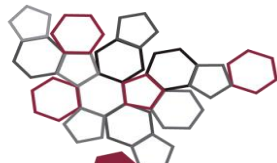




ISPRA

Istituto Superiore per la Protezione
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Sistema Nazionale
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European Union Network for
the Implementation and Enforcement
of Environmental Law

IMPEL CAED Project

Criteria for the Assessment of the Environmental Damage

7th ELD Stakeholder Conference

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The **European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL)** is an international non-profit association of the environmental authorities of the EU Member States, acceding and candidate countries of the European Union and EEA countries.

The **Network's objective** is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation.

The **core of the IMPEL activities** concerns awareness raising, capacity building and exchange of information and experiences on implementation, enforcement and international enforcement collaboration as well as promoting and supporting the practicability and enforceability of European environmental legislation.

Foreword:

This presentation describes contents of the **final draft of the Report of the 1st year** of the Project, **which is not yet approved** by the General Assembly of IMPEL, which will be held on 2nd – 3rd December 2020.

Disclaimer:

The project report is intended as a **reference document for competent authorities and practitioners. It does not prescribe what a competent authority should do.** Instead, it aims to provide information to assist competent authorities in making better decisions about the ascertainment of environmental damage. In this way, it should contribute to improve protection of the environment and promote compliance with the polluter pays principle.

- ① WHY WAS THIS PROJECT NEEDED?
- ② WHO WE ARE
- ③ PROJECT SCOPE
- ④ PROJECT OBJECTIVES
- ⑤ REPORT CONTENT AND METHODOLOGY
- ⑥ THE NEW APPROACH TO THE ASCERTAINMENT
- ⑦ CASE STUDIES
- ⑧ EVALUATION OF RESULTS
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WHY WAS THIS PROJECT NEEDED?

To ensure a comparison among practitioners of EU MSs in order to meet the following main need:

Promptly and effectively detecting, identifying and determining the potential, and actual, environmental damages and imminent threats of damage through consistent actions for the delivery of successful preventive or remedial measures

■ People from 19 jurisdictions

Core project team

1. Francesco Andreotti (IT)
2. Nicolette Bouman (NL)
3. Kim Bradley (UK)
4. Linda Dalton O'Regan (IE)
5. Miljenka Klicek (HR)
6. Inese Kurmahere (LV)
7. Daniele Montanaro (IT)
8. Anja Nanut (SI)
9. Stavroula Pouli (GR)
10. Laura Roel Mosquera (ES)
11. Elinor Smith (UK)
12. Claudio Toscano (MT)



- ✓ **Environmental Liability Directive 2004/35/CE** but, also, **other non-ELD national legislation of EU Member States** related to environmental damage
- ✓ Environmental damage to the **natural resources protected by the ELD**, but, also, **areas protected by national legislation** (such as protected areas, national and regional parks, wetlands) and **international conventions (RAMSAR)**
- ✓ Determine **environmental damage and the imminent threat of damage** caused by **environmental incidents, non-compliances, offences and criminal actions**

- ✓ The **administrative procedure**
- ✓ The early stages of environmental damage assessment, referred to as the phase of **‘ascertainment’** or **‘determination of environmental damage’**. In particular to the phases of **activation, immediate action** and **assessment**
- ✓ The phases of the environmental damage assessment that involve the **quantification** of the damage for the **equivalency analysis**, as well as the choice and design of **preventive and remedial measures**, are **not included in the scope of the project**

In fact, the administrative procedure involves a sequence of procedural steps that, for instance, may be identified as: activation phase (the event is discovered/notified by/to the authority), immediate action phase (the event is investigated by the authority), assessment phase (the imminent threat of damage or/and the damage is determined), design phase (the preventive or/and remedial measures are designed), execution phase (the preventive or/and remedial measures are conducted) and monitoring phase (the efficiency of preventive or/and remedial measures is monitored)

As regards environmental damages and imminent threat of damages:

- ✓ identifying **best practices** for conducting proper investigations
- ✓ providing a **practical guide** and **useful tools** to enhance competent authorities and practitioner's capability
- ✓ identifying **criteria for the assessment** under ELD

The ambition of the project is to be a useful external support to the work of EU Commission and the DG Environment in capacity building of ELD implementation

