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Environmental Technology & International Affairs

A Need for Harmonisation of EU Law?

Environmental Impact Assessments in Germany, Austria and the United Kingdom

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"Master of Science" (MSc)

supervised by
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AFFIDAVIT

I, Dr. Benedikt Mandl, hereby declare

1.) that I am the sole author of the present Master's Thesis "A Need for Harmonisation of EU Law? Environmental Impact Assessments in Germany, Austria and the United Kingdom", 74 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and

2.) that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

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ABSTRACT

Environmental Impact Assessments (EIA) were developed as formalised tools to predict environmental pressures of proposed projects since the 1960ies. In the EU, the "EIA Directive" has been in place for 25 years. It provides a framework within which each member state can find its own ways to implement EIA legislation that is coherent with the scopes and minimum standards of community law. This subsidiarity of the EIA directive creates a conflict between harmonisation and autonomy: Too stringent regimes will fail to acknowledge local environmental conditions; too loose ones will create different economic conditions under which companies should operate in different EU member states.

This thesis seeks to evaluate the degree of divergence in EIA laws between individual member states: A comparative study on the EIA laws of Germany, Austria and the United Kingdom (specifically England and Wales). Despite the fact that all three countries have relatively advanced environmental legislation, significant differences could be identified. These lie primarily in the screening procedure (determination if an EIA is mandatory); but also in the implementation of the EIA into the general clearance proceeding; the formal criteria that are required for this clearance; and the structure and contents of the Environmental Impact Statement (EIS).

In the light of these findings and the results of recent evaluation reports, it seems reasonable to conclude that a harmonisation especially in the screening procedure is necessary. Unequal assessments of similar projects in different member states that have similar environmental circumstances could lead to resistance on behalf of the project owners. Furthermore, more recent sources of environmental law such as the directive on Strategic Environmental Assessments (SEA) will have to be incorporated in a harmonised fashion. The findings of this thesis support the view that there is a great need for standardising several key-aspects of Environmental Impact Assessments on the level of community law.

EXECUTIVE SUMMARY

This study assessed the degree of divergence of Environmental Impact Assessment (EIA) legislation in three countries of the European Union: Germany, Austria and the United Kingdom. Seven areas were assessed in particularly high detail and compared to the minimum standards as required by the EIA Directive of the European Union.

These seven key areas were: (1) The implementation of EIA into the general clearance procedure; (2) objective and definition of a project; (3) screening legislation; (4) structure and scope of EIA practice; (5) criteria for a clearance; (6) duration of EIA; and (7) stakeholder views on screening practice.

Over-all, Austria appears to have significantly more stringent EIA regime than Germany or the United Kingdom. The seven areas assessed, however, are known to be particularly strictly managed in Austria. A need for harmonisation could be determined in particular for the screening procedures, for which national and even regional authorities have a great deal of discretion; the level of detail to which the contents of an Environmental Impact Statement (EIS) have to go; as well as the extent to which clearance criteria are defined. The findings for each of the seven points are briefly outlined below.

1.) The implementation of EIA into the general clearance procedure: Austria is the only country in which the EIA is a single, centralised proceeding that takes prevalence over other proceedings that contribute to the clearance of a proposed project. Furthermore, the administration in Austria is more straight-forward and centralised than in Germany or the United Kingdom, where regional laws (Germany and the UK) or project-specific rules (United Kingdom) can apply for a clearance. EIAs in the United Kingdom are embedded in a rather complex array of individual proceedings.

2.) Objective and definition of a project: Both Germany and Austria follow basically the same lines in this area and define project more or less the way the EIA directive requires it. In the case of the UK, there is no theoretic definition of the

word. There are, however, clear criteria for features to determine a “project” defined in the law.

3.) Screening legislation: Screening is a very sensitive issue, because it is the most crucial area for national divergences. All three countries compared lay down their screening criteria in the annexes of their EIA laws. Even though they do diverge significantly, this does not necessarily mean that EIA practice diverges, too. For example, Austria is the only of the three countries that requires projects involving genetically modified organisms to undergo an EIA; however, this does not mean that such projects will not be assessed in Germany or the UK. There, the discretion of authorities might allow them to decide case-by-case if an EIA will be required. The divergence on the level of the legislation is an interesting finding; further studies of screening practice might lead to even more significant findings.

4.) Structure and scope of EIA practice: All three countries’ EIA laws are very closely aligned with the EIA directive. Austria has very few, but significant divergences insofar as it is particularly strict: Not only does the Austrian EIA law require the project owner to submit an energy concept, it also asks for very specific information that neither directive nor the laws of Germany or the UK require. These include: The explicitly mentioned requirement to consider the construction phase in the EIA; an assessment of expected immissions; energy requirements according to source of energy to the level of detail of machines and energy flow analyses; the lifetime of a project and decommissioning after it has ended; and a reference to existing Strategic Environmental Assessments (SEAs). On contrast, Austria is more lax on the assessment of the EIA data (limitations and caveats). Germany is marginally more explicit than the other two countries in stating that for certain aspects of a project, compensatory measures should be considered.

5.) Criteria for a clearance: Whereas both Germany and particularly the United Kingdom do not touch this issue in any greater detail than required by the EIA, Austria has a very strict and clearly defined clearance regime. It requires authorities to consider best available technology (BAT) for emission values; very detailed

criteria for immission values; and BAT in waste management; as well as several other features of the assessed project.

6.) Duration of EIAs: This was the first of two practical aspects that were investigated for this study. It showed that comparative data on EIA practice in the EU is very poor. Only Austria has assessed the EIA duration in detail; in both Germany and the UK it differs between regions. Even though the legal regime on the maximum duration of EIA proceedings could be compared, the Austrian assessments showed that in practice, these requirements are not met. The potential for improvement has been demonstrated in Austria and this is likely apply to Germany and the United Kingdom.

7.) Stakeholder views on screening practice: This aspect tried to build a bridge to a possible follow-up study of EIA practice. It was based on an extensive comparative study of EIA practice in the EU, which in turn relied primarily on stakeholder interviews. It showed that there was room for improvement in several key-areas: A lack of clarity in the definition of screening criteria; not enough matching of screening criteria with potential environmental impacts; a need for tighter guidelines and more research on screening practice; as well as a need for further research on screening practice. The annexes that define projects that are required to undergo an EIA has been extended in the past years in all three countries evaluated.

LIST OF ABBREVIATIONS

BAT	Best Available Technology
Ch.	Chapter
EC	European Community
ECJ	European Court of Justice
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EU	European Union
Fig.	Figure
GMO	Genetically Modified Organism
(IMP)3	Title of a report that assesses EIAs in the EU
MS	Member State (of the EU)
NEPA	National Environmental Policy Act
NGO	Non Governmental Organisation
Ref.	Reference
SEA	Strategic Environmental Assessment
Tab.	Table
UK	United Kingdom
UN	United Nations
US	United States (of America)
UVP	Umweltverträglichkeitsprüfung, as EIA
UVPG/UVP-G	Umweltverträglichkeitsprüfungsgesetz of Germany/Austria
WHO	World Health Organisation

"I can think of no other initiative in our history that has had such a broad outreach, that has cut across so many functions of government, and that has had such a fundamental impact on the way government does business. I am qualified to characterise that process as truly a revolution in government policy and decision making."

Russell Train

Former chairman of the US Council for Environmental Quality on EIAs (Ref. 1)

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

From: "Our Common Future" (Ref. 2)

1.) INTRODUCTION

1.1. Definitions, underlying idea and philosophy of EIAs

In the past 40 years, Environmental Impact Assessments (EIAs) have become increasingly important as a formalised legal requirement for projects in many countries, especially in the developed world (Ref. 1). Environmental Impact Assessments (EIAs) can be defined as "*the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made.*" (Ref. 3).

In a slightly more general and practical definition, EIAs can be seen as formalised mean to identify the immediate and long-term effects of a project on the environment – which covers both positive and negative effects. This requires definitions of environment, thresholds (spatial as well as temporal ones, immediate versus long-term) and other terms.

"**Project**" is defined for the purpose of the EIA Directive (see below) as "*the execution of construction works or of other installations or schemes; and other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources*" (Ref. 4). Other definitions for the term in similar legislative texts differ only marginally. All matters included in "**environment**" are covered in many legal texts, including the Austrian EIA law (UVP-Gesetz 2005; Ref. 2), where the term is defined as including human beings; animals, plants and communities thereof (includes biodiversity); soil; water; air and climate; landscape; social and economics goods; as well as all relevant interactions of the listed factors (UVP-G 2005, Ref. 5). "**Threshold**" has been defined in the context of EIA assessments as "*a point of beginning a minimum requirement for further action*", closely linked to "**criteria**", which is a standard on which a judgement or a decision is based (both Ref. 4).

The term "**impact**" is often used synonymously with the term "**effect**" and has been described as a "*change in an environmental parameter over a specified period and within a defined area, resulting from a particular activity compared with the situation which would have occurred had the activity not been initiated*"; they include both direct and indirect effects (Ref. 6). A "**cumulative impact**" results from effects and has been defined as "*the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what actor undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time*" (Ref. 4).

The definition of temporal boundaries is less clearly outlined; since "**long-term**" does not draw a limit, a clear definition is often seen as being redundant. However, the failure of the most common EIA schemes to establish temporal boundaries within which certain environmental effects occur with a certain likeliness has been identified as a major weakness by many authors and continues to be a subject of controversy (Ref. 7; Ref. 8).

Wathern (Ref. 6) has pointed out the following important observation: "*Environmental systems are not static, but change over the course of time even without the influence of man. Some are very dynamic, while others only change imperceptibly. In order to make predictions about impacts, assumptions have to be made about natural change. In order to assess the impact of a development project, for example, it would be necessary also to analyse natural changes in the rate of sedimentation in estuarine system over the same period. In contrast, a description of the present state would probably suffice if the proposed development was situated on a stable hard-rock coastline*."

Wathern also highlights that spatial aspects (where impacts occur) are generally assessed more adequately than temporal (when they occur) ones. Another flaw or challenge to EIAs is the definition of boundaries with respect to **high-order impacts**. In the most simple system, one can distinguish between direct or primary and indirect or higher order (secondary, tertiary, and so on) effects.

For example, the construction of a road might hinder a certain population of toads from using its traditional breeding ground (primary or direct effect); this in turn could increase the number of insects living in this breeding ground, since the toads would usually feed on them (secondary, indirect effect); the increased insect population could become a welcome source of protein for local birds, whose number would also increase (tertiary effect). This string of effects and interactions can be continued and branch out dramatically. In practice, however, every EIA will define boundaries which will exclude ramifications that go beyond a certain point (for a more detailed explanation of this issue, see Ref. 6).

The underlying idea of EIAs is to provide enough information to plan a project based not only on economic and technological concerns, but to the same extent also on environmental ones. This general concept is described in more detail at essentially all relevant legislations or administrative bodies concerned with EIAs.

The Austrian UVP-G and advisory bodies such as the Umweltbundesamt explain the underlying idea of EIA as such (Ref. 9): To assess, describe and quantify the immediate and long-term effects, their interactions and accumulations of a given project on the environment; to assess measures to mitigate or avoid these effects; to assess the advantages and disadvantages of all relevant alternatives to the project with respect to the environment (including the option of not doing anything); and to assess the advantages or disadvantages of the proposed site for the project (in particular for projects with extended routes, such as the construction of railroads or high-voltage power lines). All that should be achieved with the greatest possible involvement of all parties concerned with the project, for example affected residents or local citizen groups (own translation; Ref. 9).

By adding an EIA to more conventional means of project assessments, the decision on the implementation of a project is based on three pillars: Environmental considerations and questions of sustainability; technological considerations (feasibility within a cost-benefit assessment); and economic considerations (cost-benefit beyond the concerned technology) (see also Fig. 1.1).

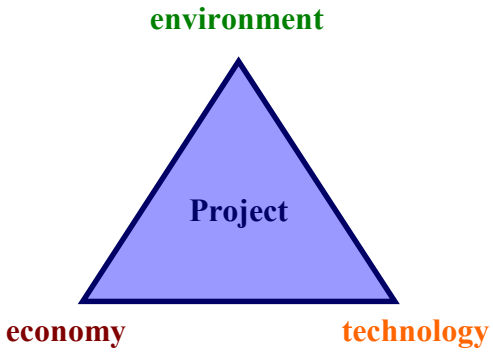

Fig. 1.1: *Project assessments with three pillars: Costs and benefits of the project with respect to economic, environmental and technical questions should be assessed. The EIA contributes towards the rather new environmental corner; the other two being the more conventional ones. A weakness of this diagram is the impression that a trade-off always has to be chosen between the three pillars; this is not necessarily the case, especially not if economic values are attributed to the environment.*

The aims of Environmental Impact Assessments follow the lines of the objectives and concerned matters outlined above. The Austrian Umweltbundesamt summarises these as such: To avoid damage to the environment based on the precautionary principle; to assess environmental hazards not only in their isolated, immediate effects, but in the long term on the whole environment; to improve the preparation and planning phase of a project before it is legally approved or any permits are granted; and to make the clearance procedures of projects more transparent, public and formalised (Ref. 9; similar in many other reports, mission statements or legislations concerned with EIAs).

