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## **A Tension or a Match - Do European Commission Better Regulation Guidelines Enable Participation of Stakeholders with History of Self-regulation in the Revision of the NIS Directive?**

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**A Tension or a Match – Do European Commission Better Regulation Guidelines  
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in the Revision of the NIS Directive?**

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## **Chapter 1**

### **Introduction**

This research is an in-depth analysis of stakeholder engagement and consultation patterns in the consultation process for the revision of the Network and Information Security (NIS) Directive by the European Commission. The NIS Directive has a significant impact on a broad scale of actors, therefore the consultation process that enables stakeholder diversity is of great importance for this regulation. The study is built on the broadly accepted assumption that is shared as well by policy-making authorities as by scholars, that ensuring stakeholder diversity in the policymaking process is essential for the effective and legitimate outcome of these policies.

The degree of participation and the final composition of stakeholders is a result of a combination of various factors and can be approached from different angles. This research reviews the consultation process from two different perspectives. First, the perspective of the European Commission as a policymaking body that defines and organises the consultation process in line with Better Regulation Guidelines. Secondly, the perspective of the large group in the consultation process for the revision of the NIS Directive – the actors in the technical core of the Internet. The research aims to examine whether the consultation activities as defined by the European Commission Better Regulation Guidelines match the culture within this stakeholder group and their way of participating in governance processes and enable their participation in the consultations for the revision of the NIS Directive. The research analyses these two perspectives from the theoretical point of view and explores potential tensions between them.

The European Commission, as a policy-making body, recognises the importance of broad stakeholder participation in regulatory processes, either initiated by public officials or coming from the industry itself. The European Commission underlines the importance of

stakeholder consultation to collect information for evidence-based policymaking and to ensure that regulations are aligned with the public interest (European Commission, 2021). The Commission's duty to carry out broad stakeholder consultations is determined by Article 11 of the Treaty on European Union and aims to ensure coherence and transparency of the Union's actions (The Member States of European Union, 2012).

On the other hand, my research is built on the assumption that stakeholders' engagement behaviour and capacity in the Internet industry were shaped by its long history of self-regulation. While self-regulation implies no governmental involvement, it does not exclude the oversight of public officials. Generally speaking, the development and effectiveness of industry self-regulatory systems are enhanced by government threats and oversight (Boddewyn, 1988). In the context of the Internet, "monitoring and pressure of bodies such as the European Commission or national legislatures motivates the private sector to take productive action" (Price & Verhulst, 1999, p.19). There is also a strong sentiment among technical stakeholders that governmental efforts to regulate a field that has been self-regulated "risks replacing existing collaborative multistakeholder development with a top-down approach that would only achieve a narrow subset of global needs" (Kolkman, 2021). Based on these findings I can assume that previous interactions of technical stakeholders with policymakers in this context were not collaborative, but predominantly meant to retain the authority of regulating their industry. These interactions, if any, presumably were not resulting in strong relationships with public authorities, or experience in public policy discussions and consultations. On the other hand, the NIS Directive, the first European on cybersecurity, impacted technical stakeholders to a great extent, and the revisited version implies even more heavy regulation of the field. It remains unclear whether the stakeholders, triggered by the perspective of great regulatory oversight, will become active participants in

the consultation process despite the lack of public policy experience or connections to public authorities.

## **Research Questions**

This leads to the main question that I aim to answer in this thesis: does the effort of the European Commission to enable stakeholder participation via the consultation processes – as defined by Better Regulation Guidelines – translates into the participation of technical stakeholders that are directly impacted by the regulation? In other words, to what extent do the two perspectives – the one of the European Commission, and the one of the technical stakeholders – match and result in open and inclusive participation?

More specifically, my research seeks to find out what forms of participation behaviour are likely to manifest in stakeholders that used to rely on self-regulatory mechanisms – and therefore lack experience in the public policy-making process, and have low visibility among policymakers. Will they take an active part in the consultations organised by policy-makers on regulation that heavily impacts their activities to prevent undesirable outcomes of the legislation? Or on the contrary, does the limited previous experience lead to more alternative behaviour, despite the high impact of the regulation? I will get back to these questions in the second chapter, where, based on the literature study, I will outline my expectations and form hypotheses.

## **Relevance**

Answering these questions will add to the understanding of which factors affect stakeholders' diversity, and therefore contribute to a greater engagement of stakeholders with limited capacities in policymaking by the European Commission, and better regulation at the European level.

Speaking about scientific relevance, this research aims to make contributions to the existing literature in two areas. First, to the studies of Better Regulation Guidelines. Garben

(2020) noted that Better Regulation by the European Commission is to some degree overlooked by the researchers and highlighted that “without an understanding of Better Regulation's intricacies, one cannot fully understand the contemporary EU legislative process” (Garben, 2020, p. 84). Second, the literature review has not noted studies concerning stakeholder participation in the consultation process for the NIS Directive. Scientific literature about the NIS Directive focuses on the content of the Directive, its impact on the telecommunication sector and its contribution to cybersecurity in Europe in general (Gruber & Ségur-Cabanac, 2021; Sievers, 2021; Giannakoulis, 2023). This in-depth study of the consultation process for the revision of the NIS Directive will add to the understanding of stakeholder engagement in self-regulated industries.

On the industry level, it will help businesses and organisations that might be affected by regulation (or a lack of regulatory oversight) to decide on the level of their involvement in public consultations and create participation strategies that will benefit businesses and society in general.

## **Research Layout**

In the next chapter of this research, I will focus on the theoretical aspects of stakeholder participation and the context of the two perspectives: the policymaker perspective of the European Commission and its Better Regulation Guidelines framework and the perspective of the technical industry with their history of self-governance. Further, I will describe consultation forms and stakeholder types, and draw expectations of the stakeholder's behaviour based on the theoretical findings and the context of the policy.

