that.

Observations and suggestions

The in-depth researchers reinforced that the addressee of the ELD decisions often use any available legal pathways to delay the implementation. This closely interrelates with the fact that the operators prefer to manage the measures on their own, and they are very reluctant to cooperate with each other, with the authorities and with the concerned communities. The environmental authorities are not prepared for such strong resistance, solution of the implementations cases would require continuous and lengthy monitoring and investment of such amount of resources they simply do not have. The scarce resources of the competent authorities should be focussed on the priority cases and they spare efforts with designing systematic monitoring plans and following the guidelines prepared by the top level expert units nationally or in the EU. Another promising way of raising the effectiveness of the follow up steps, is to use the watchdog activity of the environmental NGOs and local communities interested in the given ELD cases.

Multiple cases where the operators escape from liability through bankruptcy direct our attention to the enhanced responsibility of land owners in selecting and controlling the leasers or other users of their lands, including the State owned lands, too. The possible liability of managers, owners and parent companies shall also be carefully examined in these cases. While bankruptcy and counter bankruptcy regulations have far reaching effects on the market positions of the companies, an ELD viewpoint regulation of the issue on the EU level might be necessary. As the social damage they cause is really high, criminal sanctions against the decision-makers in the company hierarchy should also be raised.

Interconnections with other chapters

Chapter I: exhausting and continuous data servicing on the environmental liability cases should provide the authorities and all the other stakeholders with continuous feedback from the status of the polluted sites and the proceedings with the implementation of the decided measures;

Chapter II: rules of monitoring, enforcement tools are typically included in the old, sectoral environmental liability laws, this way the interaction of the ELD law with these rules is unavoidable;

Chapter VIII: naturally, successful implementation programs cannot take place without proper financial guarantees;

Chapter IX.3: in order to be able to use the watchdog activity of the NGOs and local communities with the best effectivity, the environmental authorities should invest in their capacity building.

VII Time dimensions of the ELD cases

Our questions were in this chapter:

- What are the time dimensions of managing new environmental emergency ELD cases in external sense (how much time is spent from noticing the pollution till the onset of the procedure)?
- What are the time dimensions of managing new environmental emergency ELD cases in internal sense (what is the time pattern of the procedure: length of evidence taking,

negotiations with the parties, bringing decision, time spent on legal remedies etc.; how much time is spent from the onset of the procedure till actual measures happen on the polluted site)?

- We were also interested in statute of limitation type legal institutions in administrative law (e.g. for requesting clean-up vs. for requesting cost bearing for sites cleaned-up by the authority or third persons).
- Finally, even if historical pollutions are in principle out of the frames of the ELD, being aware that the borders between them and the new or ongoing cases are not always clear, we asked about the role of time in determining ELD based responsibility or that of in historical (orphan) cases.

Our knowledge about, and the general factors of external timeliness

Generally, no statistics is available about the time dimensions of the ELD cases in the EU countries, while the country researchers have developed numerous case studies and interviews, and the picture these sources of information paint, is really problematic. Regarding the timeliness in general in the ELD cases, Anders Bengtsson has summarized the main factors influencing that: "The urgency of the matter will often determine how it will be prioritized at the authority. How the matter will be managed in the individual case is dependent on many factors: how well the knowledge is available regarding the damage; how costly the decontaminating can be estimated; if there is an obvious addressee or not; how the authority may prioritize due to resources and personal competence; how the workload in general is; and how this type of cases may be prioritized in relation to others; if the authority after a submission does not see any emergency, no urgent risks etc.; or if the case is difficult, because there is no precedence or clear guidance; also such circumstances will affect the speed of the case to stream through."[23]

Time dimensions in managing a new environmental emergency ELD case, Kemis, Slovenia

- the accident (fire) and damage were on 15 and 16.5 2017;

- the chief environmental authority (ARSO) begun the procedure on 16.5.2017;

- ARSO issued first (partly) decision about the remedial measures on 21.7.2017;

- on 18.9.2017 ARSO appointed an expert for waters;

- the hearing was on 27.10.2017;

- the final decision was issued by ARSO on 13.4.2018;

- Kemis begun the administrative dispute regarding this decision on 17.5.2018;

- the Administrative court decided on 23.4.2019 – the ARSO final decision was annulled and ARSO shall decide again;

- on 6.6.2019 ARSO called all parties to comment new findings after gathering some additional info in accordance with the recommendation of the Administrative Court. (SLO)

As we see from this case study, in cases, which start with a notable accident or a quickly evolving emergency situation, the *quick onset of the procedure* seems natural. In Greece, too, a shipwreck oil

[23] Swedish national report, page 23

spill case was started in a very short time, as it happened in the capital area during summer and with *great publicity*. The remediation measures were taken immediately, and a re-inspection followed shortly after the measures were implemented (GRE). Another group of the positive examples for external timeliness is the handling of *smaller, uniform cases* under the well-known old sectoral rules. Recent Belgian cases of soil pollution (on average 170 in the Flemish Region, annually) are well treated through the so-called accelerated procedure for remediation of accidental cases. Those cases must be reported within 30 days to the competent authority and effective remediation may not take longer than 180 days (BEL). In Latvia, the remediation measures are determined by the competent authority after the notification on an accident submitted by the operator and comments of the public and landowner. Usually the decision is taken within 1 to 5 days, in the simple cases, but could be much longer if the case is *complicated*, as well as coordination and collection of opinions are needed. In practice there are quite some cases (20% as estimated in the interviews), where it is very difficult or impossible for quite long time to reach the phase, when the actual remediation measures are carried out (LAT).

Another barrier might be that the administrative proceedings under the ELD Act are not initiated by the environmental authority until the end of the investigation of the notification that environmental damage has occurred. While the national law might attach a stringent deadline for reporting an environmental emergency case by the operator, for instance in 2 hours (ROM) or 24 hours (POR), the laws usually do not set a time limit, within which the district office must *investigate the notification*. The Code of the Judicial Administrative Procedure gives a party to the proceeding the right to bring an action for failure to act by an administrative authority in administrative proceedings, but since administrative proceedings do not begin until the investigation of the notification has been completed, NGOs cannot file an action in court for failure to act (delays) in investigating a notification (SVK).

Internal timeliness of the ELD procedure

The most typical time pattern is, as concerns the external timeliness, that in case of emergency some quick measures are followed by a slow administrative procedure, i.e. the internal timeliness is poor. Regarding the restoration of the environmental damage caused by a fire at the facilities of a private recycling centre located in an industrial area in Magnesia, Greece, the owner removed the burned waste immediately. The competent authority in collaboration with an accredited chemical laboratory took samples of stagnant water, surface soil, stored material for recycling and burnt and wet material and these all were sent for analysis. However, it is worth mentioning that four years after the fire and the removal of the burned waste, the envisaged process of environmental liability has not yet been completed, since the approval of a restoration study by the relevant Regional Committee for the Implementation of ELD is still pending. In the meantime, with a new decision, the composition of the competent environmental authority was changed, a fact that has led to further delays and lack of monitoring (GRE).

While in the majority of countries, individual steps of the ELD procedure are *not timebound*, some national laws attach concrete maximum times for them. Examples include: within 3 days from receiving the information from the operator, the relevant competent authority shall perform an on-site check of the facts and circumstances, related to the imminent threat for ecological damages. Within 10 days from causing the damages, the operator shall propose to the competent authority the necessary remedial measures, determined in compliance with the objectives and criteria according to the national ELD law and a financial statement of the costs for their implementation. The competent authority within the term of 30 days from receiving the proposal, shall determine the remedial measures, which the operator is obliged to implement (BUL). Actually, ELD procedures generally take

much more time in the practice of the Member States. Several case studies that were performed in the present project show that the legal procedures on administrative and court levels can take many years:

- In Finland the Harjavalta nickel accident case took at least 6 years. The accident happened in 2014, the first ELD decision was made in 2017, the first instance administrative court gave its decision in 2019, and the case is still open in the Supreme Administrative Court in 2020 (FIN).
- A Lapland Natura 2000 case ELD procedure has lasted for 9 years so far: the illegal activities were carried out during 2010-11, the ELD decision was given in 2015 and it was rejected by the regional administrative court in 2017, so the procedure should start from the beginning. Both Finnish cases were in process at the time of closure of our research (FIN).
- As concerns the cases in Belgium, formally identified as ELD ones, they are very time consuming, too. An analysed soil remediation case was finalised 5 years after the incident, while the recovery of the costs is still pending (BEL).
- NGOs, namely Slatinka Association and WWF Slovakia, have tried to apply the ED law to remedy the environmental damage in the case of the Želiezovce hydroelectric power plant, which caused environmental damage to fish, floodplain forest habitats and water. However, the official investigation of the first case initiated by the non-governmental organizations has lasted for 3 years, has still has not been completed. The competent authorities are at the stage of investigating the NGOs' complaint and have not yet initiated proceedings to remedy the environmental damage under the ELD Act (SVK).
- In another example, the decision in the case of a discharge of approximately 2,755 tonnes of nitrogen content materials into the sea (finally found that it did *not* fall within the ambit of the ELD) was ruled in August 2018, 2 and a half years after the accident in March 2016 (DEN).
- A case of fire in a private recycling centre, the re-initiation of the procedure and the call for tenders for the award of the technical study led to a delay in the environmental rehabilitation beyond 5 years after the occurrence of the incident (GRE).
- An interviewed lawyer who handled a couple of the German EDA cases stated that one case took about 1 year to be decided at the Administrative Court (first instance) alone (GER).
- The second case went to the Federal Administrative Court, the proceedings took 3 years in total (with three instances of remedies) (GER).
- A group of German cases concerning an offshore wind park was originally opened in 2014. Because the fact that different federal authorities were competent for preventive measures on the one hand, and remediation measures on the other, two cases are still pending before different courts. One was decided on second instance by the Higher Administrative Court only in April 2019, and is still pending now before the Federal Administrative Court. The second court case in the same matter is pending on second instance, before the Higher Administrative Court of North Rhine-Westphalia (GER).
- *A comparative experiment of timeliness of the administrative procedures* was started in 2017 by a Swedish NGO, River Savers Association. The NGO initiated supervision cases related to similar water operations *at different CABs.* This is a usual methodology for European environmental NGOs when striving to achieve systematic changes in the legal practice. Some of the operations affected areas with high nature values and protected under Natura 2000, but also some waters of lower values. In his comments the spokesman for the NGO pointed out that, though the damage originally happened several years ago, the effects are continuing and will increase over time. All the five cases were started between November 2017 and February 2018 and all of them is still pending, except one, which was immediately refused by

the competent authority. In one of these cases the notification was sent to the CAB the 15 February 2018, but so far nothing has happened (SWE).

- In Estonia, there is a good access to national ELD database, although it does not specify how long it took to resolve the ELD cases. However, it provides information whether the cases are pending or finished. On the basis of this information it appears that the ELD procedure often takes several years. Out of the nine registered cases (since 2016, only cases where threat or damage was identified) five are still pending according to the table. The oldest pending case was registered June 2013. In response to a query in this research, the representative of the CA explained that the length of the procedure varies extensively. The time period from registration of the case to identification of the measures may be from one week to a year depending on the circumstances. Application of the measures takes even more time, not speaking of the restoration of the environment into the original condition (EST).
- The official investigation of the first examined case in Slovakia, initiated by non-governmental organizations has been ongoing for 3 years and has still not been completed. The competent authorities are still only investigating the NGO's complaint and have not initiated yet proceedings to remedy the environmental damage under the ED Act. In this case, NGOs wanted to test for the first time how the application of the ED law works, but the result is very disappointing (SVK).
- An extreme, but not without similarities to other cases in other countries was the case of National Steel (*Siderurgia National*), which was initiated by public complaints about the pollution and other environmental issues in the 1970 decade, and the last court hearing was scheduled in September 2020 almost 50 years after the first complaints (POR).

We note here that it seems futile to merge statistically these larger cases with the simpler, routine cases. Such statistics about "the average length of the ELD cases" in a country might be totally meaningless.

Reasons of delays in the ELD cases

Naturally, reasons of delays with starting the ELD procedures and too much time lasting within the procedures itself are similar and interconnected. The researchers in the project *attribute the delays of certain ELD procedural steps to several interconnected factors:* rarity of the ELD cases; meagre efforts on ELD education and training for the concerned administrative personnel; and also that expedited procedures and preliminary measures are seldom introduced for such cases. Simpler rules would help a lot, too: it may take long time before a decision is made just on the question, whether or not an incident falls within the ambit of the ELD-rules.

There are *remedies against slow administration* at the superior administrative bodies, courts or independent State officials, such as the Ombudsman or Chancellor of Justice that might be in principle available in every national law in Europe, but these are not used frequently. Examining the major factors of urgency, several authors in the project pointed out that the shock caused by a *life-threatening* or potentially *devastating* situation easily disappears after some hastily made measures at the beginning of the procedure, while later the full reinstatement of the polluted sites will take tremendous time. The key to understand such situations might be that people – notwithstanding if holding official positions in an authority or a court or just being everyday newspaper readers – easily get accustomed to *living together with hazards*, especially if the site is in a distant place (HUN, GRE).

Even more, often times, *waiting seems to be reasonable economically* and from the relevant policy considerations of an authority. When it comes to human health and water supply, the public authorities act fast and without much delay. The first action is undoubtedly to try to contain pollution immediately. However, if the authority goes too far in the process and spends too much money before having found the responsible operator, it can lead to the public having to pay for the clean-up. If the perpetrator is not found or cannot pay, the public is left with the whole costs of the clean-up (AUT). Similarly, responding to the Danish researcher in the project, Professor Peter Pagh pointed out a structural contradiction in the ELD laws themselves, which might be one of the major hindrances of quick responses to the emergency situations under the ELD legal regimes. According to the Danish rules, as everywhere in Europe under the ELD implementation laws, the responsible person is obliged to "immediately take the necessary preventive measures to avert the imminent danger of environmental damage. The person responsible for an environmental damage must immediately take any practical action that can limit the extent of the damage and prevent further damage." This seems to be simple. However, notes Professor Pagh, it is more than uncertain to which extent the authorities, let alone the municipalities in certain decentralised competences will enforce this obligation when there has not yet been made a decision on whether the incident is in fact an environmental damage under the ELD-rules (DEN). If they select the wrong person or oblige the proper person to make unnecessary, ineffective, or even harmful measures, the legal, financial responsibility for millions of Euros will fall back on them.

The national legislators try to respond to this paradox primarily with *expedited procedures*, binding the procedural steps from the authority to stringent deadlines. The Lithuanian ELD law, similarly to the above-mentioned Bulgarian solution, has a detailed time order for the selection of environmental remediation measures and obtaining prior approval. The operator has to propose the remedial measures to Environmental Protection Department, not later than within 7 days after the occurrence of the environmental damage or after the completion of the emergency or event elimination works, or after other actions taken to ensure pollution and/or other harmful factors control, containment, removal or other management. In cases where the Environmental Protection Department has identified the entity causing the environmental damage, and it has not submitted a plan of measures with planned environmental remediation measures within the set deadline, the Environmental Protection Department must within 2 days after the deadline give a mandatory instruction to the entity to submit the plan of measures within 5 days. Within 30 days of receipt of the information on the environmental damage, the Environmental Protection Department shall carry out an assessment of the significance of the adverse effects on the environment. Upon a reasoned decision of the head of the Environmental Protection Department, this term may be extended to the extent necessary for the assessment of the significance of the negative impact on the environment, but for a period not exceeding *one year from the date of receipt of the information on the environmental damage* (LIT). We see the basic (far not always present) condition of this solution: an undoubtable, unquestioned identity of the solely liable person. Even in such – for the larger ELD cases, we can state exceptional – cases, there could be complications, which raise the amount of time for the 'immediate response to the emergency situation' above one year.

Another, more realistic approach is to overtly acknowledge that remedy of large sites polluted significantly takes considerable time, including the time necessary to clarify the facts and decide about the clean-up matters carefully in an environmental administrative procedure. The existence and (rare) actual use of alternative ways of remedy, especially the compensatory one, are the signs of this admittance. In a Belgian case, a road accident causing pesticide spill occurred in September 2014 in Walloon Region. The administrative process started in 2015, and the restauration measures (including primary, complementary, and compensatory restauration measures) have been imposed by the final

decision of the environmental authority in June 2019. The primary restauration measures, to be implemented by the operator at his own expense, include polluted earth excavation, installation of a water collection and filtration device, measurement, and monitoring campaigns. As the operator was covered by insurance and the insurance company was co-operating actively with the authority, all measures could be executed in the preliminary assigned time (BEL). This feature calls our attention to the fact that the time and cost aspects of the ELD cases are inseparable. This close connection is also obvious in the mine clean-up cases, cited by the Finnish researcher, Tapani Leistola: in the case of mines the work to prevent more environmental damage or restore the site can take decades. He quotes cases, where the decision on remediation were brought relatively quickly in 2015, but the works are still going on and will be continuing perhaps for decades. The long-time span in mining cases according to Tapani Leistola is quite natural: they are big areas, prevention and restoration is slow and extremely expensive[24] (FIN).

As an overall evaluation of the significance of the time factor in the ELD procedures, E-NGOs have stressed that the major limit susceptible to undermine the effectiveness of the Directive relates to the time dimension of ELD cases in close connection with shortage of manpower of competent authorities in charge to carry out investigations. Often, many years elapse from the time an environmental damage becomes known to the authority to the time the environmental damage is assessed and remediated in both judicial cases and extrajudicial cases. Due to long times, the internal situations of the companies responsible for the damage often change, because of, for instance, sale of assets or bankruptcy procedures. This often makes the identification of those responsible extremely difficult, with the consequences that the costs of the remediation procedures are finally born by the taxpayers (ITA).

Statute of limitation

Within the realm of civil law, statute of limitation cannot concern the static ownership rights, only the dynamic contractual claims. The legal institution of statute of limitation is in principle known within the administrative laws, too, with similar content and scope. In Austria this is regulated by the states, in Styria for example, the repairing of damages has to be ordered within 5 years from occurring, so as not be voided due to the statute of limitation (AUT). In other countries the statute of limitation concept seems to be valid only to civil law matters, namely in respect to the possibility to claim financial compensation for remedy works. The statute of limitation starts to run from the date on which the preventive and remedial measures and the measures under the national ELD law have been finalized, or from the date, on which the liable operator or the third person has been identified, depending on which of the two events is the later one (BUL). Similarly, in Germany, in case authorities take preventive or remediation measures under the EDA, the authority can claim reimbursement of costs up to 5 years from the date of completion of the measure or identification of the debtor, whichever is the later. The *Länder* may enact legislation that provides for longer or no statute of limitation time at all. As for compensatory claims among multiple responsible parties, EDA provides a regular statute of limitation of 3 years. The statute of limitations begins following collection of costs, when the competent authority carries out measures itself, otherwise it begins following completion of the measures by the responsible party and at the time, at which the responsible party becomes aware of the identity of the person obligated to provide compensation. Regardless of such knowledge, the statute of limitation for such compensatory claim is 30 years following the completion of the measure (GER). In Portugal, the ELD Act changed the generally 20 years statute limitation in the Civil Code to 30 years concerning the

[24] Finnish national study, page 9

ELD cases specially (POR). The Irish ELD Regulations provides that, notwithstanding any provisions of the Statutes of Limitations, an action by the EPA against an operator for recovery of costs shall not be brought after the expiration of 5 years from the date on which the preventive or remedial measures required have been completed or the date (if later) on which the EPA became aware of the identity of the operator as appropriate (IRE).

Historical sites

Another important time factor in ELD cases is *the time scope of the application of the ELD* and the national implementation laws. As Article 17 of the ELD stipulates:

This Directive shall not apply to:

— damage caused by an emission, event or incident that took place before 30th of April 2007

— damage caused by an emission, event or incident which takes place subsequent to 30th of April 2007 when it derives from a specific activity that took place and finished before the said date,

— damage, if more than 30 years have passed since the emission, event, or incident, resulting in the damage, occurred.

These provisions were transposed verbatim into several national laws (CZE, ITA, GRE), but far not to all. Naturally, such provisions seemed to be necessary in order to avoid the retroactive effect routinely, while some experts say that in many kinds of environmental cases, the time factor behaves in a different way. It is enough just to refer to the remaining deleterious effects in present time, left behind such activities that took place in the past, and no one even thought that they would be dangerous once. More importantly, such a provision represents a major hindrance of harmonisation of the new ELD laws with the old sectoral laws, where totally different time scope provisions apply. In an example of 11 old cases in Italy, where the ELD seemed inapplicable, the damage and/or a threat of damage has been assessed based on the old environmental liability law. This is because the related damaging events happened before 2007, even if the environmental damage occurred after the transposition of the Environmental Liability Directive. In this respect, the Court of Cassation has recently stated that in the event of damage caused by events occurring before 2007, the definition of liability and environmental damage is interpreted according to the old law. However, the primary, complementary, and compensatory remediation criteria set forth in EPC are applied to these events *retroactively* (ITA). The same considerations might be reflected in the Swedish legal solution determining *broader time limits for the liability.* In Sweden, any person who carried out such operations after 30 June 1969 may still be liable if the operations caused pollution (SWE). Similarly, historical pollution and the contamination of land that had occurred before 30 April 2007 falls under the scope of the Law on Pollution in Latvia, too. There are conditions and indications on responsible persons stipulated for assessing and remedying such type of contaminated sites under the Law on Pollution (LAT).