1.2. Historic development of Environmental Impact Assessments

The 1960ies saw a rise in environmental awareness (note for example the publication of “Silent Spring” by Rachel Carson in 1962, Ref. 10) and simultaneously rapid progress in formalising means and tools in project management (e. g. cost-benefit analysis). The latter resulted in the development of more rigorous standards for

projects, whilst the former fostered the awareness that decisions about projects could no longer be based on economic and technical considerations only (Ref. 11; Ref. 12).

At around the same time, environmental legislation was created for areas such as waste management, pollution control or resource protection. The United States as the leading country in this area introduced the "National Environmental Policy Act" (NEPA) in 1969. When it came into effect in 1970, the NEPA was the most advanced environmental law in the World and became a model for many other countries to follow (Ref. 11). Even the term "Environmental Impact Assessment" is taken from NEPA, which obliged project owners to document risks for potential environmental damage in a formalised Environmental Impact Statement (EIS) and to provide evidence that these risks would be contained (Ref. 11).

Over the course of the 1970ies, an estimated 1000 EISs were submitted every year in the US (in 2006, this number was an estimated 30,000 to 50,000; Ref. 11). Noble (Ref. 11) highlights the pioneering role of NEPA and distinguishes between various phases in the formalisation of EIA. According to this distinction, the 1970ies were characterised by EIAs that were merely used to justify projects that had already started. Only from the mid-1970ies to the mid-1980ies, the methods of EIAs became sophisticated enough to implement thorough data sets. Noble refers to this period as *"…devoted to collecting large environmental inventories, i.e., comprehensive descriptions of the biophysical environment…*" (Ref. 11). It was this assembly of data sets that led to the introduction of the scoping phase to prioritise relevant areas (see chapter 2).

From the mid-1980ies until the mid-1990ies, physical environmental issues were more immediately linked to social ones. This resulted in increased public participation and the further spreading of environmental legislation on an international level (note for example the WHO's introduction of a "Environmental Health Impact Assessment" for certain projects in 1987; or the "Earth Summits" of 1992 and 1997) (Ref. 11; Ref. 12; Ref. 13). Noble views the period since the 1990ies as an era in which EIAs spread more in scope than geographically and refers to Richard Morgan, president of the International Association for Impact Assessments

when saying: "*There may be too many different things expected from EIAs and […] too many different ideas as to what EIA can accomplish*", pointing at the many social, economic, health, sustainability and cultural aspects of EIAs in some countries. He suggests that a branching of EIAs into different kinds of assessments might occur in the future and emphasises the importance of Strategic Impact Assessments (SEA, the application of environmental assessment principles to policies, plans and programs) as a basis or framework for efficient EIAs (Ref. 11). Another current trend is the implementation of EIAs in many developing countries at least for big building projects. There are currently approximately 100 out of approximately 190 countries in the world that have EIA requirements (Ref. 11; Ref. 13).

In the European Union, Germany and France were the first countries to introduce a legal requirement for EIAs in 1975 and 1976, respectively (Ref. 14). Until today, France is the European country with by far the most EIAs done per year (Ref. 11). In 1977, an EIA directive was proposed in the "Second Action Program on the Environment" of the European Community, a proposal that faced fierce opposition: "*Eight years of heated debate preceded Directive 85/377/EEC*" (Ref. 14).

The "EIA directive" was eventually released in 1985, came into effect in 1988 and obliged all member states to introduce appropriate EIA legislation according to a framework of minimum standards (see chapter 1.3 for information on directives). As a consequence, all MS released the required laws. This period overlapped with the publication of the so-called "Brundtland Report" by the World Commission on Environment and Development in 1987. This report underlined the importance of EIAs for sustainable development: "*When the environmental impact of a proposed project is particularly high, public scrutiny of the case should be mandatory and, wherever feasible, the decision should be subject to earlier public approval, perhaps by referendum.*" (Ref. 2). These remarks show a exceptional foresight, as I will demonstrate in the section on the Aarhus convention in chapter 2.

In the United Kingdom and Germany, EIAs according to the directive became a requirement in 1990; Austria first introduced EIAs the year before joining the

European Community in 1994 (Ref. 11; Ref. 15). Another milestone with tremendous effects on the development and acceptance of EIAs came with the so-called "Rio Summit" of 1992. The "Rio Declaration on Environment and Development" dedicates Principle 17 to EIAs: "*Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.*" (Ref. 16).

The original EIA directive was amended in 1997. The following year, the European Community and its member states signed the "Convention on Access to Information, Public Participation in Decision Making and Access to Justice", the so-called Aarhus Convention. It entered into force in 1998 and required another amendment of the EIA directive, which was made in 2003. The national laws regulating EIA have been amended repeatedly in various member states (Ref. 11).

1.3. Overview on relevant legislation and environmental law

Environmental law of the EU member states is laid down in a variety of sources. This sub-chapter aims to provide a concise overview on these sources, which include the EC treaty, various directives, regulations and decisions, active international agreements, case law of the European Court of Justice and the Court of First Instance, national legislation and – in some cases – regional or municipal legislation.

EC Treaty: The EC treaty defines the "*institutional framework of the European Community and defined institutional powers and procedures to be followed in adopting laws. It enables the institutions to take these forms of legally binding measures*" (Ref. 4), which are the three binding instruments of EU secondary legislation: Directives, regulations and decisions.

Directives: They are the most commonly used form of EC legislation and define goals that member states have to meet, but grant to the member states (MS) the freedom to find legal ways to achieve these goals for themselves. Directives have no

direct effect in the member states, but create an obligation for the MS to pass national laws that give full effect to the directive within the deadlines defined by it. This is usually two years from the adoption of the directive; the MS then has to inform the commission that it has passed the relevant laws. Then the MS is responsible for enforcing the law. Directives usually define minimum thresholds, MS are allowed to pass stricter legislation than that. However, even if laws meeting or exceeding the scope of the directive are already in place, the MS has to pass laws that implement the directive's provisions (Ref. 4; Ref. 17). It is worth noting that in some cases practices have been directly derived from EU directives by authorities; it is therefore currently under debate among lawyers if directives have direct effect and if so, under which circumstances this applies.

Regulations: On contrast to directives, regulations have a direct effect on legal entities (individuals or member states) to whom they are addressed. Regulations can be issued by the European Commission and the Council of the European Union. In environmental matters, regulations play a minor role (Ref. 17).

Decisions: Decisions are directly addressed to legal entities (individuals or member states); they, too, can be issued by the Commission or Council. In theory, they have no direct effect; however, in practice and based on case law, they might have direct effect under certain circumstances. In environmental matters, decisions play a minor role (Ref. 17).

International Agreements: The European Community has the right to sign certain international agreements. This is an interesting notion, as it makes the community a subject of international law. Such international agreements will become part of the community law. Three consequences arise from this: "*It means that the international agreement can give rise to rights and duties, which may be relied upon by individuals in national courts; decisions of any organisations created by the agreement will also become part of Community law; the European Court will be able to interpret and apply the agreement and decisions of the organisation created by the agreement.*" (Ref. 4).

Case Law of the European Court of Justice and the Court of First Instance: This source of Community law is essential for the interpretation of the EC law's provisions: "*Only the European Court can give an authoritative interpretation of EC law or a decisive judgement on whether or not a member state has failed to comply with a provision of EC environmental law*" (Ref. 4).

Other sources of international law also play a role for the legislation of EIAs and the projects concerned, but will not be discussed in further details. For the sake of completion, they shall be mentioned here; for a concise review of these directives and international agreements, see (Ref. 4). They include EU directives such as the "IPPC Directive (96/61/EC) – Directive on integrated pollution prevention and control, OJ 1996 No L 257/26"; the "Council Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment"; the "SEVESO II directive – Council Directive 96/82/EC on the control of major-accident hazards, OJ No L 10"; the "EMAS-Regulation (EEC No 1836/93) – Eco Management and Audit Scheme"; the "Habitats Directive (92/43/EEC) – Council Directive on the conservation of natural habitats and of wild fauna and flora"; the "Water Framework Directive (WFD) – Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy"; as well as international agreements such as the "Convention on Biological Diversity (Rio de Janeiro, 1992)". Three sources of international law that are of particular importance for EIAs will be discussed in the next sub-chapter: Two international agreements (the Aarhus Convention and the Espoo Convention) and a EU directive (SEA directive).

1.4. Sources of International Law of particular relevance

The **Aarhus Convention:** As a treaty, the Aarhus Convention falls into the category of international agreements listed above. However, due to the immense significance it has for the EIA directive of the EU, I would like to highlight the convention and briefly outline its main contents. According to UN General Secretary Kofi Annan,

the Aarhus convention "*is the most ambitious venture in the area of environmental democracy so far undertaken under the auspices of the United Nations.*" (Ref. 18). The Aarhus Convention was concluded by the Economic Commission for Europe (UN/ECE) and signed in 1998; it came into effect in 2001.

As of 2010, 44 nations have ratified the Aarhus Convention, which regulates mainly three areas: (1) access to information, (2) public participation and (3) access to courts in environmental matters. The Aarhus Convention is generally considered to be the first international agreement that assigns environmental rights to individuals. For EIAs, the three main areas had significant consequences: Article 4 requires projects that are subject to the assessment to publish information; articles 6 to 8 required to allow public participation in various stages of the EIA and the project; article 9 grants the right to every individual affected by the project to object it and take legal action against the project owner if information is not made accessible or if environmental regulations are not met by the project (Ref. 19: Ref. 20). As a result of the Aarhus Convention, the EU's EIA directive was amended in 2003. The directive itself will be discussed in further detail in the following chapter.

The **Espoo Convention** is also an international agreement; similar to the previous one, I will deal with it in more detail due to its important impact on EIA legislation and practice. The official name of the convention is quite descriptive of its objective: "Convention on Environmental Impact Assessment in a Transboundary Context". It obliges its parties to introduce EIA requirements and to notify and consult other parties regarding planned projects that could lead to negative environmental impacts on their territory (Ref. 21). This includes (1) providing the affected party with information on the proposed project; (2) providing the affected party with an opportunity to comment on the project; (3) the consideration of these comments in the decision making; and (4) providing the affected party with information on the decision. All relevant information needs to be made available for the public, in order to include the affected population of the relevant region into the decision making (Ref. 21). The Espoo Convention was signed in 1991, came into effect in 1997 and led to amendments of both EIA directive and national laws of the member states.

The "**SEA Directive**" (formally "European SEA Directive 2001/42/EC") was issued in 2001 (Ref. 22). It aims to formalise the strategic environmental assessment as a framework within which EIAs for individual projects would fall. The SEA directive draws its roots from the tendency to tackle EIAs with an increasingly wide, often international scope – it followed the Espoo Convention, which came into effect in 1997 and was supplemented with a "Protocol on Strategic Environmental Assessment" in 2003. Similar pieces of legislation for land use planning have been in place in many countries for decades or even centuries (Ref. 23).

A SEA applies to plans and programmes, not to policies, and should be a basis for EIAs that will deal with individual projects within these plans and programmes. It obliges primarily local and regional governments in areas such as development, transportation or waste management; national programs such as defence plans are generally excluded. The idea is that a SEA would not only help to manage environmental impacts, but also to make EIAs more efficient. Whilst the scope of the SEA therefore differs from an EIA, its structure and methods are rather similar (Ref. 22). Similar to Aarhus Convention and Espoo Convention, the SEA directive required amendments of EIA directive and national law, particularly in new member states. Even though hierarchically, the SEA can be viewed to be "above" the EIA, it follows the model of the already much more established EIA legislation. The closing of any gaps between these two forms of environmental assessment tools within the EU will be an important development in the next years.

1.5 Questions arising from the dual legislation in the EU

As outlined in the sub-chapter 1.2 and 1.3, there are primarily two legislations that are relevant for EIAs in EU member states: The "EIA directive" of 1985 with the two amendments of 1997 and 2003; and the national legislation that aims to meet the objectives of the EU directive and some of the formal requirements defined therein. The community law is often referred to as "acquis communautaire". The "acquis" takes precedence over all national domestic law, a fundamental principle first established by the European Court of Justice in the case Van Gend en Loos of 1963,

where it said in the ruling: "*the Community constitutes a new legal order in international law, for whose benefit the States have limited their sovereign rights*" (reviewed in Ref. 14; Ref. 24). In the ruling for Simmenthal SpA (Ref. 25), the Court of Justice even said in 1978: "*any national court must ... apply Community law in its entirety ... and must accordingly set aside any provision of national law which may conflict with it, whether prior or subsequent to the Community law*". This has established a primacy of European Community law that was later also reflected in the European Treaty (Ref. 14).

As explained above, a directive merely defines objectives to be met; within the resulting framework, member states have significant discretion when incorporating the directive into national law; they are only required to avoid conflicts between the two legislations. This has interesting consequences for candidate countries, which must harmonise their national laws with those of MS to be "compatible" with the acquis upon joining the union. The importance of environmental laws has been highlighted by several studies. One particularly interesting finding on Serbia estimates that a staggering "*35 percent of the Serbian* [a candidate country] *legislation that must be harmonised with community law is in the field of environmental protection*" (Ref. 14).

With the duality of acquis and national legislation in mind, one can now ask if the regime imposed by the community law might be either too rigorous or too general. It is the objective of this thesis to provide evidence for divergences within EIA laws in member states that call for a harmonisation on the level of community law. Clearly defined standards can help to avoid conflicts with the single European market. If divergences grow too big, market conditions can be distorted among member states and certain sites could be privileged. This could turn into a problem even if the requirements of the EIA directive are fully met. In the light of this, it is worth looking at some basic thoughts when it comes to this discussion:

Firstly, to what extent does the subsidiarity principle of the EU apply? It might well be that stricter legislation in some member states is fully justified and backed by EU

legislation, as EU directives generally define only minimum standards and it is up to individual member states to chose if they want to go even further.

