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# Battling Unintended Consequences with Knowledge

Analysis of connection between Impact Assessment quality and Unintended Consequences

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**ABSTRACT:**

Knowledge management has become a central part of the activities of the European Union. The complex operating environment makes it particularly challenging to carry out socially significant reforms. Because of these factors, proactive impact assessment of reforms has emerged to a key role in the decision-making process. The study examines how high-quality and data-driven impact assessment can combat the unintended impacts of reforms.

The research utilizes both quantitative and qualitative methods to form a comprehensive understanding of the relationship between impact assessment quality and unintended effects. Six case studies have been selected for the analysis, for which the quality of impact assessments is examined using a commonly used evaluation matrix. The unintended effects resulting from the example cases are then mapped and their nature is described using a variable table. Finally, the study examines the relationship between the two variables.

As a key result, it emerged that high-quality impact assessment can potentially reduce negative unintended impacts. Other issues that have surfaced in the research process include challenges in utilizing information in the decision-making process and conflicts between the objectives of the European Union. The results showed positive signs of the effects of knowledge-based management, but the complexity and fragmentation of the operating environment make it impossible to completely eradicate the unintended effects.

The sample size used in the thesis is relatively low, and no general conclusions can be drawn from it. However, the results suggested that knowledge management is an effective way to improve the decision-making process and create higher-quality reforms. However, the verification of these results requires a more extensive follow-up study in order to examine their statistical significance. In particular, the challenge of looking at unintended impacts is different practical challenges, so the development of research methods is also necessary.

**KEYWORDS:** Knowledge management, Decision-making processes, Unintended consequences, Impact assessment

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**Tiivistelmä:**

Tiedolla johtamisesta on tullut keskeinen osa Euroopan Unionin toimintaa. Kompleksinen toimintaympäristö tekee yhteiskunnallisesti merkittävien uudistusten tekemisestä erityisen haastavaa. Näiden seikkojen takia ennakoiva uudistusten vaikutusten arviointi on noussut keskeiseen rooliin päätöksentekoprosessissa. Tutkimuksessa tarkastellaan, kuinka laadukkaalla ja tietoon pohjautuvalla vaikutusten ennakkoarvioinnilla voidaan taistella uudistuksista johtuvia tarkoituksettomia vaikutuksia vastaan.

Tutkimus hyödyntää sekä kvantitatiivisia, että kvalitatiivisia menetelmiä muodostaakseen kattavan ymmärryksen vaikutusten arvioinnin laadun ja tarkoituksettomien vaikutusten välisestä suhteesta. Analyysiin on valittu kuusi esimerkkitapausta, joita koskevien vaikutusten arviointien laatua tarkastellaan yleisesti käytettävän arviointimatriisin avulla. Tämän jälkeen esimerkkitapauksista seuranneet tarkoituksettomat vaikutukset kartoitetaan ja niiden luonnetta kuvaillaan muuttujataulukkoa hyödyntäen. Lopuksi tutkimus tarkastelee näiden kahden muuttujan välistä suhdetta.

Keskeisenä tuloksena nousi esille, että laadukkaalla vaikutusten arvioinnilla pystytään mahdollisesti vähentämään negatiivisia tarkoituksettomia vaikutuksia. Muita tutkimusprosessissa pinnalle kohonneita seikkoja on muun muassa haasteet tiedon hyödyntämisessä päätöksentekoprosessissa sekä Euroopan Unionin tavoitteiden väliset ristiriidat. Kokonaisuutena tulokset antoivat positiivisia merkkejä tiedolla johtamisen vaikutuksista, mutta toimintaympäristön kompleksisuus ja pirstaleisuus tekevät tarkoituksettomien vaikutusten totaalisesta hävittämisestä mahdotonta.

Tutkielmassa käytetty otoskoko on verrattain matala, eikä sen perusteella voi tehdä yleistäviä johtopäätöksiä. Tulokset antoivat kuitenkin osviittaa siitä, että tiedolla johtaminen on tehokas keino parantaa päätöksentekoprosessia ja luoda laadukkaampia uudistuksia. Näiden tulosten varmentaminen vaatii kuitenkin laajempaa jatkotutkimusta, jotta niiden tilastollista merkittävyyttä voidaan tarkastella. Etenkin tarkoituksettomien vaikutusten tarkastelun haasteena on erilaiset käytännön haasteet, joten tutkimusmetodien kehittäminen on myös tarpeen.

**Avainsanat:** Tietojohtaminen, Päätöksentekoprosessit, Tarkoituksettomat seuraukset, Vaikutusten arviointi

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## Abbreviations

| | |
|---|---|
| DG | Directorates-General |
| EC | European Commission |
| EU | European Union |
| IA | Impact Assessment |
| KBDM | Knowledge-Based Decision-Making |
| KBDMS | Knowledge-Based Decision-Making System |

# 1 Introduction

Since the beginning of the European integration process in the aftermath of Second World War, main objective of the European Union and its predecessor has been ensuring peace between its member states. Traditionally focus has been in trying to find a common ground in economic- and political questions, but in the past decade battle against climate change and social issues has risen to the forefront of EU:s priorities. Whether these issues should be seen as their own sectors, or as a part of peacekeeping mission could be argued, but importance of them is undeniable.

Expansion of the EU in past decades has made it more significant factor in the global playing field, but culturally and economically diverse range of member states has also turned EU into an extremely complex system. Complexity is not necessarily a negative trait, but it makes recognizing consequences of reforms beforehand enormous challenge. For this reason, unintended consequences are inevitable, but with a decision-making process that is thorough and due diligent, it is expected that negative aspects of these side-effects can be minimized (Rowe, 1994, p. 743–750).

Merton (1936) famously said that the most obvious cause for unintended consequences is the lack of knowledge (p. 894–904). In the early 20$^{th}$ century Merton's statement was argued as some thinkers thought that by following scientific methods it would be possible to create fully rational decision-making processes which would be able to solve social issues, while others believed that reducing unintended consequences significantly would not be possible (Cavoski, 2017, p. 256–257). In the present-day consensus seems to be that knowledge is a key part of reducing unintended consequences, but at least for now achieving perfect decision-making is not possible.

Understanding the importance of knowledge has led to a branch of management known as Knowledge-Based Decision-Making (KBDM). Goal of this idea is to gather and analyze information as much as possible to ensure best possible outcome without unexpected

effects. This method has been gaining popularity as improvements in technology have made it more viable to gather and use large data collections.

## 1.1 Goals and Research Questions

Goal of this thesis is to study how KBDM is utilized by decision-makers in the EU level. EU has multiple ambitious economic, environmental and social objectives and achieving these in complex surroundings in a way that does not create unintended consequences is impossible, as mentioned before. However, with the help of data and knowledge driven decision-making, it is likely possible to decrease side-effects caused by negative unintentional consequences. Results of this study could be beneficial in recognizing possible shortcomings in EU:s decision-making processes which could provide understanding on why certain aspects may have been overlooked while creating reforms. From these assumptions, following research questions have been formed.

**Research questions**

1) **How KBDM is utilized in EU:s decision-making processes?**
2) **Has KBDM decreased negative unintentional consequences?**

# 2 Knowledge-Based Decision-Making

This section of the thesis explains what knowledge-based decision-making is and how it is used in the European Union. In this context the European Commission is the most important of the EU:s organizations as its role includes preparatory work prior to legislative procedure which is done by EU:s Council and Parliament. Main goal for the European Commission in the decision-making process is to create an impact assessment, which is a complex process that includes actors from public, private- and third sectors. That is why studying impact assessments (IA) is sufficient way to create an understanding of how knowledge is transferred and utilized between various actors. However, it is important to note that not all unintended consequences that occur are result of deficiencies in the work of the Commission. Lack of knowledge may be the most typical reason for unintentional effects, but errors in other aspects of reform making might be as harmful (Merton, p. 901–903).

## 2.1 Knowledge and Terminology

Terminology surrounding KBDM is quite differing between sectors and dependent on when these terms discussed were introduced. For example, knowledge management (KM) and knowledge management systems (KMS) are often mentioned terms in the prior studies, but as an attempt to simplify terminology, this thesis will use terms Knowledge-based decision-making (KBDM) and Knowledge-based decision-making system (KBDMS). Content between KM and KBDM is basically identical, but the before mentioned is often used in a context of private sector actors and the latter one seems to be used when discussed about governmental organizations.

To fully understand what KBDM is and how it can be used as a tool to tackle issue of unintended consequences, we need to define what knowledge is. Intuitively people tend to connect concept of knowledge to words like information and data, but like Zeleny said,

information is not knowledge (2005, p. 1–39). Knowledge has been defined by multiple different ways, but for this study we will use the definition that “knowledge is purposeful coordination of action” (Zeleny, 2005, p. 13). On top of this definition, Wang cited Zeleny (2000) and said that knowledge can not be separated from the action of knowing (2002, p. 5–6).

This means that any data or information, which can be stored in computers or KBDMS:s can not be knowledge as knowledge is constructed by individuals through subjective experiences and interactions (Wang, 2002, p. 357–358) It could also be said that data is very basic understanding of something, but it is worthless without information and knowledge. Information is the aspect that helps to understand what to do with data, but knowledge is what enables to know how to achieve the desired outcome. See the table 1 below about how data, information and knowledge could also be separated and defined.

**Table 1** Taxonomy of Knowledge (Adapted from Zeleny, 2000, p. 14)

| | Analogy (Baking bread) | Effect | Purpose |
|---|---|---|---|
| Data | Elements: $H_2O$, yeast, bacteria etc. | Muddling through | To Know: Nothing |
| Information | Ingredients: Water, flour, sugar + recipe | Efficiency | To Know: What |
| Knowledge | Coordination of baking: Forming process to get result | Effectiveness | To Know: How |

In the modern-day data is everywhere, but not every organization and nation have the same ability to use it. In other words, it could be said that they lack the necessary knowledge. Importance of the knowledge can be seen both in the private and public sectors, where actors with similar basic resources reach different level of success (Zeleny,

2005, p.7–14; Wang, 2002, p. 38). Especially in the private sector this possibility to gain a competitive edge over competitors was one of the main motivating factors in the development of KBDM (E.g. Nonaka et al., 2014, p. 139).

There is also competition between nations, and therefore point of view which emphasizes gaining advantage over other actors is also valid when comparing traditional nation states between each other. However, competition is not necessary element and especially in the public sector, KBDM is often used to achieve maximum efficiency, instead of trying to achieve advantage over other actors. It could also be said that knowledge is vital for achieving intended consequences, hence it is crucial to be utilized properly in a reform-making processes.

## 2.2 Knowledge-Based Decision-Making in EU

Positive outcomes caused by implementation of KBDM in the private sector was noticed by other actors as well in the late 90's and early 2000's. Elevated interest towards KBDM meant that aspects of it were copied by multiple governmental organizations including EU (Lee & Kirkpatrick, 2012, p. 23). As mentioned before, EU did not have competition in a traditional sense, but it was thought that knowledge-based decision making would allow it to use its granted appropriations more effectively and efficiently.

From that point of view, EU and other governmental actors were not very different compared to private companies. To put this in a simplified form, it could be said all actors are trying to achieve same goal. Either A) Maximize the positive consequences by using predetermined resources or B) Achieve predetermined outcome by using as little resources as possible. Therefore, it was logical that EU implemented KBDM as a major part in its decision-making process. However, transferring ideas from private- to public sector isn't often frictionless, and this was the case with KBDM as well.

Starting point for the KBDM in EU could be considered to be year 2000, when EU declared its goal to become the most knowledge-based organization in the world (Bäcklund, 2009, p. 1077). One of the main tools created for achieving this goal was impact assessments. Technically impact assessments were already used in some singular areas of decision-making already in the 90's, but the usage and importance was minute. Main idea of impact assessment as a decision-making instrument is fairly simple. Goal of the impact assessment is collecting enough information and knowledge, that impacts which are caused by reform can be evaluated and predicted as accurately as possible. On top of that it was hoped that usage of IA:s would decrease administrative burden and therefore make governance better and more open (Bäcklund, 2009; Lee & Kirkpatrick, 2012).

On a theoretical level impact assessment is extremely valuable for good decision-making, but how it is used is often incomplete and sometimes even problematic. One of the primary issues especially in the early 2000's is that impact assessments were not used in most of the cases, especially reforms that targeted environmental impacts were often done without usage of impact assessment (Bäcklund, 2009, p. 1080–1081). Causes behind this phenomenon are somewhat unclear as it is not certain if decision-makers considered IA:s to be ineffective and therefore did not use them. One of the reasons for lack of trust towards IA:s might be that their benefits are usually hard to notice. Especially quantification process is difficult, and results are often incomplete (EC, 2018a).