An interesting point was raised by Daniel Browne, our Irish national researcher. Although the time scope of the Irish decree on the ELD laws broadly corresponds to Article 17 of the Directive, given that the Directive was only belatedly transposed in Ireland there is a temporal exception in the Regulations which exceeds the scope conferred on Member States and it does not appear that the Regulations have retrospective application (IRE)[25].

[25] Irish report, page 6

Another point of controversy is with the liability of the *landowners*. Responsible ownership is a 2000 years old concept, rooted in Roman law, therefore the risks and damages accompanied with a piece of land are not detachable from the profitable use and collection of the fruits of the same land – owners' rights go hand in hand with the responsibilities of the owner. Moreover, ownership bridges over time, the present owners are usually the legal successors of the previous ones. In the Swedish law, if no polluter can be found to address the claims or an order, the landowner has a subsidiary responsibility to cover the costs. This possibility is open only when a present or previous operator can´t be held responsible. The current rules on responsibility were enacted the first of January 1999, and have no retroactive effect. The liability for the landowner, in that capacity, may be initiated only when the property was acquired on the 1 January 1999 or later. However, the prohibition of retroactive effect, as a rule of law institution, will not apply in case of continuous pollution, even when the operation that caused that had ceased long time ago (SWE).

Long lasting, continuous pollutions represent a major problem today. In Cyprus there are some emblematic cases, such as the Asbestos mine in Troodos, where the restoration of the area began in 1996 and is expected to last until 2035, that is to say 40 years; the landfill in Vati environmental permit for the restoration and subsequent care of the active uncontrolled waste disposal site was issued in 2018, 15 years after it was decided illegal and almost 50 years after its operation was launched. Media reports imply that waste has been illegally disposed even after 2018; At the oil refinery in Larnaca, the facilities operated from 1972 to 2004. An environmental study was submitted in 2015 to the Municipality of Larnaca for the dismantling, demolition works, which was examined and approved, two years later, in 2017. According to the latest briefing in 2019, the demolition works were still ongoing (CYP).

In accordance with a new (2019) regulation in Romania, the regional (county) environmental authorities have to collect data on potentially polluted sites on their territory. Data collection is a continuous act and bound to certain key events in connection with industrial and other potentially polluted lands. The preliminary investigation of such a site is carried out by the landowner or by the economic operator *operating on the site*, when it is found in one of the following cases:

a) upon cessation of the activity with impact on the environment;

b) when changing the activity or use of the potentially contaminated site;

c) in case of change of the legal regime of the lands, on which an activity with environmental impact has been carried out or is being carried out;

d) to the occurrence of accidents leading to environmental contamination, after removal of the source and pollutants discharged;

e) when declaring bankruptcy or judicial liquidation of an economic operator;

f) and in any other cases, at the motivated request of the competent authority for environmental protection or when so provided by law (ROM).

We can conclude from this latter case, that not only the old time pollution remains on the site and quite possibly starts to be actively effecting its environment in our times, but the ownership or other legal titles are also tenacious. These natural situations might change the legal evaluation based only on a simple date of entering into force of the ELD laws, as well as on the interpretation of the retroactive effects of these laws.

VII.B Evaluation by the in-depth researchers

Possible steps for enhancing timeliness in the whole range of the ELD relevant actions

Timeliness in the ELD matters starts with detecting environmental pollutions and dangers in time. Researchers establish that without *a proper register*, the competent authorities cannot determine with certainty, which operations fall under ELD, and cannot focus on them in their control activities. Therefore they are forced to conduct inspections "blindly", and this is of course reflected in the effectiveness of the controls and the ability of the authorities to detect potential threats or non-compliance with protective measures by operators in a timely manner. Based on a register of the ELD relevant operations appropriate control mechanisms could be set up. For this purpose it is necessary to establish a clearly defined plan of controls by the authorities with a prioritization of more risky operations. On the EU level the ELD, and subsequently national legislations, could establish a basic obligation to *set the time frames* of the control activity of the authorities (Cerny). On national level, specific rules or instructions are needed for the timeliness of the ELD procedures, within the frames of the relevant provisions of the general administrative procedural laws and some medium level rules of general environmental laws (Bengtsson).

Right after the pollution is revealed the next tasks are to *map and analyse the situation* of a polluted area according to a research plan, which includes inter alia the geographical limits of the area, research activities, a rough determination of which substances are to be sought and the time limits for these (Bengtsson). It is indeed a problem that there is no statutory time limit (deadline) for investigating the notification sent by either the public, the operator, an other authority or anyone else. At present in the majority of the countries there is no time limit, within which the competent authority is obliged to investigate the notification that an imminent threat of environmental damage or an environmental damage has occurred. For this reason, the competent authority sometimes investigates the notification for too long (in Slovakia, in the case of the Želiezovce hydroelectric power plant, for 3 years). We propose therefore to set a fixed statutory time limit within which it is necessary to investigate the notification. This period could be extended in complex cases, however, the competent authority would have to issue an administrative decision to extend the time limit, which must include a justification for the need of extension of the time limit (Wilfing).

The very protracted procedures of some of the ELD cases may raise questions with regard to the *principle of sincere cooperation* of TFEU Article 4(3). Extreme long delays in the ELD procedure appears to be a symptom of deeper structural problems in the national level regulation of environmental liability matters. It would difficult for the Commission, however, to initiate actions that may speed up the national ELD processes, considering the great variability of complexity and resource demand of the individual cases. Even if so, general provisions and guidelines that direct more attention and efforts to the timeliness, seem to be necessary. (Andersen).

Authors point out that control of timeliness should be extended to the aftermath of the formal ELD procedures, too. Some orientation regarding the timeline of actual remediation of the polluted sites should also be included into the body of ELD law, within the frames of continuous follow-up activities from various stakeholders, primarily the competent authorities. The same applies to the timeliness of paying the costs by the responsible parties (Verheyen).

Determining and managing internal and external deadlines for the ELD procedures

General time criteria for evidence taking like "in a reasonable time" do not allow for the effective responsibility of the administrative body nor to the challenge omissions or late compliance, namely trough judicial proceedings. The time-frame should be expressly established by law (Amador). Although the legislators try to balance between too detailed, bureaucratic regulations and more uniform, controllable procedures, in case of the ELD, some fixed internal timelines could help to ensure the effectiveness of the procedures. At the same time, obviously, timing is case-specific and connected to the emergency assessment done by the competent authority. However, coherence and clear approach of prioritizing and dealing with environmental damage issues might well improve the overall performance of handling ELD cases. In this context, one may recommend improving *internal control mechanisms* in the competent authority starting with reporting on all cases where remediation is necessary to decide upon. This would not mean a responsibility to fill in time-tables and send regular internal reports, but rather indirect control mechanisms would help. Should the full backlog of all relevant cases be reported, it could be easier for authorities to identify irregularities, delays, and the necessary corrective actions. A further step could be opening of such *delay reports to the public* (including academics) that may analyse and question unreasonable delays, thus, providing outside control and motivation over timelines that might prove to be an even more effective pressure instrument than internal control (Mikosa).

Adoption of legislative measures to set binding deadlines *for the restoration* of the environmental damage, as well as to set follow up procedures applied for environmental remediation seems to be also necessary. The implementation of the ELD Directive will be more efficient if the national legislators issue binding deadlines for the restoration of the environment damage. This measure has to take into account the necessary time for the fulfilment of the intended purpose, shall give enough flexibility to take into account the size and complexity of the cases (Kallia).

Historical contaminations

The topic of old sites naturally closely interdependent with the problem of the authorities' insistence on the *old sectoral laws*. Within that legal and procedural frames the polluter often is known and then the question, who is responsible will be no issue. A damage can be result of accidental events, but may also be the result of negligence or intent, sometimes the result by the normal conduct of the activity, accumulation of pollutions in a water area, following the conditions in the environmental permit for the activity. This may open up for arguments regarding the reasonableness, but such vague borders between the several environmental liability regimes make easier to handle also the problems regarding historical contaminations, organically connected to the large topic of environmental liability (Bengtsson).

A certain interpretation of the *non-retroactive approach* might also be a problem, as it cuts of a very large part of what is on the table. Even old national legislations draws a line regarding which historic contaminations that are to be covered. This line then is often drawn more by practical reasons, then by some absolute legislative or principal obstacles, and often from the 1970s when modern environmental laws were developed. For example in Sweden when an activity is abandoned and closed prior to 1969, it would remain contaminated or be left to the tax payers, and put in order for prioritizing for decontamination covered by the national programme. Should that land be attractive for any purpose, and a possible subject of construction works, the exploiter would be obliged to notify the supervisory authority on his/her plans on activities in a polluted area and subsequently be required to take precautionary measures, and to clean up (Bengtsson).

On the other hand, an ongoing activity, even if there has been a shift in operators, would be the subject of the current national rules; liability lies primarily at any operator contributing to the pollution or the land owner. Even if the recovery is arranged from public resources, the land owner will be obliged to cover the costs, because of the raise of market value of her property. This way the Swedish legislation provides solutions for most situations that may arise due to its retroactive approach with the mentioned situation when the activity was abandoned and closed prior to 1969 (Bengtsson).

Naturally, the problem of historic sites shall be visited together with that of the orphan sites. A common field of the two problems could be the expanded responsibility for the land-owner, putting a stronger requirement to conduct with due diligence, especially when he buys or allows the land be used by other persons or companies. Also, a shared point between the two circles of problems is that, while there are difficulties to find responsible persons, the pollution is still there, and not seldom keeps causing environmental problems in our time, even in a multiple, accelerated way. We note that other fields of environmental law struggle with similar problems, such as water protection, where the CJEU has already started to address this issue (in C 529-15). An other field of the European environmental law, where the problem is addressed is the law of industrial emissions. Some connections there has been already created between historical contaminations and a continuing or a new activity by the obligation to prepare and submit a baseline report according to the IED, and the rules on the closure of sites (Bengtsson).

Nota bene, the principal ban on having a retroactive legislation is usually restricted to criminal law and also to tax law, but not when it comes to other administrative duties, where thorough proportionality, reasonableness and the political will prevail. The areas polluted pre-ELD may be very hazardous, and there is a great need for precautions, when such areas are to be exploited for any purpose, or just to be restored in order to stop the spreading or the risk of spreading pollutions to surrounding areas, the groundwater etc. In fact, the pollutants often constitute an imminent risk to environment and human health just by its existence. It is then hard to comprehend that they are intentionally left out of the scope of a Directive that ought to cover such issues. The current and different national systems in this respect, furthermore, can be an obstacle for more equal conditions for the operators within the EU, the differences may create unequal markets and hindering a fair competition (Bengtsson).

VII.C Other sources

The ELD Resolution of the European Parliament

RES Point 12. Considers that in Article 1 of the ELD the framework of environmental liability should be broadened to include environmental rehabilitation and ecological restoration to the baseline condition after occupational activities have ended, even when environmental damage is caused by activities or emissions expressly authorised by the competent authorities;

This point of the Resolution reflects to the above discussed problem that there are enormous legal and practical hurdles ahead of handling historical sites, while they might cause as much, if not more environmental and health problems than the newer sites. While this Point 12 might refer to the orphan sites, too, it looks like that the text rather refers the historical ones, in which cases the polluting activities were either not connected to environmental permit at all, or were totally accepted legally.

Justice and Environment opinion

In their 2017 study J&E lawyers tried to form a common concept for the costs and timeliness of the ELD cases. They ended up to 3 major categories, where the smallest cases entail with only a couple of thousands of Euro and typically the operator (transporter, land owner) cleans up the pollution or eliminate any environmental danger within a couple of weeks. In such category, the polluter might have to pay a relatively smaller amount of administrative fine, but the case will not go through an ELD procedure. Actually, it would be a waste of administrative resources, indeed. The largest cases, on the other extreme, might cost several hundred millions of Euro and the remedy would take many years or decades – if it is started and performed at all. In such cases there is no use to apply the ELD rules, because their main goal, the polluter pays principle would not be reached for sure. The polluter could not eliminate the environmental catastrophe situation, even if he wanted to, while the insurance companies will also withdraw from such cases quite aptly. The States might start to deal with such cases if the social attention and the political situation forces them so, but will abandon them as soon as the wave of interest tapers down.

The J&E lawyers contend that the use of ELD would make sense in the third, medial part of the pollution cases entailing with a couple of million Euro costs and a couple of years long clean-up efforts. In such cases there is still a chance to find a liable person, while he would commit everything to get rid of the responsibility. In these matters, however, a well-developed national ELD law and the proper institutional-procedural background could promise the desired social-environmental results, first of all a socially just, economically viable solution, based on the polluter pays principle. In sum, the ELD laws should concentrate on this category of cases, while leave the first category to other, command and control type administrative laws and the second category to several constitutional legal arrangements and to the criminal law, too.

CERCLA study

Our CERCLA study leads back the differences in the retroactive effect between the ELD and CERCLA to the different history of the two legislations. While in Europe the new regulation evolved slowly as a result of recognition of the necessity of an overall new environmental liability law, in the US the discovery of the Love Canal site in the late 1970s sparked public outrage. In response, the Congress felt the urgent pressure to make aggressive measures, therefore constructed CERCLA to enable the Federal Environmental Protection Agency (EPA) and its district offices to clean up thousands of already existing hazardous waste sites across the country. Unlike its statutory predecessors that regulated hazardous waste matters *ex tunc,* Congress used an ex ante perspective, too, aimed CERCLA to retroactively rectify environmental contaminations that had already occurred (Amadon, 2017; Weismann, 2016; Holms, 2019).

Our main field of interest was in our comparative study how the US legislator solved the timely arrangement of the environmental liability cases. When Congress enacted CERCLA, they expected the liability for contamination to be sweeping, forcing any party potentially responsible for the hazardous waste contamination at a site to contribute to the costs of the clean-up. While a defendant may evade liability in a limited number of circumstances, courts tend to construe PRP liability in a way that makes the successful defences rather a rare exemption, in order to accomplish the statute's goal of environmental clean-up and protection. Considering this expansive liability, a PRP may be responsible for funding the entirety of a clean-up, regardless of its degree of participation in the contamination. *Joint and several liability* might be seen as a draconian and rather unfair measure in one instance, while if we raise the level of approach, in the overall practice of the environmental authorities this seems to be the only viable way of collecting the major part of the revenues for cleaning up the most seriously

polluted sites in a country. In harmony with that, typically, the EPA would focus on a limited number of PRPs to pay for the clean-up at a contaminated site, which can cause one PRP to incur an enormous amount of monetary liability. This is another question that a PRP identified and found liable under CERCLA may attempt later to apportion her costs in an action against other PRPs, under § 113(f)(1) of CERCLA. But this is already their time and litigation cost, not that of the State. Contribution actions permit a liable party to recover from a defendant an equitable share of that defendant's response costs, that means, the effect of joint and several liability ceases at this point. The huge increase in the cost of environmental clean-ups since the enactment of CERCLA has made the allocation of response costs for liable parties particularly important (Holms 2019).

While the joint and several problem is evaluated by some theoreticians as a major social injustice, a much larger fairness dilemma is the problem of sites that were polluted way before anybody had been fully aware of the consequences. As Hocksted phrases it, in principle any party who participated in the process of creating or disposing of hazardous waste is on the hook for the cost of clean-up, whatever that may be. Furthermore, current owner liability exists regardless of whether the owner had anything to do with the original pollution; a person who purchases a property that had been contaminated sixty years ago is still potentially liable today for that hazardous waste (Hocksted, 2019).

VII.D Chapter summary

Findings

Small, routine cases with local urgency are usually quickly handled by the environmental authorities, mostly under the old, sectoral environmental liability laws, whose primary target is just clean up the pollution as quickly as possible, causing the least possible further damages. In the larger pollution cases, handled by the ELD, the authorities have to carefully examine the report or notification about the emergency situation, which takes time. Unless the case receives big publicity, the competent authority prefers to spend more time on the consideration of the first steps in the procedure. Even if a priority case starts quickly, the rest of the procedure slows down, as a rule. A part of the delay is caused by the complicated expert examinations and deliberations on the persons liable, the extent of liability and the measures to be taken. Hesitation on the authority's side might be understandable: if they select the wrong person or oblige the proper person to make unnecessary, ineffective, or even harmful measures, they might cause and suffer serious losses. Naturally, these procedural delays could even be decreased with investing more administrative resources, proper trainings, guidelines, as well as through simplification of the rules and also merely with more frequent practicing of the ELD laws. National legislators try to heal the delays with expedited procedures, tight internal procedural deadlines, and sometimes with special legal remedies against the slow procedures of the authorities. However, the time of the procedure is just the smaller part of the delay, years lost rather on the lengthy legal remedy processes and on the enforcement of the decisions on the unwilling operators. The national researchers in this project have examined many large, emblematic cases from the viewpoints of timeliness and found that many of them has been lasting for 6-8 years and no one sees the final implementation of the necessary clean-up measures.

As time goes, evidences fade away and the society's feeling of justice will less and less willing to accept to change the old relationships and status. After a time the victims might lose their rights to claim, even criminal law authorities shall give up their efforts to punish the perpetrators – statute of

limitation rules prevail. Such legislative-policy reasons, however, might not fully apply in the environmental liability cases. While some countries have established relatively short, 3-5 years statute of limitation terms in the administrative laws concerning environmental liability, others decided much longer periods of 10-15 years, while we also found examples for not applying this legal institution in such cases at all.

The time scope of the ELD is very determined to avoid the retroactive effect of the regulation, while the pollution at the ELD sites do have their proactive effect (RES 12), even in some cases the pollution happened after the Directive and the national implementation laws have entered into force, while the act causing it happened before, so the ELD did not apply. In this controversial manner it is especially important to consider that diagonally different solutions exist in US. The time scope and the notion of disposal of CERCLA, contrary to the concept of damage in the ELD leads to, probably better defending the underlying social and ecological interests, without marching in front of the basic principles of law, such as fairness and equity.

Observations and suggestions

Well underpinned, planned, systematic monitoring is a condition of the best allocation of the resources of the competent authorities, as well as the best time-economy of their work. Based on a register of the ELD relevant operations they could establish a clearly defined plan of controls, with a prioritization of more risky operations. Where pollutions were detected, the authorities should perform the examination on the well accustomed, standardised way, including the systematic reveal of personal, territorial and technical features of the cases. The established methodology should include the points in the procedure, where the competent authority contacts the other relevant authorities for information exchange and coordination of the measures both in substance and in time. Broadening the base of the procedure with other stakeholders could be another effectiveness factor and would make harder for the liable parties to hide away evidences and to delay the procedure in any other way. As a result of a well-designed, compact procedure, the competent authority should determine stringent deadlines for the operators for the measures to be taken and for the payment of the costs arising on the one hand, while on the other hand a schedule of control measures from the side of the authorities should be planned according to these prescribed steps.

Supporting internal control from higher level authorities or methodological centres might reinforce the performance of the competent authority: rather than formal, bureaucratic reports on internal deadline, reporting the reasons of delays might help, especially when such reports are accessible for the other stakeholders in the cases.

Similarly to the orphan sites, in the overlapping set of cases of the historical sites brownfield development might be a way out from the decades long pollution of the environment and dwelled districts. However, conditions of reuse of these sites should be very carefully developed, balancing the interests of the community, the environment and the new investor, and the forged agreements shall be closely monitored by all the stakeholders for not allowing the new owner to slip away from his clean-up responsibility, just enjoying the profits from a valuable industrial land. A safe combination of brownfield development with State responsibility could be, when the State invests in the quick and full remedy of the polluted site, and can take it to the real estate market afterwards.

Interconnections with other chapters

Chapter I: timeliness is widely interconnected with the information topics, namely, how well the knowledge is available regarding the damage and all the important circumstances, including the history of the site;

Chapter II: researchers found the scope of time of the ELD a major hindrance of harmonisation of the new ELD laws with the old sectoral laws, where totally different time scope provisions apply;

Chapter IV: timeliness depends on that, too, how the authority may prioritize its ELD workload, due to the available resources and personnel competence;

Chapter V.2: procedures are more timely if there is an obvious addressee, while it might be quite time consuming to decide that which operators should be involved into the procedure and which are not;

Chapter VIII: Timeliness and costs are closely interwoven, a costly, complicated decontaminating measure can be deliberated for long.

VIII Costs within and outside the ELD procedures

Our questions were in this chapter:

- What is the composition of full cost of prevention/remedies to be paid by the person established liable (through own assets or through insurance) or by the public taxpayer?
- What are the ways of calculation of costs of remediation (including environmental loss costs, environmental loss mitigation costs, environmental restoration costs, related administration costs and transaction costs etc.)?