Secondly, to what extent would stricter regimes be necessary to meet the objectives? Even if formal requirements in the national laws diverge, the EIA practice based on them might be perfectly sufficient to meet the objectives defined in the directive. In this context it is worth noting that evaluations of the environmental pressure of certain projects were in place long before the EIA directive was issued, often based on environmental regulations on regional or even municipal level (Ref. 26; ref. 7).

Thirdly, there is one question arising that has led to the most lively discussions: Since stricter regimes on the level of community law almost inevitably constrain national legislation, it might create shortcomings in the consideration of regional circumstances. From an extreme point of view, this argument would claim that a complex issue such as the environment can never be directly compared to the same rigorous standards in two different locations or two different points in time. It is therefore necessary to define objectives in a general manner and grant national laws and experts familiar with the location and its specific conditions the freedom to treat every case individually.

For this master thesis, mainly formal criteria were chosen for a comparison of the national legislation. In chapter 2, I will provide an overview on this legislation. In chapter 3 and chapter 4, I will present legal and practical divergences that I have identified. I will finally discuss these findings in chapter 5.

2.) THE EU's EIA DIRECTIVE AND THE RESULTING FRAMEWORK

2.1. The role of Community Law and the EIA directive

The Directive on Environmental Impact Assessments (85/337/EEC), vernacularly called "EIA directive", was released in June 1985 and amended twice, in spring 1997 and again in spring of 2003. In 2001, it was supplemented with another directive called Strategic Environmental Assessment (SEA) Directive (2001/42/EC). The SEA directive extended the focus of environmental assessments to policies, plans and programs. It plays a limited role for EIAs, which are targeted at projects, and will therefore not be any further in this thesis (Ref. 27). The SEA has been seen as one instance where growing complexity of EIAs has become apparent. For the future, a further branching of scope and application of EIAs has been discussed (Ref. 4; Ref. 28; Ref. 15).

The 13 articles of the EIA directive provide the framework and define the objectives for national legislation on environmental impact assessments. In brief, article 1 is relevant for screening and defines entities such as "project" or "public"; article 2 outlines requirements for screening, scoping and the EIA per se alongside with exceptions; article 3 defines "environment"; article 4 defines criteria for screening and scoping; article 5 defines further conditions for EIAs and obligations for the project owner, it also outlines required sections of the EIA; article 6 regulates the rights for relevant offices to comment on the EIA and requirements to publish information concerning the EIA and clearance procedures; article 7 defines obligations for the member state (MS) if transboundary effects are expected from the project affecting another MS; article 8 states the obligation to consider information collected according to articles 5 to 7 for the clearance; article 9 defines the obligation to publish the reasoning for a clearance and possible conditions; article 10 defines priority for other obligations such as intellectual property rights regarding the directive; article 10a stipulates the conditions for objections; article 11 requires international cooperation in the implementation and development of the EIA legislation; article 12 gives the obligation for MS to implement the directive; article 14 defines the MS as subjects of the directive (Ref. 29).

The EIA itself is preceded by a screening phase that ends with a clarification if an EIA is necessary in the first place. A project can fall into three categories: No EIA is necessary; EIA is mandatory (criteria listed in Annex I); or a need for an EIA needs to be established in a case-by-base evaluation by national authorities (criteria listed in Annex II, arranged according to industries/project types). Annex I often defines thresholds, for example a minimum size – e.g. refineries processing less than 500 tonnes of coal a day do not require a mandatory EIA. Annex II is a lot less clearly defined and confers a great deal of discretion to the member states to demand an EIA or not. Annex III provides some general guidelines in three categories for authorities in charge with evaluating projects in the screening and scoping process: Characteristics of the project; of its potential environmental impact; and the project location.

Annex IV partly re-iterates the formal and structural criteria of the EIS as given in article 5, but are less binding (pre-conditions are laid down in article 5, paragraph 1; they do therefore not apply to all projects undergoing an EIA) and more detailed. In practice, the seven elements of an EIA are followed as stated in this annex as a "default model"; in the scoping phase, the project owner clarifies which aspects of an EIA will apply to that particular project. In the following paragraphs, I will briefly outline the six (according to articles 3 and 5 as well as annex IV) areas of an EIS and highlight the relevant articles.

Description of the environment: A detailed assessment of the status quo of all relevant parts of the environment that might be affected by the project. This assessment is to be divided into human beings, fauna, flora; soil, water, air, climate, landscape; economic and cultural goods; and all relevant interactions between the given aspects. An example would be an assessment of species abundance of farmland birds, woodland birds and passages of migratory bird species on the site of a proposed wind park. Relevant articles: Article 3.

Description of the project: After the necessity for an EIA (screening) has been determined and the relevant constituent sub-sections (scoping) have been completed,

an EIA starts with a detailed description of the proposed project, its time-frame and location. This description is often divided into building phase, operation period and decommissioning. For each of these phases, inputs and outputs are listed to identify potential environmental hazards. An example would be noise disturbance during the construction phase. Relevant articles: Article 5, paragraph 3.

Description of effects: The "significant" effects of the proposed project on the environment must be assessed. The term "significant" provides for a great deal of variation in interpretations. An example would be the destruction of habitats and breeding grounds of endangered amphibian or reptile species through open mining. Relevant articles: Article 5, paragraph 3.

Outline of possible mitigation measures: The project owners are obliged to investigate measures to mitigate negative environmental effects. For example, this could be the construction of fish passes in the dam of a run-off-river power plant. Relevant articles: Article 5, paragraph 3.

Assessment of relevant alternatives: Once the project and its constituent aspects have been identified, alternatives can be considered within some aspects or the project altogether. An example would be the construction of a cable car to avoid the construction of a road through a forest. Relevant articles: Article 5, paragraph 3.

General summary and public information: A non-technical summary of the EIA should make public participation easier. The target reader is an informed layman, for example a local resident that is potentially affected by the project, a citizen initiative or an NGO. There is also an obligation of providing relevant information to other EU member states if the project could have a transboundary environmental effect. Opportunities for objecting the project are outlined. Relevant articles: Article 1; article 2, paragraph 3b (if EIA has been suspended); article 5, paragraph 3; article 6, paragraph 2; article 7; article 9; article 10 (concerning objections against the project).

A closing section usually discusses technical and methodological problems and thereby help to assess caveats of the EIA. For example, a particularly strict monitoring regime can be proposed to collect information on individual counts of farmland birds to immediately recognise occurring environmental pressures that can not be sufficiently predicted based on data available at the time when the EIA is done. This assessment of limitations is often presented as a formally demanded seventh step in EIAs and is in fact commonly included, but not required by article 5; it is only included in annex IV and therefore, it is required only under certain conditions.

2.2. National legislation in Austria

The first EIA law in Austria was the "Bundesgesetz über die Prüfung der Umweltverträglichkeit" (abbreviated as "UVP-G", or, if referring to any specific version, with the year as in "UVP-G 1993"). It came into effect the year before Austria joined the European Community (EC). The amendments of the EIA directive led subsequently to several amendments of the UVP-G ("Novellen"). The current version of the law is the "UVP-G 2000" (Ref. 2) with the most recent amendment made in 2009 (dealing with thresholds involved in screening; this amendment followed a ruling of the European Court of Justice). The Austrian authorities can also utilise various official guidelines, most of which were made for specific types of projects (see Ref. 30, Ref. 31 and Ref. 32 for examples).

In a nutshell, the UVP-G is structured into six sections (Abschnitte) with two annexes: (1) states the objectives of the law and gives some definitions as well as principles of public participation; (2) gives the guidelines for a general distinction between a "regular" EIA and a simplified EIA alongside with criteria to discriminate between them; (3) deals specifically with projects concerning lines (e.g. railway projects); (4) deals with specific rules for projects concerning water management; (5) is on the composition of the Umweltrat (environmental council); (6) is dedicated to authorities, formalities, documentation and auditing, including the very detailed clearance criteria; and finally two annexes. Annex I comprises of a table that is sub-

divided into three columns; these give project criteria for screening. Annex II lists criteria for areas of exceptional environmental value and their classification.

2.3. National legislation in Germany

Germany was the first country in Europe to provide a legal basis for EIAs, the relevant law came into effect as early as 1975 (Ref. 14) and thus only six years after the US equivalent of NEPA. The first German law dealing with EIAs according to the EIA directive ("Gesetz über die Umweltverträglichkeitsprüfung", Ref. 33; abbreviated as "UVPG") came into effect in 1990. Since then, it has been amended in 2001 and again in 2005. It is a federal law and defines the EIA not as an independent tool with direct legal consequences, but as a tool for clearance ("unselbstständiger Teil verwaltungsbehördlicher Verfahren"). It includes a section for SEAs. There are several official guidelines that the authorities can use for applying the law correctly (for example Ref. 34, Ref. 35, Ref. 36).

The UVPG is structured into six parts: (1) stating the objective, definitions and subjects; (2) the procedure and structure of an EIA, subdivided into two sections (screening; guidelines for the actual EIA); (3) is dedicated to the Strategic Environmental Assessment (SEA) and sub-divided into two sections; (4) dealing with projects that fulfil special criteria (e.g. airports); (5) dealing with line and transmission facility projects; (6) providing information on the legal procedures and applicability of the law.

These six parts are supplemented with four annexes. Annex I lists projects for which an EIA is compulsory; annex II lists criteria for additional projects that make an EIA mandatory under these conditions. These two basically correspond to the EIA directive's annexes I and II (see above), whereas the other two deal with the SEA: Annex IV lists projects for which a SEA is required; annex V lists criteria for additional projects that make a SEA mandatory under these conditions.

2.4. National legislation in the United Kingdom

In the United Kingdom, there are several laws in place that have a limited geographic scope based on administrative sub-divisions (mainly Scotland, England and Wales, Northern Ireland). The complex nature of EIA law in the UK has historic reasons: "*The Government aimed initially at implementing the EIA Directive (Directive 85/337/EEC) within the long-existing planning system, which proved impossible once several project types subject to mandatory EIA according to the Annex I of EIA Directive fell outside existing planning legislation. As a result, the UK implemented Directive 85/337/EEC through a number of sets of regulations, plus a number of amending regulations and associated measures*" (Ref. 37, referring to Ref. 38).

For this thesis, I will deal with the most important one, the EIA law for England and Wales. This is the "Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999" (Ref. 39; abbreviated as "EIA regulations"), which was amended repeatedly, including in 2000 (Ref. 40) and 2006 (Ref. 41). To add further complication, there are several other significant EIA laws that apply to the same administrative regions (England and Wales), including two concerning agriculture and landscape (Ref. 42) as well as forestry (Ref. 43). These two laws apply to more specific sectors rather than to general projects and will not be dealt with in further detail. For the sake of completion, additional UK legislation that is potentially relevant for some EIAs has been listed in Ref. 44 to Ref. 55, alongside with some examples for official guidelines that should assist the authorities (Ref. 56, Ref. 57, Ref. 58, Ref. 59).

The structure of the EIA regulations follows a methodological approach and is divided into nine parts with self-explanatory headings, which are given here with a short description of the contents where necessary: (1) General: States objectives, definitions and applicability; (2) Screening; (3) Procedures concerning applications for planning permission; (4) Preparation of environmental statements; (5) Publicity and procedures on submission of environmental statements; (6) Availability of directions etc. and notification of decisions; (7) Special cases: Formal exceptions, supplemented with guidelines for authorities on how they should be treated,

including appeals; (8) Development with significant transboundary effects; (9) Miscellaneous: Ranging from guidelines for applications to the High Court to references to law concerning hazardous waste.

These nine parts are supplemented with five annexes called “schedules”: (1) A list of criteria for the classification of a project (corresponds roughly to annex I of the EIA directive); (2) A list of criteria for the classification of projects that do not fall into the category of schedule 1 (corresponds roughly to annex II of EIA directive); (3) A list with selection criteria for screening projects falling into schedule 2; (4) Information for inclusion in environmental statement (structure and contents of EIS; corresponds roughly with annex IV and article 5.3 of the EIA directive); (5) List of statutory instruments revoked by the act.

3.) NATIONAL COMPARISON OF EIA IN GERMANY, AUSTRIA AND THE UK

This chapter aims to touch on the fundamental questions of this thesis. It is structured into two parts: In 3.1 I will look into the standing of EIAs in the three member states in question; it should demonstrate differences in the implementation of the EIA into the clearance procedure of a project. In 3.2, I will investigate differences in four different features in the formal practices of EIAs in the three different countries. These features are: (1) The way in which the objectives of the EIA are stated; (2) the screening legislation; (3) the detailed structure and outlay of the EIS; and (4) the formal clearance criteria as they concern the relevant authorities.