Not doing thorough IA:s is somewhat acceptable as creating them is time-consuming and quite costly process, and it could be argued that they should not be used if benefits are uncertain. On the other hand, organizational learning is known to have a major part in creating effective KBDM tools (Wang, 2002, p. 6). This aspect is also brought up by Ruddy & Hilty, who mention that it is understandable that IA practices are still evolving (2008, p. 102). Because of this it could be said that one of the reasons for underwhelming results of IA:s in the early days is that they have not been used enough and therefore are not developed enough.

## 2.3 Problems and Paradoxes

First of, it is important to mention that creating IA:s massive task, as both the object (goals of EU) and the subject, EU commission itself, are both highly complex (Ruddy & Hilty, 2008, p. 93). Therefore, taking a critical point of view should not be considered as an attack towards decision-makers and some of the issues pointed out should be seen as shortcomings instead of outright failures. That being said, scholars have noticed multiple problems with how IA:s are created and what they include (Bäcklund, 2009; Lee & Kirkpatrick, 2012; Ruddy & Hilty, 2008).

First of the many issues is that one of the main ideas behind KBDM is to rationalize decision-making process and reduce errors caused by subjective biases. Thus, it is rather problematic that in the creating process of IA, one singular Directorates-General (DG) is usually responsible for the process (Lee & Kirkpatrick, 2012, p. 25). For example, Aggrawal & Fogarty suggest that each DG has certain characteristics based on their area of responsibility (2004, p. 227). Based on Aggrawal's and Fogarty's findings, Ruddy & Hilty argue that these predetermined characteristics are one of the reasons that cause economic objectives to be considered more important than sustainability goals (2008, p. 93–95). It is also said that European Commission as whole tends so prefer liberal agenda over protectionist one (Chorev, 2008, p. 98).

These pre-existing features might be largely responsible for the Bäcklund's findings (2009, p. 1080–1081) about economic impacts being the priority when making IA:s. This ties together with problematic role of DG:s, because essentially, they must choose if the suggested reform is important enough to use thorough IA:s. On top of these biases, tools available for measuring social- and environmental impacts have been criticized by decision-makers (EC, 2007, p. 45–46). Perhaps the situation does not perfectly fit Merton's definition of Self-fulfilling prophecy, but similarities are undeniable (1948, p. 193–197). DG:s are in a situation where they don't seem to believe that thorough IA:s

are worth doing for social- and environmental impacts, and therefore tools used for analyzing these aspects do not evolve due to lack of organizational and policy learning. However, aspects brought up by Ruddy & Hilty (2008, p. 93–95) are likely just as influential.

## 2.4 Data and Information

Criticism about available tools does not limit only to ones measuring sustainability aspects. Overall decision-makers have raised their concerns about lack of credible and usable data, and they have felt that this is one of the main reasons for non-satisfactory results (Bäcklund, 2009, p. 1081). Shortage of data being one of the main limiting factors for successful IA:s is concerning, because EU should be able to collect enough information considering the amount of internal- and external actors that are available for the task. However, it has been problematic for EU translate information into policies since the early 2000's (Guéguen & Marissen, 2022, p. 9–10). Earlier in the paper (See table 1) is the definitions and differences of data, information and knowledge, and in the EU:s case main issue is often the lack of knowledge. Data and information can be gathered but using it in an efficient way has been insurmountable hurdle in many cases.

EU has also been criticized for having a conservative "red tape" style of policy-making process that has hindered the development of innovations which may solve problems mentioned above (Guéguen & Marissen, 2022, p. 9–10). In this case red tape means heavily bureaucratic structures that are often slow to react. Pandey & Bretschneider found out that public organizations with high levels of red tape tend to be more interested in new technologies that reduce administrative delay (1997, p. 113–130). Administrative delay can be defined as time to complete core administrative tasks (Heungsuk, 1993, p. 1–2). Hence in European Commission's case it could be seen as time to create a policy.

Main problem with heavy administrative delays is that gathered information is usually most valuable at the time it has been collected. This essence of information is most relevant in an environment which is constantly changing. A multinational organization such as EU needs to act in a complex and dynamic system, where information might lose its importance rapidly. Criticism by Guéguen and Marissen towards slow and conservative way of policymaking are valid in that sense (2022, p. 9–10). In order to utilize collected information efficiently, policies based on that information need to be implemented urgently.

Though these issues are known, correcting them is a complex process. First of all, it is to be noted that EU and its decision-making process is heavily based on Weberian bureaucracy, which emphasizes some of the attributes which are deemed problematic in the context of KBDM. E.g. hierarchical structure and written rules are cornerstones of Weber's ideal governmental organization (Sager & Rosser, 2021, p. 2–5). These same elements are still very much present in EU and are especially noticeable in the policymaking process. Yet it is important to understand that these structures exist for a reason. Particularly in a public discussion, but also sometimes in academia, these bureaucratic elements are put under a lot of scrutiny. Terms such as "slow", "old-fashioned" and "inefficient" pop up often when people describe public organizations. None of the terms mentioned above are fundamentally wrong or false, but the criticism is sometimes thrown around without understanding possible issues with alternative courses of action.

In their study about IA:s Lee & Kirkpatrick found out that subjects which had been examined before the start of formal IA process performed better than the other ones (2012, p. 30). This led to the conclusion that the time used for collecting and analyzing information might help to create more accurate IA:s (Lee & Kirkpatrick, 2012, p. 30). Assuming Lee's and Kirkpatrick's observation is correct, that creates somewhat paradoxical situation. It is known that time spent preparing IA correlates with higher success rate of predicting impacts. However, it is also known that administrative delay,

or in this case gathering and analyzing information devalues the information collected. This leads into a situation where to create a best possible policy, organization needs to act quickly, but then it is not possible to accurately assess the impacts which are caused by the new policy. On the other hand, it is plausible to create fairly accurate and comprehensive IA:s, but the cost of it is that situation may change during the policymaking process and make the policy itself less impactful.

This causes a situation where decision-makers need to choose how much uncertainty is acceptable. One of the big differences between private- and public sector organizations is the level of risk taking. Traditionally public organizations are much more risk averse, which is why Guéguen & Marissen, and many others have criticized EU for being too conservative in this sense. One of the reasons for risk averse attitude might be rooted in path dependency. Path dependency often causes organizations to operate in a non optimal way because changing existing organizational culture would be difficult (Goldstein et al., 2023, p. 3–6). Path dependency can also be often seen as a root cause for organizations inability to change and adapt when new technology is introduced (Goldstein et al., 2023, p. 3–6). Emphasizing path dependency as cause for EU:s inability to "transfer science into a policy" like Guéguen & Marissen said (2022, p. 9–10) relies into on assumption that EU wants to fundamentally change its policymaking process but is unable to do so.

Next anecdote might come off as slightly childish, but it is a great illustration for following section. During the 2008 Olympics Jamaican sprinter Usain Bolt decided to eat solely food from McDonald's. Was it because he had always done it? Maybe he thought that it would give him an edge over other competitors? Or did he just enjoy it? Obviously answer to previous questions is no. The reason behind his McDonald's diet is that he knew that only thing that would prevent him from winning, was getting sick. Fast food was not optimal to reach absolute peak performance, but it was safe to consume because manufacturing process in heavily regulated and done in a same way all over the world.

Well, how does this all tie together with EU:s policymaking process? Illustration's idea was to point out that sometimes being safe is ok. Especially when the cost of failure is extremely high. While private companies can take risks and try to push the limits of efficiency, that is not often the case for public actors. Working in a dynamic system makes new policies almost always irreversible after they have been implemented. Therefore, it is understandable that EU is not willing to change its operating ways, unless there is absolute certainty that it does not hurt their ability to create at least decent reforms.

This is not an attempt to disregard or diminish criticism towards European Commission's courses of action with IA:s or EU:s policymaking in general but offer an underrepresented viewpoint for reasons behind it. Nevertheless, just because EC does not have same privilege to fail than private actors, does not mean that they shouldn't thrive for continuous evolvement. Whether or not fundamental changes are needed to reduce administrative delay and improve policymaking, technology will have an ever-increasing role in coordination of European policies (Polluveer, 2024).

## 2.5 Knowledge-Based Decision-Making Systems

Information and communication (IC) -technology has a significant role in a knowledge-based decision-making. Even though knowledge-based decision-making systems (KBDMS) are often defined broadly and abstractly, all definitions share some key characteristics. Main qualities of KBDMS are that they are ICT systems, which are developed to transfer knowledge, and to increase effectiveness of knowledge-intensive processes (Maier, 2011, p. 779–780). Other technological innovations, e.g. improvements in data collection are also important, but this paper focuses on how knowledge is shared and utilized.

As Maier said, one of they key reasons for existence of KBDMS is the ability transfer knowledge (2011, p. 779–780). In the EU:s case one of the main issues has been that

information collected is fragmented between different stakeholders and it is not often shared with others (EC, 2017, p. 17). Fragmentation is harmful, because using enterprise portals that have all meaningful data available for all stakeholders, have shown positive effects such as cost reduction, innovation and having more organized information (Wang, 2002, p. 391; Wang et al., 2014, p. 977–978). Having all the information collected in a single place also encouraging knowledge sharing which was one of the concerns brought up in EC:s report (2017, p. 17).

For the reasons mentioned, EU has been actively creating KBDMS' to support its policy making. One of the most influential knowledge-based decision-making systems created by EU:s initiative is Common Information Sharing Environment (CISE), which will be used as an example to illustrate how KBDMS are beneficial if used correctly. CISE was chosen to act as an example, because it was created to improve collaboration between multiple different actors that are involved in EU:s maritime affairs. Maritime affairs are also a complex structure which involves multiple dimensions that are important for EU:s economic, environmental and sustainability goals. CISE program was established 2009 to solve issues with limited knowledge sharing and lack of cooperation to create a more comprehensive picture of EU:s maritime affair. (EC, 2017, p. 17–19). Program was tracked for a decade and final report about it was released in 2019.

CISE program overall was successful, but in the final report some interesting points were brought up. It was noticed that knowledge sharing was tied to cultural aspects and level of information sharing was not consistent (EC, 2019a, p. 311–324). Wang et al. found out in their study that one of the main pillars for successful knowledge sharing is that employees take accountability and share their information (2014, p. 978–1009). EC also found out in their report that all actors that were affected by the reform benefitted from information held by some other actor and had some information that had value to others. (2019, p. 311–324). Inability to share information led to situations where actors either did not know that data they needed was already available or that they had information

that was wanted by some other actor (EC, 2019a, p. 311–324). These types of errors cause inefficiencies and highlight the need of proper information sharing practices.

From the viewpoint of organizational learning CISE was also beneficial as it was noticed to have complimentary effects with other ongoing KBDMS programs (EC, 2019a, p. 103–105). This is a positive sign because it is hoped that in the future KBDMS that have been established now are able to be used to tackle future challenges. Systems are designed to operate in a dynamic setting and therefore it is important that they are able to be adapt and evolve. But it is important to remember that knowledge sharing systems are only a tool and they are effective only when other aspects of KBDM are done well (Maier, 2011, p.779–780; Wang et al., 2014, p. 978–1009).

In addition, successful implementation process should not be taken as granted. Concerns about organizations' path dependency and change resistance brought up by Goldstein et al. are still valid even in this context (2023, p. 3–6). In CISE's case one of the best practices was noticed to be that there was nearly constant dialog going between users and creators of the program (EC, 2019a, p. 311–324). Thus, implementing new KBDMS should be seen as a continuous process that takes time and effort from all actors even after the system has been launched for use.

## 2.6 Experts

Knowledge sharing systems are extremely important for successful KBDM, but it is just as important to understand who and what knowledge is being shared. EU:s main resource for acquiring information is expert groups. Expert group can be defined in this case as consultative entity, which includes external experts whose goal is to assist EC in preparatory stages of policy making (Gorniztka & Sverdrup, 2011, p. 50). Experts used by EC can be separated into two main categories, governmental actors and other stakeholders. Governmental actors are people who have a role in some government

agency, often on a national level, but they are invited to help with a specific policy making process due to their expertise. Other stakeholders include representatives from non-governmental organizations (NGO), private sector and academia.

Governmental actors are the more significant of the groups as most of the expert groups assembled by EC are formed mainly by governmental actors (Gorniztka & Sverdrup, 2011, p. 48–70). One of the concerns about using mainly expert with a background on national level governments is that they may act with their home nations benefit as their priority. Héretier brought up a claim that EU:s decision-making tends to stall because of multi-level governance with a variety of stakeholders (1999, p. 87–89). According to her, stalemate in decision-making is likely to occur if one of the actors believe that implementation of the given policy will have a negative consequences for the entity they represent (1999, p. 87–89). Thus, it is vital for effective expert group to be able to align their views and goals.

Somewhat surprisingly this does not seem to be an issue in EC:s expert groups. Intuitively it could be assumed that experts would be biased towards their own nationality. However, according to surveys experts say that they identify as independent experts and not representatives of their national government (Curtin & Egeberg, 2008, p. 644). This could be explained by the fact that EC has a special and independent role in the policy-making process, and these aspects entice experts that want to work for international organization instead of being representatives for single nation (Hooghe, 2005, p. 861–898).