- ✓ Analysis of a collection of **ascertainment practices of ELD and non-ELD environmental cases** in various MSs
- ✓ Identification of MSs **common and different approaches, strengths, and weaknesses** of the administrative procedure for the ascertainment
- ✓ **Evaluation of the guidance** provided by some MSs, with particular reference to the parts related to the determination of environmental damage

The CAED report is the first of the IMPEL Network products concerning the ELD implementation and the environmental damage assessment in general, moreover, it is the first European report entirely devoted to the ascertainment/investigation phase of the whole process of the environmental damage assessment

- ✓ A specific **questionnaire-based survey** was circulated among various subjects in different MSs to collect **case studies** and additional information on **practical experience**
- ✓ **32 case studies** (22 Member States) organised in **factsheets**, provided by different contributors, and their evaluations developed by the project team

Through the collection of case studies it was possible to explore existing methods and criteria for the determination of damage and imminent threat of damage and to collect opinions from the practitioners, to appraise the differences and similarities in the approaches and issues to the determination of environmental damage and imminent threat of damage and to identify strengths, weaknesses, solutions and best practices

Austria - Environmental Agency

Bulgaria - Ministry of the Environment and Water

Czech Republic - Ministry of the Environment

Denmark - Municipality of Aarhus, Municipality of Fredericia, Municipality of Holbæk

England (UK) - Environment Agency

Estonia - Ministry of the Environment

Finland - Centre for Economic Development, Transport and the Environment (ELY Centre)

Greece - Ministry of the Environment and Energy

Ireland - Environmental Protection Agency

Italy – ISPRA, ARPA Calabria, ARPA Friuli Venezia Giulia, ARPA Lazio, ARPA Liguria, ARPA Lombardy, ARPA Puglia, ARPA Umbria, Pool Ambiente Italia

Latvia - State Environmental Service

Malta - Environment and Resources Authority

Portugal - Portuguese Environment Agency (APA)

Republic of Croatia - State Inspectorate

Scotland - Scottish Environment Protection Agency (SEPA)

Slovakia - Slovak Environmental Agency

Slovenia - Inspectorate of environment and spatial planning

Spain - County Inspectorate of Galicia

Spain - Pool Espanol de Riesgos Medioambientales (Spain)

Sweden - County administrative board contaminated areas coordination

Switzerland - Swiss Federal Office for the Environment (BAFU)

The Netherlands - Ministry of Infrastructure and Water Management

THE DETERMINATION OF DAMAGE AND THREAT

For the compilation of the case studies, the report proposed a **new approach**, made of **three procedural steps**:



SCREENING PROCESS

The **screening of potential environmental damage** and imminent threat of damage cases



DETERMINATION OF CLUES

The **determination of clues** for the **identification of candidate environmental damage** and imminent threat of damage cases



DETERMINATION OF EVIDENCE

The **determination of evidence** for the **confirmation of environmental damage** and imminent threat of damage cases

The three steps may or may not be conducted in a sequential manner

- ✓ **Preliminary and precautionary evaluation** of cases to identify potential environmental damage and imminent threat of damage
- ✓ **Starts from** the discovery by, or notification of, the event to the competent authority **and ends with** the decision to take action to investigate the event
- ✓ **Can be done in the absence of the site-visit**, but not necessarily
- ✓ Identify the link between the key elements of **‘source-pathway-receptor’**

In brief, the screening should answer the following questions:

is there a potential adverse effect on a receptor protected by the ELD? Or

is the case a potential environmental damage and/or imminent threat of damage to such a receptor?

DETERMINATION OF CLUES

- ✓ Evaluation of cases of **potentially significant** environmental damage and imminent threat of damage
- ✓ **Starts from** the decision to take action to investigate the event (the outcome of the screening phase) **and ends with** the decision to take action to find evidence; so, **the clue is a trigger** for further investigation and assessment to find the evidence of damage
- ✓ The clues should be identified as **indexes of a certain burden/level of significance** and can be represented by a **combined list of cognitive or measurable indicators**
- ✓ The clues should be sought: firstly, **in the impacted receptor**, secondly, **in the characteristics of the source** of potential damage compared to the **sensitivity of the receptor**

In brief, the determination of clues should answer the following questions: is there evidence of sustained adverse effects on receptors protected by the ELD? or, is the case a candidate case of significant environmental damage and/or imminent threat of damage to the receptors considered?