3.1. Implementation of EIA into the general clearance procedure

The UVPG of **Germany** describes the standing of the EIA in Part 1, article 2, paragraph 1: "*Die Umweltverträglichkeitsprüfung ist ein unselbstständiger Teil verwaltungsbehördlicher Verfahren, die der Entscheidung über die Zulässigkeit von Vorhaben dienen. […] Wird über die Zulässigkeit eines Vorhabens im Rahmen mehrerer Verfahren entschieden, werden die in diesem Verfahren durchgeführten Teilprüfungen zu einer Gesamtbewertung aller Umweltauswirkungen zusammengefasst*" (Ref. 33). This limits the scope and relevance of the EIA significantly: It aims to assess environmental impacts, but the results of the EIS will only contribute the clearance decision. Furthermore, the insights derived from the EIA will be only one of several proceedings ("Verfahren") contributing to the clearance decision. The relevant authorities have an obligation to take the result of the EIA into consideration for the final decision; however, a negative outcome of the EIA does not necessarily mean that the project will be stopped. The German EIA is not a legally binding instrument, its outcome lacks a "materielle Rechtswirkung" and will be reviewed in combination with other assessments, surveys and opinions.

Another important aspect of the German UVPG is the role that the federal provinces (Länder) play; this is demonstrated in the screening decisions, which are – under

certain conditions - made on the regional level: "*Die Länder regeln durch Größen- oder Leistungswerte, durch eine allgemeine oder standortbezogene Vorprüfung des Einzelfalls oder durch eine Kombination dieser Verfahren, unter welchen Voraussetzungen eine Umweltverträglichkeitsprüfung durchzuführen ist […]*" (article 3d). In article 4, the UVPG is submitted by subsidiarity to other national and regional laws: "*Dieses Gesetz findet Anwendung, soweit Rechtsvorschriften des Bundes oder der Länder die Prüfung der Umweltverträglichkeit nicht näher bestimmen oder in ihrem Anforderungen diesem Gesetz nicht entsprechen. Rechtsvorschriften mit weitergehenden Anforderungen bleiben unberührt.*" The UVPG therefore defines minimum standards similar to the EIA directive; nevertheless, it does not lead to a legally binding, single proceeding in the way EIAs are done elsewhere (see below). This weakens the importance of the EIA significantly and gave rise to criticism (Ref. 60) as well as a wide-spread mocking in Germany: "UVP = Unheimlich viel Papier" (the acronym interpreted as "a hell lot of paper").

Nevertheless, the UVPG has led to significant simplifications in project clearance procedures and in effect, it does help to reduce several individual proceedings into a single, centralised one. This, however, applies only in some cases and is arranged through the section in article 2 quoted above; as well as the combination of sub-proceedings for a final report (required according to article 11) and by defining one authority as the main one to decrease the bureaucratic efforts involved (article 14): "*Bedarf ein Vorhaben der Zulassung durch mehrere Landesbehörden, so bestimmen die Länder eine federführende Behörde […] Die federführende Behörde hat ihre Aufgaben im Zusammenwirken zumindest mit den Zulassungsbehörden und der Naturschutzbehörde wahrzunehmen, deren Aufgabenbereich durch das Vorhaben berührt wird.*" This central authority has to provide for the orchestration of individual sub-proceedings.

The UVP-G of **Austria** is a great deal more straight-forward than its German equivalent with respect to its implementation: The EIA is one centralised proceeding, from which a legally binding clearance is either derived or not. Article 3 paragraph 3 states in this context: "*Wenn ein Vorhaben einer Umweltverträglichkeitsprüfung zu*

unterziehen ist, sind nach den bundes- oder landesrechtlichen Verwaltungsvorschriften, auch soweit sie im eigenen Wirkungsbereich der Gemeinde zu vollziehen sind, für die Ausführung des Vorhabens erforderlichen materiellen Genehmigungsbestimmungen von der Behörde (§ 39) in einem konzentrierten Verfahren mit anzuwenden (konzentriertes Genehmigungsverfahren)" (Ref. 5). This central proceeding takes all relevant legislation into consideration, the UVP-G provides the framework and main legal foundation. The administration of the proceeding is done by the relevant regional authorities (Landesregierung).

The EIA regulations of **England and Wales** define conditions rather similar to those in Germany; the EIS is only one in several proceedings that a development project might have to undergo in the course of its environmental assessment. This environmental assessment is centrally administered on the level of counties, but the EIA does not automatically take prevalence over other proceedings that are also part of it. The relevant authorities are only obliged to take the EIA into consideration in the clearance and planning permission procedure: "*The relevant planning authority or the Secretary of State or an inspector shall not grant planning permission pursuant to an application to which this regulation applies unless they have first taken the environmental information into consideration, and they shall state in their decision that they have done so.*" (Ref. 39).

Typically, the local planning authorities are the administrative bodies dealing with developments that fall under the EIA regulations. However, these concern only town and country planning projects: "*Therefore there are separate pieces of legislation (and some non-legislative processes) covering EIA for other types of developments including highways, power stations, water resources, land drainage, forestry, pipelines, harbour works and many others*" (Ref. 61). Similar to the situation in Germany, the British EIA and its legal implementation in the development process has been criticised for being too complicated and thus inefficient or even arbitrary: "*The legal and procedural background to EIA is complex […] the quality of ES can be surprisingly poor with developers often keen to do the least possible to get the application through*" (Ref. 61).

3.2. Implementation of EIA aspects into national legislation

3.2.1. Objective and definition of a project (see §1 Austria)

The objective of the UVPG of **Germany** is stated in article 1, under the self-explanatory heading of "Zweck des Gesetzes". It extends to both projects and programs, of which environmental impacts should be assessed and documented before the start of this project. In a second step, the results of this assessment should be considered for the clearance of these projects and programs. Article 2 deals with definitions; this includes a statement on the objectives of an EIA in paragraph 1 that matches with the definition given in the EIA directive: "The Environmental Impact Assessment includes the identification, description and assessment of the immediate and long-term impacts of a project on (1) human beings, including human health, animals, plants and biological diversity; (2) soil, water, air, climate and landscape (3) cultural goods and other economic goods as well as (4) the interactions between these goods" (Ref. 33, own translation).

The definition of project ("Vorhaben") follows in paragraph 2 of the same article 2. This paragraphs refers to the catalogue of criteria in annex 1 and differentiates between two categories: new developments and the alteration of existing developments.

The objective of the UVP-G of **Austria** is stated in article 1 and significantly more detailed than is German equivalent (Ref. 5). It is sub-divided into two paragraphs, of which the second only refers to relevant EU legislation (such as the EIA directive) that underlies this law. The first paragraph states the objectives of the EIA and has four subsection: (1) lists the goods that an EIS must include in almost the same wording that the German law uses; (2) states that the EIA requires the evaluation of measures that decrease negative environmental impacts or increase positive ones resulting from the project; (3) states that the EIS must discuss the assessed alternatives and their environmental impacts; (4) states that projects that might lead

to a compulsory purchase ("Enteignung") of landowners must discuss alternative routes or locations.

The definition of project ("Vorhaben") follows in article 2, paragraph 2. Effectively, it is defined as any change of nature and/or landscape. It includes all concerned side-action and can extend to several locations or actions if they are part of the same spatial and material context ("*in einem räumlichen und sachlichen Zusammenhang stehen*").

The objective of the EIA regulations of **England and Wales** is not stated in a separate article, but contained in the introductory paragraph, which states that the regulations were concluded *"[...] in relation to measures relating to the requirement for an assessment of the impact on the environment of projects likely to have significant effects on the environment [...]".* In further detail, the objectives can only be derived from the regulations themselves.

The definition of project ("development") is not done in principle manner, either; it rather follows the classification provided in the annex: "*EIA Development means development which is either (a) Schedule 1 development; or (b) Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location*". These mentioned schedules 1 and 2 correspond roughly to the list of criteria in annexes I and II of the EIA directive. The heading of Schedule 1 is accordingly "Descriptions of development for the purpose of the definition of 'Schedule 1 Development'". It is very clear and essentially a qualitative list of project types; Schedule 2 is more descriptive and gives thresholds and other criteria. It is worth noting that "project" is therefore not defined as a theoretic entity, but rather based on observable criteria.

3.2.2. Screening legislation

In the entire procedure of EIAs, the screening is probably the most sensitive area that grants member states and even the individual authorities in charge a great deal of

discretion. Screening has therefore been subject of criticism and at the centre of debates on harmonisation (Ref. 62; Ref. 63): "*Diverging screening methods and, most important, different legal and administrative EIA frameworks, necessarily lead to a heterogeneous day-to-day EIA practice throughout the European Union. This varied application of the EIA Directive results in different project types being subject to EIA, either due to their non transposition to the national EIA regulations or to different inclusive criteria or adopted thresholds. Furthermore, the set of criteria considered in case-by-case assessments chiefly depends on regional specificities and, to a greater or lesser extent, to discretionary judgement of the competent authorities*" (Ref. 28).

In principle, one can distinguish between two different approaches to screening (Ref. 64; Ref. 65; Ref. 66): (1) Based on policy guidelines that define selection criteria of a project, and (2) based on preliminary evaluations in order to determine potential environmental risks. Accordingly, either lists of projects and specified thresholds or case-by-case evaluations are at the core of screening procedures, although combinations of these two principle routes are also possible. The latter is the case in all three countries examined in this thesis; all three rely on project lists as well as specified criteria for projects that have to undergo a case-by-case assessment (see chapter 2.2 to 2.4).

The table in figures 3.1 to 3.2 gives an overview on screening methods employed in all EU member states (except for Luxemburg) (taken from Ref. 37). Germany, Austria and the United Kingdom were highlighted, some regional specificities were removed to simplify the table.

Country	EIA Legislation	EIA Authority	EIA procedure		Screening Tools		
			National/Sectoral/Regional	Types	Lists	Thresholds	cbc analysis
Austria	National	Federal Ministry for Transport, Innovation and Technology and provincial governments	special provisions for (1) **federal roads and high speed railroads** projects and (2) **water management** projects	EIA and Simplified EIA	3 lists-table	columns 1-3	column 3 and under special provisions
Belgium	National for nuclear installations and storage of radioactive materials and coastal areas	Federal Administration	National				
Cyprus	Under Environmental Protection Regulations	Environmental services of the Ministry of Agriculture, Natural Ressources and Environment	Within planning procedures	Preliminary EIA (PEIA) EIS	2 lists	✓	✓
Czech Republic	National	Ministry or Provincial authorities	under land use planning regulations	*Fact-finding* procedure and Full EIA	2 lists	both lists	second list (projects requiring *fact-finding* procedures)
Denmark	National and within (Spatial) Planning System. For SEA projects EIA regulations are to be found in other (than the Planning Act) regulations.	The regional Planning Authority (County Administration)	EIA is part of regional planning procedures If a project is already covered by other permits/licenses/exceptions, these replace an EIA permit.	1 type of EIA procedure	2 lists	Mandatory List (Annex 1) Project types listed in Annex 1, with a few exceptions, are also included in Annex II but without being associated to threshold values and criteria	(Annex 2)
Estonia	National	County Environmental Departments Ministry of the Environment in the cases of being the proponent or in the case of transboundary impacts	Under land-use planning procedures.	A two-stages EIA Procedure: EIA Programme phase EIA Report phase	2 lists	Both lists	✓
Finland	National	Ministry of the Environment + Coordination Authority Ministry of Trade and Industry for nuclear energy projects	Independent procedure required prior to the project's licensing/permit	1 type of EIA Procedure	1list	mandatory list	individual cases
France	National	Sectoral	integrated as part of each sectoral licensing procedure.	Full EIA and *Notice d'Impact sur l'Environnement*	3 Positive lists + 1 negative list	list 2 (technical thresholds) and 3 (financial thresholds)	
Germany	National (Federal Level) and/or for some project types regional (Länder level)	Sectoral (national/regional or local authorities)	Integrated as part of each licensing/permitting procedures for several project types	Full EIA Partly EIA procedure without a public hearing in the consultation phase	1 list (2-column table)	✓	General screening site-related screening

Fig. 3.1: Overview screening methods and bodies according to MS (Ref. 33).

Greece	National	National, regional and local authorities (Prefectures)	Independent procedure	EIA (two stages process incorporating a preliminary assessment) at national and regional level Simplified EIA at prefecture level	4 lists: mandatory EIA projects (lists 1 & 2), screening cases (list 3) and simplified EIA projects (list 4)	all lists	screening project types
Hungary	National	Regional environmental inspectorates and, in the case of motorways, the National environmental inspectorate	National Level Independent EIA Procedure	Preliminary ES and detailed EIA	2 lists (mandatory list + screening list)	based on the transposition of Directive's Annex II projects	For screening list
Ireland	National Integration of EIA requirements into the land-use planning consent system and several other consent systems	Land-use planning local authority	Part of the licensing procedure. the licensing of projects listed in Part I of the 1st Schedule always require an EIS while those listed in part II only require an EIS for their license if they exceed certain thresholds	IPC or EIA, depending on the licensing sector/authority	2 lists The thresholds approach was adopted in implementing Annex II projects	threshold values enacted by each sectoral law (Lists 1+ 2)	only for 2nd list projects
Italy	Separate laws needed at national and regional level Given the historical context of land-use planning regulations at regional level, EIA was adopted mainly within regional urban planning legislation with some exceptions.	Italian regions were given the authority of EIA procedure for most part of the EU EIA Directive Annex II projects	Regional Level	Annex I and Annex II of the EIA Directive are transposed by different Italian Regulations.	2 lists	both lists	✓
Latvia	National	State Environmental Bureau Regional Environmental Boards	Part of the sectoral licensing but as an independent procedure	EIA procedure (mandatory EIA project types) Preliminary screening procedure	2 lists	Mandatory List	2nd List
Lithuania	National	Ministry of the Environment or other empowered (by the Ministry) institution	Independent procedure needed for the overall planning/licensing procedure of projects subjected to EIA	1 type	2 lists	both lists	2nd List
Malta	National level	Malta Environment and Planning Authority	National level Under land-use planning procedures	Environmental Impact Statement for Category I projects Environmental Planning Statement (or limited EIS) for Category II projects[10]	2 lists	Both Lists	Possible but seldom applied
Netherlands	National level EIA legislation enacted under Environmental Laws (Env. Management Act)	National Authorities, provinces Municipalities and "WaterBoards" (Waterschappen)	Independent from the licensing procedure but carried out in parallel way	Different EIA procedures for mandatory (list 1) and screening (list 2) projects	2 lists	Inclusion and exclusion thresholds	✓

Fig. 3.2: Overview screening methods and bodies according to MS (Ref. 33).