Out of the other actors, academia is most often involved in expert groups. Scientists are most influential for policymaking process when needing scarce information (Gorniztka & Sverdrup, 2011, p. 52). Therefore, role of the scientific community is often to be provider of objective data and information. Gorniztka and Sverdrup also found out that expert group is very rarely filled with only scientist (2011, p. 54–63). This supports the assumption that their role is mainly to work as an information provider. Other

stakeholders are quite rarely included in the policy making process, and when they are part of the process there is often opposite sides represented (Gornitzka & Sverdrup, 2011, p. 54–63). Thus, it could be said that private companies, NGOs etc. are to be heard when they are directly to be affected by the planned policy.

Gornitzka's & Sverdrups's study also found out that use of the different experts is tied to DG's (2011, p. 60–64). This aligns with observations made by Aggrawal & Fogarty about each DG's having a unique way of operation based on their area of responsibility (2004, p. 227). Some of the differences in expert groups can be explained by different needs in their respected sectors, but also staff size etc. were noticed to correlate with the diversity of actors found in expert groups (Gornitzka & Sverdrup, 2011, p. 60–64).

From these observations it can be said that expert groups are built by diverse range of actors, who have differing roles in the policymaking process. Governmental actors are the core of expert groups, because they have the experience for necessary steps needed in policymaking process. Scientific community is universally trusted and therefore is able to act as an entity which provides objective information for rest of the group. Private stakeholders are often heard when policy planned is polarizing and it requires information about how implementation will affect involved parties. However, there does not seem to be objectively best way to build an expert group and actors involved need to be assessed in case-by-case basis.

Diverse group of experts does not seem to directly correlate with better policymaking, but it might still be beneficial. E.g. having multiple viewpoints represented in the planning phase may give the process more legitimacy in the public eye. Also, stakeholders affected by implementation of the policy may be willing to accept it easier if their voices and concerns have been taken into account during the decision-making. However, it could be said that specific actors chosen in the expert groups are only a secondary element for success, while organizational culture and knowledge sharing structures used are more influential for successful operation of expert groups (Radaelli,

1999, p. 768–769). This seems to be an overarching theme in all sub-sectors of KBDM. Each area studied in this paper, needs minor adjustments and there certainly are improvements that could be made, but after all everything revolves around building organizational culture which embraces knowledge sharing and dialogue between all organization levels. No level of new technology or more diversified expert group can fill the gaps if core actions are flawed

# 3 Purposive social action

To understand unintended consequences, it is necessary to comprehend certain key concepts and terminology related to it. Thus, this section tries to explain and define the terminology surrounding unintended consequences, before analyzing the types of unintentional consequences that exist and are most influential for EU:s decision-making process. It is also to be mentioned that this study will analyze unintended consequences by using the same four quiddities that are used in the EC:s impact assessments. These four sectors that are used to define impacts of policies are Positive-, Negative-, direct- and Indirect consequences (Lee & Kirkpatrick, 2006, p. 24–25). This decision has been made because it makes analyzing framework consistent with EC. That being said there, are more complex and therefore more comprehensive frameworks which exist, but their usage is more fitting in theoretical studies and papers which focus solely on one policy.

Main concept which needs to be discussed before delving into unintended consequences is Purposive Social Action. However this concept is combination of concepts Purposive Action and Social Action, which both need to be understood to grasp the nature of relation between purposive social action and unintended consequences. As an attempt to make these concepts easier to understand, this paper will analyze these concepts starting from the most abstract.

## 3.1 Purposive action

Purposive action could be translated into a colloquial language as “doing something for a reason” or “acting with an intention”. People carry out numerous actions in their day-to-day life, but segregating actions with and without intentions. It is to be acknowledged that, some thinkers believe that every action has a purpose and on the other extreme some argue that no action has a purpose. For the sake of simplicity, this paper takes the

view carried out by most philosophers, which believe that actions can be divided into purposive and non purposive categories (Butterfill & Sinigaglia, 2014, p. 138–139).

Intentional actions can be separated into two phases. First step is initiation, and the second one is implementation (Heckhausen & Beckmann, 1990, p. 36–38). First stage is where purpose for the action can be found. Initiation phase tries to answer two questions which are a) What is the desired outcome? and b) Which actions are needed to achieve the desired outcome? Implementation stage is where all actions deemed necessary in phase 1 are done, and if everything goes as planned, at the end intended action has fulfilled its purpose.

This two-step process described above is often illustrated as some very ordinary task which is familiar for everyone. Basically, every action that is part of day-to-day life can be analyzed by this method. For example, getting a glass of water could be analyzed as follows. First is the initiation process as Heckhausen & Beckmann wrote (1990, p. 36–38). In this case goal is to acquire a glass of water. When goal is set, starts the implementation process which is a sequence of tasks like getting a glass from the kitchen cabinet and turning on the faucet. These actions, which are done only to achieve goal set in stage 1, are called motor representations. Most philosophers consider these actions being only enabling factors that have no purpose of itself, but they are directed by intention (Butterfill & Sinigaglia, 2014, p. 138–139; Cooper et al., 2014, p. 245–247). After the sequence of motor reflections is done, goal set in the initiation stage is achieved.

Using this extremely simplified illustration carries two benefits. First one is that it is easy to grasp and understanding the basics of the thinking process makes it possible to apply to more complex actions, such as how people use this 2 phased system in their work life. It goes beyond scope of this study, but it is to be noted how importance of organizational culture was repeatedly brought up in sections about KBDM, and understanding the way individual employees act in a purposive manner could turn out to be vital for better

comprehension of how organizational culture evolves. The second benefit of the illustration about getting water is, that it provides an example of a purposive action which happens intuitively. In individual's actions this is quite often the case and action does not necessarily need to be carefully planned to be purposive. Other main characteristics of purposive action apply individuals and organizations, but in organizations' case the action often needs to be planned to be considered as purposive. Based on these observations, we can define core qualities of purposive action.

- Purposive actions are common for individuals and organizations
- Purposive actions need to be initiated, but the initiation can be either planned or intuitive
- Purposive actions are implemented by motor representations
- Motor representations and daily tasks are motivated by intention, but they aren't purposive itself
- Characteristics of purposive actions are similar regardless of size of the goal set for action

## 3.2 Social action

United Kingdom's Department for Culture, Media and Sport gives a following definition for social action: "Social action is people coming together to tackle an issue, support other people, or improve their local area" (n.d., p. 2). This citation is somewhat taken out of context as report refers to actions which are more often known as civic activities, but "Social action is people coming together to tackle an issue" encapsulates the essence of social action in a context of this paper. Social actions involve large variety of diverse theories which revolves around how people act as a part of groups. These aspects are mainly ignored, and focus is on explaining how and why organizations are formed on how they act.

Rational choice theory is one of, if not the most note worthy sociological theory which explains human behavior. In its simplicity, rational choice theory assumes that people act in a way which maximizes their own benefit. Main subordinate concepts under rational choice theory are Instrumental- and Value rationality, both terms coined by Max Weber. Instrumental rationality explains human behavior as outcome driven action (Kolodny & Brunero, 2023). Whereas value rationality explains actions through morality (McWilliams-Doty, 2022). Differences in forms of rationalities can be illustrated in a following way:

- Instrumentally rational entity does action A, because outcome of that action is B
- Value rational entity does action A, because it believes that the action is morally correct, regardless of the outcome

These two aspects of rationality explain why entities can have differentiating preferences and rational action may be different between actors, even though situation they are involved is identical. As a remark, it is important to remember that purposive- and rational action are separate concepts. It could be argued that every rational action is purposive, but humans have shown throughout their entire history to be remarkable at making irrational actions with a purpose as individuals and collectives.

Rational choice theory aims to explain actions of individuals and organizations, but the way rationality shows itself differs between individuals and collectives (Zey, 1997, p. 15–19). In her book Zey defines collective rationality as “the result of public and rational dialogue about the common good” (1997, p. 18). Many classical sociological theorists had separately formed thoughts in the 1800’s about how collectives should be formed to achieve the maximum level of common good (Sager & Rosser, 2009, p. 1136–1147). Sager & Rosser found out that Weber, Hegel and Wilson all had similar thoughts about how public organizations should be formed (2009, p. 1136–1147). The main findings were that all three previously mentioned sociologists believed that historical aspects were a determinant for the rise of rational bureaucratic state, bureaucratic state should

be hierarchical, and rule driven by structure, and people part of the bureaucracy should be experts of their field and driven by common goals instead of selfish desires (Sager & Rosser, 2009, p.1136–1147). These findings support the assumption that by rational choice, collectives will converge towards most efficient possible form. For that reason, organizations are constantly evolving and adapting to their surroundings.

From these findings it is possible to specify defining characteristics of social actors as follows:

- Social actor's goal is to achieve common good
- Social actor is a collective of individuals, but more than aggregate of its individuals
- Social actor aspires for rational action
- Its action can be either value- or instrumental rational
- It is directed by rules

## 3.3 European Commission as a purposive social actor

Previously I've characterized purposive- and social actors by their main attributes. By combining these aspects, we can build a defining framework for purposive social actors. To achieve the goals set for this paper, this framework will be used to analyze European Commission as a purposive social actor. However, characteristics used to define purposive social actor are stated in a broad and abstractive form and should be able to be applied to organizations as well.

*Purposive social actor is a collective of individuals, whose goal is to solve issues and thrive towards common good (Sager & Rosser, 2009, p. 1136–1147; UK publishing service, n.d). Collective is also more than aggregate of its participants (Zey, 1997, p. 15–19). To achieve these goals, collective must be dynamic and approach decision-making from a rational standpoint, and to ensure rationality of decision-making, social actor is to be regulated*

*by rules (Sager & Rosser, 2009, p. 1136–1147). Rational decision-making can be either value- or instrumentally rational (McWilliams-Doty, 2022). Rational decision-making is also driven by intent, and therefore is purposive. Administrative assignments occurring in collective can be thought as motor representations, i.e. sequential tasks which are enabling actions for implementing initiated purposive action (Butterfill & Sinigaglia, 2014, p. 138–139; Cooper et al., 2014, p.245–247; Heckhausen & Beckmann, 1990, p. 36–38).*

From what we have previously learned, it can be said that most of these aspects describe European Commission precisely. It is known that employees and experts used by EC fulfill this aspect of pursuing common good (Curtin & Egeberg, 2008, p. 644; Hooghe, 2005, p. 861–898). "Common good" is always somewhat subjective, but in this definition, it is enough that participants of the collective believe that they are trying to achieve good. It is nearly impossible to define objective common good and therefore its necessary to make an assumption, that almost all organizations are working towards what they believe is the common good.

One of the key characteristics for dynamic organization is that knowledge is shared and created by converting explicit and tacit knowledge (Nonaka et al., 2014, p. 139–140). From that point of view, it can be said that EC is dynamic and constantly creating new knowledge with the help of knowledge sharing. In the EC main concern with knowledge is that it is not shared equally, and important aspect of individual accountability, is lacking (EC, 2019a, p. 311–324; Wang et al., 2014, p. 978–1009).

Type of rationale used is the most interesting and complex part of EC as a purposive social actor. In the policy-making process EC relies often to instrumental rationality, but large-scale goals set for EU as a whole, are hard to evaluate from rationale viewpoint. Goals concerning economic, environmental- and sustainability aspects could be seen either as instrumental or value rational goals. This paper presented value rationality in a positive form in section 3.2, but it could be turned other way around. In policymaking there is situations where doing morally wrong thing, could lead to positive outcomes.

Especially concepts of liberal paternalism and nudging fall under this category, where positive outcomes could be achieved by doing at least morally grey things such as exploiting human tendencies (Stanovich, 2009, p. 195–212).

In this section we have defined purposive action, social action and purposive social action. This paper also analyzed how European Commission fulfills the characteristics set for purposive social actor. From our findings it can be said that EC is applicable to be analyzed from a viewpoint of unintended consequences as it clearly is a purposive social actor. This can be seen as an obvious outcome, but main goal of this section was to give a brief introduction to philosophy surrounding concept of Unintended consequences and use analyzes of EC in more of an illustrative manner than study that is to be taken seriously.

# 4 Unintended consequences

As mentioned before, this study will use the four-dimensional framework as a foundation for analyzing unintended consequences. Those for dimension being Positive, Negative, Direct and Indirect (Lee & Kirkpatrick, 2006, p. 24–25). However, this does not take into a consideration whether consequences are expected or not. Therefore, in this paper the element of expectation will be added to the analyzing framework. It is also to be noted that these 6 elements can be divided into three sections and be thought as pairs. These pairs are Positive/Negative, Direct/Indirect and Expected/Unexpected and each of these elements will be illustrated via examples. Analyzing nature of unintended consequence is to be done by choosing fitting characteristic from each before mentioned pair. Table 2 below illustrates how unintended consequences can be analyzed by using framework established in this paper.