Subsequently, I will explain the methodology of the research, outline the legislative context of the research, and the NIS directive, in more detail, and present the stakeholder's data. The analysis of the data will include a descriptive section of all types of consultations that the European Commission organised for the revision of the NIS Directive and the

overview of stakeholders that participated in the consultations. The second part of the analysis will decipher and classify the stakeholder's data.

The concluding part of the thesis will discuss the key findings, to what extent the findings answered the research questions, highlight the limitations of the research and draw lessons for policymakers and stakeholders.

## **Chapter 2. Stakeholder Participation – A Tension Or A Match?**

### **Two Perspectives: Policy Maker And Stakeholders**

#### *The European Commission's Point Of View*

Researchers have highlighted that engaging a broader and more diverse type of stakeholders is important for more effective and legitimate policy outcomes (Fraussen et al., 2020). There is a consensus in the studies on the consultation process that by involving stakeholders the European Commission strives to achieve capacity-building and legitimization (Bouwen, 2009; Bunea & Thomson, 2015, Klüver, 2013; Princen, 2011). The Commission, operating in an increasingly complex policy context and possessing only limited in-house knowledge, uses consultation to reinforce its problem-solving capacity by collecting feedback from stakeholder groups that have certain expertise (Princen, 2011). On the other hand, the European Commission as a non-majoritarian body seeks political support to legitimise policy outcomes. To achieve this goal the Commission organise consultations to attract a broad spectrum of stakeholders (Klüver, 2013). Other scholars indicated that an inclusive participation process “generates better projects and policies, secures buy-in for decisions, and limits delays, mistakes and lawsuits” (Burby, 2003). Nabatchi highlighted participants’ perspective by arguing that if public officials involve a more diverse set of stakeholders, “they give voice to multiple perspectives and different interests, allowing for more thoughtful decisions that take a broader view of those who will benefit or be harmed by an action” (Nabatchi, 2012, p.704).

The researchers define three generations of the European Commission’s consultation regimes throughout the European Union’s history (Quittkat & Finke, 2008, pp. 187–190; Kohler-Koch et al., 2013, pp. 43–47; Bouwen, 2009, pp. 26–32). At earlier stages, the Commission established close connections with professional interests and various European

associations and federations. Lately, the growing concerns with public acceptance of EU policies in the mid-eighties led to a broadening of societal participation in the Commission's preparation of policy initiatives and funding of NGOs to balance the influence of business interests (Mahoney, 2004; Mahoney & Beckstrand, 2011; Saldago, 2014). The third and current generation of the stakeholder consultation regime is represented by the so-called Better Regulation Agenda that was introduced with the white thesis "European Governance" (European Commission, 2001). By this, the Commission intended to "reduce the risk of the policy-makers just listening to one side of the argument or of particular groups getting privileged access based on sectoral interests or nationality, which is a clear weakness with the current method of ad hoc consultations" (European Commission, 2001, p.17).

In 2002 the Commission published a set of standards to be followed by the responsible policy departments, Directorates-General, that included requirements for the consultation process, stakeholder target groups, and publications timeline among others (European Commission, 2002). These official guidelines have been refined and complemented throughout the years, with the most recent edition of Better Regulation Guidelines published in 2021 (European Commission, 2021). These guidelines are internal instructions for the Commission's staff and should be applied by all officials involved in regulatory activities. The guidelines cover the whole policy cycle, and stakeholder consultation is an essential element that the Commission prescribes for the policy preparation and review phase as well as for impact assessments and different types of policy evaluations (European Commission, 2021). The responsible Directorates-General are obliged to set out the scope and objectives of the consultations and identify "all relevant stakeholders that may have an interest in the policy issues" (European Commission, 2021, p.18) and seek a broad spectrum of views to avoid regulatory capture (European Commission, 2021).

Along with identifying stakeholder categories that the Commission recognises as relevant for or interested in a certain policy area, the process of stakeholder mapping includes prioritising stakeholder categories to engage with. The first category of the stakeholders is whom a policy will affect; the second category is the stakeholders that have to implement a policy; and the last group is anyone interested in the policy. The Commission specifically targets the researchers for their “evidence based on rigorous scientific methods and peer review processes” (European Commission, 2021, p.19). In addition, according to the Guidelines, the Directorates-General have to identify which consultation activities will be performed and to ensure accessibility of the consultations to the stakeholders (European Commission, 2021, p.18).

The Commission’s commitment to ensure that the European Union’s laws and policies are initiated, prepared, implemented and reviewed in a well-defined open and transparent stakeholder consultation process is well manifested in Better Regulation Guidelines. However, it is less evident to what extent this ambition has been achieved in practice. Before answering this question in the context of this thesis, I will look into scientific literature that studied the effectiveness of the Commission’s consultation practices and the Better Regulation Guidelines focusing on stakeholder engagement.

In response to the Better Regulation Guidelines edition 2015 Sarpi calls the Better Regulation package “one of the most ambitious and comprehensive set of measures on the quality of EU regulation developed in recent years” (Sarpi, 2015, p.372). The author notes the innovative aspects of Better Regulation tools and its governance system, as well as the demonstration of the Commission’s political commitment (Sarpi, 2015). When it comes to analysing the possible effect the Regulation could provide for stakeholders, Sarpi admits that Better Regulation guidelines strengthen stakeholder consultation and transparency through the regulatory cycle. However, the author emphasises that the package does not include

measures to encourage the participation of the most vulnerable stakeholders and stakeholders with fewer resources. He notes the complexity of the Commission's proposals and self-selection biases of online consultations as a barrier to participation (Sarpi, 2015).