Definition of costs

'costs' means costs which are (1) justified by the need to ensure the proper and effective implementation of this Directive including the (2a) costs of assessing environmental damage, an (2b) imminent threat of such damage, (2c) alternatives for action as well as the (3) administrative, (4) legal, and (5) enforcement costs, the (5a) costs of data collection and (5d) other general costs, (5bc) monitoring and supervision costs.

Costs have a special importance in the tissue of the whole Directive, therefore the synonyms and stylistic alterations used by the national legislator might turn out important for the practice. Major differences found include the words '*in particular*', which might considered as opening the possibilities of a wider range of differences in the practice, but also can be evaluated as imply a synonym to 'including' (HUN). The Greek definition has a different title (environmental liability), but a content of that is clearly related to the cost definition. However, this definition explicitly broadens the original text of the Directive with the elements of costs of environmental remediation, preventive actions, fines, penalties, or indemnities (GRE).

For the purposes of this project we have divided the issue of costs into two parts: costs at the authorities and costs at the liable parties. The costs emerging in connection with the ELD cases emerging at the authorities are summarized in the below points, which seem to be a starting point for

clarification of the full costs in the procedure, in order to oblige the liable persons to pay not more and not less than it is just and fair:

- data collection, assessment of damage or threat of damage;
- drawing up and assessment of proposals of remedial or preventive measures;
- carrying out preventive or remedial actions, i. e. costs of restoring the environment to the state before the occurrence of the damage, if such return is possible, also costs of repairing the consequences of the damage to the environment, including additional and compensatory measures;
- administrative proceedings;
- court proceedings;
- enforcement;
- data collection, supervision and monitoring of the implementation (POL) (CRO).

The costs emerging at the liable operators are difficult to esteem more exactly, while experts describe the following items that are parts of it for sure: the sampling of affected descriptors in order to critically evaluate the allocation, risk analysis if applicable and decontamination and monitoring during intervention; and decontamination and monitoring after intervention when justifiable to verify the effectiveness of intervention and the confirmation of outcome obtained (POR). Naturally, the two sets of costs are overlapping, some items emerge both at the authorities and at the liable persons.

Accessibility of data on costs of the ELD procedures

Data on cost of the ELD procedure are similarly scarce as data on time aspects. The two issues share the statistical elusiveness: average numbers are not too informative. In response to interview questions, the representatives of the competent authorities explained that the authorities are not obliged to collect information on cost of the measures and therefore does not have the data (EST). On European level, however, there are available data on this issue. In Europe the cost of remedial actions averages around EUR 42 000, calculated on the basis of 137 cases representing just over 10% of all reported ELD cases by Member State and without considering in particular the three largest losses in *Kolontár* (Hungary), *Moerdijk* (Netherlands) and the Greek *Asopos* case (since they were considered as outliers statistically). ELD statistics are less of use also because – as we have seen in earlier chapters – there is a vague border between the old, sectoral environmental liability laws and the national laws directly implementing the ELD. In the recent project we applied alternative methodologies, too, including Internet research. Several incidents of huge environmental damages, which were covered widely by the media, could be mentioned, as they are potential ELD cases, not necessarily found in the official statistics. Greece, for instance, reported a mean value of EUR 60 000 (GRE). Data are too scattered: for instance, in Italy, the highest cost of prevention in 2017 was €26 000 and the lowest was €2 000, while in 2018 the highest cost of remediation was €700 000 and the lowest was €14 026 (ITA). Concerning cases dealt under different legislations, the addressed respondents were not able to tell the average costs, as it depends on the specificity of the case and its complexity. Amounts ranging from hundreds of thousands to hundred million CZK (400.000 Euro) were mentioned (CZE). As concerns the concrete case studies in our research:

- In Lithuania, in the beginning of 2020, it turned out that a cardboard factory in Klaipėda, discharging untreated wastewater into the Curonian Lagoon, caused huge damage to the environment, which could have gone up to about 60 million Euro (precise calculation is not available yet). Concerned people think, though, there is no realistic hope for remedy at this high stake (LIT).
- In October 2019, the fire at the Alytus tire processing plant took place. Over 300 firefighters were battling the fire for ten days and an emergency situation was declared in Alytus. Prosecutors have tentatively estimated the damage to the environment at 5.3 million Euro (LIT).
- In 2017 law enforcement institutions reported an illegal wastewater discharge to the Nemunas by the company, which belongs to Kaunas municipality. The environmental damage was evaluated to 4,6 million Euro (LIT).
- In December 2016 two main sewerage pipes were broken in Vilnius, near the construction site of the office building, and sewage began to flow into the Neris river. In total, about 200 000 m^3 of untreated wastewater were released into the environment in two days. The total amount of environmental damage was 629,000 Eur. The lawsuit ended with a settlement agreement committing the perpetrators to 315,000 Euro compensation of environmental damage (LIT).
- In Belgium, in the *Wetteren cargo train* incident the railway infrastructure company *Infrabel* took remedial measures valued at € 4.112.000. The OVAM provided an end-evaluation of the soil sanitation after 2 years of sanitation activity, in accordance with the Soil Sanitation and Protection Decree of October 2006. *Infrabel* undertook to recover the cost of the train operator. Currently, the claim for damages is subject to a judicial expert investigation, in which all damage items are analysed by a panel of experts, with a view to recovering them from the liable party at a subsequent procedural stage (BEL).
- In another Belgian case in the Walloon Region, the pesticide pollution of the river *Sûre* the cost of remedy was of € 198.722,77 is to be paid by the operator, as well as the reintroduction costs of € 49.164,98. The complementary restauration measure consists of the creation of a new forest ford that will avoid the introduction of fine particles in the vulnerable stream (estimated at € 20.000). The compensatory restauration measure consists of the plantation of 500 meter of river cords of 5-meter width for 15 years (estimated at € 16.250). A financial warranty of € 281.138 has been imposed. As the operator was covered by an insurance and the insurance company was co-operating actively with the authority, all measures could and can be executed fully (BEL).
- In the Dutch Thermphos case, a historical case, where the phosphor production was started in the 1970s, the burden of costs amounts to a total of 83 million Euros – all the three concerned parties settled to pay one third of the costs. Even though, the actual polluter Thermphos failed to pay (NED).
- In November 2018, an Odfjell owned tanker entering Rotterdam Port was involved in an accident that resulted in the tank spilling oil. Odfjell basically claimed that the tanker was empty and that only the tankers own fuel leaked into the waters, thereby appealing to limit its liability to 17 million Euros (the reparation and sanitation costs estimated at 80 million Euros). The Court denied the appeal as it did not find sufficient evidence that the tanker was empty (NED).
- The estimated costs for remediation of an „orphan site" – landfill Rakovnink is about 5 m EUR (taxpayer money); for a degraded area in Mežiška valley the State spent already around 10 m EUR on remediation and local communities contributed to it (SLO).

- Where the costs are too high, even the largest banks withdraw from their obligations. In Greece in the case of Asbestos, in November 2011, a decision of the Secretary General of the Decentralized Administration defined the way of management of hazardous waste, however, the bank owner thought that the chosen method of restoration was of a very high cost and for this reason it appealed the related decision in 2012. Following the rejection decision of the Council of State on the appeal of the National Bank (one of the co-owners of the area) on the way of waste management, nothing has progressed in the case, and there is no available information either from the Ministry or the National Bank (GRE).

In sum, short term individual researches in the Member States could reveal one-two grades higher costs than the average reported so far, ranging from 5-80 m Euro. While the above case studies concerning costs are very colourful, one thing is almost identical in all of them: while there are promises, agreements, solid administrative and court decisions, we cannot hear about cases, where all the high amounts were paid and the restoration works were finished *quickly*. We see that as the cost to be paid grows, the probability sinks that private operators or owners will be able or willing to pay, even if they are insured for environmental damage occurrences. At the end of this chapter we are going to examine the ability and willingness of the liable persons in more details.

Pricing natural services

As concludes from the definition of environmental damage, a negative modification of a natural resource or any deterioration of a service tied to natural resources shall be calculated in the ELD cases. This definition therefore initiated the recognition of the controversial concept ecological services in the national laws. This very concept includes ecological services both provided to ecosystems and to the people. The French law has reinforced the scope of this concept of ecological services by adopting a new legislation in 2012, in order to protect threats to ecological continuities (integrated status of the ecological subjects) (FRA). In December 2020, the Constitutional Council, after the 'Cour de Cassation' has sent a constitutional question, has established that environmental damage 'consists in a significant adverse effect to the elements or functions of the ecosystems or to collective benefits that human beings receive from the environment' (FRA). Pricing natural services is solved in different ways in the Member States. The real costs are that of the works to restore the damaged natural sites into their original status or as close to it as possible.

- In the open case of the Asbestos mine in Troodos the materials used for reforestation were provided free of charge by a private company, while the Department of Forests is bearing the restoration costs. According to the media, the costs exceed to date € 13 million and the total configuration of the rubble will cost € 3.75 million and the reforestation € 12 million (CYP).
- In the Lapland Natura 2000 case the company restored some damaged sites in 2010-2015. In addition to the environmental authority prescribed monitoring until 2025. In addition, it wanted as a compensation one new 1-2 hectares protection area for 20 years with orchids and western taiga. This all could have cost some tens of thousands of euros, but the claim was rejected at the court (FIN).
- Other authorities just have a formalised calculation of "losses to the environment" as a much easier way of dealing with the environmental cases especially as the Government has set "rates" or "values" to be applied with respect to species, habitats, also according to the types of the harmful substances emitted. This methodology calls the attention to the authority's incapability of defining other restoration measures due to shortages of the expertise and other

practical difficulties, including available information on “baseline condition” and other mandatory components of the ELD type decisions on remedying measures (LAT).

Naturally, a mere calculation of the nature losses, instead of the estimation of the actual costs of the fullest possible remedy, might be necessary on other cases, such as the criminal investigation for offences against nature (LAT, FIN). In Spain, I 2009, the Technical Commission for the prevention and remediation of environmental damage created a methodology guideline with the main objective to calculate the cost of natural resources recovery that are protected by the law applying supply economic models. This methodology evaluates a large range of accident scenarios and restorative measures, with for the purpose of offering a general assistance tool for the monetization of the damage caused to the environment in accordance with the law. A methodological document is also available online for operators, and also a free computer application have been created (SPA).

Costs of the administrative and court procedures

An important element of the cost at the liable party is the fee for administrative and court procedures. In some countries the administrative procedure itself (FIN) or the administrative court procedure (SWE) is free from any procedural fees. Also, it is possible that those legal persons who have regular connections with the environmental authority, pay an annual fee, covering all consultations etc. during a year. The fee then is supposed to also cover some overhead costs. The Swedish law gives the municipality authorities the right to decide on their own tariffs (SWE). More generally, however, the person causing the damage shall cover the costs of establishing the environmental damage or an imminent threat thereof, the costs of an administrative procedure and data collection, and the costs of monitoring and supervising implementation of measures, on which the environmental authority issues a special procedural decision. A concrete example of procedural type costs comes from the Kemis case:

- costs of the authorities for the costs of National laboratory for health, environment and food monitoring and for sampling the ground: 89.703,95 EUR;

- costs for appointed outside expert 5.351,85 EUR;

- costs of the administrative court procedure: 347,70 EUR (SLO)

In the Harjavalta nickel accident the main activity in the ELD decision was monitoring of the mussel population and sediments. In addition, the company was ordered to move some mussels using divers for 50 hours. The cost was not estimated in the decision, but it could be some tens of thousands of euros. In the ELY Centre decision, there was a threat for fines of 500 000 euros for every separate action, if the work is not done (FIN). Procedural costs might be paid not only by the operators, but other participants in the case. Considering the very limited resources by NGOs however, this can have a deterrent effect on them, therefore might not in harmony with Article 9(4) of the Aarhus Convention (AUS).

Payment of the costs

As concerns the actual payment of the costs, the present project did not examine the issue of the financial guarantees, because it is a subject to a parallel research. Procedural aspects of the enforcement and follow up on covering the costs of the authorities were shortly discussed previously in this study, in Chapter V.4. The *ability and willingness of the operator to pay for prevention or remedy*, as well as for the procedural costs, however, is strongly connected to the topic of the size of the costs.

In the economic sphere every decision is based on *economic calculations*, naturally. Larger economic operators are in general might be willing to take environmental responsibility and finance prevention measures if the amounts invested into such measures return within 2-3 years, whilst in the case of a payback period of at least 4-5 years it would be almost impossible to convince companies to focus on preventing environmental damage (HUN). When deciding on the payment of costs in an ELD case, companies have an eye on the other members of their economic sector, too, from the aspects of business competition and considering solidarity viewpoints, as well. The collective interests of private owned companies in the environmental sector are protected by their associations, such as the Association of Portuguese Companies of Environment Sector (AEPSA) which is a business membership association created in 1994 to represent such interests (POR). Some concrete cases were collected by the country researchers concerning this issue:

- In a priority case the authorities decided that the measures included were only rehabilitation measures and not preventive, fencing and security measures for the installation. Even if so, the polluter refused to proceed with the restoration, due to financial weakness and its inclusion in the *bankruptcy* procedure. Following the bankruptcy of the owner, an amount of 5 million euros for the restoration project was paid by the Green Fund, while the competent Region was designated as the responsible authority for the study and the restoration work (GRE).
- Where competent authorities have stepped in and taken preventive or remedial measures themselves, they may decide not to recover the full costs, where the expenditure required to do so would be greater than the recoverable sum or where the operator cannot be identified (CYP).
- In the case Afvalverwerker Farnsum the polluting company had to pay for illegal activities and profits raised from it, whereas individual employees were fined, too, as an administrative sanction. However, claims made by the Province to seek reparations from the company/curator for the costs of waste containment and sanitation were denied by the Court (NED);
- In the case Odfjell Rotterdam, the polluter payed for the sanitation costs arising from the oil spill of its tanker. However, as total costs were estimated at 80 million Euros, there is no clear reporting whether all the estimated costs were covered (NED);
- In the case Drugs Waste Dumping Emmen, the polluter payed for a considerable part of the costs arising from containing the waste and sanitizing the sites. However, not all claims made by the Municipality for costs in relation to sanitation were acknowledged by the Court (NED).

Principles of the ELD procedure emerge here, as a delicate *balance between the polluter pays principle and the proportionality principle*. The environmental authority may decide that the taking of further remedial measures in a case is not necessary if the remedial measures taken guarantee that there are no further substantial adverse effects *or* the costs of the remedial measures would be disproportionate (EST). The repair costs to be imposed on the operator responsible of the damage have to be 'reasonable' (FRA).

State funds

If the polluter is not able or willing to pay and cannot be forced to do so, application of state funds might be necessary. In Lithuania, for instance, in practice, the recovery of the cost incurred might be difficult, as natural and legal persons often do not want to compensate the damages, or they do not have any property, or have declared bankruptcy etc.. The Separate Environmental Protection Support

programs of the State budget and municipal budgets are used for financing costs of preventive and remedial measures in such cases when the liable party is not identified (LIT). An uncontrolled deposition of barrels with caustic waste in Piraeus led the competent authorities to identify the severity of the problem. The Decentralized Administration of Attica contributed to the approval of credits of 450,000 euros and to enable the removal of waste. After that, the Ministry of Environment suggested to the decentralized administration submit requests for approval of the required credits. It became, therefore, clear that the public administration should perform preventive control, and be able to take measures and allocate the necessary resources for rehabilitation. Since then, funds are credited annually, originating from the revenues of the State budget, in order to cover possible requests for the restoration of places where the offender has not been identified (GRE). At the end of June 2019 the Irish EPA had agreed the value of risk, for which financial provision should be provided as €794 million (IRE). The Spanish Law on Environmental Liability establishes an 'environmental damage fund'. The fund comprises contributions from the operators who undertake mandatory insurance policies to cover their environmental liability, and should be managed and administered by the Insurance Consortium. The purpose of the fund is to extend coverage of the liability for damage caused by activities authorised during the period of validity of the insurance, but which materialise or are claimed after the deadline envisaged in the policy (SPA).

In mining cases the costs for preventive and restorative actions have been so high, that the State has had to pay them from national budget, basically without exemptions. The cost of restoration of the Nivala Hitura mine is over 20 million euros, and that of the Sotkamo Talvivaara mine is over 100 million. Insolvency in these mining cases have raised wider discussions. Now there is a national working group established, thinking over how to develop the Mining Act and secondary financial systems in financial aspects. The *Sotkamo Talvivaara mine* had not only land pollution problems, but also problems with water leaks in 2010, a bigger accident 2012 and many problems even after it. The first ELD decision about lakes Salminen and Ylä-Lumijärvi was given in 2015. In this decision the company was ordered to make a restoration plan, clean waters, study and replace some sediments, performing some protective measures for fish. Since the company was unable to do that, it has cost over 100 million euros for Finnish taxpayers. The other mentioned case, Nivala Hitura mine had wastewater problems, too. The company become insolvent and the environmental authority made the decision about preventive actions against possible environmental damages. The state has paid the bulk of costs of closing the mine to prevent more damages (FIN). There is no Green Fund, however, in Cyprus to get involved in the clean-up/remedy procedure. When the Chairman of the Parliamentary Committee on the Environment requested the creation of such a fund, the Ministry of Finance remarked: "It is not possible to create such a Fund. That would be unconstitutional" (CYP). Some costs of historical sites cannot be attributed to or paid by the polluter (or secondarily by the owner of the property, because they disappeared for long, therefore the costs will be paid by the taxpayer ultimately. Frequently seen examples are the old dams and other blockages on rivers, which were abandoned years ago and where *the property is held by the community*. These facilities now belong to the public and should be removed, as they block rivers and also they block fish migration (AUT).

Cost bearing in orphan and historical cases is a specific problem to solve within the State economy. In Romania, for instance, there is a logical division of roles between the interested local and central budget. For potentially contaminated orphan or historical sites, the preliminary investigation is financed from the local budgets of the administrative-territorial units on whose administrative area the site is located, from their own revenues and from amounts deducted from some state budget revenues to balance local budgets and/or from structural and cohesion funds, through projects approved for financing. Another revenue can be the transfer of the polluted lands into the ownership

of administrative-territorial units. In addition to these sources of funding, the Administration of the Environment Fund may allocate amounts for detailed investigation and risk assessment (ROM).

Alternative financial solutions

Member States did not introduce mandatory financial guarantees for the payment of the costs of the ELD cases. One of the reasons behind this fact is that they rely on the old sectoral environmental liability procedures. In transposing the Directive, Ireland, for instance, opted not to make financial security mandatory, too, and has generally maintained opposition to the imposition of a general mandatory levy on industry to cover environmental damage. The policy has been that risks to the environment are better addressed through strict licensing and enforcement systems, and where appropriate private financial security mechanisms in IED and/or waste licences. Under Irish Law, licensees are required to ensure that sites are returned to a satisfactory state following closure. This may require the remediation of a site and long-term aftercare. Thus, many EPA licences contain conditions requiring licensees to cost their environmental liabilities (both known and unknown) and make financial provision for same[27]. The EPA maintains a list of the licensees required to agree costs for environmental liabilities and financial provision (as, for example, facilities can be added to or removed from the list of Seveso sites, or an event may occur causing the facility to be reclassified as having exceptional circumstances). Licensees who fall into certain prescribed categories have a legislative requirement to make financial provision for the facility and/or have been determined to pose the most significant risk to the environment in the event of an incident or closure of the facility. If a facility falls into one of the categories, the licensee is required to assess and cost for known and unknown liabilities, and secure financial provision, in accordance with their licence and relevant EPA guidance (IRE). During the transposition of the Directive into national law in Spain, there has been considerable debate between the different sectors of the economy, with a strong participation of the insurance market. The insurance sector was mainly concerned by the financial guarantees laid down by the Directive and could achieve that the Spanish transposition law provided for the obligation to constitute financial guarantees for the activities listed in Annex III of the Directive, including a conclusion of an insurance contract (SPA).

Just as a connection to the parallel project on financial securities, we note that some national researchers mentioned alternative financial solutions, such as asking resources from international banks. The clean-up of "historical/old pollution" requires budget support with the necessary financial resources, for which loan agreements have been concluded with the *World Bank* with the subject of the agreements – removal of old pollution during privatization (BUL). The picture seems to be different for cases of historic soil pollution, where from time to time it is very difficult to have the liable person – if there is still such a person – pay for the remediation. In such cases finally the taxpayer will take up the bill, unless a project developer can make a business by redeveloping the polluted land, while taking care of the soil remediation. It seems that this is a growing tendency, given the increasing shortages in land that can be developed (BEL). We note here that we have also touched upon the topic of brownfield developments in earlier chapters in connection with the issue of historical and abandoned sites. A third type of alternative financial means is a financial pool of the companies belonging one

[27] The 2019 Guidance Document "EPA Approach to Environmental Liability and Financial Provisions" sets out the types of licensed facilities which require the agreement of costings and provisions for their environmental liabilities. It also specifies the actions required of all operators with respect to environmental liabilities and financial provisions for their facilities. This document applies to EPA licensees that require the agreement of closure and restoration/aftercare plans (CRAMPs), Environmental Liabilities Risk Assessments (ELRAs), and/or financial provision to be put in place.

branch of industry and sharing the same or similar risks. Finland has Oil Pollution Compensation Fund, which could help companies in some cases of environmental liability (FIN). In Spain, the 2014 amendment of the national ELD law was based both on the precautionary and 'polluter pays' principles. The primary aim of this additional legislation was to boost the use of environmental risk analysis as an environmental risk management tool, and to modify the rules on the obligation to have a financial guarantees (SPA).