**Table 2** Classification framework for Unintended Consequences

| **Variable 1** | **Choose max 1 per variable** | |
|---|---|---|
| Expected | Unexpected | Not available |
| **Variable 2** | **Choose max 1** | |
| Direct | Indirect | Not available |
| **Variable 3** | **Choose max 1** | |
| Positive | Negative | Not available |

Before analyzing the types of unintended consequences, there needs to be said few words about unintended consequences as its entirety. We have already established that the most common reason for unintended consequences is lack of knowledge (Merton, 1936, p. 898–899). This is supported by Rowe arguing that reforms will always include uncertainty, and therefore create unintended consequences, because future events are not a reflection of the past and knowledge about future is always partial (1994, p. 743–

750). However, unintended consequences can be also caused by multiple other reasons, such as ignorance and (un)willingness to take risks (Merton, 1936, p. 900–904; Burlyuk & Noutcheva, 2019). Also unintended consequences are not always negative, and unintended is not to be confused with undesired (Merton, 1936, p. 895). However, emphasis of the discussion about unintended consequences often revolves around negative impacts, because they cause more public interest (Burlyuk & Noutcheva, 2019).

## 4.1 Positive and Negative unintended consequences

Even though uncertainty in policymaking and unintended consequences carry a negative reputation, some unintended consequences may prove to be beneficial. However, it is to be remembered that positive and negative consequences are somewhat subjective and dependent actors' values (Burlyuk & Noutcheva, 2019). As this paper has discussed about thrive towards common good, consequences which promote common good are interpreted as positive.

Since we have previously discussed about rational choice theory, it is fitting that probably the most well known and influential positive unintended consequence was a result of rational choice theory. Concept of Invisible hand was launched by Adam Smith in the 1700's. He referred to this concept in multiple works, but the core idea is that by pursuing selfish economic goals via rational choice, individuals create societal benefits (Rothchild, 1994, p. 319). For example, people owning factories were trying to achieve higher quality of life by achieving profits, but at the same time they provide societal or common good by employing workers and producing goods that are deemed valuable by society (Rothchild, 1994, p. 319). Whether or not societal benefits were considered by factory owners during early periods of industrialization, they were still unintentional result of individuals trying to maximize their own prosperity.

Negative unintended consequences have been on a forefront of both public and academic discussion as they can be highly detrimental for policymakers. We have

established that positive consequences furthers the common good, and therefore can be said that negative ones hinder it or in worst cases creates common bad. Severity of negative unintended consequences can be classified in three categories. First category is negative effects which render the policy created as ineffective. Example of this is that in the USA auto safety regulation was ineffective during the late 1960's and early 1970's. In his study Peltzman found out that highway death rate did not decrease even though safety measures were increased (1975, p. 717). This is believed to have happened because safety measures, especially mandatory seatbelts, made drivers less cautious because price of an accident was significantly lowered (Peltzman, 1975, p.717).

Second manifestation of unintended consequence are the ones that make the original situation worse than what it was. Luckily these are quite rare, as they could be considered as an ultimate failure of policymaking. Probably the most well-known cases of policies that have drastically worsened their direct impact area are economic policies, which have led to hyperinflation. Occurrence of these policy mistakes, mainly increasing money supply to battle inflation continuously, have drastically decreased in western nations, but from the past couple decades examples of this phenomenon can be found from Zimbabwe and Venezuela. Third and final form of negative unintended consequences are effects that are indirect and create issues that were not even thought of during policymaking. However, to avoid repetition, these types will be further discussed in following sections as there is a lots of crossovers with unexpected and indirect unintended consequences.

## 4.2 Direct and indirect unintended consequences

Direct and indirect unintended consequences are somewhat self-explanatory terms, but just to reiterate these terms can be thought as follows. In direct consequence policy **A** causes a result **B**. In indirect situation policy **A** causes a result **B**, and result **B** causes action **C** to happen and so forth. Direct consequences can be seen as clear causality between **A** and **B**, but indirect consequences are everything that follows that. For this

reason, direct impacts are often simpler and easier to outline. With indirect consequences defining causal imputations is often difficult and that makes defining scope of the indirect effects problematic (Merton, 1936, p. 897). Thus, broadening the scope of studying indirect consequences further than "C" is often not sensible, as impact of policy "A" gets blurrier with every extra step.

From the viewpoint of unintended consequences, USA:s alcohol prohibition policy could be considered to be somewhat of a goldmine, due to diverse range of accidental effects it caused. Intention (purpose) for prohibition was to lower the alcohol consumption, because it was deemed to be harmful for society. Direct impact was that alcohol consumption decreased, but benefits for public health were lackluster and as another direct consequence policy created an underground market which was excellent growing place for organized crime (Thornton, 1991). Growth of organized crime and birth of multiple criminal gangs, including mafia led to a heavy increase in violent crimes and corruption during prohibition (Thornton, 1991). This was obviously extremely harmful for common good but provides a great example of how policy A (Banning alcohol) caused action B (black market for alcohol), which indirectly lead to C (organized crime) which caused D (increase in violent crimes) and so on. However, it is very rare that indirect unintended consequences of a single policy are this clear and more often than not recognizing causalities gets much more complex.

## 4.3 Expected and unexpected unintended consequences

Level of expectation was added to EC:s impact assessment framework to correspond necessities of this study. This aspect was not on an original IA framework for the reason that every possible impact considered in the assessment would fall under the expected-category. Thus, this section was created to tie together framework used for IA:s and viewpoint of unintended consequences.

Expectation does not imply how likely something is to happen, but it tells that possibility of something was considered during the policymaking process. Therefore, unintended action occurring from policy, may be deemed to be highly unlikely in policymaking process, but still expected. In addition, it is to be kept on mind that every policy has expected positive impacts, but if they are set as goals in policymaking, they are not intentional. In many cases policies have expected and unexpected positive consequences (Daase & Friesendorf, 2010, p. 199). I'd also like to reiterate Burlyuk's & Noutcheva's argument that expected negative unintended consequences are highly intriguing, because they provide information about actor's values (2019). In EC:s case this makes policies involving negative expected consequences for economic, environmental or sustainability dimensions fascinating subjects for a case study.

Unexpected unintended consequences are often related to indirect occurrences. Impact assessments and risk evaluations are fairly consistent at recognizing risks of direct impacts, but as previously mentioned, impact of a policy gets harder to define when there are multiple indirect consequences (Merton, 1936, p. 897). This makes charting indirect consequences in the policymaking process, difficult and it is unlikely that these effects can be evaluated accurately. Taking into a consideration the cost, both monetary and time spent, needed to assess multiple levels of indirect consequences, it is often not sensible. In an ideal world unexpected consequences could be eliminated, but currently focus should be on how actors can adapt when these effects eventually pop up (Schneckener, 2010, p. 77–79).

# 5 Methodology

## 5.1 Purpose and Goals

Role of knowledge, or lack of it has been recognized as a primary reason for unintended consequences (Merton, 1936, p. 898). However, the extent which unintended effects can be avoided by maximizing knowledge usage in policymaking process has been debated (Cavoski, 2017, p. 256–257). It is expected that unintended consequences are unavoidable and eliminating them fully is not feasible, because achieving full knowledge is not possible (Rowe, 1994, p. 743–750). Nevertheless, this does not invalidate emphasizing knowledge in decision-making process, as assumption is that knowledge is an important factor in minimizing unintended consequences.

In the European Union's decision-making process, the European Commission and impact assessments it creates are recognized to be most vital sector in policymaking from the viewpoint of knowledge. Thus, this paper aims to observe how quality of the impact assessments is connected to unintended consequences. Primary object for the study is acquire knowledge about possible causality between quality of IA:s and unintended consequences. Secondary goal is to analyze type of unintended consequences that are noticed, as some types of effects are deemed to be more harmful than others for policymakers and common good. Special thoroughness will be used to decide whether consequences were expected or not, as particularly unexpected unintended consequences can create significant societal negative effects.

## 5.2 Research methods

To achieve the wanted outcome, methodology of this study has been divided into a three distinct sections. First phase is to choose and analyze a sample group of IA:s. Samples have not been chosen with utter randomness, and due to the fairly small sample size,

they may not represent entire population accurately. However, by choosing samples it can be made sure that they represent diverse range of impact assessments and are not very alike. This helps to provide information about differences between policy sectors and similar approach was used by Lee & Kirkpatrick in their study about impact assessments (2006, p. 25–25).

As it is necessary for the goals of this paper to be able to compare quality of impact assessments, they need to be represented in a quantitative form. This causes main methodological problem for this paper, but fortunately evaluation matrix for impact assessments has been formed. Thus, this study will be using the review package provided by Lee & Kirkpatrick, which they used in their own study about IA:s (2004; 14–17; 29–40; 2006, p. 27). Details of this package will be further discussed in the following section, but in sum it provides necessary tools to grade quality of IA:s. Most significant differences with this and Lee's & Kirkpatrick's paper is that results will be expressed as numbers instead of letters and one additional section will be left off. However, this does not change content of the review package as number- and letter-based grading systems are interchangeable and additional section of review package does not review the quality of IA but the process itself. Using the established review package has many benefits, e.g. ability to compare results across the studies, which will create a better overview of the quality of IA:s in a broader scope.

Second phase of the analysis is to recognize and analyze unintended consequences caused by policies used in the study. Knowledge about unintended consequences will be acquired mainly from EU:s internal reports and surveillance programs. Some academic studies may be referred but using them as a primary source would pollute sample pool, as it would guide samples to chosen by policies which have had disproportionately major unintended consequences. Analysis of unintended consequences will be done by using the model provided earlier in the study (see Table 2) which gives three characteristics for each noticed unintended consequences. Unfortunately, with resources available for this paper it is not possible to analyze the severity of unintended consequences in an in-

depth manner. Therefore, they will be analyzed in a qualitative and descriptive manner, if it is deemed necessary to explain in a broader manner.

In a third and final stage this paper will use data and information collected in phases 1 and 2 to examine relation between quality of IA:s and number of unintended consequences along with types they represent. Analysis will combine both qualitative and quantitative methods to provide a clear picture of possible correlation between IA:s and unintended effects. Decision to combine methods was done, because neither qualitative nor quantitative tools could answer the needs of this study alone without leaving major gaps which would hinder quality of the paper.

## 5.3 Validity, reliability and ethical concerns

Gauch presents four ideals that science should thrive for, rationality, truth, objectivity and realism (2013, p. 21–33). However, achieving these goals is a difficult task as natural thinking and usage of common sense are susceptible for errors (Wolpert, 1993, p. 9–13). Science is also restricted by fundamental and practical limits, which are important to acknowledge (Gauch, 2013, p. 96–97). With these core aspects of science in mind, can be addressed how this papers methodology is able to achieve scientific ideals and avoid pitfalls in a best possible way.

Major issue in this study is the ability to evaluate and grade impact assessments in a way that is objective and rational. These two aspects are necessary to achieve an evaluation, where truth about IA:s quality is represented as a sequence of numbers. In this paper we have already discussed the benefits of a collective mind as a rational actor over individuals. Even though individual would be aware of the issues of natural thought they are still prone to irrationality. This is addressed by Lee & Kirkpatrick in their guide to IA reviews, by suggesting that evaluation is preferably done by two reviewers (2004, p. 30). I would even argue that two reviewers might be less than ideal. In a realistic ideal situation evaluation could be done by five reviewers, and then highest and lowest scores

could be cast off to achieve closest possible representation of truth. Due to practical limitations set for this paper, reviewing process will be done by only one individual. This is important limitation to address because gradings could, and perhaps should be under scrutiny because of this. However, to combat this challenge, review will be done as openly as possible and additional notes about reasons behind grades will be added to accompany gradings. This limitation in a reviewing process is obviously harmful for reliability and validity as truthful grading is vital for the results. For this reason, the study will not try to provide a conclusive evidence (or lack of it) between quality of IA:s and unintended consequences. Results found will be merely approximations and this paper will work as a preliminary study on a subject that will hopefully be researched more thoroughly in the future.

As a writers note I would like to add that despite of these limitations, this paper will thrive towards scientific ideals, and it will be as rational and objective as attainable with its limitations. Pitfall which may cause issues in a reviewing process are trusting common sense, as Wolpert illustrated (1993, p. 9–13). In this case natural assumption may be that results of reviews should be close to a standard deviation. However, this is not the case, and it is entirely possible that all reviewed samples will be either high or low quality. Another issue with using common sense is that it is affected by prior knowledge and personal experiences (Gauch, 2013, p. 105–107). In their study Lee and Kirkpatrick found out that IA:s which were low quality on one area, tended to be low quality across the assessment (2006, p. 27–31). Having this prior knowledge could lead reviewer to try and find more issues in assessments which were lacking in one area. These are just couple examples of possible pitfalls which have been taken into a consideration while conducting this study. Even though these extensive measures may not be able to fully cover for lack of secondary opinion, they are done to achieve the best possible result within the limitations set for this paper.