DETERMINATION OF EVIDENCE

- ✓ Evaluation of **candidate significant** environmental damage or imminent threat cases that confirm them as ELD cases (or significant under non-ELD legislation)
- ✓ **Starts from** the decision to take action to find evidence of damage to natural resources **and ends with** the determination of the feasibility of the significant environmental damage confirmation
- ✓ It means the determination of **'measurable'** and **'significant'** adverse effects
- ✓ It is related to the determination of the **causal link with the source** (as a precondition to apply ELD), the assessment of the **baseline** and of the **impacts** of the event, as well as of the damage in terms of the **significance of the consequences** over time to the environmental resource

In brief, the determination of evidence should answer the following questions: is there a significant adverse effect on receptors protected by the ELD? or, is the significant environmental damage and imminent threat of damage confirmed to the receptors considered?

- ✓ The case studies are presented in **factsheets** compiled according to the **approach proposed by the project team**
- ✓ The **core questions** were about the conduction of the screening, the determination of clues and the determination of evidence of environmental damage and imminent threat of damage
- ✓ The questionnaire covered topics related to the ascertainment by posing **15 specific questions grouped into 8 main issues of interest**, all interrogating procedural and technical aspects of the environmental damage determination identified in each case study

CASE STUDIES FACTSHEET

Case study name	
Country	
Contributor	
Type of damage	
Legislation	
Site	
Source of impact	
Natural Resources	
Effects of the impact	
EVENT DESCRIPTION	
<ol style="list-style-type: none"> 1. <i>Location of the event</i> 2. <i>Cause of the event and offense committed</i> 3. <i>Date and duration of the event</i> 4. <i>Natural resources and services involved and adversely affected</i> 	