Poland	National Level	Ministry or Provincial authorities	Part of licensing procedures within land-use planning policies and plans	2 types of EIA procedures for Group I and Group II projects	2 Lists	List 1 projects	✓
Portugal	National Level	Environment Institute	Part of the licensing procedure but as an independent process	2 type of EIA	2 lists	both positive lists	Possible but seldom applied
Slovakia	National Level	Ministry of Environment	EIA procedures under land-use planning procedures.	2-level procedures for Annex I part A –compulsory and Annex I part B screening Need for the full (detailed) EIA for Annex I – part B projects is determined by the initial (preliminary) EIA's results.	1 List (2-columns table)	Columns A (compulsory EIA) and B (screening)	Column B projects below or in-between threshold values
Slovenia	National Level	Ministry of Environment and Spatial Planning Environmental Agency of the Republic of Slovenia	Under Land-use planning procedures	Full EIA procedure for both types of projects (lists 1 and 2)	2 lists	2nd list	
Spain	Basic regulation at national level, complemented (or not) by regional EIA regulations	2 competent regional authorities at National and regional level: the licensing authority and the environmental authority, to the exception of projects overrun by the latter	Regional level regulated by both the licensing (sectoral) and the environmental regional authorities	Specific EIA Procedures for certain project Types (e.g. urban planning developments)	2 lists	mandatory and "screening" lists	"screening" list (Annex II)
Sweden	National Level Based in the Swedish Environmental Code but also linked to spatial planning system as well as to other sectoral laws.	Different EIA authorities according to the sectoral development permit Case-by-case screening decision by County Administrative Boards	Part of (each) sectoral licensing procedure. The Environmental Code provides the (legal and institutional) framework for the permit procedure according to each sectoral activity.		1 list	mandatory EIA above threshold values	Most EIA Directive's Annex II projects (not transposed to Swedish EIA regulations) according to Annex III of the Directive (already transposed)
United Kingdom	Separate (albeit very similar) regulations for England & Wales, Northern Ireland and Wales	Local Planning Authority Most of the projects come under the land use planning consent systems for the UK. Where projects are not caught by planning legislation, other legislation exists covered by other consent systems.	The main local planning authorities act as the competent authorites, but other bodies have this responsibility under some of the other consent systems	1 Type of EIA Procedure	2 Lists (equivalent to Annexes I and II)	exclusive thresholds and/or criteria are set for Annex II projects	✓

Fig. 3.3: Overview screening methods and bodies according to MS (Ref. 33).

The UVP-G of **Germany** contains minimum provisions for screening, but some additional regulations of the 16 Länder go beyond these for specific types of projects (Ref. 33). The relevant section of the UVP-G is primarily annex 1, where a two-column table specifies project types and thresholds. It differentiates between three possible classifications: (1) EIA mandatory in all cases; (2) case-by-case assessment in the screening phase ("general screening"); (3) site-related screening conditions (if environmentally sensitive or particularly valuable areas are likely to be affected by the project, a general screening is required). For the general screening procedures, the criteria specified in annex 2 apply.

The UVP-G also includes cumulative projects (for example, an extension of several factories that are spatially close to each other and/or belong to the same person). For cumulative projects, all contributing aspects are summed up and taken into account for the screening (see article 3). There is an additional provision for the Federal Government, which may include projects into annex I if they have a high potential to cause environmental impacts. An exclusion is only possible as far as the EIA directive permits, with national defence and security projects being the only exception (article 3).

A review of the national screening procedures in the EU has found four different types of projects which are included in the UVP-G even though the EIA directive does not require them (Ref. 37). These are the construction and operation of: (1) an installation for the biological treatment of waste requiring special monitoring; (2) an installation for vulcanising natural or synthetic rubber using sulphur or sulphur components; (3) monorail routes; (4) community and public facilities that fall under the regulations of the German Flurbereinigungsgesetz.

The UVPG of **Austria** also combines lists with case-by-case evaluations. Projects with mandatory EIAs are defined in annex I, which is sub-divided into three columns: (1) EIA mandatory; (2) simplified EIA ("Vereinfachtes Verfahren"); (3) threshold values that oblige a project for an EIA in certain areas, which are listed in annex II (special protection areas, Alpine areas, water protection and conservation areas, areas affected by air pollution and settlement areas).

Similar to the German law, cumulative effects are taken into account by collectively looking at all sub-projects that contribute to a development; however, the decision for or against a simplified EIA is then made by the authorities based on a case-by-case assessment, but only if the capacity of the project exceeds 25 percent of the threshold. The same applies to column 3 projects (protected areas) and project modifications that go beyond the threshold criteria. These are listed in the annex as well as article 3, paragraph 4. Special provisions apply to roads, railways and other line projects; as well as for water management projects.

A review of the national screening procedures in the EU has found three different types of projects which are included in the UVPG even though the EIA directive does not require them (Ref. 37). These are the construction of: (1) Particle accelerators; (2) new installations for work with biological working substances of certain risk classes that are intended for production purposes; (3) new installations for work with genetically modified micro-organisms of certain risk classes on a large scale.

The EIA regulations of **England and Wales** are the most important, but not the only law for EIA screening in this region. Special regulations for sectors such as forestry or the construction of major roads might also apply to certain projects. The screening methods as such, however, do not diverge significantly from those applied in Germany and Austria, they are also based on a combination of criteria lists and case-by-case evaluations. Projects are categorised in schedule 1 and schedule 2, which correspond roughly to annex I and annex II of the EIA directive: Schedule 1 projects are obliged to undergo an EIA, schedule 2 projects only if they exceed defined threshold values or if they are situated near sensitive areas; however, they are obliged to undergo a compulsory screen. All projects have “exclusive thresholds”: If they undercut these values or criteria, the relevant authorities can grant permission without an EIA.

A peculiarity of the British screening and scoping procedures is the formalisation of early involvement of local planning authorities in the EIA process. As explained in

the EIA regulations' part II, project owners have the right to ask authorities on their opinion in the classification of the project before the EIS or any other application document is submitted; the authorities are then obliged to express this opinion within a set time frame and refer to the regulations and official guidelines. Once the screening opinion has been adopted it is placed on the Planning Register of the relevant district or borough council. The project owner may then appeal against this opinion at the Secretary of State.

A review of the national screening procedures in the EU has found 14 different types of projects which are included in official guidelines for EIAs in the UK even though the EIA directive does not require them (Ref. 37). These are the following: (1) Demolition and decommissioning work; (2) redevelopment and clean-up of contaminated land; (3) vegetation management and conservation enhancement; (4) control of pest species, including disease vectors; (5) deliberate introduction of non-native and genetically modified species; (6) intensive horticulture, including greenhouses; (7) sea outfalls; (8) petrochemical industry – offshore developments, including exploration; (9) restoration of mineral extraction sites; (10) business parks (e.g. office buildings or repairs or servicing facilities); (11) angling and sport fishing, including fish stocking; (12) industrial estates for light manufacturing; (13) kennels, catteries and stables; (14) vehicle parks and park-and-ride schemes.

3.2.3. Structure and scope of EIA practice

By "structure and scope of EIA practice" I mean the minimum of information that has to be included in the EIS according to article 5 of the EIA directive and the related annex IV. This part of the EIA legislation has been included into the national law in almost identical phrasing and is very concise. I have therefore decided to include the original legal text in the following table of figure 3.2, thus approaching the issue from the opposite direction than in chapter 3.2.2., where I have emphasised the divergences only. I have re-arranged the cells and thus the order of the individual paragraphs to make them comparable, but the legal text of all three countries as well as the EIA directive are complete and unaltered.

A few things about the highlighted divergences are particularly noteworthy and will be discussed in detail later on in chapter 5. Most importantly, the detailed obligation for a project description is significantly more detailed and stricter in the case of the Austrian UVP-G than requested by the EIA directive or shown in the other two countries. This includes an extension of the waste and residue assessment to the construction phase; as well as three additional points (immissions; energy consumption and sources; project duration, aftercare, documentation and auditing).

Germany's explicit mentioning of compensation measures as a mitigation tool or remedy is also noteworthy. Such compensation measures might be the construction of ponds as a compensation for building a road across migratory routes of amphibian populations and are commonly employed in all member states. However, they are not specifically named in the EIA directive, nor in the other two national laws. Similar things can be said about Germany's emphasis on the requirement that the non-technical summary has to be understandable for laymen and include the necessary information one needs to grasp if he or she will be affected by the project. This, too, is common practice in all member states and in fact the very idea of a non-technical summary.

In the assessment of alternatives, Austria explicitly mentioned roads and other line projects ("Trassenprojekte"); this is more or less a technicality and done because the EIA of line projects follows slightly different procedures than "regular" projects (see chapter 2.2). Another detail is the Austrian specification that the assessment of methodologies, limitations and caveats can be "short", which appears nowhere in the EIA directive and highlights a rather moderate interest of the otherwise strict Austrian legislative in this matter.

	EIA Directive	Germany	Austria	England & Wales
Source	Article 5, paragraph 3; annex IV	UVPG, Article 6, paragraph 3 and 4	UVP-G, Article 6, paragraph 1	EIA Regulations, Schedule 4
Project description	A description of the project comprising information on the site, design and size of the project.	Beschreibung des Vorhabens mit Angaben über Standort, Art und Umfang sowie Bedarf an Grund und Boden.	Beschreibung des Vorhabens nach Standort, Art und Umfang, insbesondere:	*Part II:* A description of the development comprising information on the site, design and size of the development.
Details of Project Description	*Annex:* A description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases; a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used; an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed project.	Die Unterlagen müssen auch die folgenden Angaben enthalten, soweit sie für die Umweltverträglichkeitsprüfung nach der Art des Vorhabens erforderlich sind: 1. Beschreibung der wichtigsten Merkmale der verwendeten technischen Verfahren, 2. Beschreibung von Art und Umfang der zu erwartenden Emissionen, der Abfälle, des Anfalls von Abwasser, der Nutzung und Gestaltung von Wasser, Boden, Natur und Landschaft sowie Angaben zu sonstigen Folgen des Vorhabens, die zu erheblichen nachteiligen Umweltauswirkungen führen können	a) Beschreibung der physischen Merkmale des gesamten Vorhabens einschließlich des Bedarfs an Grund und Boden während des Bauens und des Betriebes; b) Beschreibung der wichtigsten Merkmale der Produktions- oder Verarbeitungsprozesse, insbesondere hinsichtlich Art und Menge der verwendeten Materialien; c) Art und Menge der zu erwartenden Rückstände und Emissionen (Belastung des Wassers, der Luft und des Bodens, Lärm, Erschütterungen, Licht, Wärme, Strahlung usw.), die sich aus der Verwirklichung und dem Betrieb ergeben; d) die durch das Vorhaben entstehende Immissionszunahme; e) Energiekonzept: Energiebedarf, aufgeschlüsselt nach Anlagen, Maschinen und Geräten sowie nach Energieträgern, verfügbare energetische Kennzahlen, Darstellung der Energieflüsse, Maßnahmen zur Energieeffizienz; f) Bestanddauer des Vorhabens und Maßnahmen zur Nachsorge sowie allfällige Maßnahmen zur Beweissicherung und zur begleitenden Kontrolle.	Description of the development, including in particular: (a) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases; (b) a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used; (c) an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
Mitigation Measures	A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects. *Annex:* A description of the measures	Beschreibung der Maßnahmen, mit denen erhebliche nachteilige Umweltauswirkungen des Vorhabens vermieden, vermindert oder, soweit möglich, ausgeglichen werden, sowie	Beschreibung der Maßnahmen, mit denen wesentliche nachteilige Auswirkungen des Vorhabens auf die Umwelt vermieden, eingeschränkt oder,	A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

	envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.	der Ersatzmaßnahmen bei nicht ausgleichbaren, aber vorrangigen Eingriffen in Natur und Landschaft.	soweit möglich, ausgeglichen werden sollen.	*Part II:* A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.
Identification of pressures	The data required to identify and assess the main effects which the project is likely to have on the environment.	Beschreibung der zu erwartenden erheblichen nachteiligen Umweltauswirkungen des Vorhabens unter Berücksichtigung des allgemeinen Kenntnisstandes und der allgemein anerkannten Prüfungsmethoden.		*Part II:* The data required to identify and assess the main effects which the development is likely to have on the environment.
Assessment of environment	*Annex:* A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.	Beschreibung der Umwelt und ihrer Bestandteile im Einwirkungsbereich des Vorhabens unter Berücksichtigung des allgemeinen Kenntnisstandes und der allgemein anerkannten Prüfungsmethoden sowie Angaben zur Bevölkerung in diesem Bereich, soweit die Beschreibung und die Angaben zur Feststellung und Bewertung erheblicher nachteiliger Umweltauswirkungen des Vorhabens erforderlich sind und ihre Beibringung für den Träger des Vorhabens zumutbar ist.	Beschreibung der voraussichtlich vom Vorhaben erheblich beeinträchtigten Umwelt, wozu insbesondere die Menschen, Tiere, Pflanzen und deren Lebensräume, der Boden, das Wasser, die Luft, das Klima, die Landschaft und die Sachgüter einschließlich der Kulturgüter sowie die Wechselwirkungen zwischen diesen Schutzgütern gehören.	A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.
Further pressures by source	*Annex:* A description (1) of the likely significant effects of the proposed project on the environment resulting from: - The existence of the project; - the use of natural resources; - the emission of pollutants, the creation of nuisances and the elimination of waste; - and the description by the developer of the forecasting methods used to assess the effects on the environment. This description should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project.		Beschreibung der voraussichtlich erheblichen Auswirkungen des Vorhabens auf die Umwelt, infolge a) des Vorhandenseins des Vorhabens, b) der Nutzung der natürlichen Ressourcen, c) der Emission von Schadstoffen, der Verursachung von Belästigungen und der Art, Menge und Entsorgung von Abfällen sowie Angaben über die zur Abschätzung der Umweltauswirkungen angewandten Methoden.	A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from: (a) the existence of the development; (b) the use of natural resources; (c) the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant of the forecasting methods used to assess the effects on the environment.
Non-technical summary	A non-technical summary of the information mentioned in indents. *Annex:* A non-technical summary of the information provided under the above	Eine allgemein verständliche, nichttechnische Zusammenfassung der Angaben nach Satz 1 ist beizufügen. Die Angaben nach Satz 1 müssen Dritten die	Eine allgemein verständliche Zusammenfassung der Informationen gemäß Z 1 bis 5.	A non-technical summary of the information provided under paragraphs 1 to 5 of this Part. *Part II:* A non-technical summary of the

	headings.	Beurteilung ermöglichen, ob und in welchem Umfang sie von den Umweltauswirkungen des Vorhabens betroffen werden können.		information provided under paragraphs 1 to 4 of this Part.
Assessment of alternatives	*Annex:* An outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects.	Übersicht über die wichtigsten, vom Träger des Vorhabens geprüften anderweitigen Lösungsmöglichkeiten und Angabe der wesentlichen Auswahlgründe im Hinblick auf die Umweltauswirkungen des Vorhabens.	Eine Übersicht über die wichtigsten anderen vom Projektwerber/von der Projektwerberin geprüften Lösungsmöglichkeiten und Angabe der wesentlichen Auswahlgründe im Hinblick auf die Umweltauswirkungen; im Fall des § 1 Abs. 1 Z 4 die vom Projektwerber/von der Projektwerberin geprüften Standort- oder Trassenvarianten.	An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects. Part II: An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects
Limitations, methodology & caveats	*Annex:* An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.	Hinweise auf Schwierigkeiten, die bei der Zusammenstellung der Angaben aufgetreten sind, zum Beispiel technische Lücken oder fehlende Kenntnisse.	Kurze Angabe allfälliger Schwierigkeiten (insbesondere technische Lücken oder fehlende Daten) des Projektwerbers/der Projektwerberin bei der Zusammenstellung der geforderten Angaben.	An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.
Others			Hinweis auf durchgeführte Strategische Umweltprüfungen im Sinn der Richtlinie 2001/42/EG über die Prüfung von Umweltauswirkungen bestimmter Pläne und Programme, ABl. Nr. L 197 vom 21. 07. 2007 S. 30, mit Bezug zum Vorhaben.	

Table 3.2: The individual paragraphs of the EIA directive and the corresponding national laws of Germany, Austria and the UK were re-arranged to allow a direct comparison. Explanatory note: Significant divergences of the national legislation in comparison to the EIA directive were highlighted.

3.2.4. Criteria for a clearance

The criteria for a clearance (the granting of permission for the project or a "passing" of the EIA) is given in a very concise manner in article 8 of the EIA directive, which comprises of a single sentence: "*The results of consultations and the information gathered pursuant to Articles 5, 6 and 7 must be taken into consideration in the development consent procedure*".

Article 9 then obliges the authorities to publish its decision to the general public and – in case of a project with predicted transboundary effects – to other affected member states, alongside with three pieces of information: (1) The decision and relevant conditions; (2) the reasoning behind the decision, with special emphasis on the participation of the public in the decision finding; (3) a description of the required mitigation measures. This does not touch on the clearance procedure or criteria for a decision per se, it only defines the requirements around formal procedures around the clearance.

The UVPG of **Germany** defines formalities and clearance criteria in article 12, article 13, and – for the special case of more than one authority being involved with the EIA – article 14. The basis for a clearance is a consolidated report ("Zusammenfassende Darstellung der Umweltauswirkungen"), which is to be made according to article 11. It comprises of the environmental impact statement as made by the project owner, comments by the public and the contributions of the authorities. It can be made within the process of giving the reason for a clearance or rejection of the project.

The clearance requirement as such is concisely defined in article 12: "The responsible authority assesses the environmental impacts of a project on the basis of the consolidated report and considers this assessment for a decision on the clearance of the project with respect to an effective environmental protection policy according to article 1, paragraph 1, line 2 and 4 and within the limits of the valid laws" (own translation).

Article 13 deals with advance notice ("Vorbescheid") and partial clearances. They are bound to the completion of the EIA; however, only the relevant parts of the EIA are to be considered for a partial clearance. Article 14 deals with EIAs in which more than one authority is involved. In such a case, one authority is declared the leading one ("federführende Behörde") by the Länder. Only in matters involving nuclear material, the leading authority is by default the nuclear safety authority.

The UVP-G of **Austria** is significantly more detailed than its German equivalent and goes far beyond what the EIA directive asks for with respect to clearance: Article 17 makes up the legal basis for decisions on an EIA. The first paragraph states that the conditions for clearance stated in the following paragraphs 2 to 6 must be used (not just "taken into consideration").

Paragraph 2 is sub-divided into three sections: (1) Emissions of pollutants are to be limited using the best available technology (BAT). (2) Immissions for all protected goods are to be kept at the lowest possible level. Immissions must be avoided in any case if they endanger life or health, property or other economic goods of neighbours; if they lead to a lasting pressure on the environment and if they could cause lasting damage to soil, air, plant or animal populations ("*Pflanzen- oder Tierbestand*") or the state of the water bodies ("*Zustand der Gewässer*"); if they lead to an unacceptable nuisance for neighbours (referring to another law). (3) Waste has to be avoided employing best available technology, or to be recycled, or – in cases where the former are economically not feasible – to be disposed in accordance with the appropriate regulations.

Paragraph 3 refers to specific projects from annex I and special requirements for those; they fall under additional legislation, such as the regulations on immissions, which have been demonstrated to be particularly rigorous in Austria (Ref. 63).

Paragraph 4 obliges the authorities to consider the results of the EIA with all its constituent components for a clearance. A high degree of environmental protection is to be achieved by the employment of a range of measures: Limitations, conditions,

deadlines, modifications of the project, compensatory measures, auditing and control mechanisms, demolition regulations and others.

Paragraph 5 gives a condition for rejecting the project: If the EIA identifies severe environmental pressures that occur through the project and the resulting interactions, culminations or realignments, which can neither be avoided nor reduced to a bearable level through limitations, conditions, deadlines, regulations, compensatory measures or modifications.

Paragraphs 6 to 8 are on formalities regarding timeframes, objections, publication and other procedures concerning the clearance. Article 18 deals with partial clearances. In total, one can identify paragraph 2 as the most precise and crucial one when it comes to clearances; paragraphs 4 and 5 are more elaborate, but also more general. Further discussion can be found in chapter 5.

The EIA regulations of **England and Wales** deal with clearance and the formal duties that are concerned with it for the relevant authorities in Part VI ("Availability of directions etc. and notification of decisions"). It states which documents the authorities require, when and how to publish them and defines duties to inform the Secretary of State of final decisions. Article 21 obliges the authorities to "*make available for public inspection* […] *a statement containing* […] *the content of the decision and any conditions attached thereto* […] *the main reasons and considerations on which the decision is based; and* […] *a description, where necessary, of the main measures to avoid, reduce and, if possible, offset the major adverse effects of the development.*" However, the clearance criteria as such are not explicitly stated.

Formal criteria are only indirectly given through applicable regulations regarding environmental standards and through the objective of the EIA regulations. Even the relevant passage of the official EIA guide for developers does not go any further than the EIA directive does: "*In determining the application, the authority is, of course, required to have regard to the environmental statement, as well as to other material considerations. As with any other planning application, the planning authority may*

refuse permission or grant it with or without conditions" (Ref. 67). The clearance criteria are therefore a lot less clearly outlined and give much more discretion to local authorities than the Austrian equivalent and is more similar to the relevant section of the German UVPG.

4.) ASSESSMENT OF EIA PRACTICE BEYOND LAW

The laws presented so far provide the legal basis for EIAs. However, as already demonstrated and as I will discuss in further detail in chapter 5, the legal conditions grant a great deal of discretion and thresholds within which project owners, authorities and other persons involved can act. In practice, divergences of EIA procedures among member states might be greater or smaller than it is provided for by the relevant laws. These practical aspects will be briefly assessed in this chapter, by comparing two indicators for them: (1) The typical duration of an EIA and (2) the views of stakeholders on the application of screening criteria.

4.1. Duration of EIA

The duration of the EIA proceedings are a crucial factor for the costs involved: The more concise the proceeding between the submission of the EIS on behalf of the project owner and the publication of the final decision, the more cost-effective it is. I therefore thought that a comparative assessment of proceedings duration would be an interesting index to evaluate, after having read such a study on EIAs in Austria and Liechtenstein. However, I found only insufficient data for Germany and the UK; even the Austrian studies turned out to have their limitations.

In **Germany**, the EIA practice diverges very much from Land to Land (Ref. 70). Proceeding durations in general have been criticised for being too long and too elaborate. In general, delays occur most commonly due to insufficient information provided by the project owner (Ref. 68, Ref. 69). The EIA in Germany is not an independent proceeding (as demonstrated in chapter 2), but done within the general framework of another clearance proceeding („…*Bundesimmissionsschutzgesetz-Genehmigungsverfahrens, eines Planfeststellungsverfahrens nach Verwaltungsverfahrensgesetz (VwVfG) oder eines Genehmigungsverfahrens nach Wasserhaushaltsgesetz, Erlaubnis gemäß § 7 WHG, Bewilligung gemäß § 8 WHG*“ Ref. 70). Accordingly, the length of the EIA is determined by the other proceeding.

Neither proceedings under the Wasserhaushaltsgesetz ("water consumption law") nor under the Verwaltungsverfahrensgesetz have deadlines or time limits (Ref. 70).

In **Austria**, the length of EIAs has been subject to assessments twice (see Ref. 68 for a study from 2006 using data from 2000; and Ref. 71 for a study from 2009 with more current data). In Austria, proceedings are also often criticised for being too slow, which was the reason for the evaluations. The first study of 2006 was dismissed by environmental organisations for the small sample size it had used.

The 2009 study evaluated EIAs that were done between 01-01-2005 and 01-03-2009. It used a representative sample and showed a median length for the proceeding of 380 days. However, the data used for this evaluation was rather thin. The average would have included exceptionally long EIAs, which would have amounted to 452 days. A division of the data into sectors showed that mining projects were the most demanding ones, with an median length of the EIA of 600 days; water management project were those with the lowest median length of only 293 days. The former case was based on the evaluation of five EIAs, the latter of only four; it is therefore fair to doubt this study.

However, the older assessment of 2006 showed similar trends of 400 days on average for a regular EIA and a median of 380 days (Ref. 68). It is worth noting that the found actual length of EIAs goes beyond what the laws aim for: "*Es kann in diesem Zusammenhang allerdings nicht unerwähnt bleiben, dass die ambitionierten Entscheidungsfristen des §7 UVP-G 2000 von 9 Monaten für UVP-Verfahren und 6 Monaten für vereinfachte Verfahren noch nicht ganz erreicht werden*" (Ref. 68). This still applies according to the 2009 study.

For the **United Kingdom**, no equivalent study or relevant information was found. In this context, it is worth noting that there is a high degree of fragmentation in EIA practice as a result of the geographic and sectoral sub-division of relevant legislation (as shown in chapter 2). Due to this, framework conditions for EIAs can diverge significantly within the UK and make a study on EIA practice difficult and complex. It might well be that for this reason, no such study has been done so far. However, at

least the official guide to the EIA for developers re-iterates the legal commitments for the authorities: "*The planning authority is required to determine a planning application which is the subject of environmental impact assessment within 16 weeks from the date of receipt of the environmental statement, unless the developer agrees to a longer period*" (Ref. 56).

4.2. Stakeholder views on screening practice

As I will discuss in further detail in chapter 5, there are very few comparative studies done on EIA practice in the EU. The most extensive one was published in 2009 and dealt only with a selected range of issues, including the screening practice (Ref. 4). This so-called "(IMP)3" survey supplemented a report by the commission to the council that investigated the legal aspects of EIA implementation (Ref. 72). Both documents were published around the same time.