VIII.B Evaluation by the in-depth researchers

Support methodology development in calculating costs, including loss in natural services

A uniform way of calculating costs is a crucial issue, because it lies in the centre of making polluter pays principle work in a *fair and just manner*, also in line with the social aims of this principle. Therefore, methodological examples or guidance for calculating costs are needed, even if calculations will always be case-specific. It seems useful as well to create possibilities of learning from each other's experience among enforcing authorities nationally and EU wide, too. Good examples and methodological guidance might help the competent authorities that are lacking specific competence/experience on applying and calculating the costs of complementary and compensatory measures, as well as applying different methods, e.g., monetary valuation (Mikosa). The topic of cost is vital, furthermore, because it is one of the most important difference factors between the new and old environmental liability regimes. It is more favourable for the operator to report environmental pollution under old, sectoral laws, than under the ED Act, because under these other laws in many cases he only has to pay a fine for the pollution and will not have to take remedial action, which is costly (Wilfing).

While acknowledging the methodological difficulties in gauging the loss in natural services, experts in our project suggest both EU and national level administration to provide guidance on how to establish specific procedure for those cases, where it is difficult to determine the initial situation (from which the costs started to accumulate), and therefore it is impossible to measure the adverse change in a natural resource or impairment of a natural resource and the costs entailing with (Cerny).

Shortcomings and inefficiencies in payment of the costs

In the case of the „Vlčie hory" landfill, which was studied by our Slovakian national researcher, the operator terminated the operation of his company in order to avoid reimbursing the costs of the preventive measures taken by the competent authorities. This is a tactic for operators who want to avoid paying costs. According to the ED Act, if the operator is in bankruptcy, the reimbursement of costs is a claim of a "secured" creditor and is enforced in bankruptcy proceedings. However, this does not fully prevent the operator from avoiding liability and paying costs. There might be several solutions, which are to be tried parallel or consecutive manner. If the operator (company) ceases to exist without paying the costs, and without having a legal successor, there might be a different holder of authorization for the activity, or a person to whom decisive economic powers over the technical functioning of the activity have been transferred under the Bankruptcy Act. Furthermore we suggest to consider enshrining the parent company's liability (Wilfing).

Financial security instruments

The present project has not examined the issue of the financial guarantees, because it is a subject to a parallel research. However, as national experts in our project pointed out, this topic is strongly interrelated with a line of other issues within the system of environmental liability. Stimulating the development of financial security instruments, in particular insurance schemes (national and/or EU-wide), may be one of the most efficient ways to *encourage the stakeholders to apply the ELD rules*, rather than the old, organically embedded and accustomed to sectoral rules of environmental liability. The member states are already, to some extent apply financial security instruments to support the more effective use of the ELD rules, inter alia, under the obligation of Article 14 of the ELD, and supported by the growing availability at reasonable costs of insurance, and other types of financial security, as highlighted in the MAWP 2017-2020 (Andersen).

The actual cost of environmental damage for liable operators can be reduced, as well as their willingness to contribute to the remedy expenses can be increased through the use of financial security instruments (covering insurance and alternative instruments, such as bank guarantees, bonds or funds). Greece has adopted legislation on mandatory financial security for environmental liability. However, the *secondary legislation,* which would impose the mandatory financial security system in Greece has not yet been enacted. It is necessary to complete the legislative framework with the issuance of the envisaged ministerial decision that was prescribed by the relevant Presidential Decree on the mandatory insurance of the premises against environmental that had been issued as early as in 2009 (Kallia).

It should be noted, however, that a special effort, possibly in the form of new legislation or more forceful enforcement of Article 14, probably is needed. In Denmark, for instance, it is unlikely that the insurance industry at this stage will invest resources in developing new products on a voluntary basis. It is also unlikely that companies will embrace such new products, therefore a *compulsory insurance scheme* should be introduced. Such a compulsory insurance scheme or, for that matter, a wide-spread additional voluntary use of such schemes, would probably make the municipalities as well as the companies more inclined to apply the ELD rules. Lastly, a compulsory insurance scheme would also to large extent solve issues relating to bankruptcy, and the issue of the use of state funds for cleaning up (Andersen).

Operators contributing to economic funds to cover costs for remediation

The information reflected in this research on numerous cases, where taxpayers of different member states had to cover the costs of cleaning up pollution (as polluting activity has stopped operation through insolvency or other reasons) ultimately indicates that the most polluting activities have to arrange for their financial responsibility in due time, while still performing their activities. It might be worth considering the development of an approach along the lines of "*extended producer responsibility scheme*" (EPRS) established under the circular economy policy in area of waste management. Continuing with a similarity on EPRS, 'pollution' or damaged environment is "waste" created by the polluter that he is responsible for, and needs to guarantee that environmental damage is prevented to occur or would be appropriately handled when it occurs (Mikosa).

Experiences of the Swedish Environmental Code and the Water Act shows that it is possible to introduce *a special tax for a definite circle of entrepreneurs* to cover their future environmental liability, but this is a fragile system that has to be carefully designed and maintained. When enacted, the Swedish Environmental Code used to contain a special chapter on environmental damage insurance

and environmental clean-up insurance. The idea was that the funds should cover the costs for decontamination if the operator had gone bankrupt, and then to avoid that the bill for cleaning up was sent to the taxpayers. These rules were regarded as one of the major contributions to a stricter environmental legislation, based, inter alia, on the Polluter Pays Principle. The too strict criteria to endow any funding in practice discouraged most or the applicants, for instance, the fund targeted only "new" contaminations, but even this condition turned out difficult to establish. This system then was dissolved in 2006 (Bengtsson).

A similar regime, though, is still existing for water operations in Sweden, and it was introduced by the Act on Water. The license-holders in certain categories have to pay a special *and continuous fishing fee* to cover their operations´ negative effects on fishing and also a more general Community Charge to prevent or reduce damage that the operation may cause. Applications for funding coming from private persons for damage caused by the water operation are, if not frequent, at least not uncommon. This system seems to serve its purposes and it is expectable that the legislator will consider a similar administrative solution for other environmentally hazardous operations, too. It would be also feasible to change this system or additionally use with the existing system of obligatory insurances based on the Environmental Protection Act, which cover activities requiring a permit under that Act (Bengtsson).

State fund for clean-up

In the cases of abandoned (orphan) and historical sites, in principle, it is generally accepted that the State shall have a fund for their cleaning-up, at least following a priority list in a transparent way. We have to be aware the risk, however, that cases that fall under the scope of the ELD should not be handled even less effectively because of endless legal fights with the liable persons. In cases where it is not possible to obtain redress from the responsible person, our experts consider it appropriate for the state to create a fund to finance the redress. This is necessary both because the environmental damage should not remain unresolved, and also for creating an incentive to the authorities not to be reluctant to conduct proceedings in the view that it will not be possible to finance the remedy anyway (Cerny, Verheyen).

In Greece the Ministry of Environment and Energy is financing the restoration of environmental damage sites through the Green Fund programs following a proposal by COIEL and CIEL. During the period 2013-2017, 45 projects have been financed by the Green Fund for the removal of uncontrolled waste disposals of approximately 1.5 million euros. It is proposed that the participation of the Green Fund should be put on a regular basis with a specific budget per year (Kallia).

EU fund for clean-up

Even if themselves consider it a little farfetched suggestion at the time being, researchers claim that a truly remarkable impact could once be made by an EU fund for clean-up of priority environmental damage sites in the Member States. They warn that such a measure might to a certain extent inspire a more negligent conduct on the side of the business sector, but this effect could be far balanced with a more beneficial approach by the Member States, where they would be encouraged to discover more and more such sites, to be remediated at least partly from a newly opened EU funding source. Such an EU fund should not be made overly bureaucratic (learning from the Swedish experiences), but still have to be earmarked and carefully targeted (Kiss).

VIII.C Other sources

The ELD Resolution of the European Parliament

RES Point 14. Recalls the experiences in the implementation of the current financial securities, which have shown to be lacking as regards ensuring that operators have effective cover for financial obligations where they are liable for environmental damage, and is concerned at the cases where operators have not been in a position to bear the costs of environmental remediation;

16. Notes that the cost of environmental damage for the operators responsible can be reduced through the use of financial security instruments (covering insurance and alternative instruments, such as bank guarantees, bonds, funds or securities); believes that demand is low within the ELD financial security market due to the small number of cases occurring in many Member States, the lack of clarity regarding certain concepts set out in the directive and the fact that in many Member States, depending on the level of maturity of the market for such instruments, insurance models are generally proving slow to emerge;

17. Notes that the opportunity to improve the provision of financial guarantees is being hampered by the scarcity and contradictory nature of the data on ELD cases in the EU's possession;

18. Encourages the Member States to take measures to accelerate the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities;

19. Draws attention to the Commission's feasibility study on the concept of an EU-wide industrial disaster risk-sharing facility and emphasises the need to carry out further analysis and a more in-depth feasibility study on the key legal and financial issues;

29. Calls on the Commission to introduce mandatory financial security, e.g. a mandatory environmental liability insurance for operators and to develop a harmonised EU methodology for calculating the maximum liability thresholds, taking account of the characteristics of each activity and its surrounding area; calls, in addition, on the Commission to consider the possibility of establishing a European fund for the protection of the environment from damage caused by industrial activity governed by the ELD, without undermining the polluter-pays principle, for insolvency risks and only in cases where financial security markets fail; considers that the same should apply to cases of large-scale accidents, when it is impossible to trace the operator responsible for the damage;

While the issue of financial guarantees were scrutinized in depth by an other project, our researchers shortly expressed their views on that topic in the above Point B, echoing the desire expressed by the Resolution to establish a broad range, complex system of financial security instruments and measures.

RES Point 42. Considers that all cases of proven liability as well as the details of penalties imposed should be made public in order to make the true cost of environmental damage transparent to all;

The term 'true cost' refers to the understanding of the social situation where, indeed, stakeholders are scarcely aware of the elements of costs in the environmental liability cases. Amongst other effects, such an information might influence the behaviour of the relevant operators, too.

RES Point H. whereas in order to cover liability for environmental damage, a financial security market has grown up spontaneously, which nevertheless might be insufficient to cover specific cases, such as SMEs or particular types of operations (offshore platforms, nuclear facilities, etc.);

A further important point is raised in the Preamble part of the Resolution: financial security tools for small and medium sized enterprises have not been developed yet. The same situation can be established on the other end of the size spectrum of the operations that might cause environmental hazards and damages, those which are too large for the State and financial sector for developing proper financial safety tools.

Justice and Environment opinion

The 2017 J&E study shortly deals with the issues of financial security, too. In this circle they refer back to their concept of the three part division of the ELD cases, which might be a meaningful contribution to design the financial guarantees in the field of the ELD. They establish that if the size and time consuming of the ELD cases is more determined and framed, the financial tools could be better designed, which would entail with significant economic gains. J&E offers the following financial security measures for consideration:

- shared risk funds for those operators that work in the same branch of the industry or in smaller pools for those who work in the same or close enough facilities or industrial sites. Pooling might bring financial and legal advantages for the participants, amongst others a better negotiation position with the large insurance companies;

- separately handled, earmarked bonds, security reserves, from which the authorities could deduct the financial means for protecting or recovering the polluted sites if they run the proper administrative procedures;

- introducing changes into the bankruptcy and liquidation procedures in a manner that effectively ensures the coverage of the environmental debts of the ceasing companies.

In general, J&E contends that a compound, differentiated system of financial security measures and institutions is required in which the different entrepreneurs can be handled in various ways: the adventurer, ephemeral enterprises should face a more stringent regime of financial securities, while the companies that operate for long time without causing environmental problems might receive lighter solutions.

CERCLA research

A major difference between the European and the US environmental liability laws, is the solid financial background of the American system, which is considered worldwide by experts a great step forward, especially that it seems to be socially more just than charge the State and the taxpayers in general. The Congress designed CERCLA as a public-private partnership to address America's hazardous waste legacy. The costs of rehabilitating orphaned sites were to be borne primarily by the Superfund, an account created by CERCLA and augmented in 1986 also by the Superfund Amendments and Reauthorization Act ("SARA"). Superfund was supported by short-term taxes on the concerned branches of industry as well as government recoveries of public remediation expenditures from responsible private parties. The Congress did not intend to cover the clean-up of the CERCLA sites with the money collected from the industry for long time, rather this sum would serve as a revolving fund, only as a security base, while solvent PRPs would have to assume the liability for clean-up costs at most

hazardous waste sites — in other words, the most immediate polluters would pay for clean-up. The Superfund therefore was not designed to fully fund remediation, nor does it presently have the resources to do so, especially considering the burgeoning number of sites on the National Priorities List ("NPL") (Wetmore, 2014).

VIII.D Chapter summary

Findings

Both costs at the authorities and costs at the liable parties can be prohibitively large in the ELD cases. The authorities face with large amounts of expenses in connection with data collection in all phases of the procedure and far after it, in the phase of supervision and monitoring of the implementation. There are several kinds of administrative costs, which could be significant especially when legal remedy procedures are prolonged. In case the competent authority has to carry out preventive or remedial actions itself, the costs multiple. The liable party also have to spend a lot on data collection and expert opinions, while the major item at his site is the performing the decontamination or pollution prevention measures prescribed by the competent authority. No exact numbers are available on the costs of either side, although some average numbers are reported, but they make not too much sense considering the very wide range of the size and expenses in the actual cases. The national researchers for this project have collected many case studies, naturally selecting the largest cases and the costs amounted there to almost 100 million Euro. These numbers still did not consider the largest ecological catastrophes such as the 2010 Hungarian red sludge flood, these kinds of cases unavoidably handled by the States, usually, fortunately, they happen once in a decade in the whole EU.

There are damages one cannot pay for or express in exact terms of currencies. These are the living species and their habitats, as well as human health and life, in close connection with those. There are experiments to calculate with the amounts these natural 'resources' serve the communities or the economy, the so called nature services (as if nature is to serve us, humans) concept is quite controversial even amongst the economists, too. While it might be necessary to price tag natural objects for the purposes of other branches of law, including petty offence and criminal law, in the ELD procedures it seems to be rather in line with the original wish of the legislators to simply calculate with the sum necessary for the full prevention and remedy, including the primary, complementary and compensatory measures, as well.

The ability and willingness of the liable companies to pay the costs depends mostly on two factors: if the payment seem economically reasonable (for the local goodwill, for secondary advantages, such as introduction of a new technology or pilot projects) or bearable, the company would pay. The other viewpoint the managers consider, is the behaviour of the market, especially of the competitors and the partners on input or output side of the economic processes. In addition to these points, the pools, associations, interest networks of the companies under environmental liability would determine the background for their decisions and stand up for their group interests in the field of environmental liability. Taking all of these, our national researchers did not find eventually such cases amongst the larger accidents they examined, where the liable companies would pay at least a meaningful part of the costs they were charged with. Almost all the European States have earmarked funds for the environmental emergency situations, but the amount of money available is several grades lower than the actual needs. Municipalities, whose voters and taxpayers demand it in a growing awareness, might

be represent the engines for allocating more State money on the most dangerous orphan and historical sites (RES 42). Naturally, the States are active in working out alternative financial solutions, as well as put their efforts into more strict licensing and enforcement systems under the old sectoral environmental laws.

Observations and suggestions

In order to ensure the fair and just calculation of the costs for all liable persons of the ELD procedure or other similar procedures under old, sectoral environmental laws, national or even EU level methodological guidance would be needed. These guidelines, however, shall be flexible enough, because of the different environmental elements concerned, the different size of the cases, as well as the ramifications of the necessary measures, including complementary and compensatory ones, too.

Researchers in this project support the longstanding idea of introducing mandatory environmental insurance systems, because their experiences show that an organic development of insurance packages tailored to this field of liability are slow or rather missing. Furthermore, burdening the taxpayers and the scarce State funds for remedying the seriously polluted and polluting sites can be avoided by a middle level solution. Learning that the individual representatives of a certain branch of industry are not able or willing to pay the cost, the pool of operators of similar activity and/or of similar territory should be bound to form a security fund for the ELD cases. Examples from neighbouring fields of law offer themselves, such as the 'extended producer responsibility scheme' (EPRS) from the waste management law or from water law the Swedish example described by the natural researcher. The long-time successes of the US Superfund can also support such initiatives. Suggestions are heard that even the EU should try to introduce a similar fund on Community level, too. Such measures of financial security referred to even in our study, were strongly supported by the European Parliament (RES 14., 16-19 and 29).

Interconnections with other chapters

Chapter I: lack of baseline data might further complicate of the task of calculating the environmental liability costs in a uniform way;

Chapter II: extended use of financial security instruments may be instrumental for wider application of the ELD rules, rather than the old, sectoral liability ones;

Chapter V.1: multiple choices between the possibly liable persons raises the chance of the authorities to reimburse their costs from them.

IX Public participation

IX.1 Access to information

Our questions were in this chapter:

- Is it easy or rather difficult for the public to obtain information about environmental damage incidents and the follow-up measures?
- What are the channels of information available for the public (e.g. the role of different kinds of the media)?
- Are there good examples in Member States in actively disseminating ELD relevant information to the general public?

We note that in Chapter I we have touched upon already on access to information matters in relation to the ELD matters, primarily examining the sources of professional evaluation, mostly on aggregated, statistical level. Here we deal with that topic as a basic part of public participation, therefore we mostly concentrate on individual cases of environmental liability, the concerned communities or NGOs might be interested in. We are going to survey in this chapter both passive and active access to ELD related information. However, the two forms are interdependent, as Emilia Liaska has pointed out, even though the authorities actively (without waiting for requests to do so) disseminate important environmental information, such information is presented without individual analysis or specialization. This might form the basis, however, for the citizens to further appeal to the responsible public service for detailed information (passive access to information)[28].

Active side of access to environmental liability information

Proactive information supply is a basic tool for the governments to reach out to the public in such vital issues as the major ELD cases. The typical contents in proactively supplied information relates to the competences of several relevant authorities. Publicly available electronic databases contain information also on ELD relevant concepts, policies, strategies and plans related to the environment, reports on the state of the environment, risk assessments related to the environment, etc. (CZE). Proactive information supply from the authorities on individual cases is found very rare in some countries, except when there is an exceptionally high public, national and/or international media or political interest in a case, as was the Kolontár red sludge catastrophe in 2010 (HUN). The Spanish Ministry's ELD web-page provides a general overview of all the cases. Unfortunately, the table typically does not provide information on measures in the cases that are pending. The information on the last update to the table also is not readily available – it can only be checked from the properties of the excel file (SPA).

Governmental websites, open government programs might turn out useful for distributing ELD relevant basic information. A success story was reported from Greece. In order to ensure the diffusion of information and to involve all citizens and stakeholders in the decision-making mechanism, a website has been created, giving the opportunity for participation on the consultation of draft laws, ministerial decisions etc. The website has been designed to serve the principles of transparency, deliberation, collaboration, and accountability. Since October 2009 almost every piece of draft legislation, or even policy initiative by the government, naturally including environmental and ELD relevant contents, too, are being posted in it, open to public consultation (GRE). Contrary to this, neither the website of the Ministry of Environment, nor the website of the Environmental Protection Department under the Ministry of Environment provide for the information about ELD or gives any practical guidance on how to use the rights foreseen in the ELD (LIT). On the other side, a good example was brought from Bulgaria. The Minister of Environment and Waters shall create and maintain a public register of the operators, who perform the ELD relevant activities containing information about: 1. the name of the operator; 2. activity/s under Annex No. 1 performed by the operator; short description of

[28] Page 25 of the Greek study

each activity; 3. location of the place/s where the activity is performed (if applicable); 4. contact address, including telephone number, fax, e-mail; 5. contact persons; 6. the Regional Inspectorate of the Environment and Waters, on whose territory the activity is performed; 7. the Basin Directorate for Water Management, in whose region the activity is performed. The Register has a searchable database by operator, identification number, location, activity, River Basin Directorate, and a general search field. There is space on the homepage for feedbacks form for the general public with three categories: questions, suggestions, and signalling technical problems (BUL).