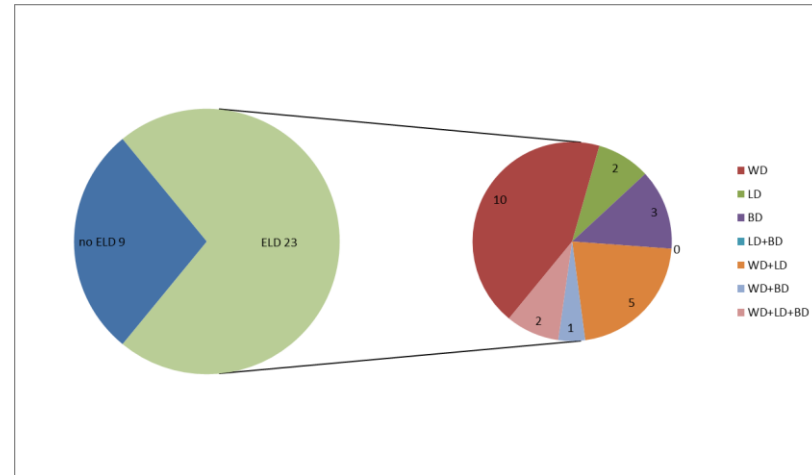
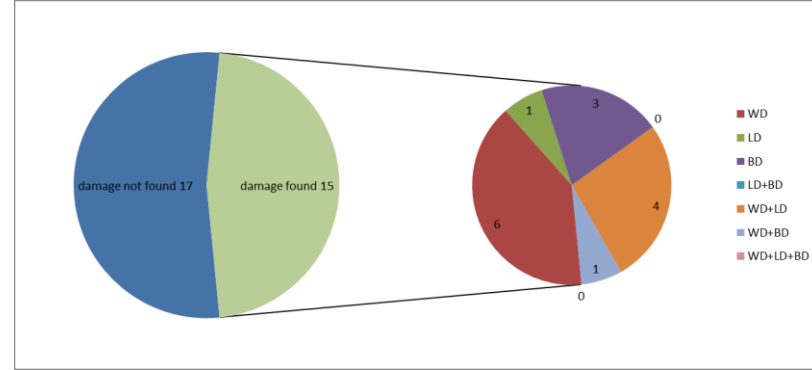
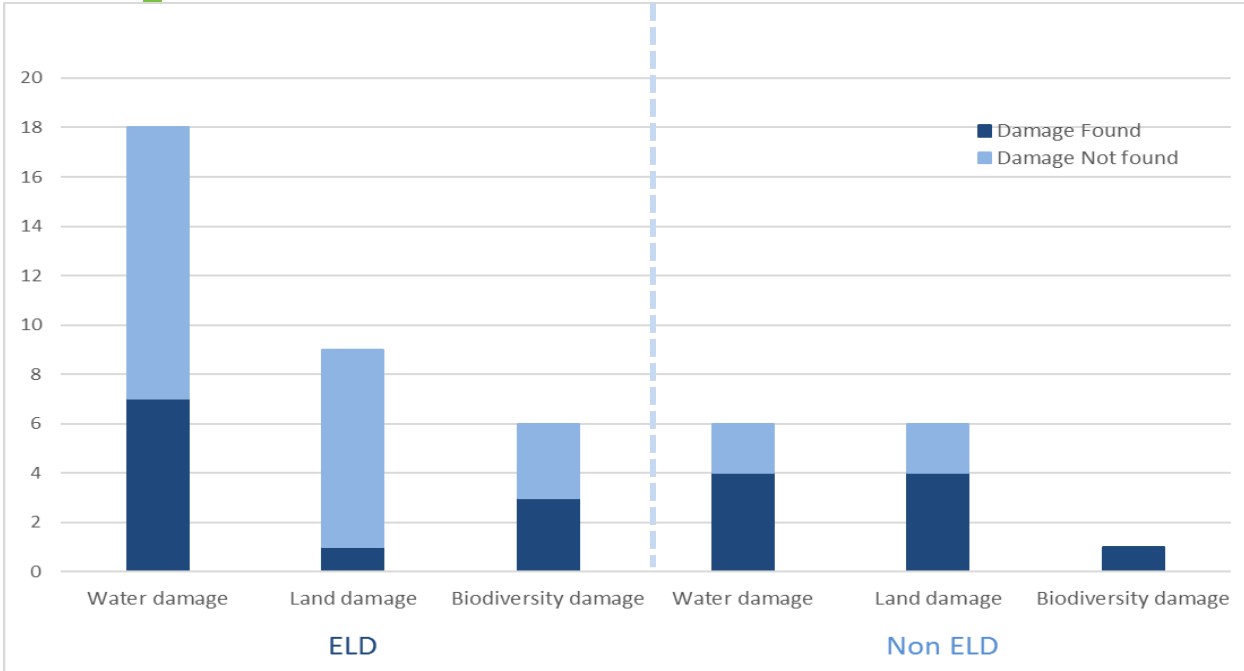
ASCERTAINMENT
<ol style="list-style-type: none"> 1. <i>How was the event known?</i> 2. <i>Who conducted the ascertainment / investigation?</i> 3. <i>Timeline of the event and of the determination of clues and evidence</i> 4. <i>Identification of the source of impact</i> 5. <i>Magnitude of the event</i> 6. <i>Spatial extent</i> 7. <i>Consequences to the environmental resources and description of the causal link</i> 8. <i>Legal requirements</i> 9. <i>Tools/equipment and methods used</i> 10. <i>Other Legislation Applied</i>
Screening
<ol style="list-style-type: none"> 11. <i>Conduction of the screening</i> 12. <i>Guidelines used</i>
Determination of clues
<ol style="list-style-type: none"> 13. <i>Clues found</i> 14. <i>Conduction of the determination of clues</i> 15. <i>Guidelines used</i>
Determination of evidence
<ol style="list-style-type: none"> 16. <i>Evidence found</i> 17. <i>Conduction of the determination of evidence</i> 18. <i>Significance thresholds considered</i> 19. <i>Guidelines used</i>
KEY FINDINGS AND LESSONS LEARNED
DETERMINATION OF CLUES AND EVIDENCE IN THE SAME TYPES OF DAMAGE
TRAINING NEEDS
ADDITIONAL INFORMATION, REMARKS, CONCERNS, REQUESTS, SUGGESTIONS