The (IMP)3 report (Ref. 4), from which the following paragraphs draw their information, was based on an extensive survey among 183 EIA stakeholders and 53 additional interviews. The data collected this way provided me with a unique opportunity to get a direct view on EIA practice. One question of the survey dealt with the projects that are subject to the EIA (thus screening). The study reports that most of the stakeholders were generally satisfied regarding three aspects explicitly investigated: (1) The list of projects that are subject to an EIA; (2) the screening systems that are applied; and (3) the description of the projects and the applied thresholds.

Some problem areas that were identified in the EIA directive's annexes contradict these findings. The survey showed three key issues: (1) A lack of accuracy in the interpretation of screening criteria; (2) a lack of evidence for matching screening criteria with potential impacts; (3) a need for tighter guidelines and more research on screening practice. Furthermore, a few project types were suggested for inclusion in annex I, alongside with minor adjustments of criteria or thresholds in already included project types. There is a recurring result of two responses that contradict

each other. For example, "*an almost equal proportion of stakeholders responded that there were too many project types as too few*" (Ref. 4). This allows three possible conclusions: Either the stakeholders perceive the situation very much based on their background; or the situation among member states diverges strongly; or the data is insufficient for drawing general conclusions (in this context, note the small sample size of stakeholders per member state). Along this observation, the authors recommend further research into problems with screening, in particular project descriptions.

Nevertheless, one can find some general conclusions in the report: "*There is a great deal of variation among the levels to which some of the thresholds are set. This is very likely regional or nationally dependent, and dependent upon experience of those stakeholders working in those areas*" (Ref. 4). An interesting suggestion was derived from a survey on merging the two annexes of the EIA directive into one: Some respondents suggested to instead link EIA obligations to environmental impacts rather than project features; this way, features that are specific for the region or project site could be taken into account in a more standardised fashion.

On **the level of individual member states**, the survey also assessed the data for particularly interesting replies and presented them according to MS and type of stakeholder. The answers of the participants from **Germany, Austria** and the **United Kingdom** are shown in fig. 4.1, fig. 4.2 and fig. 4.3 below. Like all other results, they will be discussed in chapter 5.

Country/ Stakeholder	Should the Commission consider modifying the Annexes system towards a more harmonized application of the Directive? Maybe not, because...	Yes, because...
AUSTRIA		
Consultant	Austrian EIA system is considerably based on case-by-case examinations.	
Regional body	Case-by-case examinations provide flexibility to decide whether smaller projects should also be subject to EIA. The problem of cumulative effects of (several) smaller projects (below selected thresholds) in the same area is still unsolved.	Case by case examinations for all projects would require much time and financial resources. Mandatory lists of projects requiring EIA above specified thresholds is applicable and provides legal certainty. The definition of sensitive areas should be harmonized. The problem of cumulative effects of (several) smaller projects (below selected thresholds) in the same area is still unsolved.
National Government	The present (two Annexes) system works well because, for larger projects (mandatory list) there is no discussion on whether they should be subject to EIA or not, while case-by-case examinations for projects below specified thresholds provide flexibility to account for specific circumstances. It is difficult to change the existing system, so caution is needed when changing EU regulations. It is also necessary to consider the time gap between the lauch of new regulations and the full application of the new law.	In general, harmonized regulations concerning large and small facilities are needed. Licensing procedures of technical facilities should be harmonized.
Regional Body		Yes but, in some cases, the use of threshold values and criteria does not allow for the best evaluation of the (environmental) impacts involved. So case-by-case assessment should always be necessary.
GERMANY		
Regional body	Personally not a favourite of thresholds! It is very important to have in mind the overall context in each case. The EIA decision should thus be performed in every case by the EIA competent authority (based on a case-by-case approach).	
Consultant	Does not believe that achieving common standards in all member states may be attained through legislative measures. My suggestion goes to strengthening the scoping phase in order to previously define the most important impacts to assess. Furthermore, there could also be the possibility for a lighter EIA procedure for projects with minor impacts on the environment. EIA procedures are usually quite overloaded with lots of unnecessary information. [see also question No. 18]	
Others (Berlin University)		In general, criteria should be more accurately defined. The lack of objectivity in the criteria used in the screening procedure leads most of the times to the addressing of the screening decision to the competent authorities and thus subject to a great deal of discretion.
UNITED KINGDOM		
Scottish Government	The separation between Annex I and Annex II is a means of distinguishing different kinds of impacts in terms of magnitude and significance. In spite of the advantages of having consistent EIA regulations throughout European Union Member States, the cascading effect of national, regional and local changes derived from EU Directives amendments tends to create greater confusion rather than clarification. Unless these changes would really solve the problems arising from national and regional different transposition of the EIA Directive, it could be more effective to have some clarification on the current set of criteria and regulations – focus on guidance – instead of re-amending the EIA Directive.	
Consultant	The 2-Annexes system works well in terms of clarity.	

Fig. 4.1: *Results of a survey on screening practice. Selected suggestions for improvement according to member states and stakeholder (simplified from Ref. 4).*

Country/ Stakeholder	Pros and Cons of the Following approches Suppression of Thresholds	Merging Annexes I and II to a single Annex with thresholds	Duplication of categories in Annexes I + II with different thresholds
AUSTRIA			
Regional Body		In general, merging of Annexes I and II is appreciated. However, in some cases, exceeding a specified threshold is not the most adequate means to describe the impact properly, so that case-by-case examinations are important as well.	
GERMANY			
Berlin University	The risk of circumventing EIA through case-by-case examinations would be too high. These regulations should not ever be soft; that would be a step backwards relative to all the work done so far.	I support this approach. If, for instance, a certain project type is not relevant for a specified MS, it does not matter. Counter question: what happens below the specified threshold values? No EIA or screening procedure?	This approach is similar to the German amended EIA law. However, as in the former, distinction between "A" (general screening) and "S" (site-related screening) cases is difficult.
Consultant	I could not disagree more because it would considerably overstrain administrative proceedings and EIA procedures are already complicated enough, given the need for the assessment of cumulative and interaction effects besides regular proceedings.		
UNITED KINGDOM			
Consultant		A single project list would lead to a more discretionary judgement of the seriousness of impacts/vulnerability of specific environments, especially in a 25-Member States European Union	

Fig. 4.2: *Results of a survey on screening practice. Selected suggestions for improvement according to member states and stakeholder (simplified from Ref. 4).*

Country/ Stakeholder	Can you think of any other recommendable approach for a more harmonized coverage of projects with likely significant impacts with enough flexibility for implementation to suit national circunstances?
AUSTRIA	
Consultant	Due to different population densities, adaptable thresholds are needed.
Regional body	Social aspects have to do with political decisions and thus should be addressed by other means but EIA. Social and economic issues, which usually lead to the overload of EIA procedures, should be dealt with in terms of Strategic Environmental Assessment. Despite the little experience had with SEA so far, whenever a SEA is carried out, it should contribute to the reduction of EIA extents.
National Government	Neighbour communities and NGOs should have the right to appeal in case-by-case screening assessments.
Regional Body	The analysis of a project's eligibility for EIA could be done by a central (national) EIA authority, as is done in the Netherlands. More textbooks and guidelines needed.
GERMANY	
Regional body	– Screening carried out by one general office. – Less discretionary judgement up to the MS. There should be more detailed common regulations instead.
Consultant	Awareness-raising, guidance and developing recommendations for good practices as more efficient than regulatory or normative approaches. Awareness-raising processes must be initiated in the countries itself. Otherwise there will always be countries that won't take the EIA Directive seriously or will misinterpret it. – Undertaking of comparative studies on EIA practices, procedures and experiences from different countries; – improved documentation of EIAs and – reporting obligations for the MSs as means to identify good practices and better guidance.
Other (Berlin University)	Best to leave the Directive Annexes as they are, albeit having some threshold values discussed and screening criteria more accurately defined. There should be a combination between screening criteria and quantitative data, in order to avoid too much space for discretionary judgement by national/regional EIA competent authorities and, at the same time, enough flexibility for MS to suit their national circumstances. Better not to leave it up to MSs to determine which project types should be subject to EIA.
UNITED KINGDOM	
Scottish Government	It may be necessary to accept that we will never have a perfect EIA system and tweaking it and forever adjusting it can actually almost be counterproductive. People can get tired or worn out by looking at yet another 200-300 page environmental statement rather than putting their effort into considering what the development looks like on the ground, how good are the conditions we're going to attach, how we are going to monitor it, and those things are as important.
Unknown	It would be useful to be able to interpret thresholds etc via European guidelines.
Consultant	Making the relationship between the EIA and the Habitat Directives explicit (presently this relationship is only implicitly there), so that the sensitivity of certain sites is taken formally into account as far as EIA processes are concerned. This would also contribute to the subjection to an EIA procedure of project types not included in mandatory lists, if they are to be located in sensitive sites → reference to what is made in some MS where there is an extra Annex where these cases are accounted for. Another important issue has to do with some agricultural project developments not considered by the Directive's lists of projects and that can lead to significant environmental changes, as is the case of changing in the cropping system or the use of Genetically Modified Organisms (OGMs). There are consent regimes for this type of projects but are those regimes thinking about the environmental effects? A second common problem with agricultural projects has to do with the general lack of funds for the making of the EIS, albeit the large areas that may be involved and so the possibility of significant environmental impacts arising from the changes introduced in the ecosystem.

Fig. 4.3: *Results of a survey on screening practice. Selected suggestions for improvement according to member states and stakeholder (simplified from Ref. 4).*

5.) DISCUSSION: A NEED FOR MORE HARMONY?

5.1. Comparative studies on EIAs in the EU

There are relatively few comparative studies or assessments of EIA legislation or practice in the EU. This might have several reasons: Firstly, the member states are under a strict regime that obliges them to send frequent reports on EIA implementation and practice to the commission. The commission collects this information and typically once every five years, a thorough report is created that is then directed at the European Parliament, the European Economic and Social Committee and the Committee of the Regions. These bodies formally comment on the report. The last time such a report was published was in 2009; the relevant document is a valuable source of information for this thesis (Ref. 23). Member states might see this reporting as a sufficient auditing tool and refrain from engaging in further international assessments.

Secondly, assessments of EIA legislation and practice are often done nationally; such studies, comparisons are usually done only to previous legislation of that particular member state. Comparisons with other member states touch, if at all, only issues regarding transboundary EIAs according to the Espoo Convention. A good example for a national evaluation of EIAs is provided by Austria in the form of a thorough study (Ref. 15) and one of frequent reports by the relevant ministry to the parliament (Ref. 73).

Thirdly, a few independent studies have tried to assess EIA practice in a comparative manner, often based on case law. By far the most extensive systematic and EU-wide assessment of EIA implementation was made in 2009 for the "(IMP)3" report (Ref. 4) that supplemented the 5-year report of the commission. However, even this report concluded with the words: "*The research on existing evaluation studies have [sic] shown rather poor results. Except for an evaluation of the performance of the EIA process from 1996, only a few other studies could be found, […]*". In the following paragraph, I will give a very brief overview on the key-findings of those studies that I identified as relevant.

The (IMP)3 report came up with three main issues that, according to the report, would deserve some closer attention and consideration for tackling them on the level of EU legislation: (1) To think about a formalisation and possible exclusion of health aspects from the EIA, so that a health impact assessment might develop into a separate proceeding supplementing a conventional EIA; (2) risk assessment practice might require a harmonisation; (3) screening is done with a great deal of discretion and diverges among member states.

The 2009 report of the commission, which was supplemented by the (IMP)3 report, also dealt with the issue of widely diverging screening practice: "*Implementation and case-law show that, when establishing thresholds, MS often exceed their margin of discretion, either by taking account only of some selection criteria in Annex III or by exempting some projects in advance*" (Ref. 74). The report also criticises a wide-spread practice in some member states to "*salami-slice*" projects to take advantage of insufficient screening of cumulative effects. The report concludes with a clear policy recommendation: "*Thus, the screening mechanism should be simplified and clarified, for example, by detailing the selection criteria listed in Annex III and by establishing Community thresholds, criteria or triggers (e.g. by comitology)*" (Ref. 74).

A highly interesting notion can be found in the next paragraph of the report (3.2), when it recommends to link EIAs to environmental standards rather than thresholds for project criteria and procedural requirements only. For example, a power plant should not be judged based on its emissions only, but rather based on criteria for the surrounding animal and plant communities and their reaction to the emissions. Whilst this should already be the case and is certainly common practice on the three countries subject to this thesis, many EU member states appear to interpret the impacts of pollution differently. The report also criticises the lack of documentation and auditing standards: "*There are major differences in the quality of EIA documentation, not only between different MS but also within MS themselves*". The report then deals with the issue of EIA duration: "*The lack of provisions in the Directive relating to reasonable timeframe and preferably fixed timeframe for granting development consent, to the duration of the validity of the EIA and to*

monitoring the significant environmental effects of the implementation of projects is also a cause for concern. Those gaps could be addressed by introducing specific provisions in the Directive" (Ref. 74). Finally, the report touches on problems with harmonising frameworks for public participation, EIAs with transboundary scopes and the coordination of the EIA directive with other EU directives and policies (including the SEA directive).

With respect to my own findings, these two reports provide further support of the view that the screening procedure is among the main sources for divergences in EIA practice. It appears fair to assume that divergences between Germany, Austria and the UK will be negligible compared to countries with much lower environmental standards; it is these countries that are more likely to raise the interest of the commission. In the following paragraphs, I will now discuss my own findings from chapters 3 and 4.