With respect to active distribution of the ELD relevant information – even according to the ENGOs interviewed – the competent authorities increasingly make available the information on environment which is available through electronic means. Availability of this type of distributing the information means is increasingly developing and effectively used by both national NGOs and grassroots and local activists. However, specifically on concrete incidents some major problems have been identified by the ENGOs. The information was not appropriately distributed, and local inhabitants did not know what to do and even there were no information neither in the national radio channel or TV about it during the night when a concrete incident happened. After that incident some working group was established to improve the civilian emergency procedures to ensure the correct information flow. However, there is not yet any information about the improvements made according to the interviewed NGOs. The information about follow up activities and results achieved by the remediation measures, and also about whether the costs have been reimbursed is largely missing, and even if there are possibilities to find out something about them, the information is fragmented (LAT). The Irish EPA publishes notifications of incidents at licensed facilities that require investigation on its website. In general, incidents that have no offsite impact or onsite health impact will not be posted on the website (IRE).

In Lithuania the NGOs, which were interviewed during the current analysis, mentioned that they do not have enough information about the ELD and the rights, granted by it. They claim that the public in general receives only little information about cases of environmental damage and the measures of prevention or restoration of environment, which were implemented, the compensation of environmental damage, etc. However, the current research showed that the passive information has started to work better, the requests are handled timely and properly. Based on this, more proactive information for NGOs and the general public could allow better ELD implementation (LIT).

Passive side of access to environmental liability information

Further case studies, practical experiences in access to ELD related information analysed in this project, revealed a certain level of reluctance from the side of authorities to serve information upon request. In an interview, Greenpeace Hungary officials highlighted that they have bad experiences concerning disseminating information by the authorities on ELD cases. Moreover, in many cases, authorities do not respond – or not appropriately respond – to data requests, they unnecessarily extend the relevant deadline for sending information or provide the information for a very high cost which cannot be paid by the citizens or local NGOs. Furthermore, the information is provided in a form which is difficult to handle (e.g. more than hundred pages document scanned in very low quality) (HUN). Often, the only information on major ELD cases available is through the media. Our Italian researcher has collected a long list of internet links on relevant newspaper articles and attached to her report (ITA).

As concerns *access to information upon request* in ELD cases, members and organisations of the public have basically three legal ways: (1) general constitutional right to access to public information; (2) environmental specific or (3) ELD specific rights to access to information. In addition to them, if the participants achieve standing in the ELD related administrative legal procedures, as clients, naturally

they can use the general administrative procedural law provisions, too, when they wish to look up the files of the case for any information. These three plus one ways of general access to information might be applied parallel or upon choice of the requester, although there might be differences in the conditions of access. In Hungary, both active and passive rights to environmental information can be realised either by the general constitutional legal ground, using the Public Interest Information Act (based on the principles of rule of law and good governance, such as transparency and accountability) or by the older access to information rules of the Environmental Code and the newer ones in the decree transposing the Directive based on the Aarhus convention (HUN). In Sweden, for public access to environmental information the Freedom of the Press Act is available in the environmental liability matters, indirectly (SWE). In Slovenia, the Public Information Access Act is applicable for information requests in ELD cases, too (SLO). In Lithuania, for ELD related information rather the second type of sources, the Aarhus Convention implementation legislation is used (LIT). Contrary to that, the general rule about right to access to information provided in the Act on Access to Public Information is the one that mostly used in Bulgaria. This Act stipulates that every citizen of the Republic of Bulgaria has the right to access to public information under the same conditions and in order, determined in this law, unless another law provides for a special procedure for searching, receiving and distributing such information. Foreigners and stateless persons have the right to access to public information, too. This general, constitutional right is used by all legal entities. Environmental Protection Act, though, can also be applied as a special law in terms of access to information. Everyone has the right to access to environmental information without the need to prove a specific interest, hence there is no restriction to that access (BUL). According to the Ministerial Decision on Public access to environmental information, in harmony with the provisions of Directive 2003/4/EC, any natural or legal person shall have the right, at his written request, to the public authorities to obtain information and/or to request information on the environment *without invoking any legitimate interest*. The requested authority shall provide the applicant with a reference number and indicate the time limit within which the obligation to provide information and the possibility of seeking remedies provided for in the Decision (GRE).

There are several channels to get ELD relevant information upon request, but, as we have referred to it, *conditions of access to ELD related information* might be different in the various applicable sources of law. According to the Czech ELD Act, the competent authority shall publish the notice of the commencement of the proceedings on the public administration portal. Non-commercial legal persons whose *main activity* according to their status is protection of the environment may also request the competent authority to be informed in writing. Those legal persons may also under certain conditions become parties of the proceeding, which brings the right of access to the files as it is prescribed in Administrative Procedure Code (CZE).

Contrary to the above gained picture on passive access to ELD information, as noted by quite some ENGOs, there are difficulties in receiving information *from other, not environmental authorities*. The Ministry of Agriculture and its sub-ordinated institutions (such as the Plant Protection Service) are mentioned as the most problematic ones. It is claimed by the ENGOs that the Data Protection Regulation added to the problem on getting information on environmental emissions, as quite some information is refused based on data protection, for example, information on amounts of pesticides spread in particular area, because of business secret (LAT).

Features of information requests are:

- the requestor can be *anyone* (HUN);
- *no interest* shall be communicated (ITA);
- however, the request for environmental information *cannot be anonymous* (CZE);

- a request can be presented verbally, in writing or by electronic *means* (HUN) (LIT);
- the *deadline* for responding the request in merits is 30 days with another 30 days of possible extension (HU, CZE) 14 days from the request of from the time that another authority sent the information to the first authority addressed by the request (LIT);
- as a *special legal remedy*, expedited court procedure is available in the event of refusal of the request, failure to meet the deadline, or because of the fee charged for compliance with the request (HUN);

These features behave in a bottle neck manner, i.e. whichever is missing the possibly benign arrangements in other aspects worth not too much. For instance, the information might be exhaustive and cheap, once it served too late, it might not help to a local community to raise their voice against an investment that might harm their environment.

Exemptions from access to environmental information exist in every legal systems, and, most importantly, there are sub-exemptions, where, under certain conditions, access to information is possible within the scope of an exemption, too. Even *a presumption of openness* acknowledged almost everywhere, to help to decide the cases where exemptions and sub exemptions seem to be vague. All information (e.g. figures concerning emissions or environmental impact reports) in documents given to an inspector or submitted to an authority is considered public. However, the supervisory authority can classify some information as confidential (CZE). In Sweden, only if especially provided for in the Public Access to Information and Secrecy Act, documents or information in documents may be kept secret. This may be for example for protected species or for state defence or the narrow space regarding commercial secrets (SWE).

As concerns the *types of secrecy* usually we speak about State, official and third person type secrets, depending on the nature of interests behind keeping the information from the public. Often, confidentiality of any *technical, industrial, or commercial* information is invoked, which runs against free access to information. A delicate issue of the protection of *personal data of natural persons* in all countries is a limitation for connecting several databases. However, to achieve transparency as well as the successful promotion of entrepreneurship in Greece it is often necessary to *link databases* for greater interaction and immediacy (GRE). The categories of information that are excluded from disclosure, are those that concern public safety, the operation of justice, the right to fair trial, the confidentiality of commercial or industrial secrets, intellectual property rights, personal data and the protection of the environment. These categories are to be interpreted narrowly. However, in certain instances, economic interests might qualify as secret especially if they are interwoven with other interests. Unofficially, the director of the Department of Environment admitted in an online interview in 2018 that the issues of hydrocarbon exploration and extraction are kept secret from the society. He literally said that “specialized personnel participate in the Environmental Impact Assessment Committee. The examination of these studies is evaluated by the Committee in a confidential circle for national security purposes” (CYP).

As we noted above, in every system of access to public interest information there are *exemptions from exemptions*. If a documentation includes certain types of secret information, that information could be disclosed combined with an obligation not to disclose it further, which then in its turn would be a criminal offence (SWE).

IX.1.B Evaluation by the in-depth researchers

Quality of the environmental liability related information

Quality of the information is a natural condition of meaningful public participation, it has several aspects. The proper balance between *rough, trustable data and plausibly explained information* is in the centre of the necessary traits of a well-designed environmental information system that might serve access to information and participation. For the first, sectoral data shall not be insulated from the rest of the environmental information related to the same site or the same operation. In the Summary, there are examples of incentives integrating different data bases that might serve the purpose of more coherent access to environmental information provided, inter alia, with respect to the ELD cases. The *interconnectivity and integration* of different databases and information received in and produced by public authorities is a challenge that needs to be addressed (Mikosa).

The public-sector databases contain important environmental information, such information is presented without individual analysis or specialization, for example aggregated information on quantities of incoming waste without further specification per month and per municipality (as discussed in Chapter I). These general data enable the citizens to go further and issue concrete information requests to the responsible public services, demanding for more detailed information on specific cases and instances. It is proposed that the administration in such cases break down the general data and, if necessary, request from the stakeholders to provide more elaborated information (Kallia).

Environmental liability database

While this topic was raised in several aspects in the earlier chapters, it seems to be also the most obvious solution on enhancing the quality of access to information in environmental liability matters is establishing comprehensive ELD databases. National registers, also containing information from EIA procedures, which contain baseline information, might help to further public awareness and participation since publicly available information at the moment is often scattered and incomplete. Importantly, databases on incidents should include environmental damage cases dealt with under old sectoral law, since the line to ELD cases is often blurry (Verheyen).

It should be made obligatory for generating data on the Directive's implementation from as many sources as possible, both at the national governments and the European Commission. The method of data gathering covering the most information sources should therefore be institutionalized, and set as a requirement (Kiss). As many member states appear unwilling to set up ELD databases, legislative action is advisable. A duty to set up ELD databases could be achieved by either amending the ELD or Art. 7 (2) of the Directive 2003/4/EC on public access to environmental information, which already prescribes the active dissemination of certain information (Verheyen). Even if experts say that the Aarhus Convention is difficult to amend, such a more than 20 years old, very actively implemented piece of international environmental piece of law should not remain without basic changes in the near future.

Effective interplay between active and passive access to information

The results of the recent project so far clearly indicate the need to strengthen and promote systemic and widespread dissemination of information on incidents and other damaging occurrences and follow up activities. This would not only raise awareness of general public and allow them to act appropriately

but would also would facilitate a more effective implementation of the ELD. The obligation to actively disseminate environmental information has t*wo subdivisions, namely general and urgent information services*, depending on how closely and imminently a pollution situation might concern public health and the environment. The two cases have a floating border, though, and it must be underlined that in the spirit of the precautionary principle, vague cases shall be considered as falling into the first category in all instances. An intensive active dissemination of urgent information on incidents also stems from the Member States obligations stated in Article 5(1)c of the Aarhus Convention[29] and in Art.7(4) of the Directive 2003/4/EC on environmental information[30]. Good practice does exist, and some of it has been referred to in the Summary, too (such as making information on pollutions or threats of both kinds available through publicly available portals in Slovakia and Bulgaria). At the same time, our research has indicated that the appropriate information is indeed missing in the majority of Member States, therefore, it is crucial that improvements are made to this respect. Obviously, governmental websites and other public authorities' webpages could be useful information sources, however, their quality needs dramatic betterment and more proactive distribution is required, including more widespread use of the most popular social media channels (Mikosa).

Access to data

In addition to the previous suggestions on the quality of environmental liability data and an obligatory national ELD database, the national Freedom of Information Laws or access to environmental information laws and regulations have to be amended to explicitly contain the free and unobstructed access of the members and organisations of the public to the ELD implementation data. The benefits of such an access cannot be overestimated, and public awareness on the use of the Directive can also be a factor to accelerate the acceptance and practical application of the ELD, even by public authorities (Kiss).

When an administrative proceeding is started by submitting a notification of the occurrence of imminent threat of environmental damage or environmental damage and that the notifier (an NGO, for instance) is a party to the administrative proceedings from the notification, in other words, it *has standing in the administrative proceedings, it has full access to the information* on the investigation of the notification, has a right to inspect all the official file (dossier) of the case, and, based on these information, it can exercise its clients' rights, amongst others, use legal tools to eliminate delays in the proceedings, according to the general Administrative Procedure Code (Wilfing). The special environmental regulations are naturally part of the general rules on the transparency of administrative action. This law, in the matter of access and participation, establishes the minimum parameters of protection for all citizens with regard to any administration, identifying, among other things, fundamental principles and precepts that ensure the possibility of following the information flows

[29] In the event of any imminent threat to human health or the environment, whether caused by human activities or due to natural causes, all information which could enable the public to take measures to prevent or mitigate harm arising from the threat and is held by a public authority is disseminated immediately and without delay to members of the public who may be affected.

[30] Without prejudice to any specific obligation laid down by Community legislation, Member States shall take the necessary measures to ensure that, in the event of an imminent threat to human health or the environment, whether caused by human activities or due to natural causes, all information held by or for public authorities which could enable the public likely to be affected to take measures to prevent or mitigate harm arising from the threat is disseminated, immediately and without delay.

relating to public subjects as well as the conformity and adequacy of the automatisms through which they decide and act (Delsignore).

In general, NGOs and the public have an interest to have access to information on the ELD procedures, and to have the possibility to intervene and have an influence, inter alia, when it comes to the decontamination of polluted areas. But their main focus of interest will be *the actual environmental results*, and not whether certain administrative requirements have been fulfilled or not. Due to lack of reliable information services, it can be assumed that many procedures actually will pass unobserved or be noticed at a stage too late to have any adequate influence and possibility to protect the rights of citizens and more broadly that of the environment (Bengtsson).

IX.1.C Other sources

Justice and Environment opinion

The 2017 J&E study shares a practical observation in connection with public participation. Considering that the legal nature of public participation is different from that of standing, the three branches of it are quite separable. Moreover, contrary to standing, where the clients use access to information, express their views, requests and suggestions in the decision making procedure and use legal remedies in a quite close unity, in public participation the concerned parties typically use only parts of this system. In the overwhelming majority of cases with public participation the interested members or organisation of the public only use the first pillar: they ascertain that the public authority handles the cases in an acceptable manner and they satisfy with the results even if they do not fully agree. Raising their voice, writing letters, observations to the authority requires certain resources, in the ELD cases quite big costs and long time investment, therefore the public is less inclined to use the second pillar, let alone the third pillar, which usually far exceeds their means.

IX.1. D Chapter summary

Findings

Considering the threats to human health and property, in the ELD cases the authorities shall approach the concerned communities actively with the basic information about the environmental emergency situation, and be ready to respond the questions for explanation and request for serving them with more concrete data and information. Yet, proactive information supply from the authorities on individual cases is found very rare in some countries, except when there is an exceptionally high public, national and/or international media or political interest in a case. Homepages of the ministry and chief authority responsible for environmental liability cases, let alone the regional and local authorities are usually not containing timely and concrete enough data on the individual instances of pollution, the actually taken measures and the status of the polluted lands, waters or nature. No information is found generally about the follow up activities and the division and remuneration of costs. Good examples, on the other side, include interactive homepages, where even if some data are missing, the public can interrogate the authorities about them. The media, especially the more flexible electronic versions

started to play a mediator role in the cases of larger, polluted sites, which seems to be a useful supporter of the active information distribution work of the authorities.

Environmental liability information can be requested in principle on several strong legal bases: general constitutional right to public information, administrative procedural rights of clients and other interested persons, access to environmental specific information, based on the Environmental Code and/or the Aarhus Convention and its national level implementation, and, finally by the application of the national ELD laws. The conditions of access to information might be slightly different by these legal opportunities, though. Even if this strong legal background exists in all EU countries, passive (upon request) information servicing is not always responsive enough, and even if the authorities are willing and able to give out the requested information, circumstances, such as timeliness, cost and format of the served information might make hard the effective access to information in environmental liability matters. Attitudes of the environmental and non-environmental, but involved other authorities might be quite different towards the communication with the local communities and NGOs. The environmental authorities are usually more experienced in and willing to communicate with the public, while the other related authorities are more inclined to find excuses from the full information servicing. While requests for environmental information are usually almost totally unconditional, there are several groups of exemptions based on state, administrative and third persons' interests that could open legal disputes instead of serving with the requested information.

Observations and suggestions

While active and passive information servicing in ELD matters might be formally on place, the quality of information should be amended. Ensuring the proper quality starts with the reliable and professionally high level collection and processing the data, and continues with creating the balance between rough data and plausibly explained information, as well as should contain details about quantities and qualities of the pollutants and specification per month and per localities concerned. Moreover, ELD specific data shall not be insulated from the rest of the environmental information related to the same site or the same operation. Interconnectivity and integration of different databases and information services represent a key quality attribute.

Interconnections with other chapters

Chapter I: the aggregated, statistical information on environmental liability matters are naturally strongly interrelated with the broken down, individual data, the local communities and the environmental NGOs are primarily interested in;

Chapter III: effective distribution of ELD relevant information is a basic condition of raising general societal awareness in this matter;

Chapter IX.2: access to ELD related information forms a natural starting point for effective public participation in these cases.

IX.2 Access to participation and justice (second and third pillars in the Aarhus system)

Our questions were in this chapter:

- What is the role played by affected citizens, citizen groups and environmental NGOs in detecting environmental damage and requesting the authorities to act?
- What are the conditions of standing ensured for individuals, local communities, and environmental NGOs?
- Is citizen science a well-known concept and how widespread is its use?

We have to take into consideration that between 2007 and 2014 in all Member States altogether there were only 155 requests for action cases reported to the Commission, which is a very low number, especially, if we consider that two third of these publicly initiated cases were registered solely in Italy. This is a topic where the trends after 2014 are especially worthwhile to examine from all kinds of alternative sources of information.

Role and appreciation of public participation

A basic condition of effective public participation is the wide enough appreciation of its values; therefore, we start this chapter with the evaluation of the *attitudes towards public participation*. Researchers emphasized the *watchdog role* the affected citizens, namely, the that local NGOs or municipalities might notice the threat or damage to the environment, or put pressure on the authorities to commence their procedure and take the necessary measures (HUN). According to the number of notifications received at the Notification Centre of the Environmental Protection Department, the majority of notifications come from the public (in the first year of operation of the Centre in 2019 – 17 856 notifications, 46 percent more than in 2015) (LIT). In some cases, people generally think that they should rather turn to an NGO for help in environmental matters. In a supposedly poisonous water pollution case, Greenpeace Hungary received a large number of requests from the locals and even from a local municipality, too, to carry out measurements and take the necessary steps. The results of Greenpeace Hungary's measurements showed serious contamination of several pollutants in the water sand. This had an important role in generating country-wide media attention and in convincing the water authority to take the necessary measures (HUN). The importance of *mediation role* of NGOs between the local public and the authorities is widely appreciated. Environmental organizations contribute to raising awareness, informing and activating society at a local or national level on environmental issues (GRE). In some cases, larger, professional NGOs might perform a *cooperative role*, helping the environmental authorities to fulfil their tasks. In Finland, the ELY Centres ask for public opinion upon their statements before finalising the decision. They publish the main documents and their own memorandums and make a public announcement for opinions in the concerned municipalities and on the Internet, furthermore in the Official Journal and the biggest newspapers. In a concrete case analysed by the Finnish researcher, the environmental authority, however, received no opinions from individuals or organisations (FIN). The reasons the NGOs might not be active enough in the field of environmental damage cases can be attached to several reasons. First, they have not enough knowledge on the ELD requirements and even on the main concepts that it requires and, therefore, requests from local communities and NGOs stop at the point of halting the polluting activity and/or penalizing the operator. Secondly, lack of capacity and lack of funding for NGOs might prevent them to play a "watchdog" role, as this type of activity is quite resource

demanding. Today, ENGOs are more involved as experts in different projects or carry out the projects themselves, for example, draft the nature management plans, water management plans or so on contractual basis, in order to make their sustenance. Thus, they are contributing to the capacity of the public authorities to fulfil their responsibilities, but do not play a controlling role, and very rarely raise legal remedies. Additionally, it is worth noting that the ENGOs as stakeholders are quite broadly involved in the drafting of different legislative acts or policy documents in environmental matters (LAT).

Standing in administrative procedures

Standing for NGOs and natural persons according to the general administrative procedure laws is first of all interest based. According to the general rules of administrative proceedings, the term of 'client' covers any natural or legal person, other entity whose rights or legitimate interests are directly affected by a case, who is the subject of any data contained in official records and registers, or who is subjected to regulatory inspection (HUN). Similarly, pursuant to the Czech Administrative Procedure Code, the participants in the administrative proceedings initiated by public authority are the persons to whom the decision is to establish, amend or revoke a right or obligation or solely to declare that they have or do not have a right or obligation, and also other persons concerned, if they may be directly affected by the decision in their rights or obligations (CZE). The capacity for private persons to participate in cases is generally linked to a requirement to be personally affected by the matter. According to case-law, to have standing, there is a requirement that the person can be exposed for damage or inconvenience because of the matter in the case, which is not merely theoretical or negligible (SWE). The competent authority shall provide *interested parties* or the administrative bodies or government agencies the opportunity to express their views, or to issue advice on the draft decision to be adopted in environmental administrative cases or in broader terms as it is set out in the General Administrative law Act. The term 'interested party' is defined in this Act as 'a person whose interest is directly affected by a decision'. For legal entities, 'their interests are deemed to include the general and collective interests, which in accordance with their objectives and as evidenced by their actual activities they especially represent'. Legal persons must prove that the general or collective interest they represent is reflected in their specific statutory objectives, as well as in their actual activities (NED).