Other researchers come to similar conclusions that the Commission attracts the usual suspects such as lobbies, organisations and interest groups due to the complexity of the procedure and the high level of knowledge required (Dunlop & Radaeli, 2017; Russack, 2018). Deligiaouri & Suiter (2020) note that the version of the Better Regulation Agenda that was adopted in 2015 aimed to amplify the role of civil society by making better use of online technologies, however, online public consultations and questionnaires are relatively easy to approach, still are a burden for ordinary citizens to participate. Bunea and Norbech (2023) examined the European Commission's public engagement with policy inputs and concluded that citizens' inputs were significantly less likely to receive a response from the Commission than evidence-based contributions. Deligiaouri and Suiter (2020) conclude that the Better Regulation Agenda facilitates an open rather than well-balanced participation and proposes random selection to overcome this self-selection bias among citizens. Skorkjær Binderkrantz et al. (2021) studied possible biases in stakeholder consultations of the Commission across all policy areas and consultation instruments and concluded that the range of consulted stakeholders depends on both instruments and type of policy where open online consultations were the most inclusive. After analysing the responses from two evaluations initiated by the Commission, Bunea (2017) comes to a more positive conclusion that the Commission has been successful in creating conditions for reducing stakeholder participation bias. Based on the study of 350 online consultations in the period 2001-2012 Røed & Hansen (2018) found that stakeholder participation is less biased when the policy proposal is more salient.

All these studies have different scopes with different consultation instruments, and different Directorates-Generals and analyse data over various timeframes. When it comes to

stakeholder participation patterns and biases in the EU policy-making process, most studies reviewed for this thesis distinguish between business interests and social interests, perhaps because the EU is strong in the business-related policy areas (Skorkjær Binderkrantz et al., 2021). Researchers observe the main tension between business groups on the one hand and NGOs on the other with an established agreement that the EU system is biased towards business interests (Dür & Mateo, 2016; Bunea, 2017; Rasmussen & Carroll, 2014).

Subsequently, the majority of reviewed studies look at the effect of the Commission's efforts to reduce participation bias via specific instruments of Better Regulation that aim at having a balance between business and societal interests. Judge & Thomson (2019) take a step further and make a distinction between individual organisations and associations of organisations as the latter may claim to represent broader interests. Unlike other studies, Judge & Thomson did not find evidence of a bias towards business stakeholders. Instead, it showed that the EU policymakers were most responsive to consumer NGOs and to some degree to associations rather than to individual organisations. The literature review, however, has not revealed researchers' interest in specific business stakeholder groups and their interaction with policymakers - the main focus of my research.

### *Stakeholder's (Industry) Perspective*

The overview of the Better Regulation Guidelines demonstrates that the European Commission takes stakeholder engagement seriously and puts systematic efforts into creating a process that enables the participation of diverse groups. However, as I highlighted in the problem statement, there is a question about the European Commission's approach to engage not only a broad range of stakeholders but also stakeholders that are relevant to a certain policy issue, which will bring the expected results. In the next chapter I will provide insight into the nature of the receiving party of consultations, its main stakeholder - the Internet

industry players. To understand their pre-disposition towards regulations and policy-making process, I will look into the factors that shaped it, both technical and historical.

From its early stage, the Internet industry was predominantly self-governed by private actors, without the involvement of public policymakers. This is most probably a consequence of the technical architecture of the Internet. Despite being often perceived as a single technology, the Internet consists of a multitude of autonomous, interconnected, totally decentralised communication networks, each of which using a various set of technologies to achieve global connectivity and interoperability. Architectural principles and design choices, based on which the Internet is built, not only ensured the resilience and robustness of this technology, but also made self-regulation a necessity to facilitate smooth cooperation and interaction between the operators (Komaitis, 2022).

The early policy principles of governance of the Internet were outlined by the US government in 1997 in the Framework for Global Electronic Commerce (The White House, 1997). The global, cross-border nature of the Internet was already recognised and reflected in the framework. The formulated principles were a result of consultation with different stakeholder groups and secured the leading place of the private sector in the governance process while limiting the governmental involvement to a supporting minimum. The document also prescribed that governments should recognise the unique qualities of the Internet and its global nature (The White House, 1997).

The definition of Internet Governance was established by the Working Group on Internet Governance (WGIG)<sup>1</sup> in 2005. In this definition, the governments are not seen as the authority with the policy-making capacity but are recognised as one of the stakeholders, along with the private sector and civil society. Each stakeholder has “their respective roles” in the development and application of “shared principles, norms, rules, decision-making

<sup>1</sup> The Working Group on Internet Governance (WGIG) was established by the Secretary General of the United Nations (UN)

procedures, and programmes that shape the evolution and use of the Internet” (Working Group on Internet Governance, 2005). Engaging a diverse range of stakeholders in the development of “norms, rules and decision-making procedures” (Working Group on Internet Governance, 2005) lies at the core of Internet Governance. These developments influenced the participation patterns of the Internet industry stakeholders.

Researchers highlighted the importance of broad stakeholder participation in self-regulated industries in general. Boddewyn noted that self-regulation is more effective when it involves all interrelated levels (Boddewyn, 1988). When it comes to the Internet, Price & Verhulst emphasised that a “self-regulatory system for the Internet would be strengthened if it included a range of content providers as well as service providers” (Price & Verhulst, 1999, p. 19). The authors noted that the Internet is “a consummate demonstration of the complexity of determining what ought to be included in the "self" of self-regulation. It includes a cornucopia of institutions that partake of self-regulatory characteristics. Standards and protocols are established by such entities” (Price & Verhulst, 1999, p.16). As an example,” voluntary institutions, generated by the Internet and not by government, are the very backbone of efforts to deal with harmful content” (Price & Verhulst, 1999, p.16). The researcher highlighted that self-regulation of the Internet implies “some degree of collective or community constraint, rules imposed upon each member or actor by an entity created by some or all the actors often under pressure from government... As such self-regulation is a process of "collective self-governance”. It describes a situation of a group of persons, institutions, or bodies acting together, performing a regulatory function in respect of themselves and others who accept their authority” (Price & Verhulst, 1999, p. 17). For my research, I assumed that stakeholders that are subject to the NIS Directive have an institutional history, directly or indirectly, with self-governance processes, or at the very least benefit from the industry self-governance status quo.