5.2. On the main findings

With respect to the implementation of the EIA into a general clearance procedure (sub-chapter 3.1), Austria seems to be the country that has adopted the most efficient and potentially strictest legislation. The centralised and binding nature of the Austrian EIA proceeding makes the relevant legislation more comprehensible compared to both Germany and the United Kingdom. This might be at least partly accommodated by the relatively small size of Austria; however, it is worth noting that the proceeding itself is administered by the relevant federal state similar to the situation in Germany or the UK. There, however, the arborisation of legislation due to traditional (Germany) or newly discovered (United Kingdom) federalism has led to complex ramifications that constrain the power of any EIA. I therefore conclude that the Austrian implementation of the EIA as the core and dominant aspect of a clearance proceeding increases the significance of the EIA in general.

Sub-chapter 3.2 dealt with four different, more detailed aspects of EIA legislation in national laws: (1) The objective and the definition of "project"; (2) screening; (3) the

structure of the EIS; and (4) criteria for a clearance. The findings of this sub-chapter can be discussed individually, even though they seem to draw a rather clear and coherent picture.

Whilst the definition for "project" seems to follow approximately the same lines in all three countries examined, Austria dedicates an unusual degree of attention to the objective of the EIA law. This indicates a very thorough approach of the Austrian legislative bodies, but does not necessarily lead to any definite differences compared to Germany or the UK. There, similar objectives could be derived from other sections of the law. In analogy, there is no fundamental definition for "project" in the EIA regulations of England and Wales; nonetheless, very similar developments will qualify as "projects" in the UK as in Austria (as shown in the section on screening). This "indirect" approach to circumvent definitions could be explained with the importance of case law and rulings in the British legal traditions.

As I found screening to the be among the most crucial issues with respect to discretion problems, and because I have evaluated both legislation and practice of screening, I will discuss this area separately further down. Looking at structure and scope of the EIA, the coherence of the national laws with the EIA directive is remarkable. Even more interesting, however, are the tiny divergences in the German and Austrian law. Germany explicitly allows compensatory measures for negative environmental impacts of a project that cannot be avoided. Even though such measures are common practice in all three countries, the explicit mentioning of such a policy hints at a more liberal application of it in the case of Germany. Further investigations into EIA practice could confirm this. The second German divergence is just a more detailed explanation of the involvement of the public and can not be a source for any significant difference to the directive.

The Austrian legislation is different in the outlining of an EIS structure: It explicitly demands the consideration of construction, operation and decommissioning (including auditing regime) phase; and is a great deal more detailed in asking for immission data as well as data on energy demand according to sources down to the detail of production units (such as machines) and energy flows. Nothing similarly

strict can be found in EIA directive, nor in the German or British laws. Here we see a major point where the Austrian EIA law goes far beyond the minimum requirements given by the directive.

Another critical aspect where Austria exceeds both EIA directive and the other two countries in strictness are the clearance criteria. Here, the EIA directive makes only very general suggestions – which both Britain and Germany follow. Austria, where the implementation of the EIA as an independent proceeding makes the EIA a much more powerful instrument in the first place, defines clearance criteria in great detail: It obliges authorities to apply best available technology (BAT) requirements to emissions, immissions and environmental standards. The way waste is to be managed is also clearly defined. Other sections deal with formalities, but these few criteria mean that the permission or non-permission of a project is linked to very clearly outlined conditions – which is not the case in other member states. Even Germany and the United Kingdom, both of which have a long-standing tradition in environmental protection, are a great deal less demanding in this respect.

Looking at practical aspects of EIAs, I quickly found that there are very few studies on this matter; the ones I found were mostly based on poor data or applied dubious methods (e.g. descriptions of individual cases). Reliable numbers are available for the duration of Austrian EIAs, arranged by sector or type of EIA. Similar studies were almost certainly required by the commission from Germany and the United Kingdom; however, the 5-year report of the commission does not reveal any details (Ref. 74) and I did not find any national reports. The legal basis for deadlines is not very useful, either: As shown in the case of Austria, the temporal framework outlined in the law is not met by the actual proceedings and responsible authorities. I therefore have to limit the discussion of this section to the notion that a detailed study on this question, maybe using the data reported by the member states to the commission, could lead to interesting findings.

Looking at the divergences between the legislation of Germany, Austria and the UK, one can see that in more than one of the evaluated criteria, Austria applies significantly more rigorous standards than the other two countries. This is

particularly interesting given the fact that neither Germany nor the United Kingdom are known for lax environmental legislation. In this context, however, I have to emphasise that the criteria evaluated in detail were not chosen randomly. I selected criteria that are known to be very strict in Austria and where I thought that divergences were most likely to occur. One shall be careful to draw general conclusions about countries being stricter than others based on the data I have presented in this thesis. There are also a few instances where Austria is less demanding than Germany or England and Wales. For example, the assessments of limitations and caveats is explicitly requested in a "concise" statement; a similar phrase could not be found in the other to national legislations.

5.3. On screening legislation and practice

The comparison of screening legislation is probably the most sensitive area of EIAs with the greatest potential for harmonisation. Interestingly, "additional" (not required by EIA directive) projects that are subject to an EIA that were found in national legislation of Germany, Austria or the UK do not overlap very much; yet, all of them might be covered by the national laws of all three countries without being explicitly mentioned. For example, Austria's explicit mentioning of particle accelerators does not appear in the German or the British legislation. Nevertheless, as very large developments, particle accelerators might still fall under German or British criteria for a compulsory EIA. Other projects, such as seaside exploration projects, simply do not apply to countries like Austria for geographic reasons. Cumulative effects of projects are taken into account in all three evaluated member states; the recent report of the commission (Ref. 74) must have found the presented deficiencies in this area in other countries. I did not find drastic differences in the screening approach or the defined projects in the three countries.

Noteworthy differences in details include Austria's requirement to assess projects that involve genetically modified organisms (GMOs). This could reflect the country's historically caused aversion against genetic engineering. Interestingly, the (IMP)3 report's interviews with EIA stakeholders demonstrated that including

"installations working with GMOs" was – alongside with military practice grounds and golf courses – among the most commonly given projects for inclusion in the EIA directive (Ref. 4).

I doubt that the survey done for the (IMP)3 report can be considered to provide scientific evidence. However, several key-problems in screening practice were demonstrated and highlighted: "(…) *ambiguous screening procedures, found in a number of cases (lack of transparency in screening decisions, lack of robust selection criteria); interpretational problems with certain terms and project type descriptions; demand for adequate reference to the actual impacts on the environment in setting thresholds [sic] values; and problems in dealing with cumulative effects*" (Ref. 4).

Interestingly, this list was not put together for issues with screening – but as a summary of the main weaknesses of EIA law in general. The authors recommend a harmonisation of screening criteria and an extension of the annexes and thus the list of projects that are subject to EIAs. In fact, this is already a practice that can be seen ever since 1985 and which is likely to continue.

The study also includes recommendations regarding the application of the annexes and identifies problems in *"...a lack of accurate interpretation of screening criteria; the need for a closer linkage of thresholds/criteria with the actual impact; need for more guidance as well as more research regarding EIA (screening) practice*" (Ref. 4). Whilst the first point can be dismissed as somewhat fluffy, I regard the other two findings to be of key-significance.

Indeed, pollution thresholds often fail to consider environmental conditions sufficiently; emissions within a certain cap can have very different impacts on different ecosystems and it is questionable if decisions on this matter should be left to case-by-case assessments and the judgement of local experts alone (see sub-chapter 5.4). Furthermore, looking at the poor data that I found on EIA practice, I fully support the third point quoted above in its calling for further research on EIA practice.

5.4. Harmony versus Autonomy and further studies

When EIA stakeholders were asked whether they would change the present EIA directive with respect to the screening framework, the majority of them was hesitant in making definite statements on any harmonisation (Ref. 4). The authors of the (IMP)3 report concluded that divergences of EIA regimes were "*the result of different contextual factors – administrative (political), social and historical – and thus is not necessarily a problem in itself*". This, in fact, is a neat summary of the main reasons brought up against increased harmonisation of EIA legislations which are brought up in a rather repetitive manner. It lacks only the ultimate argument against central criteria: The need to consider local conditions individually and in a case-by-case manner.

For example, a factory that uses high amounts of water that it pollutes might fall under the same thresholds in Austria and Andalusia (Spain). However, the environmental impact it creates might be negligible in Austria, where water is abundant, but devastating in Andalusia where falling aquifers have been a problem for many years. Harmonised thresholds for water abstraction or pollutant load of the affluent would be useless, a case-by-case examination under consideration of local conditions inevitable. This is exactly what is meant by linking screening criteria to impacts rather than project features – quite likely a trend in EIA legislation that will gain momentum in the years to come.

This may also take pressure off the problems that come with high discretion in the name of subsidiarity and local conditions: As I have demonstrated in this thesis, there are several aspects in EIAs in which Austria has considerably stricter criteria than other member states. It would be a highly interesting question to what extent that imposes a possible comparative disadvantage on Austria and its standing as a business location. Finding evidence for companies actually choosing other locations for that reason and quantifying the cost for the Austrian or any other economy would be very interesting, but methodologically challenging, if not impossible.

An easier approach for further research in this direction would be as assessment of case law: Companies might take legal action if screening remains linked to project features. If these screening criteria are only nationally or regionally applicable and insufficiently linked to environmental pressures, a distortion of a market can be the result. Companies that have to operate under strict regimes might claim their rights regarding equal conditions in a single European market. Case law of the European Court of Justice could provide interesting insights to future developments in EIA law. Alternatively, stake holder interviews similar to those in the (IMP)3 report could be made for comparisons of EIA practice in individual member states.

Especially differences between member states from Western Europe, Mediterranean Europe and Eastern Europe would be interesting: These three regions are historically, economically and geographically/climatically very distinct. I think it would be reasonable to expect greater divergences between countries from these regions than those I found in this thesis. One possible starting point for such an assessment would be the reports of individual member states that go to the commission. These should include data on implementation, legislation, as well as practice of EIAs.

Ideally, a thorough study would include a comparison of EISs: The number and scope of individual opinions; the structure of the EIS; the costs involved and the criteria that experts have to fulfil for being assigned to them. In Austria, there are public databases available that contain information on all completed EIAs (Ref. 75); similar databases could exist in other member states and serve as useful sources for data. EIAs are complex endeavours, like trees with many branches: For this thesis, I could follow only a few. Checking on a few more would be quite interesting, particularly if that would build on my work and extend the focus beyond the law and further to EIA practice.

5.5. Future directions of EIAs

In its response to the commission's 5-year report on the implementation of the EIA directive last year, the Committee of the Regions stated only a few weeks prior to the completion of this thesis: "(…) *in some fields the EIA Directive is in need of*

improvement, in particular with regard to screening, public participation, quality of data, EIA transboundary procedures and coordination between the EIA and other Directives and policies (…)" (Ref. 76). This statement is interesting, not only because it was made so recently, but also because it is based on a very thorough assessment of data on EIA legislation and practice. Furthermore, it was made by a body with relatively limited interests in the subject and thus it provided me with an unbiased view on the matter.

The report is spot-on when it highlights the main areas for improvement and development with respect to SEA Directive and EIA Directive: (1) Neither directive has succeeded in establishing obligatory environmental standards; (2) both directives still have gaps in issues regarding public participation and transparency; (3) some passages of the two directives overlap; (4) there is a need to link both directives with issues on biodiversity and climate change; (5) the screening mechanism in the EIA directive needs to be simplified, annex III requires new thresholds and criteria, including cumulative aspects; (6) mandatory scoping and a formalisation of the accreditation of consultants have to be established; (7) instruments for auditing and documentation of EIAs have to be developed.

This criticism is very concise and well-grounded; I therefore consider most of the points mentioned to be key-areas for future developments and reforms of the current EIA legislation and practice. Based on my own work, I would include a few more points: (1) I expect a further branching out of the aspects that are covered by formalised assessments; a separation of health and social aspects in the form of a mandatory "health impact assessment" could occur as suggested by the (IMP)3 report (Ref. 28); (2) standardised risk assessment procedures and qualification standards for consultants could be set up; (3) the EIA procedure as a whole could be simplified through better implementation into SEAs (the development of SEA-approved plans and programs is a continuing effort in many member states and should ultimately lead to a framework within which simplified EIAs can take place); (4) screening will remain a key-issue and source for discretion and thus controversy; it is likely that screening criteria will continue to be developed and will probably be increasingly linked to environmental standards. Similar developments can be seen in

other environmental directives, such as the water framework directive: There, the ecological state of a water body has replaced emission thresholds or load caps as defined targets.

The EIA directive is now in place for a quarter of a century. These 25 years saw a steady increase in the number and sophistication of screening criteria; the implementation of public participation; and the extension of the scope of EIAs to transboundary effects. Most importantly, however, the EIA directive provided a standardised framework that spread to the new member states and candidate countries, thereby pushing the frontier of mandatory EIAs into a region with previously very underdeveloped environmental awareness. Based on the work presented in this thesis, I expect the next 25 years to be easily as dynamic as the last.

6.) REFERENCES

Online references were given where useful (e.g. most legal documents such as laws, treaties or directives); they were retrieved in April or May 2010. If links are not active any longer, a simple search engine enquiry should lead to the original document, as most of them are required to be available to the general public.

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