There are special rules almost in each country on *standing for environmental NGOs*. Even general administrative procedure laws stipulate that an act or government decree may define the persons and entities who have to be treated as clients in connection with certain specific types of cases (HUN). Environmental NGOs can also apply for status of a party in proceedings conducted under Water Protection Act or IPPC Act. Other laws do not currently allow public participation. However, according to interviews with officials and NGOs, no public participation was possible in practice even in any of such proceedings either (CZE). Similarly, even if legally seems to be affected, but the claimant solely refers to public interests, the LECA has shown a reluctant attitude. The Swedish legal arrangement on public participation for ENGOs is not fully coherent yet. For NGOs the procedural provisions on access is of a wide scope in principle, and there is no legal requirement that the organization must be directly affected in order to have standing, while the legislation has some restrictions regarding which kind of cases organizations have the right to act. Currently the legislation opens for environmental organizations to act in permitting cases or cases on application for exemptions linked to protected areas. On the other hand, there is no general right for NGOs to act in supervision cases. However, the case-law has extended the limits also here. Nevertheless, when the authorities strive to conclude an administrative agreement with the operator, they do not see room for public participation (SWE).

According to an NGO interviewee, his civic organization, the Danish Angling Association, has some influence on forming the administrative procedures in environmental matters. This influence, however, usually manifests itself through a more informal dialogue, rather than a formal participation as client (DEN). In Austria, the public concerned has no possibility of joining procedures regarding environmental damages, if they are performed outside of the ELD regime. Especially, regarding the Water Management Act, this leads to the public being locked out from all ongoing investigations, and, not having been able to contribute, having access to records or take part in restauration procedures. Regarding nature protection laws, however, the public may file a complaint with the authorities, but it has no standing in any resulting procedures, and cannot challenge the inaction of the authority. Reports on how serious such observations from the public are taken, vary, but overall, public authorities seem to take on these cases. On the other hand, NGOs report that the thresholds to prove the authorities require for to get accepted as active participants, can be very high (including issuing certain documents, photographs, reports, and expert opinions) (AUT). From other countries we have received more positive picture, emphasizing that there are no problems with legal standing for individuals or NGOs in case they aimed to act against violation of the environmental law or risk of environmental damage. According to the Environmental Protection Law, and since 2010 also by the well-established administrative courts practice, there is an *actio popularis* provided by the law for environmental matters, as the exemption from the general "impairment of right-based" system (LAT). Similarly, any natural or legal person, who or which is affected or is likely to be affected by environmental damage, or who or which has sufficient interest in environmental decision making related to the damage, or who or which alleges the impairment of a right, shall be entitled to request a competent authority to initiate a procedure for the determination and application of remedial measures. Any non-governmental organization promoting environmental protection shall not be required to prove these circumstances (BUL).

Even where they are allowed to participate, there are *specific conditions for NGO standing*:

- associations established to represent environmental interests (HUN, BEL, FRA), or with this requirement, but with no registration requirement (NED);
- associations already existed before the date on which the environmental damage or the imminent threat of damage occurred (BEL) for 5 years (FRA);
- which are active in the impact area are entitled (HUN, NED, ITA, FRA);
- which shall be recognised by the chief environmental authority (ITA);
- in their area of operation (HUN);
- in environmental (not defined in the law, but formed by the legal practice, quite restrictively in a time, until the Supreme Court issued a progressive interpretation) administrative procedures, in particular, in environmental impact assessments, in environmental audits, in consolidated environment use permit procedures and in procedures where the environmental authority acts as a special authority (HUN).

Request for action

Article 12
Request for action
1. Natural or legal persons:
(a) affected or likely to be affected by environmental damage or
(b) having a sufficient interest in environmental decision making relating to the damage or, alternatively,

(c) alleging the impairment of a right, where administrative procedural law of a Member State requires this as a precondition,
shall be entitled to submit to the competent authority any observations relating to instances of environmental damage or an imminent threat of such damage of which they are aware and shall be entitled to request the competent authority to take action under this Directive.

What constitutes a "sufficient interest" and "impairment of a right" shall be determined by the Member States. To this end, the interest of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient for the purpose of subparagraph (b). Such organisations shall also be deemed to have rights capable of being impaired for the purpose of subparagraph (c).

2. The request for action shall be accompanied by the relevant information and data supporting the observations submitted in relation to the environmental damage in question.

3. Where the request for action and the accompanying observations show in a plausible manner that environmental damage exists, the competent authority shall consider any such observations and requests for action. In such circumstances the competent authority shall give the relevant operator an opportunity to make his views known with respect to the request for action and the accompanying observations.

4. The competent authority shall, as soon as possible and in any case in accordance with the relevant provisions of national law, inform the persons referred to in paragraph 1, which submitted observations to the authority, of its decision to accede to or refuse the request for action and shall provide the reasons for it.

5. Member States may decide not to apply paragraphs 1 and 4 to cases of imminent threat of damage.

As concerns the ELD laws, they allow a special title for public participation, namely request for action, in line with Article 12-13 of the ELD, while it is not without legal conditions everywhere. A legal or natural person that was affected or might have been affected due to environmental damage and an NGO with the status in public interest for environmental protection shall have the right to notify the chief environmental inspectorate (ARSO) of the occurrence of environmental damage and request that ARSO take action in accordance with the provisions of the national environmental code (SLO).

According to the Czech ELD Act, a request for the imposition of preventive or remedial measures may be made by a natural or legal person who is affected by, or is likely to be affected by, environmental damage; or by non-commercial legal persons whose main activity according to their status is protection of the environment. These persons are also entitled to submit to the competent authority *a statement* related to cases of environmental damage or the imminent threat of its occurrence, of which they are aware, even if they did *not submit the request*. If proceedings for the imposition of preventive or remedial measures have been initiated at the request of the above mentioned persons, they can be participants in such proceedings, provided that they notify the competent authority in writing of their participation within 8 days from the day when they have received information on the proceedings initiated. In practice, the Inspectorate received several requests from the public or NGOs to initiate proceedings to impose remedial measures. However, none of the cases mentioned in these applications was found as meeting the definition of environmental damage or its imminent threat, as defined by ELD Act. Thus, the Inspectorate has not yet initiated any proceedings under ELD Act. The

cases of alleged environmental damage were then usually resolved by the Inspectorate in accordance with other relevant legislation, e.g. in the area of water protection and nature protection (CZE).

If *the supervisory authority determines* that the matter concerns a "serious environmental damage" the authority shall order the operator to take the measures needed in order to remedy damages. This obligation is linked to detailed provisions in the Governmental Ordinance Prior to issuing an order, the authority inter alia shall notify the public and NGOs by an announcement in local papers for an opportunity to give their opinions. If needed, the authority also may have a hearing and inspection on the site (SWE). In Lithuania, *no specific requirements* are established in the legal acts for the request of action in the field of the ELD implementation. However, as in other cases, the applicant should deliver all relevant information and data supporting the observations submitted in relation to the environmental damage in question, which are available to her/him. There is no strict legal obligation to deliver the scientific data and evidences, though (LIT). In Greece, in a case of *diffuse pollution*, where it was not possible to establish causational link with any operators, a court decision stated that if the Environmental Inspectorate service finds that the request is substantiated as to the existence of the environmental damage and it is specific, caused by either one or more offenders, it is obliged to accept the claim *without requiring a reasonable specification about the operator* (GRE). Contrary to these previously mentioned countries, there are cases in Austria, which have been dismissed for a failure by the NGO to prove whom to attribute the damage to. This stands in contrast to the intention of the ELD, especially if you read Article 12(2) and 12(4) together, whereas the latter narrows down the meaning of 'data supporting the observation' to the existence of the damage. The country researchers note, however, that while this was the outcome of only a few cases, it is not yet a systemic breach by Austria against the ELD, which would require the European Commission to step in (AUT).

Standing in court procedures

Article 13

Review procedures

1. The persons referred to in Article 12(1) shall have access to a court or other independent and impartial public body competent to review the procedural and substantive legality of the decisions, acts or failure to act of the competent authority under this Directive.

2. This Directive shall be without prejudice to any provisions of national law which regulate access to justice and those which require that administrative review procedures be exhausted prior to recourse to judicial proceedings.

As the ELD cases are quite frequently debated at the courts, *standing for NGOs and natural persons in court procedures* is also a vital element of public participation in the field of environmental liability law. The *conditions* to become a plaintiff in an ELD administrative supervision case can be:

- any person whose rights or lawful interests are directly affected by the administrative activity (HUN);
- NGOs have standing to challenge a decision that may have infringed right to a favourable environment in harmony with Article 9(3) of the Aarhus Convention. Therefore they, provided that they meet the specified conditions, could challenge a decision made in proceedings concerning the imposition of preventive or remedial measures if the *right to a favourable environment* was affected by the decision (CZE);
- any NGO in the cases specified in law or government decree that has been pursuing its registered activity in order to protect any fundamental right or enforce any public interest in

a geographical territory affected by the administrative activity for at least one year, if the administrative activity affects its registered activity (HUN);
- the protection of the environment must be generally described in the statutory objective of the legal entities without being the sole or predominant (GRE);
- in cases, where the environment is being threatened or damaged, environmental associations are entitled to initiate the procedure of the competent authority and/or bring an action to the court against the user of the environment (HUN).

The German researchers pointed out a structural problem in connection with a limited transposition of Article 12 of the ELD. The EDA regulates access to administrative and court proceedings and introduce participation and complaint rights for NGOs related to German environmental damage law and NGOs have made some use of those new opportunities. Although they were not successful yet, all EDA/ELD court cases so far have been brought by NGOs. Notably, NGOs play an important role in the detection and notification of environmental damage cases (whether those cases are treated under ELD/EDA or pre-existing national law). Germany has made use of the option under Article 12 (5) of the ELD and has excluded the right to request action from the competent authorities in cases of imminent threat of damage. A right to submit a request for action to competent authorities only exists if environmental damage has already occurred. In April 2019, the Higher Administrative Court of Hamburg has ruled that this restriction also restricts access to the courts. Under this case law, NGOs only have standing in administrative court to demand remediation, but not to call for preventive measures. This constitutes a major gap in legal protection, especially since preventive and remedial measures will often go hand in hand and must often be applied cumulatively in order to remedy environmental damage in a sustainable manner. In the view of the authors, this must be clarified in line with the *effet utile* of the ELD and the relevant environmental laws (GER). Having a grade more limited access, in Italy, while citizens and recognized NGOs are not entitled to go to court autonomously to enforce environmental liability, they can request the MATTM to act to remediate environmental damage cases (ITA).

Amicus curiae and citizens' science

Even if in some cases the members and organisations are not allowed to initiate a court procedure, they still can issue their opinion for official consideration by the judges as a letter of amicus curiae. The conditions to that is described by the Hungarian researcher. Certain parties can join the court case after it is started on the side of one of the parties, supporting her winning of the case. As a main rule, the person concerned is entitled to and bound by the same rights and obligations as the party and is entitled to take any legal action without prejudice to the parties right of disposal, which shall also be effective if it is contrary to the parties' acts. Such amicus curiae can be

- any person whose rights or lawful interests are directly affected by the disputed administrative activity or might be directly affected by the judgment (HUN);
- any person who took part in the preceding proceedings as a client – who did not bring the action to the court - may join the action as a person concerned. As a main rule, the person concerned is entitled to and bound by the same rights and obligations as the party and is entitled to take any legal action without prejudice to the parties right of disposal, which shall also be effective if it is contrary to the parties' acts. (HUN)

A further, even more remote way to participate in an ELD court case for an environmental NGO is, if the court or the administrative body is willing and able to use pieces of *citizens' science* as an evidence. Civil society in general and non-governmental organisations in Greece have become very active in a

wide variety of sectors, ranging from human rights to poverty reduction and from environment protection to cultural heritage. At the same time, the NGOs participate in the policy dialogue in a structured manner and collaborate with the research and academic community to further enhance the science-policy interface (GRE). According to the Danish interviewees, it would be useful, if more articles on ELD were published in relevant journals, magazines, newsletters etc., and likewise if conference and similar events were conducted (DEN). In Hungary, it was noted that NGO experts can contribute to the results of the authorities, in several ELD cases, citizens' science supports the enforcement of environmental liability. In the case of Kiskunhalas landfill as well as in toxic gas leakages at Matra Power Plant, chemists of Greenpeace Hungary have examined pollutants in the soil and waterbodies and found an excess of the relevant thresholds, although before the authorities declared that there was no pollution (HUN).

Effectiveness of the court decisions in the ELD cases

Access to court procedures on one hand, strength of the tools in hand of the court on the other hand determine the effectiveness of access to justice in ELD cases. Earlier in this Summary, in Chapter VI.3 we have examined if the courts *can issue injunctive relief* during or at the end of the court procedure. Furthermore, where having *cassation power,* the courts can have a stronger control above the administrative decisions. In most of the countries, however, in the framework of public law, only an *annulment request* can be submitted by the persons who take part in the administrative procedure. After that, a suspension request can be submitted asking the stay of execution of the offended administrative act (GRE). In the lawsuit the environmental association may request the court to enjoin the party posing the hazard to refrain from the unlawful conduct (operation) and/or compel the same to take the necessary measures for preventing the damage (HUN). According to the Czech Code of the Administrative Judiciary, only who he claims that his rights have been curtailed directly or as a result of an infringement of his rights in a previous proceeding by an act of an administrative body establishing, amending, revoking or binding his rights or obligations, may bring an action demanding annulment of such a decision, or a declaration of its nullity (CZE).

IX.2.B Evaluation by the in-depth researchers

Public participation in all environmental liability cases

Participation merely in the ELD cases would incompletely endorse the will of the European legislator, as many national level authorities choose to use their old sectoral laws in the environmental liability cases, while all environmental authorities use at least partly the sectoral laws, especially in their implementation/enforcement phases. Under those laws, however, there is usually less, or in certain countries, such as Germany, no possibility of joining the environmental procedures, and especially no information servicing duties exist about remediation, as in Art. 7 (4) of the ELD, which, as we have seen in the Czech study, might even serve as an incentive for authorities not to use the ELD framework. To remedy these shortcomings, which significantly inhibit the effectiveness of participation, it should be clarified within the text of the ELD that participation and information rights apply, whenever a case could be treated under the ELD – regardless of which body of law is formally used (Verheyen).

Public participation at all stages of environmental liability cases

In the post-industrial, information societies there is a blurring border between professions and between professionals and laymen. In many cases the committed and well informed local communities and ENGOs of several size, from the local grassroots to the international mainstreams, can support the effectiveness of the work of the authorities a lot. It would be therefore important to allow substantial public participation in all grades of development of an environmental liability case, *from the noticing of the first signs of pollution, through the official procedures and legal remedies up to the implementation, enforcement and monitoring stages*. There are no clear reflections and procedures stemming from the ELD, for instance, on the involvement of public at the stage of remediation. It should, however, be considered as one of the relevant elements of the process of remediation that might improve decisions and acceptance of them by the society who's environment is damaged by one incident or another (Mikosa).

The research indicates that in many member states, the society is not informed about remediation decisions in a timely manner and many cases not informed at all. Although the ELD does not *expressis verbis* oblige the authorities to inform the public in an early and effective way, the Aarhus Convention does. The preparation of remediation plans could fall under the scope of "plans relating to the environment"[31], while the confirmation of a plan with a decision of the public authority thought to be challengeable under Article 9(3) of the Aarhus Convention. Openness to public participation with respect to remediation could improve quality of decisions. On the other hand, it may significantly prolong the procedures and delay decisions that are often needed urgently. Hence, a right *balance between rapid procedures and public involvement* needs to be found (Mikosa).

The failure to accord "formal parties", such as ENGOs *access to the Supreme Administrative Court* was mentioned also by the Austrian researchers as a main hindrance to access to justice in the environmental liability cases. It would be a very positive and important legislative change if all parties empowered under articles 12 and 13 of the ELD could in fact bring requests for action, initiate a review, and where necessary, engage the Supreme Administrative Court, too. Any person or organization meeting the requirements of articles 12 and 13 should be able to, without any qualification as to the scope of concern, be able bring valid concerns about damages or potential damages to the proper authority and, where the (in)action of such a body is an issue, be able to bring this before a court, including the Supreme Administrative Court, as the highest judicial instance in the country for administrative matters (Schmidhuber).

Easing of excessive substantiation requirements for NGOs

While it might be tough for environmental authorities to prove an operator's liability under the ELD, it is almost impossible for NGOs as they naturally have much less power and resources to investigate environmental damage cases. Nonetheless, NGOs in several countries are exposed to excessive substantiation requirements, if they try to initiate administrative proceedings or to hold operators liable in courts. The issue here is not (or not primarily) the burden and standard of proof in relation to the operator, but rather *the role allocation between authority and NGO* in the gathering of evidence. It must be strongly emphasized that, in accordance with *the officiality principle*, gathering detailed evidence is the responsibility of the competent authority, and not of a civil society organisation or NGO. Again, the proper procedural balance should be found in this field of public participation, too.

[31] According to Article 7 of the Convention Parties have to consider how to "make appropriate practical and/or other provisions for the public to participate during the preparation of plans […] relating to the environment, within a transparent and fair framework, having provided the necessary information to the public […]"

While an authority does not have to act upon unsupported speculative claims, an authority should not have the discretion to demand citizens or NGOs to provide (full) proof that all conditions of liability are met. Rather, it must be sufficient to justify the initial suspicion of environmental damage. The wording of the ELD supports this view since it demands only that a "request for action shall be accompanied by the relevant information and data supporting the observations" (Art. 12 (2) ELD), showing "in a plausible manner that environmental damage exists" (Art. 12 (3) ELD). Given the conflicting practices by some authorities, however, it might be useful to offer guidelines or training on how to handle ELD complaints by NGOs. Furthermore, *the administrative courts tend to apply civil law standards*, demanding the plaintiff – the NGO – to provide almost full evidence. This approach overlooks, however, that there is no dispute between two private entities (as would be the case if the NGO sued the operator) but between "the environment" represented by the NGO, and the environmental authority representing the State. The NGO does not fight for its private rights, but for the general interest. In this constellation, if an NGO presents a plausible case, the court ultimately has to conduct investigations itself. As is the case for environmental authorities, administrative courts – contrary to civil courts – should have a duty to investigate ex officio, as well, or order the administrative bodies to do so in a repeated procedure (Verheyen).

Conditions of participation

According to the Slovakian ED Act, a party to the proceedings for the imposition of measures is also a non-governmental organization (civic association or other organization) whose goal (according to the statute of this organization that is valid for at least one year) is environmental protection and which has notified the competent authority that an environmental damage has occurred. However, this NGO must meet another specific condition under the law. If, on examination of the notification, the competent authority finds that environmental damage has occurred, it will initiate remedial action and notify the notifier (such as an NGO) in writing. This NGO shall become a party to the proceedings for the imposition of measures only if, after such notification by the competent authority, *if notifies the competent authority in writing of its interest in participating in the proceedings, no later than seven days after receipt* of the notification of the competent authority. The problem is that the law does not oblige the competent authority to inform NGOs about this possibility to become a party to the proceedings. We propose therefore to add to the Act a provision on the obligation of the competent authority to inform NGOs about the possibility of becoming a party to the proceedings on the basis of a written notification of interest in participating in the proceedings (Wilfing).

Criticism in respect to Article 12(5) of the ELD

The opening clause in Art. 12 (5) ELD allows member states not to apply NGOs' right to request for action in administrative proceedings to *cases of imminent threat of damage*, thus restricting participation rights to cases where environmental damage has already occurred. This restriction has been extended to access to justice under the German ELD transposing legislation and case law. According to this case law, NGOs in Germany have no possibility to demand preventive measures under the ELD regime. This situation might well arise in other member states that have made use of the clause in Art. 12 (5) ELD as well or might do so in the future. It is a major impediment to achieving the intended effect of the ELD, and seems to be hardly in harmony with Article 9(3) of the Aarhus Convention. It significantly impedes access to justice and the effective enforcement of the ELD, especially because the line between preventive and remedial measures can be blurry, and often both are necessary to deal with ELD cases effectively. It seems necessary to remedy the structural gap in legal protection by legislative refinement and clarification on the EU level (Verheyen).