In the next two sections, I will describe different forms and functions of consultations and define stakeholders by their type and level of experience.

### **Forms and Functions Of Consultations**

In general, public authorities enable stakeholder engagement via different consultation tools. Bunea (2017) stated that “consultations constitute a direct communication link between decision-makers and affected actors and represent an important channel through which policy feedback is received in the policy process about the feasibility of policy choices, the legitimacy of adopted measures and the potential challenges in policy implementations” (Bunea, 2017, p.46).

To examine stakeholder engagement and the effects of consultation approaches on stakeholder diversity, the researchers (Fraussen et al., 2020) have developed a framework that differentiates between three types of consultations: open, closed and hybrid. An open consultation approach includes tools that enable open, unlimited participation of stakeholders who wish to contribute to the policy discussion. This type of consultation aims to attract a broad range of stakeholders, from private citizens to interest groups, companies and public institutions. The most common form of open approach is a web-based public questionnaire. A closed consultation approach implies that participation involves an invitation from the policymakers and targets specific and well-defined stakeholder groups. The closed consultation tools include expert group gatherings, workshops and seminars, or combinations of these. Hybrid consultation approaches relate to a combination of both open and closed consultation tools.

When it comes to consultation types, the Commission handles its own terminology and distinguishes between public and targeted consultations, which corresponds to open and closed consultation types used by researchers (Fraussen et al., 2020). Open (public) consultations can be perceived as transparent and as consultations that offer equal

participation of different stakeholder groups. The Commission, on the contrary, considers them as not representative and recommends thoroughly assessing the relevance of self-selected respondents. The Commission especially emphasises the need for stakeholders' assessment in cases of low response or if there are indications of coordinated responses or campaigns (European Commission, 2021). On the other hand, the Commission believes that closed (targeted) consultations "allow more focused interaction or dialogue and may tap expertise more efficiently, in particular when dealing with a very specific or technical subject" (European Commission, 2021, p. 19). At the same time, Better Regulations Guidelines warn against granting privileged access to closed consultations to stakeholders. It's also worth noting that public consultations are required only for some policy initiatives (European Commission, 2021).

### **Types and Experiences Of Stakeholders**

To be able to answer the research question of whether the effort of the European Commission to enable stakeholder participation via the consultation processes translates into the participation of technical stakeholders that are directly impacted by the regulation, I need to look closer at several aspects related to these stakeholders. As mentioned in the first chapter, my research studies the participation behaviour of stakeholders that are impacted by the regulation and lack of experience in engagement with the Commission. In the scope of this study, by technical stakeholders, I understand a company or organisation that provides services related to the core function of the Internet. Such stakeholders are often considered "businesses" in scientific research on stakeholder participation as the opposite of the "civil society" group. Important to note, that such stakeholders can be seen as economic stakeholders too, as in most cases technical stakeholders profit from the services they provide. For the scope of my research, I will not make this distinction, even though economic interest can amplify the incentive to participate in the policy consultations.

Within this group of technical stakeholders, I expect that some actors have more experience in engagement with the Commission, possibly because they already fell under a regulation (for example NIS1 Directive). This experience could be knowledge of how the consultation process works and/or participation in the policy consultations. At the same time, other business actors may lack such experience. In the following chapters, I will look closer at stakeholder composition and how the categories are defined by the European Commission.

### **Expectations**

While the European Commission demonstrated the intention to consult a broad range of stakeholders, the assessment of the Better Regulation process revealed “a limited awareness of less-organised stakeholders concerning participation opportunities” (Rangone, 2022, p.155) . Multiple studies have demonstrated that public officials are more likely to consult with established actors and organisations (Coen, 2009; Eising, 2007; Rasmussen & Carroll, 2014). Bryson et al. noted that participatory practices “often end up including the “usual suspects”, people who are easily recruited, vocal and reasonably comfortable in public arenas” (Bryson et al., 2013, p.19). More specifically, Dawson (2016) pointed out that the European Commission tends to engage business associations, EU-funded transnational NGOs, and actors who already have access to policy making processes. When it comes to involving relevant stakeholders in developing legislation that affects the functioning of the Internet, Price & Verhulst noted that policymakers face a unique challenge as they often fail to recognise that the Internet is not monolithic and that “there is no single "industry" that speaks for the whole of the Internet” (Price & Verhulst, 1999, p.20).

I expect that the analysis of the stakeholders data should reveal whether being identified by the Commission as a relevant stakeholder has an impact on participation behaviour. My assumption is that entities that were already directly affected by the first version of the NIS Directive are likely to have more incentives to participate in the

consultations that might potentially impact them in the future such as the revision of the Directive. However, this does not necessarily imply that these organisations have experience in participation in public policy discussions and will participate. My research seeks to find out what forms of participation behaviour are likely to manifest in stakeholders that used to rely on self-regulatory mechanisms – and therefore lack experience in the public policy-making process, and have low visibility among policymakers. Will they take an active part in the consultations organised by policy-makers on regulation that can potentially heavily impacts their activities to prevent undesirable outcomes of the legislation? Or on the contrary, does the limited previous experience lead to more alternative behaviour, despite the high potential impact of the regulation? Finally, whether the European Commission's consultation activities will enable participation of different stakeholder groups, including technical stakeholders? What effect types of consultation have on participation behaviour of stakeholders?