# 6 Sample presentation

Following section will introduce samples used in a study and results of IA evaluations and unintended consequences caused by sample policies.

## 6.1 Description of samples

Impact assessments chosen for this study will be briefly summarized to provide a cursory understanding of what policies are, why they have been implemented and which were the intended effects of the policy. This is essential information as it ables us to divide consequences to intentional and unintentional.

### 6.1.1 Sample A: The Visa policy

The Visa policy entered in the force in 2010, and implementation was done under the directorate-general (DG) for Migration and Home affairs. Main objectives for the policy were to create more efficient visa policy, ensure that model is financially sustainable for member states and improve co-operation with third countries (EC, 2024a, p. 1). Co-operation with third countries was mainly done to counter security risks and illegal immigration. (EC, 2024a, p. 1). In the impact assessment, these issues were seen as separate problems, which all require actions to achieve wanted outcome (EC, 2018b). Motivation behind policy was to address existing issues with inability to react external shocks, and at the same time improve quality of the Visa application process by ensuring it is up to date and utilizes modern technology (EC, 2018b).

### 6.1.2 Sample B: Corporate sustainability due diligence directive (CSDDD)

Previously performing due diligence through companies supply chain was encouraged, but it was not mandatory. This led to a situation where most companies did not do it, despite it being expected to produce competitive advantage (EC, 2022). Therefore, legal framework was created to increase social- and environmental liabilities of companies. Legal framework is on the most parts representative of existing, but non-binding, guiding principles of United Nations (Mieszkowska, 2024). Goals of the directive are to use EU:s single market as advantage and create fair legal obligations for all companies participating on it, mitigate societal- and environmental negatives of economic action while increasing liability of those causing them, and provide an environment where companies can transform into sustainable business models without being in competitive disadvantage (EC, 2022; EU, 2024; Mieszkowska, 2024).

### 6.1.3 Sample C European green vehicles initiative (EGVI)

European green vehicles initiative (EGVI) was launched by European Commission as a private- public collaboration in the after math of 2008's financial crisis (EGVI, 2013, p. 4). Impact of EGVI was mainly manifested through it's co-operation with private actors. Main goals for the program were to help automobile sector to recover from financial crises, and simultaneously supporting their thrive towards new more environmentally friendly forms of travel. These environmental- and sustainability goals included e.g. better battery life for electric vehicles (EV) and more fuel friendly tires for long distance transport vehicles (EGVI, 2013, p. 8–17). Special emphasis was put on trying to increase the amount of EV:s compared to traditional fuel consuming automobiles to lower co2 emissions caused by traffic. Main instrument for achieving these goals was to collaborate with private companies and fund their R&D efforts, which aimed for more sustainable vehicles.

### 6.1.4 Sample D the protection of animals during transport

Initiative to create legislation for protection of animals during transport was led by the Directorate for food and safety. In the fitness check, which reviewed situation in the policy area, multiple deficiencies were found (EC, 2023a, p.5). Main issue was lack of regulation in transporting farm animals, but same problem troubled also transportation of pets (EC, 2023b, p. 3–7). Multiple singular issues were found, such as long travel times and obsolete size requirements, but all of these aspects were tied to the fact that legislation around topic was fragmented and outdated (EC, 2023a, p. 3–11). Therefore, main goal of the directive was to build a cohesive legal framework to address before mentioned issues.

### 6.1.5 Sample E Quality traineeship initiative

Quality traineeship initiative is a project created to tackle issues surrounding different types of internships used in EU:s member states. Traineeships have been noticed to be beneficial as they offer influential experience especially for young people, which helps EU to advance its goals to tackle youth unemployment (EC, 2013, p. 7; EC, 2024b, p. 2–3). However, traineeships have faced persistent problems, where they have been misused and trainees have been taken advantage of. Most common issue is using trainees as free or cheap labour for monotonous tasks, which do not help trainee to gather knowledge and experience in an intended way (EC, 2013, p. 13). On top of problematic usage of traineeships, also poor quality of them was noticed to an issue (EC, 2024, p. 3). Poor quality in this case meaning for example poor working conditions and incomplete social protection for trainees (EC, 2024b, p. 3–12).

At the time, existing legislative and qualitative framework surrounding traineeships was heavily tied to national legislations and there was no cohesion on EU level (EC, 2013, p.

8–9). To address this issue, quality traineeship initiative was started. Policy option used was creating EU-wide quality standards for traineeships, but implementation of standards was mainly voluntary and non-enforced. This decision was explained by the fact that it would allow member states flexibility to implement these standards in an efficient way (EC, 2024b, p. 2–3). Later it was found out that usage of soft policy tools had not been effective, and currently tighter monitoring and enforcing framework is being suggested (EC, 2024b, p. 2–3).

### 6.1.6 Sample F Common rules promoting the repair of goods

Initiative for creating common rules around repairment of goods established to advance European Unions environmental goals. Primary issue which directive thrives to reduce is premature disposal of goods which could be repaired (EC, 2023c, p. 7–10). Especially products, which are consider as cheap are often thrown away before even trying to repair them, leading major environmental drawbacks such as increased waste (EC, 2023c, p.7; EC, 2023d, p. 1). Problem at its core is multidimensional as hurdles such as consumers reluctance to buy repaired goods, inconvenience of repairment process and replacements being a cheaper option are present (EC, 2023c, p. 7–18). For this reason, policy option chosen included multitude of requirements to assess each individual issue. Most notable required measures are obligation for either seller or manufacturer to repair damaged goods for free if they fall under the warranty and against a reasonable cost even if damage is not covered by guarantee (EC, 2023d, p. 11–12). For the member states key requirement is to establish an online platform, which connects repair service providers to customers (EC, 2023d, p. 12–13). Goal of this aspect of the chosen policy option is to reduce inconvenience of repairing damaged goods by making companies offering repairment more easily accessible for customers.

## 6.2 Review of Impact Assessments

Following section includes reviews and grading of the samples. Each sample is evaluated by three sections, first in sub-categories, which are used to give grade to three main categories and finally results of them are taken into a consideration while giving final grade. However, it is important to note that final grade will not be average of grades given to sub- and main categories, as importance of them may be radically differentiating (Lee & Kirkpatrick, 2004, p. 30–31). Main categories are shown in the table 3 below. Lee's & Kirkpatrick's review package includes also fourth category which describes assessment as a process (2004, p. 30–31). However, it does not evaluate quality of the IA and therefore is outside the scope of this study

**Table 3** Main categories of IA review package (Adapted from Lee & Kirkpatrick, 2004, p. 15–16)

| | |
|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options |
| **Main category 2** | Description of options, analysis, methodology and Findings |
| **Main category 3** | Presentation of report findings |

Subcategories presented in a following page in table 4 are divided into ten questions which represent the most significant attributes and qualities of the main categories. In addition, a broad list of questions, which are used to guide grading of subcategories will be added as an appendix at the end of this paper (See appendix 2). As previously mentioned, writers' notes containing reasoning behind grades will also be included. At the end of the paper, individual scores of sub-categories will also be added (see appendix 1) Due to practical limitations sub subcategories can not be evaluated in a same manner as sub- and main categories, but they are still a significant help in an evaluation process.

**Table 4** Sub-categories of IA review package (Adapted from Lee & Kirkpatrick, 2004, p. 30–31)

| | |
|---|---|
| **1.1** | Description of a problem |
| **1.2** | Description of policy objectives and targets |
| **1.3** | Description of policy options |
| **2.1** | Description of options analysis methodology |
| **2.2** | Description of options analysis findings |
| **2.3** | Choice of preferred option |
| **3.1** | Scope of the report |
| **3.2** | Structure and clarity |
| **3.3** | Objectivity |
| **3.4** | Non-technical summary |

Samples are graded by these qualities on a scale of 0-5, and numbers have been defined in a way that they represent a letter of Lee's & Kirkpatrick's grading system (2004, p. 17)

0: Very unsatisfactory, important aspects done poorly or not attempted

1: Not satisfactory, significant deficiencies

2: Parts are well attempted, but inadequacies make it unsatisfactory

3: Satisfactory as a whole, despite some deficiencies

4: Satisfactory with no major omissions

5: Well performed and satisfactory, every important task is completed

### 6.2.1 Sample A Impact Assessment review

Main issue in the first main category, and in the entire impact assessment is inability to recognize core elements of the problem. Practically most sub-categories are done well and are mainly satisfactory, but not being able to realize heavy fluctuation in Visa applicants was a major mistake. Therefore, category 1 is graded fairly low, even though most of it was done satisfactory. Argument could be made that external shocks (immigrant crisis, russo-ukranian war) were not realistic to expect, but in a complex system external shocks must be expected.

Second category was overall well done, some minor issues were noticed and perhaps IA could have been broader. Only note worthy omission was that policy option for objective 3 (returning illegal immigrants) was very abstract and little to no concrete options were presented. It was noted that threatening nations which won't co-operate with negative consequences would be preferred policy option, but these options were not explained further. However, it was noted that these issues could be addressed with other policies, which explains why it was not detailed heavily in this IA. For that reason, overall grade for the second category remains quite high.

Third category was the highest rated one of this IA. There were no major issues, and especially sub-category one was extremely satisfactory. Assessment was very clear and collecting information from it was easy due to how it was divided into separate parts. Overall, IA was objective, but relation between environmental and economic effects on increased travelling were not addressed thoroughly. It was mentioned that both could be seen as negative or positive, but no further explanation was given. From the sub-category 3.4 only noteworthy omission is that role of the consultants and experts used was not explained. Actors who participated in preparation of IA was mentioned, but their roles and importance weren't properly assessed. For these reasons sample A receives fairly mediocre grades as shown in table 5.

**Table 5** Grading of sample A

| **Category** | **Description** | **Grade** |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 2 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 4 |
| **Main category 3** | Presentation of report findings | 4 |
| **Final grade** | Numerical representation of IA:s overall quality | 3 |

### 6.2.2 Sample B Impact Assessment review

Directive about corporate due diligence was quite difficult to evaluate as some categories were between grades 4 and 5. Overall it was well done and most of the areas were satisfactory with small omissions. Main issue was that difficulties which corporations face in surveilling entire value chain was not broadly brought up. Lack of this aspect was noticeable especially when document listed reasons for why softer tools (guidance, non-binding goals, etc.) have not accomplished wanted outcomes.

Second main category was very well done and there is not much to criticize. Analysis was comprehensive, policy options and justification for them was presented by quantitative and qualitative methods. Section 2.4 was given 4 because the lack of presentation of how these options will affects the actors in the lower end of value chain. This is quite significant omission and therefore overall grade was only 4 even though rest of this category was excellently done.

Third category was also good, but scope and objectivity lacked slightly because issue of 2.4 was present in these aspects as well. Basically, assessment covers all aspects of EU:s main goals (Economic, environmental and sustainability), but is unable to recognize the global aspect. Structurally document was good and mostly easy to read. Slight issue was that both appendixes and tables from earlier sections were referenced often, which causes lots of bouncing around while reading the document. This could be improved by a) giving short explanation what is in the appendix in the text and b) mentioning existence of appendix in the end of the section as it should provide more information while necessary info is in the core document. And for some reason impact assessments don’t use interactive TOC’s which makes jumping around the document an unnecessary hassle. These things kept in mind; sample B is graded quite highly as shown in table 6.

**Table 6** Grading of sample B

| Category | Description | Grade |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 4 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 4 |
| **Main category 3** | Presentation of report findings | 4 |
| **Final grade** | Numerical representation of IA:s overall quality | 4 |

### 6.2.3 Sample C Impact Assessment review

Impact assessment of European Green Vehicles Initiative (EGVI) was structurally quite different to others. My personal assumption is that reason for this is that initiative was heavily built around public-private partnerships instead of being independent project of EU or EC. This assumption is caused by the fact that assessment was very corporate-esque i.e. it was similar to corporate reports and more emphasis was put on visuality of the document. It was also around one third shorter than other IA:s (Excluding appendixes). These differences caused some issues, but also had benefits compared to other IA:s.

Description of problem was very brief and emphasized the economic effects caused by financial crisis. However, the objectives were focused on environmental and sustainability aspects. This caused some confusion about how these three goals are valued in the eyes of EU on this case. Same issue continued to section 1.2, because

objectives were all about environmental targets, but it was already established that economic side was strongly considered to be part of the initiative. Direct policy options were not mentioned, as only policy used was co-operation between private actors. For these reasons IA can not be rated very highly. It answers questions with bare minimum and leaves a lot to be desired but does still enough to avoid lowest possible grades.