- Austria** - Groundwater contamination by pesticides impacting public drinking water supplies
- Bulgaria** - Leakage of a hazardous waste stored in a tank as a result of rupture in the tank wall
- Czech Republic** - Contamination of ground water, soil and building constructions by pharmaceuticals production plant
- Denmark** - Cultivation of protected grassland habitat within designated Natura 2000 area, Waste of fertilizer in marine waters and to soil and groundwater, Pollution of waterways due to spill of fluid fertilizer
- England (UK)** – Discharge of sewage from sewage pumping station to surface water
- Estonia** - Solvent leak on railway
- Finland** - Surface water contamination by the release of hydraulic oil through cooling water canalisation
- Greece** - Destructive fire in a waste treatment recycling facility
- Ireland** - Destruction of dry and wet heath protected habitats within a protected area
- Italy** - Water over-abstraction from a lake operated by an occupational activity, Surface water contamination by wastewater treatment plant spill, Groundwater contamination by halogenated hydrocarbons, Permanence in the soil of buried waste in disused industrial site, near a water body, [...]
- Latvia** - Chemical warehouse fire, chemical spills during fire extinction
- Malta** - Laying of alien material in a Special Area of Conservation (SAC)
- Portugal** – Gasoline leak at a filling station
- Republic of Croatia** - Land contamination by illegal dumping of waste by occupational activity on unregulated site
- Scotland (UK)** – Major fish kill from release of chemical into waterbody
- Slovakia** - Operation of water works small hydroelectric power plant
- Slovenia** - Protected nature, land and water pollution due to a massive fire of mostly hazardous waste
- Spain** - Slope detachment from a mine waste dump, Soil and groundwater pollution by a fuel station in an urban environment
- Sweden** - Groundwater contamination of drinking water supply by fire-fighting foam
- Switzerland** - Cargo train accident with run-off of hazardous chemicals
- The Netherlands** - Fire in chemical storage and packaging facility

32 Case Studies



CASE STUDIES ANALYSIS



	Overall	Water Damage	Land Damage	Biodiversity Damage
n. of cases collected	32	24	15	7
ELD cases	23	18	9	6
Non ELD cases	9	6	6	1
Damage found	15	11	5	4
Damage not found	17	13	10	3
Imminent threat found	5	5	2	1

- ✓ Using **general and/or specific check-lists** to evaluate the potential damage or threat of damage of an event may be considered as a best practice, useful for notifications of operators to competent authorities or during site visits of inspectors
- ✓ Using **simple flowcharts for the screening** of ELD case and not-ELD cases on the basis of information related to ELD scope
- ✓ Considering that the potential damage of events is better evaluated by **field observation**
- ✓ Setting **the potential impact on public health (as an indirect target) as a priority** and as a trigger to take immediate action and investigation

- ✓ **Magnitude** (or intensity) of the event with reference to the impact on natural resources and (if possible) to the source of the impact, the **spatial extent** of the impact on natural resources, the **sensitivity** of the natural resources in relation to the type of the impact and the **duration** of the impact are considered and evaluated as clues of damage and their determination (where possible) and, finally, the evaluation (in combination) of the **potential or actual sustained adverse effects** may be considered as best practice
- ✓ Any suspicion of **long-term contamination/pollution** of a natural resource should be considered as a clue of damage
- ✓ Generally, the use of national or international **pre-defined thresholds and guidelines** for the determination of clues of damage may be considered as a best practice

EVALUATIONS – Determination of evidence

- ✓ There is **not always a common interpretation of evidence of damage among MSs**. Even when the interpretation of evidence is the same between MSs, **the difference stands also in how the evidence is determined**
- ✓ In jurisdictions where pre-defined ‘thresholds’ of significance do not exist in the laws or in national guidelines the determination of the evidence of damage **may rely completely on expert judgement**
- ✓ The use of **national or international pre-defined thresholds of significance and guidelines** for the determination of evidence of damage may be considered as a best practice

EVALUATIONS – Authorities that conduct the ascertainment

- ✓ A key element for the efficiency of the process of determination of environmental damage, in particular when multiple authorities are designated, is to **support the process by a system of common procedures of coordination** and, moreover, by an **adequate exchange of knowledge and training among all the competent authorities** about the requirements under the ELD regime related to their duties and to other's duties
- ✓ In this regard, for instance, the use of a **Memorandum of Understanding**, describing how enforcing authorities should consult each other and how lead arrangements work if there is more than one authority responsible under the Regulations may be considered as a best practice