Important to note that at that stage of policy consultations the legislation is not finalised. Therefore regulation impact at the time when a stakeholder evaluates whether to participate in consultations or not is not set in stone and needs to be assessed on a case by case basis. Besides, it is possible that some industry actors might not be aware of upcoming legislation or not be able to evaluate its consequences for their operations for various reasons. So, regulation impact is to some degree hypothetical and difficult to define. In my thesis when I talk about regulation impact, I assume that potentially impacted stakeholders have some degree of awareness about the regulation.

Theoretically, the combination of two criteria – regulation impact and level of experience – can create four different empirical situations: I: Not experienced and impacted by regulation; II: Experienced and impacted by regulation; III: Experienced and not impacted by regulation; IV: Not experienced and not impacted by regulation. Based on these empirical

situations, my research will test four hypotheses of stakeholder participation in policy consultations. My expectations are that:

H1: Experienced and impacted by regulation stakeholders (II) are most likely to participate in policy consultations

H2: Not experienced stakeholders impacted by regulation (I) are likely to participate in policy consultations

H3: Experienced and not impacted by regulation stakeholders (III) are less likely to participate in policy consultations

H4: Not experienced and not impacted by regulation stakeholders (IV) are least likely to participate in policy consultations

## **Chapter 3. Research Design**

### **Research Design**

This research is an in-depth analysis of stakeholder behaviour in a specific legislative context. Being foremost a case study by nature, it also includes some descriptive statistics that help to better understand the context. To answer the main research question and to test the hypotheses, I collected the publicly available data published by the Commission on the consultation tools used in the consultation process for the revisiting of the NIS Directive and stakeholder participation in each of the consultations. First, I mapped all stakeholders' characteristics based on the publicly available data from the Commission. In the second step, I reviewed which type of stakeholders participated in the consultations and if the information retrieved from the official website was insufficient, I manually filled the gaps in the Commission's data with data from other sources where I could be confident that it relates to the mentioned stakeholders. The datasets used in this research come from the Commission's staff working document (European Commission, 2020) and from the online public data on open consultation (European Commission, 2021a). The staff working document is a report of impact assessment of the revisiting of the NIS Directive that includes data from closed consultations conducted by the European Commission. In the first place, the report is not aimed to provide the stakeholders data, but the analysis of the responses, so it is not directly applicable for the analysis of stakeholder participation.

### **Datasets**

In this next chapter, I will provide an overview of the consultation tools used by the European Commission in the consultation process for the revisiting of the NIS Directive and the stakeholder representation based on the publicly available data published by the Commission.

In general, the most commonly used consultation tools by the Commission are questionnaires, and direct interactions with stakeholders via meetings, conferences, hearings or other events such as workshops (European Commission, 2021). The Commission's report (European Commission, 2020) has shown that most of these tools were also used for the NIS Directive revisiting. As mentioned in Chapter 2, I will use the generally accepted scientific literature classification of consultation types to describe the process in the context of the NIS Directive.

The overview of the data sets for both closed and open consultations are available in the Table 2.

### *Stakeholder Data in Closed Consultations*

First, I will outline consultation tools and stakeholders in closed (or, in Commission's terminology, targeted) consultations. These closed consultations are targeted interviews, surveys, in-depth interviews, country visits and workshops organised by a contractor. In these consultations, the Commission made a selection of various stakeholders whom they approached to collect feedback.

**Targeted Interviews of Competent Authorities.** To assess the consistency of the approaches taken by the Member States in the identification of so-called Operators of Essential Services that are required to implement cybersecurity measures as defined by the Directive, the European Commission interviewed representatives of the competent authorities of nine member states. The outcome of the interviews was published in a report (European Commission, 2019). This consultation is not very relevant to answer my research question as it only targets competent authorities.

**Targeted Online Questionnaires.** In addition, the European Commission, the European Union Agency for Cybersecurity (ENISA) and a contractor held online questionnaires targeting three stakeholder groups: competent authorities, Operators of

Essential Services, Digital Service Providers<sup>2</sup> and organisations that could potentially be included in the scope of the NIS Directive following its revision (European Commission, 2020). As this questionnaire targeted operators and service providers – the subject of my research - I will review its data in the next chapter.

**In-depth Interviews and Closed Workshops.** Further, the European Commission contracted a third party to gather feedback on certain aspects of cybersecurity and to “discuss policy options for a potential revision of the NIS directive” (European Commission, 2020). First, a contractor held 16 in-depth interviews with a selected group of stakeholders to help the Commission better understand the security threats. Among the consulted stakeholders were competent authorities, EU institutions and agencies and a think-tank. Other stakeholder groups were Operators of Essential Services and Digital Service Providers (European Commission, 2020). From the Commission’s report, it was not clear if these operators and providers were already regulated by the NIS1 Directive or not. I assume that for revision of the existing legislation, the Commission has selected stakeholders that were already under regulation and will also include the data of this consultation in the analysis.

Further, the contractor organised a series of closed workshops with competent authorities and the “private sector”. The number of registered participants varied from 60 to 144 at different sessions. The evidence collected from these workshops was used by the European Commission for the evaluation study, however unfortunately there are further no details available about the participants of these workshops (European Commission, 2020).

**Interviews of Selected Stakeholders.** In addition, the European Commission visited all Member States across the European Union and interviewed a large number of selected stakeholders: national competent authorities, Operators of Essential Services and Digital Service Providers. The European Commission also held 231 questionnaires among selected

<sup>2</sup> Both concepts - Operators of Essential Services and Digital Service Providers - will be described in the Chapter 4

stakeholders (European Commission, 2020). Similar to closed workshops, there is no additional data available about stakeholders.

### *Stakeholder Data in Open Consultations*

Along with the selected and targeted stakeholder engagement, the Commission held a series of open consultation activities such as questionnaires and requests for feedback. These consultations included two types of consultations: evaluation roadmap combined with Inception Impact Assessment and public online consultation (European Commission, 2020; European Commission, 2021a). Once public online consultation was concluded, the Commission held consultation about the adoption of the Directive.