9.2.C Other sources

The ELD Resolution of the European Parliament

RES Point 48. Reiterates that, in accordance with the ELD, persons adversely affected by environmental damage are entitled to ask the competent authorities to take action; also notes that Union law stipulates that European citizens should be guaranteed effective and timely access to justice (Article 9(3) of the Aarhus Convention, Article 6 of the Treaty on European Union and the relevant provisions of the European Convention for the Protection of Human Rights) and that the costs of the environmental harm should be borne by the polluter (Article 191 of the TFEU); calls therefore on the Commission to come up with a legislative proposal on minimum standards for implementing the Aarhus Convention's access to justice pillar; asks the Commission to assess the possibility of introducing collective redress mechanisms for breaches of the Union's environmental law;

We also consider important to reinforce the mutual connections between the ELD laws and the Aarhus Convention and the laws of its national level implementation. We note, however, that Article 12-13 of the ELD contain provisions that are more special and in some aspects ensure even a stronger position of the members and organisations of the public than the Convention. In the case of a request to action the main rule is that the competent authority is obliged to start the ELD procedure, while the Aarhus rules, more generally in other environmental cases offer a much broader discretionary power for the authorities.

The EPA-ICEL Conference

In a reference to the An Taisce/Sweetman court case Ms Whittaker, Irish private attorney, participant at the conference addressed the issue of substitute consent. In the judgment it was determined that public participation must be provided for at the preliminary leave stage as well as at the application stage.

Public participation in the tiered procedures is a recurrent topic in the legal practice, while participation in the implementation and enforcement of the decisions of the environmental authorities seems to be a logical extension of this topic. Participation rights in the post-decision phases should not depend on whether the members or organisations of the public took part in the procedures before the final decision, they might either control the faithful and effective implementation of the decision if they did participate in it or simply have an eye of the remedial operations at the scene, even if they did not participate in the previous procedures.

Justice and Environment opinion

In their 2016 study the J&E lawyers point out an important detail: fortunately the loser pays principle is not applied for the procedures started by Article 12-13 of the ELD. This feature of the European legal systems generally stems from the legacy that those who make public interest announcements to any of the relevant authorities in any reasonable case are exempt from paying the administrative procedural or even the court fees even if later their reports would not be found well based enough.

Naturally, if the announcer did not act in *bona fide* and knew or should have known that his report is false, might be subject of paying the full administrative and court costs, in the most grievous cases also shall face sanctions by administrative, civil or even criminal law.

IX.2.D Chapter summary

Findings

While the request for action represents a relatively small portion of the cases of initiation of the ELD procedures, less formal notifications from the public in many countries give the majority of the instances the competent authorities get aware of the pollution cases. Local communities, however, might not wish directly turn to the authority with their complaints or observations, but rather they use the much simpler path, through a nearby environmental association or by a larger mainstream NGO that is specialised into environmental liability matters. This mediation role of the NGOs works in the other direction, too, they send messages to the local communities and the general public, through the media or directly, about the importance of the proper handling of the polluted sites near their settlements. In some countries the competent authorities also count on the work of the NGOs, they consult with them in ELD matters and support them with professional advices and with information. Even if so, generally in the EU countries, environmental liability matters, especially ELD is not in the focus of interest and activity for the environmental NGOs. They perceive the legal and institutional background too complicated, and find too few actual cases where they could contribute.

Standing for any legal and natural persons according to the general administrative procedure laws is ensured for those, whose rights or legitimate interests are directly affected by a case at the authority. The Aarhus Convention has brought a new element into this system, which is applied in almost all EU countries, namely that environmental NGOs are to be considered to be interested in case the legal conditions set in the environmental laws are met. Even if participation seems to be easier through a request for action according to the ELD, the competent authorities often demand such a solid evidence basis for starting an actual ELD case that even the majority of the larger environmental NGO networks would not be able to perform it.

NGOs, especially local ones, sometimes opt for the other way to acquire standing in environmental administrative cases, they refer to the direct material interests of their members or of the local communities they represent. Other NGOs prefer the more informal dialogue with the environmental authorities, rather than a formal participation as client. Indeed, not the form of participation is that counts, but the level the authorities and other participants in the ELD cases accept the suggestions and in general the different approaches represented by the civil participants.

While standing almost automatically ensure access to administrative legal remedies within the hierarchy of the relevant environmental authorities, access to administrative court revision is not without further conditions. It is especially true when the local communities or NGOs could not take part in the administrative stages, either because they were not informed, did not notice the information or were not in the position to take part in them actively. If they not allowed to have a plaintiff position at the ELD court cases, in the majority of the European civil/administrative procedural laws, they still might to send their opinion to the court, supporting the parties to protect their environment. If it is not possible to take part in the court cases in such an amicus curae position, the interested communities or NGOs can offer the court their findings and knowledge about the case as evidences. A growing social and professional attention is paid to the unique set of data and the special approach of processing and interpreting them, called citizens' science, which might set a new shed to the ELD cases even at the stage of their court revision.

Observations and suggestions

Authors in the in-depth research phase of this project highlight the difficulties the members and organisations of the public encounter when they would like to participate in environmental liability

cases which are not or not fully handled by the national ELD laws. While integration of this field of environmental law is desirable generally, too, here the maintaining of such a divided situation would be especially dysfunctional.

The long and sophisticated ELD procedures are not seldom tiered, where public participation is allowed only in certain stages. Having taken into consideration that the facts, evidences, legal considerations, even participants might significantly change in such a several years long procedure, public participation in a single stage of that would not serve the legislative aims of it and would not serve the goals of enhancing the effectiveness and general acceptance of the ELD procedures and decisions.

Authors acknowledge that public participation in the ELD cases might entail with additional costs and losing some time in such urgent cases. Naturally, from these considerations one should not conclude that public participation should be restricted in the environmental liability case, just the opposite: the member and organisations should be given the best support from the authority in order to make them able to contribute the most effective and timely manner. Amongst others, the early and full information of the civil participants about the onset of the procedure might serve these goals eminently.

While the ELD, Article 12 prescribes that the persons requesting the actions of the competent authorities should attach supporting data that underpin the existence of the alleged environmental damage in a plausible manner, nor the administrative bodies, neither the courts should claim a full, beyond reasonable doubt level proof from the side of the civil participants of the ELD cases. It might be useful to offer guidelines or training on this issue, within the frames of wider issues of how to handle the ELD complaints raised by local communities and NGOs.

Finally, experts criticised Article 12 (5) of the ELD, which allows the Member States not to apply NGOs' right to request for action in administrative proceedings to cases of imminent threat of damage. While it is true that the above evidence thresholds are even higher than in the case of actual damages, exclusion of the members and associations from this possibility seems to contradict to the general aims of the ELD, as well as the relevant provisions of the Aarhus Convention (Articles 6-9) and also the precautionary and prevention principles of the EU and international environmental law.

Interconnections with other chapters

Chapter II: while in many countries public participation is made possible fully only under the ELD laws, other environmental liability laws raise too high standards for that. This could be a discrepancy in these closely interrelated procedures;

Chapter III: a basic condition of effective public participation is the social acceptance of its values and contributions to the ELD cases, therefore we found attitudes towards public participation a key issue here.

IX. 3 Capacity to participate

Our questions were in this chapter:

- What is the level of capacity of the general public for participation in ELD matters (frequency of use, practicalities, challenges, potential to boost the ELD implementation etc.)?
- What kind of capacity building efforts can be experienced from the authorities (commitments made by the authorities to support public participation, inter alia by general and specific information, awareness raising in concrete cases, environmental education generally, specific help for grassroots and mainstream environmental NGOs, prohibition of harassment or retaliation for public participation)
- and from the NGOs themselves?

As our Finnish national researcher points out: in general, in Finland it is possible to get all the documents - if you know what is going on.[32] Indeed, without a basic knowledge about the context and details of the ELD cases, no local communities or environmental NGOs have the chance to exert meaningful effect on any environmental liability matters.

Capacity building responsibilities of the authorities

First of all the members and organisation shall be *informed and trained*, if necessary about the essence and use of the ELD laws. There are several capacity building responsibilities of the authorities, which are *based on general procedural laws or by non ELD-specific environmental laws.* The majority of them is in connection with safeguarding basic procedural rights of the parties in the cases. According to the general rules of administrative proceedings, authorities are obliged to ensure that clients are able to understand their rights and obligations and required to promote the exercise of client rights. Both the Deputy Ombudsman and the interviewed NGOs expressed doubt that these capacity building efforts, if duly performed, might be enough even for such complicated legal issues as the national ELD laws (HUN).

Though there have not been many cases yet in Germany, NGOs have played an active role in trying to ensure the implementation and enforcement of the ELD/EDA. Since a lot of resources and capacities are needed to overcome the problems of evidence taking in the ELD cases (particularly regarding proving causation and fault), it appears difficult for individuals to make effective use of their rights to request administrative action and/or judicial review. According to the interviewed experts, authorities handle complaints and notifications by NGOs inconsistently, on a case-by-case basis. In some cases, authorities have responded in a supportive manner, in other cases they have refused to act unless further evidences were provided. Authorities appear to be particularly reluctant to investigate reported cases of environmental damage, when complaints refer to installations/activities for which permits have been issued that that can no longer be appealed by third parties (GER).

General procedural laws will not prescribe, but some of the environmental laws do raise the necessity of *environmental education and training,* which would be indispensable for understanding and applying the ELD rules by the public. In the framework of public awareness on the ELD issues, the Ministry of Environment and the chief environmental authority (COIEL) organized a series of information and educational seminars for officials primarily, but the concerned NGOs and business groups could also take part in them. The sessions were interactive, and attendees had the opportunity to exchange views and experiences and therefore broaden their technical knowledge and familiarize with environmental, economic, and legal issues arising under the "polluter pays" principle. COIEL is expected to continue the information actions of the competent services and bodies, as well as the

[32] Finnish national study, page 7

general public, by holding similar seminars in the regions, as it has been found that there is an increased interest in its subjects' environmental responsibility (GRE). Capacity building is indispensable when the authorities count on the active participation of the members of the public in certain environmental protection activities, mostly of monitoring type. There are targeted capacity raising activities organized by the authorities on the rights of the public and about the legislation or handling environmental damage cases for "public environmental inspectors" by the environmental authority (SES). The public inspectors are entitled to take part and actually are actively involved in the control of fish resources. Thus, according to the legislation, the SES needs to organize training for them, including on the recent amendments in the legislation and other topicalities. The public environmental inspectors are in quite unique positions established more than decade ago *inter alia* to help the SES to ensure controls over inland waters taking into account quite dramatic cuts of the staff in the SES that were not able to ensure controls in thousands of lakes and rivers in Latvia (LAT).

The Cypriot Internet research has found such media titles in this topic: "Daily news should include these subjects". "More social media groups could be useful". "Companies should inform the public about the protective measures they are taking regarding environmental pollution"; "Informing the citizens more regularly is a must"; "Responsible journalists needed". These titles reflect the conviction that people should know about environmental pollution in Cyprus, on a daily basis in order to spread awareness and understand that we are in an emergency" (CYP).

In certain cases ELD information campaigns are having broader audience. The Portuguese environmental authority (APA) contributes to awareness raising about the ELD with the following tools. While the measures are *primarily aimed for operators*, other interested parties might find them useful, too:

- Handbook on the legal regime of environmental liability and the prevention/remediation of environmental damages (available online). This APA Handbook aims at clarifying in a simple and practical way to whom the national regime of environmental liability applies and the respective obligations for the operators. In particular, the Handbook covers the following: what is the legal regime of environmental liability; when and to whom it applies; roles and responsibilities of the stakeholders; activities listed in Annex III of the national ELD law; how does the legal regime work; what is the proceeding in case of an incident; which are the reparation requirements; the obligation of payment the costs of prevention and remediation measures and the exemptions thereof; and the mandatory financial guarantees;

- Technical guides on prevention of soil contamination and remediation and recommendations/guidelines on soil remediation (both available online);

- Capacity building sessions focussing specially on contaminated soils legislation (POR).

Another specific field of capacity building is *organizational support for NGOs.* In Sweden SEPA provides easily accessible information, inter alia on how to apply for funding for NGOs in environmental matters (SWE). In Lithuania, associations, organisations, or groups are considered as partners helping to implement environmental objectives. They participate in the organisation of educational and informational conferences and seminars, as well as of consultations on relevant environmental issues. Associations, organisations, or groups are informed of ongoing processes and are encouraged to present their opinions and conclusions before taking administrative decisions and are involved in the implementation of joint projects. The Ministry of Environment has established a panel in which representatives of environmental NGOs, environmental officials and representatives of science and education institutions have equal participation. The panel is an advisory body that considers the most important issues of the activities of the Ministry, its main areas of activity and tasks, and hears reports

of institutions subordinate to the Ministry of Environment, etc. We note, however, that these measures are not exclusively ELD specific ones, while naturally influence the capacity of NGOs to participate in ELD cases, too (LIT). In other countries there are no governmental subsidies specifically to support the work of ENGOs in this field and the general subsidies tend to become more limited because of budgetary restrictions. Nor there is an active governmental policy to increase the level of participation of the public at large in this field (BEL). The Austrian NGO, ÖKOBÜRO provides for a free and online available toolkit on the ELD regime and access to information on its website. This service is partly funded by the ministry (AUT). In Latvia, around 2000-2006 there were some funds available for such type of activities and then we have the first cases initiated by the NGOs using legal remedies against acts or omission of the public authorities. However, as noted by several ENGOs, there are no funding available for fulfilling the watchdog role, and even the funding for support of environmental education that was available for NGOs has notably been reduced or redistributed in recent years, including from the Environmental Protection Fund (LAT).

The system of capacity building efforts in a country shall contain provisions and practice of p*rohibition of capacity destroying.* There are specific regulations embedded in both the Administrative Procedural law and the Environmental Protection Law that forbids to take action against a person (such as to sue it before the court for damages or for personality right protection) due to he/she is using the rights provided by these Laws (in effect, to initiate an action against a person through ordinary court procedure because she/he has submitted a complain to public authority or court against some development or so). These amendments in fact have been adopted after some SLAPP (the acronym stands for: Strategic Lawsuits Against Public Participation) cases appeared in 2005-2006. Today, one may say that there is no trend of SLAPP cases as were noticed a decade ago, but there are still some occasions when individuals receive warning letters from company's lawyers asking to stop complaining otherwise they will submit civil law case against them for delaying the development. However, these are rather exceptions than a trend. To counteract this, more widely distributed information on the rights and legal remedies as well as "protection norm" is needed that presumably could help to eliminate such incidents (LAT).

A milder way of discouraging the members and organisations of the public is if they are threatened with a large financial burden in the ELD cases. In Lithuania it was noted that the '*loser pays' principle* applies in public participation cases, which might discourage people from participating in court procedures. An unsuccessful litigant may be ordered to provide remuneration for legal services and litigation costs incurred by the other party, if awarded by the court. These costs might include: the paid stamp duty, representation expenses, costs connected with the investigation of the case, transport costs and others. In addition, it should be noted, that in Lithuania free of charge legal assistance is not available for legal persons decreasing the capacity to participate of the NGOs, too (LIT). It should be noted, however, that in many countries the loser pays principle mainly applies only in civil law cases. However, its application is usually at the discretion of the judge. Each party has to pay for its own legal assistance, experts, and other costs. Legal assistance by a solicitor or barrister is mandatory only when cases are lodged before a civil court of appeal. Applicants before administrative courts do not need to be represented by a solicitor or barrister. The costs of legal assistance and expert advice in a civil lawsuit can be considerable. However, if the administrative court asks the Administrative Courts Advisory Foundation for advice, this expert witness will provide his or her opinion without charge (NED).

Capacity building efforts performed by NGOs

Finally, it is worth mentioning that capacity building efforts performed by NGOs, under certain conditions, might be the most effective part of capacity building, especially if it is a *systematic capacity building effort.* In Slovenia, a consortium of mainstream environmental NGOs and consultants performed an ambitious capacity building project (EcoLexLife project) including research, a large international conference and several other conferences and meeting. Within the frames of the project, the interested NGOs and local communities are permanently informed about the ELD, and several information packages are regularly forwarded to them. As a result of this long-lasting effort, the awareness of the public on ELD matters is higher, the capacity of the members and organisations of the public to participate in ELD cases is enhanced (SLO). Many recognized ENGOs are exercising legal advisory services in specialized offices supporting citizens in their environmental matters, therefore, contributing to increasing awareness of the national rules transposing the ELD among concerned local communities. By way of example, Legambiente, WWF and Greenpeace have established centres for judicial action and have instigated several requests of intervention of competent authorities in cases of environmental damage/risk of environmental, often under the impulse of the public concerned (ITA). In Bulgaria, an Action Time Forum 2019 was organized by Blue Link Foundation in the House of Europe for discussing with representatives of some of the biggest environmental NGOs and the ministry of Environment and Waters opened a consultation on why NGOs are not active in bringing up ELD cases under the laws implementing the ELD. There is capacity and interest by the environmental NGOs, especially the biggest ones, based in Sofia, most of which are part of the Coalition for the Nature. However, they have not been active enough to bring up ELD cases, and one of the reasons could be the non-responsiveness of the MOEW to act on their signals (BUL). Aimed at strengthening public awareness, Greenpeace Hungary operates websites providing the most relevant practical information on how to act against environmental pollution and damage on local level, and to make information on the most important cases more transparent and up to date. Their two years campaign called “Our Poisoned Future” has collected and analysed in detail 30 potential ELD cases. All cases were described in individual pages with coloured pictures taken from the sites and detailed professional and legal description of the cases and their respective history. These pieces were bound together into a leaflet to be distributed for the decision-makers and other stakeholders in Hungary and abroad. Unfortunately, the NGO has run out of funds, therefore, had to abandon this topic in this form, although there are said to be many more sites offering themselves for similar projects or the continuation of the project “Our Poisoned Future” (HUN).

General public is aware of the polluted sites and is interested in improvements in these matters. For example, the biggest numbers of cases which are reported to Green Phone Service (established as free of charge service in 9 Croatian NGOs) are related to different kinds of pollution such as illegal waste landfills etc. However, there is most likely lower awareness of effects of polluted sites to the environment and human health as there was no research of its relations (CRO).

The Portuguese NGOs also make active efforts to raise awareness in ELD and related matters for example:

- NGO Quercus gives online information on several actions and interventions concerning transposition and implementation of the ELD. In particular, this NGO raise awareness on ELD issues through public debate sessions and daily television broadcasting titled “Green minute”;
- Association “ZERO” makes efforts to raise awareness in several sectors of environmental protection. Among others, there is a joint APA and ZERO capacity building effort in connection with contaminated soils;

- Other awareness raising initiatives in this field include a campaign by Association Natureza Portugal working together with World Wide Fund (WWF) on several initiatives concerning the rehabilitation of the forest; and also about mobilization of the public to participate in the 2016 European public consultation on environmental laws.

IX.3.B Evaluation by the in-depth researchers

Enhancing the capacity of the public to participate in the ELD cases by targeted information

As follows from findings in this European research on the practical implementation of the ELD, the basis of the difficulties lies in the lack of experience with this system of environmental liability, absence of tradition and lack of understanding or appreciation of the system. Therefore, it is necessary to promote the regulation and bring it to the public's attention. Some of the examples of websites on the ELD operated by the competent national authorities might be particularly stimulating for the members and organisations of the public in this regard. It would be really beneficial to ensure the operation of public websites containing *publicly accessible register* of

- the operators performing activities according to ELD, Annex No. III, the operations they operate, including the basic characteristics and documentation;

- information about cases of environmental damage, ongoing proceedings, imposed preventive and remedial measures, information about follow up activities and results achieved by the remediation measures, etc..

In addition to the content of an informative nature, enabling public scrutiny, the website should also contain educational materials, including basic information on legislation, possibilities of involvement, etc. Publishing examples of good practice could be also helpful. It seems also important to pay attention to the technical side and functionality of the website as well as user comfort, including an easily searchable database. An additional function of the website could be to allow submission of initiative in case of concerns of possible environmental damage. A mobile application is also to be mentioned in this regard. The possibilities of communicating with the public through the evolving modern information technology is definitely also a way to explore[33] (Cerny).

Capacity efforts for all stakeholders

Authors recommend undertaking major capacity-building activities right now or following the legislative activities which are indeed necessary to implement certain key areas of the ELD. The key capacity building efforts could be:

- Talks and roundtables for all participants, centred on the ELD, including best practices from other countries;

[33] In this respect then ongoing work of the Aarhus Convention Task Force on Access to Information deserves a special attention. The 'Draft updated Recommendations on the more effective use of electronic information tools' prepared by the Chair for the 16-17 November 2020 meeting of the Task Force , Geneva (online) contains a long list of the modern Internet based information tool with proper explanations on how they could be used for public participation and capacity building purposes within the frames of the Convention (AC/TF.AI-7/Inf.3)

- Emphasis on the benefits of the ELD vs. other national/EU based instruments, such as the water protection and nature protection laws at several levels of the state administration;
- In connection with the previous point, the ways of organic fitting of the ELD provisions and legislative goals to the existing sectoral laws, especially their procedural aspects;
- Conditions of having standing for affected persons and members of the public/NGOs in the remediation procedures;
- Ways of access to legal remedies, especially the implementation of the Article 9(3) of the Aarhus Convention, which has been underused and not implemented properly in practice so far (Schmidhuber).