Second section was very ok. 2.3 was not available for the same reason as 1.3, but remaining parts were decent. Analysis was not as through as in the other IA:s, possibly due the shorter nature of the document. Third main category was by far the best section of this IA, mainly due to its structure. More emphasis was put making tables and figures easy to read and I would argue that document was the most easily understandable so far. Scope and Objectivity suffered a little bit due to missing mentions about negative impacts of increasement of EV:s, but otherwise there was no complaints. Due to aspects brought up above, sample C was not graded highly as can be seen from table 7

**Table 7** Grading of sample C

| **Category** | **Description** | **Grade** |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 2 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 2 |
| **Main category 3** | Presentation of report findings | 5 |
| **Final grade** | Numerical representation of IA:s overall quality | 3 |

### 6.2.4 Sample D Impact Assessment review

Overall, very little to criticize. Problems were clearly defined on abstract level and specific objectives were named to tackle these issues. Need for action was well argued and policy options were clearly represented. Emphasis was on farm animals, but it was mentioned that how building cohesive legal framework would benefit travelling with pets as well, even though it was quite clearly not as significant issue. Analysis was done in depth and quality of it was high through out the assessment. Presentation was also very clear in the assessment. Overall, IA was quite short but provided all necessary information. On top of that appendixes gave additional detailed information. Appendixes being published in a separate document could be seen as a small issue, but reading it was not necessary to get a clear understanding of problems and policy options. For these reasons, sample D received very satisfactory grades as shown in table 8.

**Table 8** Grading of sample D

| **Category** | **Description** | **Grade** |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 5 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 5 |
| **Main category 3** | Presentation of report findings | 5 |
| **Final grade** | Numerical representation of IA:s overall quality | 5 |

### 6.2.5 Sample E Impact Assessment review

Primary issue causing problems for all categories is missing data necessary to properly understand the conundrum. Scope of negative issues caused by low-quality and abusive traineeships were not able to be assessed properly because of this methodological omission. Different stakeholders were heard as an attempt to broaden the understanding of the policy issue, but it brought no clarity to situation. Different stakeholders, mainly employees and NGOs had very different views than companies, and recognition of core reasons behind the issue were not understood. Due to lack of data, it is somewhat understandable that policy option chosen ended up being "soft" framework which relied on voluntary application as creating and enforcing legislative structures without proper information available would have been troublesome. For these reasons first two categories are graded with low scores. Structure had no major issues, but overall quality of the assessment can not be graded very highly due to the deficiencies mentioned above. Major issues caused sample E to score mainly low scores as shown in table 9.

**Table 9** Grading of sample E

| **Category** | **Description** | **Grade** |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 2 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 1 |
| **Main category 3** | Presentation of report findings | 4 |
| **Final grade** | Numerical representation of IA:s overall quality | 2 |

### 6.2.6 Sample F Impact Assessment review

Very high-quality assessment. Problems were clearly defined and addressed broadly. Policy-options included multiple options and had been analysed as a package to create a comprehensive framework which addresses all aspects of the issue. Methodology used lots of data to address importance of the need for policy from economic and environmental standpoints. Findings were used to make an argument for fitting policy option by highlighting benefits, while not dismissing issues caused to SME:s and 3rd country producers and suppliers. Presentation followed the same structure as other IA:s, and all necessary information was provided with in-text tables and figures while more extensive and less important data was added as an appendix. Not major, but noticeable aspect is use of colours in tables, which makes them easier to read. This structure improving tool has been absent in other IA:s chosen for this study. Only major negative aspect is that at the time of writing this paper (8.4.2025), summary was not made available. These mainly positive considerations can be seen from high grades which sample F achieved.

**Table 10** Grading of sample F

| **Category** | **Description** | **Grade** |
|---|---|---|
| **Main category 1** | Description of problem, policy objectives and policy options | 5 |
| **Main category 2** | Description of options, analysis, methodology and Findings | 5 |
| **Main category 3** | Presentation of report findings | 4 |
| **Final grade** | Numerical representation of IA:s overall quality | 5 |

## 6.3 Classification of Unintended Consequences

In this section noticed unintended consequences will be briefly introduced and classified by using in a way that was presented in a table 2 In this phase emphasis is on introducing faced unintended consequences but classifying them will be used later on in a quantitative analysis. To avoid repetition classification will be only represented with words during this stage, but tables containing all information about types of unintended consequences will be presented in later sections.

### 6.3.1 Sample A Unintended Consequences

First two unintended consequences of the Visa policy are closely related to decision to not raise the cost for visa applications. Although it is to be mentioned that this issue has been corrected during the policy's lifespan. However, the choice to keep application fee at 60€ resulted in financial issues for some member states and caused the decrease in service quality (EC, 2018b; EC, 2024a, p. 27–32). This unintended consequence was direct, as it affected directly both service providers and customers, which are in the core of the policy's target audience. Effect was also clearly negative, because it caused decrease in service quality and was problematic from economic viewpoint. Most difficult part to characterize of this case is the level of expectancy. It was known that visa application fee was not able to cover administrative costs in most cases, but it only became a major issue when external shocks caused drastic increase in immigration and refugees. This case will be considered as unexpected, but it is not as clear cut as other two characteristics.

Second unintended consequence is an indirect result of economic issues caused by not increasing visa fee. As mentioned, this caused financial issues for some member states, and quality of visa services decreased especially in these nations. This led to phenomenon known as "Visa shopping", where applicants tried to get visas from

countries which are in Schengen area, and are able to process applications quickly, even though this nation would not be their primary destination. Intuitively visa shopping may not seem obviously negative or contributing to common bad. However, during the IA process one of the suggestions was that small nations, where there are only one or few consulates from Schengen area nations, those consulates should work as a representative of entire Schengen area in Visa issues (EC, 2018b). This idea was heavily disliked by member states as it would increase the workload of certain nations. From this we can conclude that member states see increasement in their workload as a negative, and therefore Visa shopping is negative effect as well. This aspect was not taken into consideration in IA process and can be defined as unexpected.

Third unintended consequence is the positive effect on tourism, which was a result of making Visa process easier and especially increase in usage of Multiple entry visas (MEV) was beneficial (EC, 2024a p. 32). However, this expected indirect consequence came into existence only in the later stages of the policy, when some of the early issues had been dealt with. Negative environmental aspects of increasing tourism were also addressed, but from this policies viewpoint increasing tourism is seen as positive (EC, 2018b; EC, 2024a, p. 32).

Final unintended consequence which was noticed is perhaps the most interesting. In the introduction of Visa policy, it was mentioned that one of the objectives is to improve co-operation between third party countries. One of the main issues was find ways to return illegal immigrants back to their place of origin. In the Visa policy one essential detail was that immigrant needed to be identified or return process could not proceed. For this reason, many illegally in the Schengen area living people either hid or destroyed their identification documents (EC, 2018b). This is clearly a negative for member states, as they are unable to return people and at the same time cost of housing them etc. are relatively significant. On the other hand, destroying ID:s causes immigrants to get stuck on a limbo, where they can not be returned, but it also often loses their ability to get basic necessities and pushes them outside of society. Unintended consequences found

from this case were 1x Unexpected, Direct and Negative, 1x Expected, Indirect and Positive, and 2x Unexpected, Indirect and Negative.

### 6.3.2 Sample B Unintended Consequences

CSDDD directive affects a large number of global and internal actors directly and indirectly. Therefore, scope of the consequences of this policy is also broad. It is to be mentioned that directive is fairly new, and some of the unintended consequences are yet to be evaluated in a comprehensive manner causing some uncertainty around topic. For this reason, Mieszkowska's article has been used as a help to address which unintended consequences can be tributed to CSDDD (2024).

One of the main unintended consequences, which is addressed by Mieszkowska and EC:s impact assessment, is that companies may cut ties with suppliers which are deemed to be risky from company's liability standpoint (EC, 2022; Mieszkowska, 2024). This is a direct result of the directive, and it is also expected due to it being counted for in the assessment process. Mieszkowska brought up argument for why this could be seen as negative, but in the policy-makers eyes cutting ties with dubious actors is deemed positive. As this paper looks unintended policies from an EU:s and EC:s viewpoints, this is considered to be a positive effect even though other arguments could be made.

Secondary concern is that due diligence directive may cut back existing national requirements (Mieszkowska, 2024). This is addressed in the EU:s legal document which says: "This Directive shall not constitute grounds for reducing the level of protection" (EU, 2024). However, this creates another unintended consequence, as one of the main goals for directive was to harmonize requirements for member states. This causes differentiation between nations and may provide havens for companies which are trying to avoid due diligence requirements. This also goes directly against core idea of the directive and therefore is negative. In the Impact assessment this has not been addressed and therefore it is unexpected.

Third unintended consequence is fairly similar to first one, as it impacts same actors. In the directive, liability for companies have been extended to apply across entire supply chain, if it is deemed that infractions were likely to occur and severe (Pacces, 2023). Pacces argues that this lack of concrete definitions enables companies to avoid liabilities (2023). This could be done by corporations distancing themselves from their suppliers in potentially risky cases, to avoid being liable for possible acts of neglect (Mieszkowzka, 2024). This indirect consequence goes directly against goals of the directive, as it was expected that relationship between corporations and their supply chains would tighten as a result of the policy implementation. Not only does this create a loophole for companies to abuse, but distancing between companies and suppliers may cause suppliers to transform their actions to worse due to there being less interaction with its European business partners. Types of unintended consequences which were found from this policy were 1x Expected, Direct and Positive and 2x Unexpected, Indirect and Negative consequences

### 6.3.3 Sample C Unintended Consequences

Due to nature of the initiative, basically countless numbers of unintended consequences could be tracked down to EGVI. Program has supported multiple private sector actors, which have done actions that have caused unintentional effects. However, these can not be rightfully considered to be result of the original EGVI. This problem of which consequences can be attributed justifiably to certain action, was also acknowledged by Merton (1936, p. 897). Taken this into consideration, two unintended consequences were found, which can be attributed to core actions of EGVI.

First unintended consequence was noticed during the 10$^{th}$ year evaluation of EGVI. In the document it was found out that structures of the program caused companies to avoid projects which involved high risk of failure (EGVI, 2019, p. 55–57). This was mentioned to be especially negative, because this specific target area would need

innovative, high-risk projects, which could lead to major breakthroughs (EGVI, 2019, p. 55–57). Person interviewed for the review said that current system makes it possible to slowly improve existing technologies, but causes lack of truly innovative projects (2019, p. 55–57). Due to beforementioned points this aspect can be ascertained to be negative. It is also unexpected as initiative was expected to breed innovation. This aspect is direct consequence, because failure to recognize hitch in a R&D funding led was reason for companies to avoid high risk/high reward projects.

Second unintentional consequence, which was largely dismissed during the creation of EGVI, is short term issues related to emissions on electric vehicles. Focus was primarily on how EV:s would improve environmental aspect due to their lower usage emissions, but harmful effects of manufacturing EV:s were ignored. Especially lithium mining increased during the EV boom. Therefore, encouraging companies to produce EV:s had major short term negative effects on environment. This is clearly negative, because it hindered the effectiveness of initiative, but it was also expected even though consequence is indirect. To summarize, found unintended consequences of sample **C** are 1x Unexpected, Direct and Negative, and 1x Expected, Indirect and Negative

### 6.3.4 Sample D Unintended Consequences

Recognizing intention behind certain aspects of this policy is crucial to understand which consequences were intended. In the impact assessment it was specified that policy object of improving transport conditions was to improve welfare of animals (EC, 2023b, p. 3–14). Report also noted that increasing welfare and health of animals, would reduce sickness and other aspects which caused financial losses for farmers and producers (EC, 2023b, p. 3–14). However, financial aspect was not defined as policy objective and therefore can be seen as expected and positive unintended outcome caused directly by improving transportation conditions.

Second and third unintended consequence tied to transportation directive can be attributed to limitations set for actors outside of EU. Especially limiting how and when farm animals can be transported to slaughter are significant. Limitations for travel times and transportation from outside of EU were made to increase wellbeing of farm animals (EC, 2023b, p. 16–17; p. 23–29; EC, 2023a, p. 34–38). However, on top of wellbeing of animals, these restrictions caused economic and environmental impacts. Economic impacts are not quantified, but restrictions decreased the amount of beef cattle transported to Europe, which leads to negative economic impacts as overall supply declines. On the other hand, decline in transportation of animals can be seen as a positive towards EU:s environmental goals, as it diminishes carbon footprint caused by the industry. Both of these aspects were indirect but expected. In summary, there is three unintended consequences which can be attributed to sample D. One expected direct and positive consequence and two indirect ones which included one positive and one negative impact.

### 6.3.5 Sample E Unintended Consequences

Both of the unintended consequences which can be attributed to EU:s action in traineeship initiative revolve around the fact that policy option chosen was not effective. Issues caused by inability to address them can therefore be considered to be unintended consequence of the policy chosen. European Commissions report noticed that ineffective policy used caused existing issues persist (2024b, p. 3). First issue is that inability to enforce set standards caused harm for trainees. Harm in this context could mean working conditions lower than national law requires, using them for cheap labour instead of offering opportunities to learn etc. (EC, 2024b, p. 3–12). This is clearly a negative as it goes directly against policy objectives.