Evaluation roadmap/Inception Impact Assessment was aimed at “citizens and stakeholders” and received 42 responses (European Commission, 2020). In the open public consultation “with questions targeting citizens, stakeholders and cybersecurity experts”, the Commission collected 206 online replies. Unlike in closed consultations, “targeting” does not mean that the Commission selected stakeholders to approach, but rather an intention to reach a broad range of responders. Finally, the Commission held a final open consultation to collect opinions about the adoption of the NIS2 Directive and received 121 responses. In total, in open consultations the Commission received 369 responses (European Commission, 2021a).

The Commission provided the breakdown of the stakeholder types from respondents in all three open consultations in the report (European Commission, 2020) and published the list of organisation names and their contributions on the website (European Commission, 2021a), which makes the data suitable for further analysis. I combined the data of 361 responses from these three consultations in one file and brought it to the unified format (names of stakeholders, countries of origin, organisation type and size) in the Appendix 2.

## Chapter 4. Analysis

### Empirical Picture

#### *The Legislative Context – the NIS Directive*

Next, I will go into details of the policy context of this research, where the interaction between the European Commission and the industry stakeholders takes place. The NIS Directive is known as the first piece of EU-wide legislation on cybersecurity (European Commission, 2016). The Directive has a long and turbulent history spanning more than a decade. The European Commission initiated the consultation for the legislative proposal on cybersecurity in 2012 (European Commission, 2012). The European Commission identified the need for a requirement to adopt risk management practices and to report security breaches affecting Networks and Information Systems that are critical to the provision of key economic and societal services and the functioning of the Internet. At that time the EU law required to adopt risk management practices and to report security incidents only from telecom operators and Internet Service Providers (under Article 13 a) and b) of Directive 2002/21) (European Commission, 2002a). After a long period of consultations and negotiations, the first version of the NIS Directive, commonly known as NIS1, came into effect on 6 July 2016 with the deadline for the Member States to transpose the Directive into national laws on 9 May 2018 (European Commission, 2018).

In 2020 the European Commission announced the revision of the NIS Directive. As a result of this review, a revised Directive, commonly referred to as NIS2, was presented on 16 December 2020 (European Commission, 2020a). According to the Commission, the revised Directive “modernises the existing legal framework taking account of the increased digitisation of the internal market in recent years and an evolving cybersecurity threat landscape” (European Commission, 2020a, p.1). The revisited NIS Directive entered into force on 16 January 2023 (European Commission, 2023).

In my research, I analyse the stakeholder participation in the consultation process only for the revision of the NIS Directive. Important to note that with the revision of the Directive, its scope was significantly expanded with a greater impact on the broad range of stakeholders from national governments to the private sector. At the same time, with the expanding scope of the revisited NIS Directive, industry stakeholders expressed their concerns that it might compromise the EU vision of a single, open, neutral, free, secure and unfragmented network.

Voge et al. (2021) published a comprehensive analysis of the impact of the NIS Directive on the Internet and its stakeholders. They argue that the top-down regulation by legislation, which replaces the traditional consensus-based self-governance by private actors, would only achieve a narrow subset of global needs in solving cyber security challenges. They warn of a potential negative impact that the proposal might have on smaller Internet Service Providers, forcing them out of the market, which will lead to market concentration, and, consequently, to reduced resilience of the Internet. This could have knock-out effects on European innovation and ability of the European tech sector to compete globally (Voge et al., 2021). With such a strong impact on a broad range of stakeholders, I can expect that the affected market players will be actively engaging with the policymakers and participating in the consultation process.

### ***Presentation of Stakeholders' Groups***

To be able to answer the research question of whether the effort of the European Commission to enable stakeholder participation via the consultation processes translates into the participation of technical stakeholders that are directly impacted by the regulation, I need to look closer at two aspects related to these stakeholders. First, what technical stakeholders are affected by the proposal? And second, what stakeholders did the Commission identify as relevant for the revisiting of the NIS Directive?

What stakeholders were affected by the revisited NIS Directive from the Internet industry point of view? The new proposal may have implications for key Internet infrastructure providers including Domain Name System services, Top-Level Domain registries, trust service providers, and certificate authorities that operate in the European market (Voge et al., 2021). Under the essential entities fall all Internet Exchange Points, TLD registries, cloud computing service providers, data centres, content distribution networks and trust service providers. Online marketplaces, search engines and social networking platforms are included in the important entities category (Taylor, 2021).

The European Commission is not using the same distinction and terminology in their stakeholder consultations as the industry analytics do. In the previous chapter when I presented the datasets I already mentioned Operators of Essential Services and Digital Services Providers. Initially, for the consultation activities for the NIS1 Directive, the Commission identified these two groups of stakeholders among others as relevant for the policy revisiting: the Member States competent authorities, Union bodies dealing with cybersecurity, economic entities that could potentially become Operators of Essential Services and Digital Services Providers in light of the revisited directive, trade associations, researchers and academia, cybersecurity industry professionals, consumer organisations and citizens (European Commission, 2020). Although in the end the proposal for the revisited NIS Directive eliminated the distinction between Operators of Essential Services and Digital Service Providers, in theory, any entity that was a subject of the NIS1 Directive could fall under the new legislation that classified organisations based on their importance, and divided them into essential and important categories with the consequence of being subjected to different supervisory regimes. I assume that Operators of Essential Services and Digital Services Providers are predominately technical stakeholders since entities in both groups

provide services related to the operations of the Internet, and therefore are the subject of my research.