NGO funding and capacity building

NGO's capacity building efforts include several creative tools, for example, direct email marketing ("call for action") sent by NGO to their members containing practical instructions on how any legal or natural person can participate in a public consultation process (promoted by the competent environmental regulatory authority) via web portal of Public Participation. This targeted action strongly contributes to increase of citizen participation in the civil society's lobbying campaign to amend national legal regime of waste management and landfills. In concrete, the targeted campaign includes practical and user-friendly tools, such as video tutorials and power point presentation, allowing the interested public to participate in the public participate process by easing up the task of reading extensive and complex legal documentation (Amador).

Non-Governmental Organizations are undoubtedly key stakeholders in the implementation of the environmental acquis of the Union. This is already acknowledged by the European Commission in matters relating to the implementation of the Aarhus Convention. To arrive at the same conclusion in ELD matters seems to be a logical step. However, these NGOs are sometimes low on funding and resources to actively and constructively contribute to the implementation of the Directive. This could be remedied by setting up an earmarked fund, or amending the LIFE Regulation in order to accommodate specific funding opportunities to NGOs, which are active in the field of environmental liability. Along with this program, NGOs should also receive targeted capacity building and awareness raising programs in environmental liability issues, in order to make sure their contribution is based on expert knowledge and their involvement in ELD cases enhances effective implementation (Kiss).

IX.3.C Other sources

The ELD Resolution of the European Parliament

RES Point 41. Stresses the importance of a culture of environmental damage prevention, through a systematic information campaign in which Member States ensure that potential polluters and potential victims are informed of the risks to which they are exposed, of the availability of insurance or other financial and legal means that could protect them from those risks, and of the benefits they could gain from them;

The term here 'information campaign' refers to a planned, institutionalized, systematic governmental efforts, possibly on several levels to inform the members and organisations about the most outstanding issues of the environmental liability laws and the connecting practical questions.

RES Point 43. Proposes that a channel be set up to encourage environmentalist NGOs and other stakeholder bodies to put forward their comments and criticisms;

The Resolution pays attention to the other large branch of capacity building, the organisational help, too. While 'encourage' seems to refer to only individual cases, where the public organisations need help for their successful participation in the ELD cases, but the general State capacity building programs shall be understood here, too, namely, support of the communities and organisations that wish to take part in environmental protection in all aspects of their formation, operation, awareness, training etc..

IX.3.D Chapter summary

Findings

We have seen that there are strong legal tools in the environmental liability procedures that ensure access to information, access to participation and access to legal remedies. However, we also found that these legal tools cannot always be used in their full capacities, and there might be hurdles ahead of really effective public participation that support the competent authorities and the other stakeholders in their work. Safeguarding basic procedural rights of the parties in the administrative cases is a longstanding responsibility of the administrative bodies. The environmental protection cases, however are even more demanding for the clients and other participants, because the intertwined, sophisticated legal and technical elements. Within this category, environmental liability and especially the ELD cases represent an especially difficult type of cases (RES 41).

The ELD units in the chief environmental authorities in several countries regularly organise trainings and seminars for the officials dealing with such cases and they allow the interested environmental NGOs to participate, too. Such trainings, which entails with spontaneous exchange between the officials and the civil representatives are great opportunities of mutual, active learning (RES 43). Similarly, the ELD handbooks and manuals are available for the wider public, not only the primary addressees in the regional ELD units of the environmental authorities. In many countries the environmental authorities give institutional support for the environmental NGOs, which are committed to deal with environmental liability matters, including core funding, project prizes and legal-technical advices. As we see, capacity building activities are divided between individual help for the participants in concrete cases, and also general support of the local communities and NGOs. Both the individual and the general capacity building efforts encompass information servicing about the legal background, the system of relevant authorities, the procedures to follow, as well as the main professional issues emerging in the environmental liability cases.

An effective way of capacity building is when mainstream environmental NGOs or their networks undertake this task for their constituencies or for a wider circle, not seldom including the relevant officials at the environmental authorities or at the municipalities.

While capacity building is a condition of effective public participation, consequential prohibition and extinction of capacity destroying manoeuvres, such as threat, harassment, discrimination etc. against those persons and organisations that wish to participate in certain ELD cases, is a must.

Observations and suggestions

In the view of the in-depth researchers of the project, active information distribution about key elements of the ELD procedures would be a trigger for greater public attention and awareness in these matters. The official ELD websites should contain especially the list of operator companies performing activities according to ELD, Annex No. III, with some details, such as the basic characteristics and documentation of their activities. Naturally, information about ongoing ELD proceedings, imposed preventive and remedial measures, follow up activities and the results achieved by the remediation measures, would make the websites more substantial for the concerned communities and for the interested environmental NGOs. Educational materials, which might be irrelevant for the public in themselves, might gain importance in these surroundings. Authors signalled some elements of these materials, not yet fully implemented in the present capacity building efforts, such as the interrelationships between the ELD laws, the other sectoral laws on environmental liability and their broader legal connections, including underused civil and criminal law tools.

Interconnections with other chapters

Chapter I: general information on the ELD cases is a basic capacity building tool;

Chapter II: according to the logic of 'learning by doing', more ELD procedures with the inclusion of the members and organisations of the public would lead to more experienced and skilled participants, who can help more to the competent authorities.

Summary

In this practical oriented research we tried to reveal systematically what we know about the problems of implementation of the ELD, where we see the reasons and what kind of break out opportunities we can suggest.

Problem 1: lack of ELD data

We have learned that there are serious problems with both the quality and quantity of the data on environmental liability matters, as well as they are not fully accessible for the citizens in the majority of the countries. It is true, however, that there is a growing number of alternative information sources. Some of them are official, at the environmental authorities, other authorities and state bodies, others can be found on the Internet, from scientific, business, media, NGO and community sources. Our researchers suggest to standardise the ELD databases Europe wide and oblige the operators to serve the necessary data, while overlapping, superfluous information servicing responsibilities shall be avoided. From this databases user friendly, interactive ELD homepages should be developed, taking into consideration the urgency of the content.

Problem 2: scarcity of the ELD cases, use of old, sectoral laws instead of the ELD

We know from the data that the ELD laws are used much less than could be. The reason of this is multifactorial: it is considered system alien, against the legal customs, there is a wide range inertia and lack of needs in the system of law enforcement, while the introduction of the complicated ELD laws was slow and hesitant. The scarce practice in itself creates vicious circles. On the legislative side the ELD is said too general, leaving important topics empty, while in other aspects rather too special, not flexible enough, it raises too high standards of proof, while weaker in prevention side, too.

The arguments for the ELD are heavy, though: the old environmental liability laws were ineffective in protecting our natural resources, the ELD supports the recognition of the concept of pure ecological damage and the polluter pays principle. Transparency and accountability, including a possibility of removing the “corporate veil” are also progressive elements of the ELD. Use of strict liability and striving to achieve full remedy and compensation of the environmental damages is also something to appreciate. We suggest that in the training of relevant civil servants the comparative advantages of the ELD should be highlighted, while its regular application should be monitored by the higher level administrative bodies and by non-governmental State organisations, such as ombudspersons and prosecutors. While we see the merits of the ELD, critical voices have to listen to. The ELD rules shall be fit organically into the tissue of other environmental liability laws and more generally into the whole environmental law, as well as in the relevant other fields of administrative law. This consolidation should not be just a bargaining with the competing administrative and economic interests, but rather be led by the general principles of environmental law, by the polluter pays principle, but also the others, such as the sustainable development, the prevention and the precautionary principle.

Problem 3: too time consuming procedures

The national researchers found that many of the large ELD cases have been lasting for 6-8 years, and yet, no one sees the final implementation of the necessary clean-up measures. The much smaller part

of delays is caused by the complicated substantial and procedural rules of the ELD and the hesitation of the authorities, which are trying to avoid mistakes in these cases of high social-economic stake. The bulk of delay is caused by the unwilling operators, the endless legal remedies and the futile efforts of the authorities and the concerned communities to achieve the actual implementation of the prescribed measures. After a longer time the facts and evidences fade away, legal claims become futile, the rule of statute of limitations prevail. However, application of this legal institution in the field of administrative law is questionable, while experts, including those who took part in this project, suggest a different approach in the environmental liability cases, especially taking into consideration the fact that the pollution caused long time ago is still with us, and might entail with further environmental and public health consequences.

Problem 4: too high expenses

No exact numbers are available on the costs of either the authorities or at the operators, although some average numbers are reported, but they make not too much sense considering the very wide range of the size and expenses in the actual cases. The national researchers for this project have collected many case studies, selecting the largest cases, and the costs amounted there to almost 100 million Euro each. These numbers still did not consider the largest ecological catastrophes, which has happened so far not more frequently than one in a decade. On the administrative side data collection, expert analyses and monitoring, on the operators' side the expenses of the measures are the largest items. There are damages, however, one cannot express in exact terms of currencies. These are the loss in living species and their habitats, as well as human health and life. In these cases either the controversial concept of natural services or the costs of prevention and remedy measures might offer some information.

Our national researchers did not find eventually such cases amongst the larger accidents they examined, where the liable companies would pay at least a meaningful part of the costs they were charged with. The ability and willingness of the liable companies to pay the costs depends mostly on two factors: if the payment seem economically reasonable (for the local goodwill, for secondary advantages, such as introduction of a new technology or pilot projects) and also of a bearable size, the company would pay. The other viewpoint the managers consider, is the behaviour of the market, especially of the competitors and the partners on input or output side of the economic processes. Almost all the European States have earmarked funds for the environmental emergency situations, but the amount of money available is several grades lower than the actual needs. The majority of the States are active in working out alternative financial solutions, as well as put their efforts into more strict licensing and enforcement systems under the old sectoral environmental laws.

Let us examine the institutional, substantive and procedural legal conditions of more widespread and more effective use of the ELD laws, in order to find the places, where there might be a need for changes in the organisatory system, in the legislative or practical implementation, interpretation of the ELD.

Solution 1: solidifying the institutional background

The ELD matters are usually handled mostly on the central governmental level, both by the ministry responsible for environmental protection and the chief environmental administrative body. In quite a couple of EU countries ELD cases represent only a secondary responsibility of the biodiversity, land

and water, nature and waste personnel or others. The vague organisational background might entail with shortage in financial means and in specially trained officials. Apart from the environmental authorities, other administrative branches, such as agricultural, industrial, public health and safety ones have important roles in the environmental liability cases. It is a key factor of the effectivity of handling the ELD cases, to find the balance between competition and cooperation between these bodies. Harmonisation of their work is supported by joint commissions or small coordinating units in several countries. In this respect we suggested that the countries clearly define the competences of all the concerned authorities in the ELD cases. This would not mean total separation, there should remain some overlapping competences, where several authorities might share their resources and experiences in a concerted manner. The Competent Authority, however, should have an evidently leading role and all relevant information in environmental liability matters should be shared in an exhaustive and timely manner through formalised channels. Furthermore, we think that the support exerted by such non-governmental State bodies as ombudspersons, prosecutors or state auditors is very important in the ELD cases.

Solution 2: amending substantive provisions, such as definitions, liable persons, strict liability, causational connection and defences

The building blocks of substantial ELD laws, the definitions are criticised in two aspects: first, the EU level definitions seem to be too complicated and in certain cases determining a too narrow scope for the European ELD laws, second the way of harmonisation and interpretation of them is too scattered in the Member States, therefore not ensuring an even playing field for the legal subjects. Some of the countries use the general European environmental legal entitlement for that, and widen the scope of the definitions with deleting some adjectives or with extending their meaning with other elements of the environment to protect, primarily the air and all protected nature. Researchers of this project suggest that the definitions should be further harmonised on European level, as well as their scope should be broadened.

The European ELD laws, starting out from a narrow interpretation of the polluter pays principle, focus on the operators, namely the persons, who directly cause environmental damage or immediate threat of it. The owner of the concerned land can be a liable person in less countries. Naturally, ownership entails not only with rights, but responsibilities, too, therefore the owner can have some duties in keeping his land from pollution or remedying it, but not in the position of the liable person in terms of administrative law. We think that if the real estate cadastres would show the fact and details of the pollution, no buyer might be free from such responsibilities. When the operator cannot be held liable, legal successors, parent companies, company owners, shareholders and even executive officers might be liable, under certain conditions. However, the State will usually not put into that position, even if this would seem reasonable for a failure to control the activity or because having issued faulty decisions. When there are multiple liable parties, they might have joint and several liability, but in the majority of the countries, their liability is rather arranged into a hierarchical order or can be divided proportionally.

Strict liability of the operators in itself seem insufficient to fully endorse the polluter pay principle, because the causational connection between the activity and the harm or danger should be proven by the authorities or by the concerned communities, and they are seldom in possession of every means to do so. When balancing between the wider social interests expressed by the polluter pays principle and the requirements of legal and procedural fairness, a growing number of countries use refutable presumptions. In line with that, we suggest to put the victims of pollution and the environmental NGOs

into the position to start the ELD procedures with less evidences at hand, and trigger off the responsibilities of the operators or the owner to produce more evidences for the case. Such rules would lead to a multi-participation procedure, where all the interested parties are encouraged/forced to cooperate. Contrary to the US law, in the EU countries the State policy against the liable persons is generally less assertive, while the exemptions and defences have much less practical importance.

Solution 3: streamlining ELD procedures, such as reporting the pollution, onset of the procedure, evidences, legal remedies, measures and follow up

The practice of initiation of the ELD procedures is very scattered. It ranges from the authorities only passively waiting for trustable notification, while easily overlooking even the cases that receive media publicity, too, to authorities performing systematic research for the new cases. Such a research may take place in the archives of the authority to find the history of those companies and sites that are worth to revisit regularly. Preventive site inspections and careful follow up of the information they receive, are further traits of best practices. The operators themselves seldom report cases to the Competent Authorities – if they report at all, they would rather turn to the bodies handling old, sectoral environmental liability cases, hoping easier and cheaper procedures. Failure to report is sanctioned by these laws. This fact also points out that the concerted use of the old and new liability laws is almost a must. The support from the catastrophe prevention, public health and nature protection authorities and many others is indispensable for quick and effective handling of the emergency cases. The formal procedural steps that might follow, including issuing administrative orders, prohibitions, fines, petty offence sanctions, charging of initial procedural costs etc. – usually far extend the scope of the ELD laws. We suggest to work out the more formal legal and practical rules of further harmonisation of the cooperation between all relevant authorities, ensuring a primacy for the implementation of the ELD.

The authorities are in difficult position in the ELD cases, because they have to balance between the urgency of the cases and the need for careful design of the measures, in an iterative consultative procedure with the operators, land owners, several other interested authorities and the other stakeholders. There is a controversy between the old environmental laws and the ELD in this respect: it is natural that the State would take the necessary urgent measures, such as firefighting, chemical safety and public health ones, but the role of the State in longer run, throughout remedies and prevention steps is much less clarified. In our research in several countries we haven't found national priority lists or found, but they haven't been updated for years. It is rather exceptional, where we could report about NPLs operating, and at least a slow cleaning up of items from the list takes place continuously. Our national researchers suggest that the plans and measures of prevention or remedy should be transparent, the complex social-political and technical-economic issues should be highlighted for and discussed by the concerned communities and other stakeholders. Transparency is indispensable, because determining the measures is an intricate procedure balancing between social, economic and ecological viewpoints. The decision should prescribe concrete results or just certain activities, also can target full remedy into the original ecological status or just an insulation of the site in order to prevent further pollution. In the mirror of our experiences, however, the fullest remedy in the terms of primary, complementary, and compensatory measures happens quite rarely. Our researchers suggest that the Member States make further efforts to ensure the full remedy of the polluted sites in the modern and exhaustive terms of the ELD.

In the evidence taking procedures of the complicated ELD cases the legality of the examinations by the experts, the site visits and the documentary evidences play important role, they are revised in several levels of legal remedies. Effective cooperation and exchange of information by the relevant authorities

determine the successful outcome of these cases. In the cases that have criminal elements, the contribution of the police to revealing the facts and quickly sharing with the Competent Authority might mean a significant help, too.

In many countries the authorities consider the cases finished, when their decision reach legal force, thereafter they do not have enough resources allocated for monitoring the implementation and bring follow up decisions if necessary. We suggest that countries should more effectively use their scarce resources for monitoring and enforcement, preferably follow the structures of design standardized on the State or EU level. Also, enhancing public participation in this phase of the ELD procedures might make it more effective. In those countries, where the follow up phase of the procedure is in practice, they usually have conflict of interests rules and delegate the tasks of monitoring to other units or to another, possibly local, municipality level. Wherever enforcement of the measures according to the ELD decision emerges, the authorities use non-confrontational and confrontational tools, as well.

Solution 4: working on social attitudes towards environmental liability

The main condition of the necessary legal-institutional changes is the political willingness, while that is determined by the public opinion, primarily reflected in the mainstream and community media. While environmental disasters can stay in the forefront of the interest, long, complicated administrative procedures of the ELD or other environmental liability laws are difficult to gain too much public attention. Even the NGOs might decide that they deal with the simpler, less resource demanding environmental cases. The attitudes of the business circles are opportunistic, they might be interested in it, as far as the ELD can be a competition tool or might enhance the ties with important communities of the consumers and commercial partners. We see more positive signs in the academia, the ELD laws keeps being an interesting field of research. There is a thin layer of environmental officials, who cultivate the practice of environmental liability laws and see the values in the ELD, while the wider circle of administrative workers are still waiting for more unambiguous directions from their leading bodies. Our suggestions first of all target the attitudes of the environmental NGOs: they might be a hub for changes of opinion in wider social circles once themselves convinced. We also would see a really effective way of changing the general attitudes towards the ELD through concerted Europe wide programs, including the usual legal and technical guidelines, best practices, training materials, as well as subsidized research programs, prizes and scholarships.

Solution 5: encouraging effective public participation

Considering the threats to human health and property, in the ELD cases the authorities shall approach the concerned communities actively and be ready to respond the questions for explanation and request for serving them with more concrete data and information (these are the active and passive forms of access to environmental information). Yet, proactive information supply from the authorities on individual cases is found very rare in some countries. Good examples, on the other side, include interactive homepages, where the public can interrogate the authorities about the cases they are interested in.

The request for action represents a relatively small portion of the cases of initiation of the ELD procedures, but less formal notifications from the public in many countries give the majority of the instances the competent authorities get aware of the pollution cases. Environmental NGOs frequently take a mediator role in the ELD cases, they inform the concerned communities, help them to formulate

their submissions to the environmental authority, with whom they not seldom become a partner for professional consultations. NGOs might get standing in the environmental administrative cases by using the provisions of the Aarhus Convention, too. What really matters, however, is that how much the authorities and the courts are willing to consider their arguments, not seldom based on the special research and knowledge of their networks, which sometimes is called citizens' science. Authors in this project call the attention to the fact that the long and complicated ELD procedures stand of several stages. Public participation should be allowed in all phases of such tiered procedures.

Authorities often complain about the quality of public participation, its time consuming effects and that it raises the costs of the procedures in vain. This might be partly their own fault. Relevant environmental authorities, mostly with the help of mainstream NGOs can undertake capacity building efforts or rather implement planned, institutionalised capacity building efforts in order to make public participation more useful for their purposes. Indeed, the public has strong information and participation rights in the ELD procedures, but these rights worth not too much if there is nobody who is willing and able to use them effectively.

System approach

The problems with the effective implementations are strongly interrelated. The ELD procedures are generally considered too expensive and time consuming, therefore the environmental authorities and other stakeholders prefer to use wholly or partly the old, sectoral environmental liability laws instead. We do not have enough data from the ELD procedures, mainly because of this: if the serious environmental pollution cases are not, or not fully managed under the ELD laws and labelled respectively, it is natural that we will have scarce data on ELD cases. If we widen our scope of research, though, we will realize that there are plenty of environmental liability cases in our administrative legal practices. They are not collected as such, and this basic labelling problem sends negative feedbacks to the cultivation of the ELD laws.

The solutions our national researches revealed are closely interwoven, too. If the governments do seriously want to make their environmental liability laws up to the standards and reinforce their ELD systems, first of all they have to create and strengthen the resources of their organisations or organisational units dealing – exclusively – with ELD matters. ELD matters include plenty of other research, training, networking etc. tasks in connection with the concerted environmental liability responses of the State, so such bodies would not sit idle, even if for the time being they have a very small number of concrete ELD cases. Such an organisation can follow the development of the ELD relevant substantive and procedural laws and can raise suggestions where changes are necessary. The main direction of such changes should be to make the ELD laws more organically fitting to the rest of the environmental liability laws, to environmental laws in broader terms and even in some respects to the civil and criminal laws, too. Raising public awareness and encouraging public participation are also amongst the priority tasks and they both will have enormous multiplication effects on the cultivation and effectiveness of the ELD systems.

Summary in French

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