Second unintended consequence is hard to quantify, because as noted in EC:s report, collective data of traineeship quality does not exist. However, it is assumed that current model may be beneficial for companies working in nations where traineeship quality

standards are worse than elsewhere. The benefit for companies is that in these places they can get competitive advantage by abusing traineeships to get cheap or free labour. Even though this is yet to be proven due to missing data, it is very likely to be happening at least at some extent. This is clearly a negative not only because trainees suffer from this, but it also rewards nations which do not comply with requirements. Both of the impacts are negative and unexpected. They have been deemed unexpected because if they would have been expected, different policy option would have been chosen originally. Impact on trainees is direct result of the policy, but companies benefitting from non-enforced standards is an indirect effect.

### 6.3.6 Sample F Unintended Consequences

Policy option chosen for regulating repairment of damaged goods was found out to have caused four unintended consequences. To reiterate, goal of the policy was to reduce environmental harms caused by premature disposal of goods. For this reason, environmental benefits of this aspect won't be considered unintentional. One of the main environmental hazards policy tries to tackle is caused by manufacturing of new goods and therefore, decreasing production of goods in third countries is also seen as intended result of the policy (EC, 2023c, p.73).

Out of the four unintended consequences attributed to this policy, three of them are seen as positive. First positive unintended consequence is that increasing demand for repairing services provides societal benefits in form of more job opportunities in repair market (EC, 2023c, p. 13–14). New regulation has a positive impact on the development of repairment market which increases the development of market area and as a result of that more local employment opportunities are created and quality of services provided improves. This impact was expected indirect response to increased demand for repairing services.

Second positive but expected effect is economic benefits caused by reduction of waste. Disposing and recycling are major expenditures for nations and reducing waste will ease the load that public finance faces. This indirect consequence enables nations to re-allocate or reduce their overall expenditure, which are both beneficial outcomes. Scale of this benefit is uncertain, as relation between fixed- and operational costs of waste management were not addressed. Third positive and expected outcome is that consumers have more funds use due to not needing to acquire new goods (EC, 2023c, p. 13–14). This aspect is direct impact of making repairing services more accessible and more efficient in order for them to be cheapest option for consumer. Only negative unintended consequence which can be attributed to regulation of repairing goods is that it causes comparatively major burden for small and medium enterprises (SME) (EC, 2023c, p.73). This fact was considered during the assessment process, but it was hoped that direct impact of administrative burden would be endured by SME:s and on a long run reform would be economically beneficial for them as well.

# 7 Results

Results will be presented in a way which mimics the structure of sample presentation and evaluation process. In the theoretical section of this paper, we have gathered information and assumptions about the nature of impact assessments and unintended consequences. Therefore, those claims will be studied and analyzed by comparing discoveries of previous studies to what was found during the sample analysis process in this thesis. After examining both of the main points of interest discussed in this paper separately, the final result section will provide analysis on how quality of IA:s and unintended consequences are interconnected.

Three points affecting impact assessment were brought into notice during the examination of how knowledge is utilized in policy-making process. It was argued that economic objectives are at the forefront of decision-making, and therefore process is biased and non-objective (Ruddy & Hilty, 2008, p. 93–95; Lee & Kirkpatrick, 2006, p. 29). In addition, Lee & Kirkpatrick found in their impact assessment evaluations that overall quality was quite low, and all reviewed areas of singular IA tended to be quite close on quality (2006, p. 29–32). Latter part meaning that if first main category was graded poorly, other sections were also underwhelming and vice versa.

In the samples analyzed in this paper, objectivity was graded fairly high on all cases. Most samples provided broad information of all impacts that policy is expected to cause. One area where slight bias towards economic goals might be seen is in policy-objectives. These provide information about rationale behind decision to create a new policy. For example, Sample D (Animal transportation) was inspired by economic incentives, even though intuitively it could be assumed to be encouraged by environmental goals. Yet even in these types of cases, environmental aspects were extensively covered. Burlyuk & Noutcheva stated that core values of organization can be seen from its action (2019). Thus, it could be said that main purpose of policies being economic, is a proof of bias

towards financial goals. However, this is not conclusive and overall, all aspects of EU:s goals were present in impact assessments in a satisfactory way.

What comes to Lee's & Kirkpatrick's findings, there was some similarities with this paper. Overall, the quality of impact assessments received higher grades in this study. This is somewhat expected, as other study was made when this form of IA:s was just implemented in the decision-making process. Hence, it would be very disappointing to not see improvement in quality, especially considering the technological advancements which have occurred in two decades between writing of these papers. However, Lee & Kirkpatrick utilized anonymous grading system, and it was not made public which grades were assigned to which IA. For this reason, there was no way to see how they graded each of the examples. This makes it possible that criteria's they used were stricter, and improvements in IA quality would be artificial result of differing grading systems. In spite of that, I would assume that quality has improved during past decades.

Spilling over effect, i.e. issues of one area ruining rest of the IA quality was present in this and Lee's & Kirkpatrick's papers (2006, p. 29). In this study main issue that often tainted the entire assessments quality, was inability to understand the scope of the issue. Not being able to grasp problem fully, caused complications for entire assessment due to it limiting the methodology used etc. This is fairly logical and intuitive result and as final statement about IA process, I would emphasize the role of problem definition. Other parts of the assessment can be done well, but if the core essence of the issue is misunderstood, it will not only lower the IA quality, but cause errors when policy is implemented. It is important to remember that having high quality IA:s does not create common good by itself, but it helps to generate policies which cause wanted outcomes.

One of the main arguments about unintended consequences is that they are inevitable (Rowe, 1994, p. 743–750). Findings of this paper aligns with this view, as each of the samples were able to be attributed to multiple unintended consequences. As a slightly provocative argument it could be said that if one was able to find policy without unintended effects, most likely the issue is in methodology. However, the problems of

causal imputations and ability to attribute certain outcomes to certain actions brought up by Merton, were eminently present (1936, p. 897). Each sample was attributed to 2–4 unintended consequences, but most likely this is caused by practical and methodological limitations. Earlier in this paper it was argued that it is not meaningful or possible to examine indirect consequences over the certain limit, due to the limitations in ability to quantify which outcome can be attributed to which action. That being the case, these 2–4 unintended consequences which were attributed to each sample, should be considered as most significant unintended effects, instead of only ones.

Even though quantity of unintended consequences was fairly similar through out samples used in this paper, it was noticed that scale of the policy has effects on how unintended effects emerged. Main observation was that policies with broad scope, tended to have more indirect consequences. Especially adding actors outside of EU into the equation seems to be contributing factor to indirect effects. This was an expected outcome, as it was assumed that increasing complexity does affect the unintended effects. Due to the before-mentioned practical and methodological limitations, the quantity of unintended consequences which were able to be attributed to large scale policies with multiple actors and stakeholders was quite similar to others, but it is assumable that in reality they have more hidden unintended effects.

Because of the limitations regarding number of quantifiable unintended consequences, the main interest of this paper transferred into which types of consequences the sample policies have caused. Variable which will be more thoroughly inspected is whether the unintended consequences were positive or negative. Emphasis is often on negative consequences due to them being seen as more influential than positive unintended consequences (Burlyuk & Noutcheva, 2019). While this may be the case, it is also important to evaluate how IA quality is connected to positive outcomes.

Because of the limited sample size used in this paper, traditional statistical testing is not suitable method to analyze relation between IA quality and unintended consequences. Therefore, correlation analysis and tables illustrating interconnectedness of variables will by only indicative and should be considered approximates of realistic situation. To represent and analyze connection between IA quality and positive/negative unintended consequences, two tables have been created. Figure 1 representing interrelation between IA quality and positive effects, and figure 2 is similar but with negative effects. Due to the limited sample size, the sample pool was upscaled to 30 by data augmentation as an attempt to create a possibly more accurate representation of truth. This by no means fully realistic description, but should be seen as hypothesis, which can be proved to be correct or incorrect by study with a sufficient sample size.

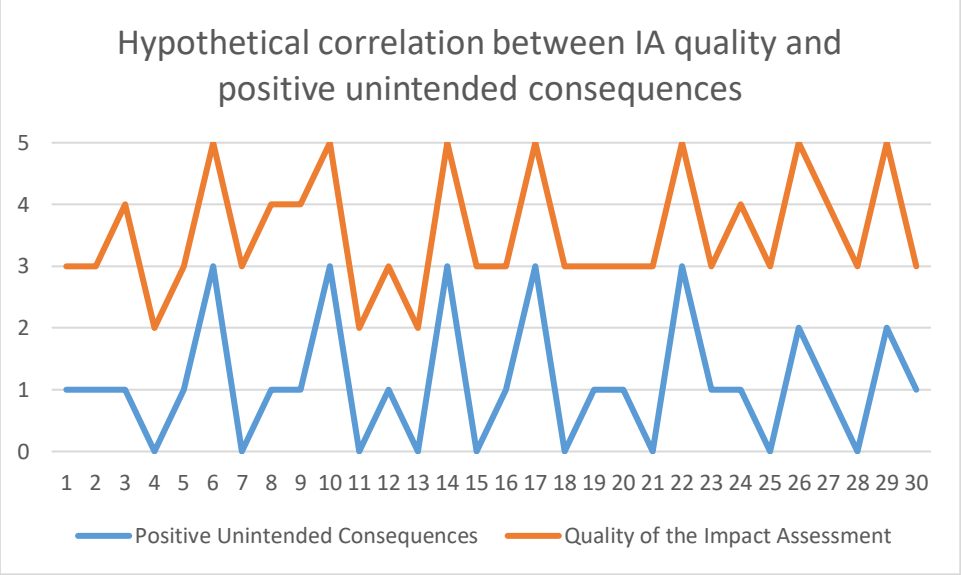


**Figure 1** Hypothetical correlation between IA quality and positive unintended consequences

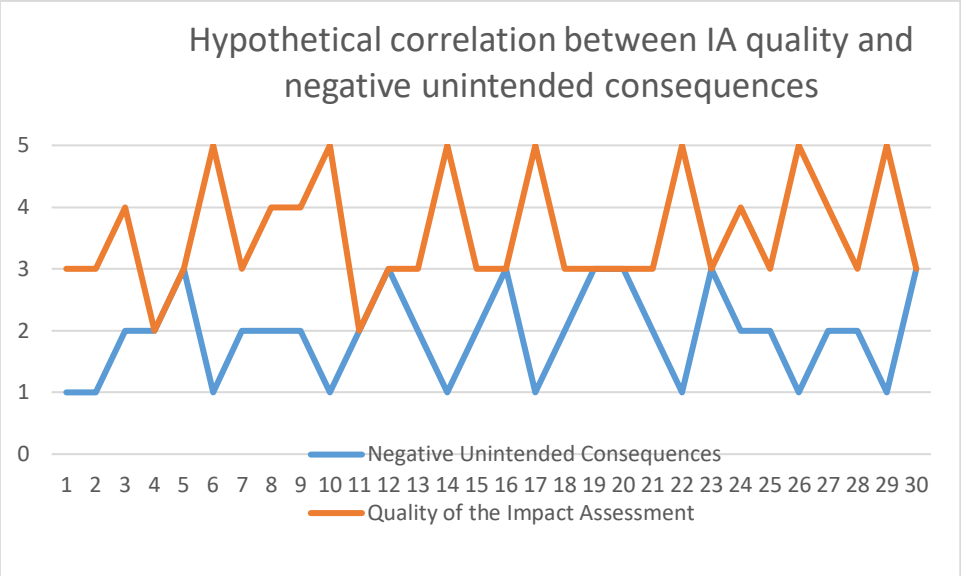


**Figure 2** Hypothetical correlation between IA quality and negative unintended consequences

As it is clearly visible, from the information which was able to be gathered from the limited sample size, it seems like Impact assessment quality has positive correlation with positive unintended consequences and negative correlation with negative unintended consequences. Correlation analysis also gives similar indicatives. Yet it is very likely that significance of interconnectedness is overexaggerated because of the limited sample size. For this reason, findings of this study should not be seen as conclusive, but would be foolish to completely disregard findings due to them not being statistically significant because of non-sufficient sample size. Findings of this paper should be seen as encouraging as it seems likely that ability to use knowledge and create better impact assessments might be able to reduce negative unintended effects and increase positive ones.

Nonetheless, there are multiple asterixis to these findings. Limited sample size may cause findings to not be representative of reality. It is also possible that seemingly high-quality impact assessments have inner bias to bring up possible positive unintended consequences, causing them to be recognized later while evaluating policy. It is brought up multiple times in this paper that forefront of unintended consequences is about negative ones, and for this reason it is not unfathomable that positive unintended effects

would not be attributed to policy, if possibility of that occurring has not been noted during preparation process. For these reasons I would remain especially doubtful about connection between IA quality and positive unintended outcomes.

Despite all the challenges and limitations, results are indicated that high-quality impact assessments are beneficial for policy success. Even though reliability of these findings should be scrutinized, they should inspire scholars to conduct broader study about the topic. In worst case scenario results would have indicated that creating good impact assessments, which more often than not take more time than low-quality ones, could produce worse outcomes due to not being able to be implemented fast enough. This aspect of slowly crafted, but high-quality impact assessments leading into better policy results also backs up my previous supporting arguments for stable and “slow” decision-making process, even though it is heavily criticized by scholars and public in modern political climate.