While analysis of the consultation responses for the revision of the NIS Directive is not a subject of my research, some of them add to the understanding of the incentives of stakeholders to participate in the consultations. To the European Commission's question about the appropriateness of the sectoral scope of the NIS Directive, 50% of the respondents to the open public consultations answered that telecommunication providers should be included in the NIS Directive scope, while 18% disagreed. Interestingly, national competent authorities were more likely to disagree that companies that provide public telecommunication services should be covered by the NIS Directive, while around 61% of Operators of Essential Services and Digital service providers and 71% of cyber professionals<sup>3</sup> were of the opposite view. Cyber professionals were more inclined to support expanding the scope of the NIS Directive to cover additional sectors and types of digital services vulnerable to cyber threats. Conversely, Operators of Essential Services, Digital service providers and trade associations were significantly less supportive, with 22.8% and 25% of them, respectively, opposing the inclusion of further digital services within the NIS Directive's scope.

Next, I will analyse the stakeholder representation in the NIS Directive revisiting consultation based on the publicly available data published by the Commission for both closed (targeted interviews of competent authorities, targeted online questionnaires, in-depth interviews and closed workshops, interviews of selected stakeholders) and open consultations.

<sup>3</sup> The European Commission does not provide a definition of “cyber professionals” in their report

## Analysis of the Stakeholder Data

### *Closed Consultations*

**Targeted Interviews of Competent Authorities.** In this consultation activity the European Commission interviewed competent authorities from 9 countries: Germany, Estonia, Croatia, Hungary, Lithuania, Malta, Poland, Portugal and Sweden. This data is not relevant for my research, I list it here for the completeness of the overview (European Commission, 2020).

**Targeted Online Questionnaires.** In the targeted online questionnaires the European Commission received 46 responses from the competent authorities, 49 from Operators of Essential Services (further OES) and 9 from Digital Service Providers (further DSP). Unfortunately, the report does not provide information on how many stakeholders were approached and how many responded, so this data does not say much about how active the stakeholders were and therefore is not very helpful in answering the research question. However, it gives some insights into how many stakeholders were regulated before. From OESs, 67% of respondents were already covered by the NIS1 Directive. 14% were providers of essential services outside of the scope of the NIS1 Directive. 18% of respondents identified themselves as “Other”<sup>4</sup>. As to DPSs, 44% of respondents were DSPs already regulated by the NIS1 Directive. 56% were “Other”<sup>5</sup> (European Commission, 2020). This data is represented in Table 1.

**Table 1**

<sup>4</sup> ex. Financial sector collaborative defence and information sharing consortium, ATM/ANS, DSP, cybersecurity researcher, EU Agency, Trade Association, telecoms, professional association; German Technical and Scientific Association for Gas and Water

<sup>5</sup> ex. Providers of secure hardware for OES and DSPs, information security companies, interested parties, cybersecurity companies, providers of security technologies

*Distribution of OESs and DSPs in Targeted Online Questionnaires*

| OESs – 49                       |                                              |             | DSPs – 9                        |             |
|---------------------------------|----------------------------------------------|-------------|---------------------------------|-------------|
| Covered by NIS1 Directive – 67% | Outside of the scope of NIS1 Directive – 14% | Other – 18% | Covered by NIS1 directive – 44% | Other – 56% |

Among OESs responders that identified themselves as “other” were: the financial sector collaborative defence and information sharing consortium, Air Traffic Management/Air Navigation System, Cybersecurity researcher, EU Agency, Trade Association, Telecoms, Professional association, German Technical and Scientific Association for Gas and Water. As to DSPs, “others” were providers of secure hardware for OESs and DSPs, information security companies, “interested parties”, cybersecurity companies, and providers of security technologies (European Commission, 2020).

**In-depth Interviews and Closed Workshops.** As mentioned in Chapter 2, the data on stakeholders that took part in the in-depth interviews does not provide insights on the incentive of participation and whether the participants were already regulated by the NIS1 Directive or not. Looking closer at the interviewed stakeholders (16 in total), 4 of them are competent authorities, 2 EU Institutions and Agencies and one think tank. These stakeholders can’t fall under the NIS1 regulation due to their nature. Other stakeholders were 7 OESs and 2 DSPs and I assume these selected stakeholders were already falling under the regulation (European Commission, 2020).

The number of registered participants in closed workshops varied from 60 to 144 at different sessions. Unfortunately, there are further no details available about the participants of these workshops, so I will not consider these numbers for further analysis (European Commission, 2020).

**Interviews of Selected Stakeholders.** The European Commission visited all Member States across the European Union and interviewed a large number (253) of selected stakeholders: national competent authorities (117), Operators of Essential Services (136) and Digital Service Providers (18). The European Commission also held 231 questionnaires among these stakeholders (European Commission, 2020). Similar to closed workshops, there is no data available about the characteristics of service operators and providers.

### *Open Consultation*

Unlike close consultations, the open consultation data is more transparent. According to the Commission's report (European Commission, 2020), the stakeholder's breakdown of 42 responses in the consultation for evaluation roadmap is as follows: Business Association – 21 (50%), Company/business/organisation - 15 (35,7%), EU citizen - 2 (4,7%), NGO - 1 (2,4%), Public authority - 1 (2,4%), Trade union - 1 (2,4%), Consumer organisation - 1 (2,4%). As seen from this data, for this consultation the Commission was not looking to specify if the responders were OESs or DPSs. I can assume that these stakeholders, if present, were a part of the “company/business/organisation” group. There is also no data showing if any of the participants in his consultation were previously regulated by the NIS1 Directive or not.

In the open public consultation that targeted “citizens, stakeholders and cybersecurity experts”, the Commission collected 206 online replies to the questionnaire in the 12 weeks from 7 July to 2 October 2020 (European Commission, 2020). Targeting in this case does not mean that the Commission made a selection of approached stakeholders, but rather an intention to reach a broad range of respondents. According to the Commissions report (European Commission, 2020), one-third (125) were responses from trade associations, representing both sectors covered by the NIS Directive and sectors that do not fall within the scope of the NIS Directive (68), followed by companies covered by the NIS Directive, i.e.