EVALUATIONS – Legal & Technical Requirements

- ✓ The administrative and the technical procedures for the ascertainment of the environmental damage need to ensure **compliance with the legal requirements** (e.g. the rights of defense)
- ✓ Technical requirements, such as **compliance with national/international quality standards for laboratory analysis and laboratory management**, and the competence of the laboratory used, may be important to make the claim for environmental damage successful
- ✓ Finally, it may be considered as a possible best practice where **internal procedures of the ascertainment body/ies** ensure that legal and technical requirements are complied with, **regardless of the legislative regime applied**

- ✓ The methods used for the determination of the environmental damage **strictly depend on the extent of the event and the environmental resource** involved
- ✓ A **site visit it is often necessary** to verify the magnitude/extension of the event/accident and to make rapid decisions about any measures to contain the environmental impacts
- ✓ The site inspection is an opportunity to deepen the knowledge of the source of impact or the type of pollutants, also through **interviews with the responsible operator**, with the aim of defining the techniques and tools necessary for the collection of the analytical data
- ✓ The **coordination among the different teams** involved in the determination of environmental damage and imminent threat of damage is a key element for the efficiency of the ascertainment that should be defined in specific procedures and organisational plans

EVALUATIONS – Key findings and lessons learned

- ✓ **Speed** of initial investigation
- ✓ **Sound Evidence Base**
- ✓ Availability of **procedures/guidelines**
- ✓ Lack of **precedent**
- ✓ Importance of **routine inspections**
- ✓ **Collaboration** of public bodies
- ✓ **Communications** with operator

Training methodology that concerns sharing key findings and lesson learned from practical case studies (successful and unsuccessful experiences) should be developed at EU level for a better implementation of the ELD directive.

- ✓ **Practical cases** and **practical experience** sharing
- ✓ **Technical, procedural, organisational** training
- ✓ **Interactions** between trainers and recipients (Workshops, webinars)
- ✓ Training to mixed groups of **different authorities** (national and local authorities)
- ✓ **All inspectors** involved in site visits should be **trained on screening**

The IMPEL Network is in a good position to put in place an adequate system of training, which may envisage: organisation of peer to peer projects and practical workshops, or realisation of webinars and web-based tools useful for the process of ascertainment.

The project identified some **common key factors** for a successful outcome.

These include:

- ✓ **Prompt initial investigation**
- ✓ **Sound evidence base**
- ✓ **Availability of guidelines and procedures**
- ✓ **Enhancement of the administrative process** to provide a framework for technical support activities
- ✓ **Good communication** both between competent authorities and technical experts, and between competent authorities and operators
- ✓ **Improvements in environmental management** at regulated sites

A three-stage administrative procedure for the process of environmental damage assessment was proposed and some best practices were identified for each stage

- ✓ Common challenge is **interpreting and assessing significance** (i.e. evidence) of damage
- ✓ Interest in the development of an **IT tool to facilitate the prompt assessment** of cases
- ✓ Considering a **check-list of preliminary information** to collect or to require of the operator in order to make screening considerations
- ✓ Considering **ascertainment plan templates** for the determination of environmental damage and imminent threat of damage

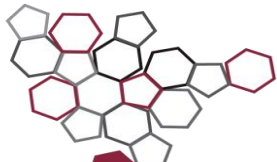
Finally, this first step of the project recognised it is **not easy to make rapid progress towards a consistent approach and overcoming problems** but to **ensure exchange of experiences** remain useful and important, comparing **similar situations and learning from other experiences** abroad, with an **interaction of mutual benefit** from both sides and also for training purposes

For these reasons, the project team wants to encourage more MSs to participate in this project that has raised attention on the gaps in the process of ascertainment



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**THANKS FOR YOUR ATTENTION!
ANY QUESTION?**

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Links to CAED Project and to CAED Project abstract:

<https://www.impel.eu/projects/criteria-for-the-assessment-of-the-environmental-damage-caed/>

https://www.impel.eu/wp-content/uploads/2019/08/IMPEL-CAED-Project-Abstract_new.pdf