# 8 Conclusions

Analyzing connection of Impact Assessments and Unintended consequences was one out of two primary goals set for this thesis, second objective being observing how knowledge is used in the decision-making process. From the findings of this paper, we can conclude multiple aspects about knowledge and how it is utilized in the decision-making. First and foremost, it is clear that EU and presumably other organizations involved in policymaking are thriving towards more knowledge-based decision-making. In the second section of this paper, it was argued that usage of knowledge is most influential in the preparatory stages of policymaking process. From those assumptions it was possible to derive that European Commission, and especially creation of Impact Assessments are the most vital agents in decision-making process from knowledge-based viewpoint.

After the recognition of key players, it was thoroughly analyzed how knowledge was involved in their action. It was found that different operators had differing views of core issues hindering usage of knowledge. However, it seems to be an overarching theme that there is enough data and information available but converting it to knowledge can be difficult to realize (e.g. Guéguen & Marissen, 2022, p. 9–10). Especially when multiple different actor groups such as scientists, non-governmental organizations etc. were involved, lack of knowledge-sharing was often brought up in multiple occasions.

Latter part of theoretical section was focused on purposive social action and unintended consequences. Examining European Union and European Commission through the purposive social action lens was done to grasp the inner essence of these organizations. Very often in academic and public discourse about the aforementioned actor's, emphasis is on describing what they are doing. This paper took an alternative, more politico-philosophical viewpoint, and provided an insight on why these organizations operate the way they do. Using this perspective made it possible to provide an argument for existence of bureaucratic structures and why some "red tape" may be necessary for

social actors. Perhaps even more importantly, by analyzing different types of rationales, it was concluded that type of rationality used may provide an insight to organization's core values, which may not otherwise be visible (Burlyuk & Noutcheva, 2019; McWilliams-Doty, 2022). This was used to analyze actions of EU and EC in this paper, but it should be generalizable to other organizations as well.

Assumed aspects of unintended consequences were clearly present in samples used for this paper (See e.g. Merton, 1936, p. 894–904; Rowe, 1994, p. 743–750). To say that this confirms certain characteristics of unintended consequences would be overreaching, but it is very likely that qualities like inevitability are truthful representation of the nature of unintended consequences. From the analysis done in previous sections, it was also clearly visible that not all unintended consequences are negative, even though public eye tends to focus on harmful effects (Burlyuk & Noutcheva, 2019). Classification of unintended consequences was fairly simplified compared to other more theoretical studies. However, this was done to create an analyzing tool (Table 2) which is compatible with variables used in impact assessment process. Creating a way to characterize unintended consequences in a way that is consistent with variables used in IA process is possibly the biggest practical contribution of this paper.

Everything considered, it can be said that unintended consequences are inevitable when policymaking process is taking place in a complex system. Multiple different actors with subjective views and dynamic operating environment with constant external shocks makes perfection elusive and unobtainable goal. However, perfection should not be the target. Aim should be to reach best possible outcomes, and knowledge is a focal factor in achieving that. Yet knowledge itself holds no value unless it can be utilized properly. Therefore, primary challenge for policy-making process is understanding how to make use of knowledge, instead of just mindlessly collecting data and information, and calling that knowledge-based decision-making.

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# Appendices

## Appendix 1. **Sub-category gradings of Impact assessments**

**Sample A**

| **Question number** | **Question** | **Grade** |
|---|---|---|
| **1.1** | Description of a problem | 2 |
| **1.2** | Description of policy objectives and targets | 4 |
| **1.3** | Description of policy options | 3 |
| **2.1** | Description of options analysis methodology | 4 |
| **2.2** | Description of options analysis findings | 4 |
| **2.3** | Choice of preferred option | 3 |
| **3.1** | Scope of the report | 4 |
| **3.2** | Structure and clarity | 5 |
| **3.3** | Objectivity | 4 |
| **3.4** | Non-technical summary | 4 |

**Sample B**

| Question number | Question | Grade |
|---|---|---|
| **1.1** | Description of a problem | 3 |
| **1.2** | Description of policy objectives and targets | 4 |
| **1.3** | Description of policy options | 4 |
| **2.1** | Description of options analysis methodology | 5 |
| **2.2** | Description of options analysis findings | 4 |
| **2.3** | Choice of preferred option | 5 |
| **3.1** | Scope of the report | 4 |
| **3.2** | Structure and clarity | 4 |
| **3.3** | Objectivity | 4 |
| **3.4** | Non-technical summary | NA |

**Sample C**

| Question number | Question | Grade |
|---|---|---|
| **1.1** | Description of a problem | 2 |
| **1.2** | Description of policy objectives and targets | 3 |
| **1.3** | Description of policy options | NA |
| **2.1** | Description of options analysis methodology | 3 |
| **2.2** | Description of options analysis findings | 3 |
| **2.3** | Choice of preferred option | NA |
| **3.1** | Scope of the report | 4 |
| **3.2** | Structure and clarity | 5 |
| **3.3** | Objectivity | 4 |
| **3.4** | Non-technical summary | NA |

**Sample D**

| **Question number** | **Question** | **Grade** |
|---|---|---|
| **1.1** | Description of a problem | 5 |
| **1.2** | Description of policy objectives and targets | 5 |
| **1.3** | Description of policy options | 5 |
| **2.1** | Description of options analysis methodology | 5 |
| **2.2** | Description of options analysis findings | 5 |
| **2.3** | Choice of preferred option | 4 |
| **3.1** | Scope of the report | 5 |
| **3.2** | Structure and clarity | 5 |
| **3.3** | Objectivity | 5 |
| **3.4** | Non-technical summary | 4 |

**Sample E**

| **Question number** | **Question** | **Grade** |
|---|---|---|
| **1.1** | Description of a problem | 3 |
| **1.2** | Description of policy objectives and targets | 3 |
| **1.3** | Description of policy options | 2 |
| **2.1** | Description of options analysis methodology | 2 |
| **2.2** | Description of options analysis findings | 1 |
| **2.3** | Choice of preferred option | 1 |
| **3.1** | Scope of the report | 3 |
| **3.2** | Structure and clarity | 4 |
| **3.3** | Objectivity | 5 |
| **3.4** | Non-technical summary | NA |

**Sample F**

| Question number | Question | Grade |
|---|---|---|
| **1.1** | Description of a problem | 5 |
| **1.2** | Description of policy objectives and targets | 5 |
| **1.3** | Description of policy options | 4 |
| **2.1** | Description of options analysis methodology | 5 |
| **2.2** | Description of options analysis findings | 5 |
| **2.3** | Choice of preferred option | 4 |
| **3.1** | Scope of the report | 5 |
| **3.2** | Structure and clarity | 5 |
| **3.3** | Objectivity | 5 |
| **3.4** | Non-technical summary | NA |

# Appendix 2. **Impact assessment review package**

Following list of questions were used to review the quality of impact assessments. Entire question list used to assess sub-categories was originally created by Lee and Kirkpatrick and is available in its entirety in their paper published in 2004 (p. 32–38). This paper used only first three sections of questions, which are listed below.

1. Description of the Problem, Policy Objectives and Policy Options

1.1 Description of the problem. – The nature, causes, extent and distributive incidence of the problem, to be addressed by the proposed policy, should be satisfactorily described and substantiated.

1.1.1 What is the nature of the problem, expressed in terms of it current economic, environmental and social effects and its overall impact on sustainable development2 and better regulation?3

1.1.2 What are the underlying drivers/root causes of this problem?

1.1.3 What are likely to be the future economic, environmental and social effects, and overall impact on sustainable development2 and better regulation3, under the 'no new policy' scenario?

1.1.4 Who is likely to be adversely affected, in what ways and to what degree, under the 'no new policy' scenario?

1.2 Description of policy objectives and targets. – The main objectives, which the policy is expected to serve, and any targets it is expected to reach, should be satisfactorily described and substantiated.

1.2.1 What are the overall higher-level objectives, relating to sustainable development and better regulation, which the proposed policy is expected to serve?

1.2.2 What are the more specific, lower-level objectives, which the proposed policy is expected to serve?

1.2.3 What steps have been taken, within the assessment, to secure consistency between different levels of objectives and targets?

1.2.4 To what extent have qualitative and quantitative indicators4 been identified for use in assessing the likely attainment of policy objectives and targets?

1.3 Description of policy options. – The main policy options, which have been investigated during the assessment, should be satisfactorily described and their selection should be substantiated.

1.3.1 Which policy options (type and specific form of instrument) have been investigated during the assessment?

1.3.2 What criteria and procedures have been used in selecting the policy options to be investigated.5

2. Description of Options Analysis Methodology and Findings

2.1 Description of options analysis methodology. – The scope of the options analysis, and the methodology, data sources and consultations used in its implementation, should be satisfactorily described and substantiated.

2.1.1 What is the scope of the types of impacts, which have been investigated in the options analysis?

2.1.2 What methodology has been used in carrying out the options analysis and by what criteria has the choice of methodology been justified? How has the data and other information required by the methodology been acquired and used?7

2.1.3 What approach has been adopted towards a) the quantification and monetisation of impacts and b) the use of qualitative impact measures?

2.1.4 What approach has been adopted towards the handling of risk and uncertainty in the options analysis?

2.1.5 What approach has been adopted towards the modification of options (e.g. through mitigatory and enhancing measures)?

2.1.6 What approach has been adopted to consultation in the options analysis (eg. who has been involved, at what stages, in what ways and to what extent, in the assessment process?8

2.1.7 How have key assessment tasks – such as the identification and prediction of impacts, the determination of their significance and the overall comparison of options – been approached and with what degree of success?

2.2 Description of options analysis findings. – The findings relating to the preferred option, and the alternatives with which it has been compared, should be satisfactorily described and substantiated in an appropriate form for consideration by decision-makers and other stakeholders.

2.2.1 What is the likely overall magnitude and significance of the impacts attributed to the options investigated?

2.2.2 Are there significant differences in the magnitude and significance of different types of impacts (economic, environmental and social) between the options?

2.2.3 Are there significant differences in the distribution of impacts between the options?

2.2.4 Are there significant differences in the impacts on candidate countries (e.g. CITs) and external countries (e.g. developing countries) between the options?

2.2.5 Are there significant differences in the temporal distribution of impacts between the options?

2.2.6 Do the results of scenario, risk or sensitivity analyses indicate any need to change the option analysis findings?

2.2.7 Are there any mitigation/enhancement measures, either for the preferred option or the principal alternatives, which are likely to change the option findings?

2.3 Choice of preferred option. – The overall choice of the preferred option should be sufficiently justified and arrangements for monitoring its implementation presented.

2.3.1 Is the choice of the preferred option sufficiently justified, based on the options analysis findings in 2.2?

2.3.2 Are there any further mitigating/enhancing measures that would reduce the potential costs and/or increase the potential benefits, which should be incorporated into the preferred option?

2.3.3 Are sufficient proposals made relating to arrangements for the implementation of the policy, its monitoring and ex-post evaluation?

3. Presentation of Report Findings

3.1 Scope of the report. – The extended IA report should be a self-contained document.

3.1.1 Does the report contain all of the significant information and analysis, at the appropriate level of detail, which is needed to evaluate the choice of the proposed policy?

3.1.2 Are the sources of information and analysis contained in the report adequately referenced and publicly accessible?

3.1.3 Is the process, including consultations etc, by which the assessment has been undertaken, satisfactorily summarised within the report? (See 4 below for further details)

3.2 Structure and clarity of the report. – The extended IA report should be clearly structured and written.

3.2.1 Does the extended IA report have a clear and logical structure, which readers can easily follow?

3.2.2 Is the information and analysis presented in a form, which can be understood by non-specialists?

3.3 Objectivity of the report. – The extended IA report should avoid bias and unsubstantiated advocacy or criticism of particular options.

3.3.1 Are the information, analysis and findings contained in the report free from bias?

3.3.2 Are any information, analysis and findings of importance omitted from the report or given insufficient prominence?

3.3.3 Is the report written in an objective style or in a more advocatory manner?

3.4 Inclusion of a non-technical summary. – The extended IA report should include a non-technical summary which, inter alia, briefly answers the following types of questions. 3

3.4.1 What have been the main elements of the assessment process and assessment methodology, which have been followed, including the part played by consultations?

3.4.2 What is the final policy choice and why (in comparison with other options)?

3.4.3 What trade-offs (i.e. losses offset by gains elsewhere) are associated with the chosen option?

3.4.4 In the case of assessment problems due to poor data or knowledge, why is a decision to be taken now rather than be put off until better information is available?

3.4.5 Are any accompanying measures proposed to enhance positive, and reduce negative, impacts?

3.4.6 Are any measures proposed relating to policy implementation, monitoring and ex post evaluation?