Operators of Essential Services and Digital Service Providers (57). Other stakeholders included “economic operators” not covered by the NIS Directive, consumer organisations and EU bodies (36), competent national authorities (14), including Computer Security Incident Response Teams (CSIRT), and individual citizens (10) (European Commission, 2021). Available data allowed to identify respondents that represented sectors covered by the NIS Directive, or the companies directly.

Lastly, the Commission received 121 responses to the public consultation on the adoption of the NIS2 Directive. According to the Commission statistics (European Commission, 2021), the breakdown of the stakeholders was as following: business association – 50 (42%), company/business - 40 (33%), other - 12 (10%), NGO - 7 (6%), EU citizen - 4 (3%), public authority - 3 (2,5%), non-EU citizen - 2 (1,5%), academic/research institution - 1 (1%), trade union - 1 (1%).

To further analyse the data of these series of public consultations, I combined the three lists of stakeholders in one file. It included the following criteria: name of the organisation/private person, country of origin, type of organisation and company size. The data even within this one series of consultation was very inconsistent and needed quite some manual cleaning. For example, some organisations took part in more than one consultation, and some of them wrote their names in different forms. Sometimes the type of organisation or company size didn’t match. After cleaning the names and identifying unique stakeholders, I marked whether they participated in one, two or all three stages of public consultations. When I reviewed their organisation type, I found out that many organisations identified themselves as “company/business” or as “other”, while they were representing and lobbying for other organisations as a business association or membership organisation. Since this is one of the distinguishing stakeholder’s features, I corrected this attribution in my overview. Next, I manually identified industries for each stakeholder.

After processing this data, I found that the Commission received responses from 215 unique stakeholders who participated in one or more consultations. This is excluding 88 respondents that preferred to remain anonymous, meaning there is no data available to analyse. I can make an assumption that these stakeholders are predominantly private persons, however there is no evidence for that. It's also impossible to say whether these 88 stakeholders were unique, or whether some participated in more than one round of consultations and therefore were counted two or three times.

The aggregated dataset can be analysed based on the type of organisation, their size and industry, whether they were covered by the NIS Directive (only available for the second round of the consultations) and in how many rounds of consultations they took part. Looking at the type of organisation, the majority of stakeholders are business/consumer associations (115), followed by company/business organisations (73). Public authority/EU body/standardisation body (10), NGOs (7), academic/research Institution (5), private persons/other (5) form relatively small groups.

When it comes to stakeholders' size, the majority of organisations are large (75), followed by small (53), micro (50) and medium (34). From a quick glance at the list of the stakeholders, most micro and small stakeholders are business associations or NGO, whose role is to advocate for their members or stakeholders they represent.

Three most represented industries in the NIS Directive consultations are transport (24), energy (23) and finance (22) with many big corporations in these groups, followed by the industries that are in the scope of my research: cybersecurity (20), technology (20), telecommunications (14), Internet infrastructure (10) and Internet governance (7). I analysed each entity from these groups based on their relation to the core function of the Internet, that left me with 29 organisations, this is 13,5% from the total dataset of 215 unique identified stakeholders. The breakdown of this group is as follows: 2 academic/research institutions, 9

business associations, 15 company/business organisations and 1 other. Out of 15 individual companies 13 are large corporations and 9 of them are DSPs covered by the NIS1 Directive.

For the second round of consultations, the Commission asked the responders to specify capacity in which they were replying to the questionnaire. The categories and the distribution of 210 respondents, including anonymous, were as following:

- DSPs currently covered by the NIS Directive (14) - 6.7%
- OESs currently covered by the NIS Directive (46) - 21.9%
- Economic operators currently not covered by the NIS Directive (8) - 3.8%
- Trade associations representing both entities currently covered and entities not covered by the NIS Directive (44) - 21%
- Trade association representing entities currently covered by the NIS Directive (15) – 7.1%
- Trade association representing entities currently not covered by the NIS Directive (10) – 4.8%

The rest identified themselves as academia, national authorities, private persons, cybersecurity professionals (73) – 34.8%.

As seen from these numbers, more than one third (35,7%) of the respondents were from companies or trade associations that were already covered by the NIS1 Directive; 8,6% were not covered or representing not covered and 21% were stakeholders representing both covered and not covered entities.

The majority of the dataset (165) participated only in one consultation round (11 in first, 78 in second, 76 in third round) and 38 took part in two rounds. One group of stakeholders stands out in this dataset: four companies and nine business associations participated in all three rounds of consultations on the NIS2 Directive. The companies are Huawei, Microsoft (both are DPS and covered by NIS1), Kaspersky Labs<sup>6</sup> (an economic

<sup>6</sup> Cybersecurity solutions and services company

stakeholder, not covered by NIS1) and Enel<sup>7</sup> (OES, covered). According to public sources, these are large corporations with millions and billions of revenue. Looking at business associations that participated in all three rounds, two thirds represented covered and both covered and not covered stakeholders, and one third represented stakeholders not covered by the NIS1 Directive. When it comes to industries, this group is very diverse. There are representatives from telecommunication and internet infrastructure industry, technology companies and association, cybersecurity, energy, transport and healthcare sectors.

<sup>7</sup> A multinational manufacturer and distributor of electricity and gas

## Chapter 5: Conclusions

### Conclusions

From the overview of the consultations for the revisiting of the NIS Directive, a few things stand out. The data published by the European Commission shows that the consultation activities for the revisited NIS Directive included a broad range of tools that speak for the hybrid consultation approach. Most of these consultation activities were performed by the Commission itself, and some by a contracted party.

The European Commission used both open and closed consultation tools. In open consultation, the Commission received 369 responses (both open responses and questionnaires), with 215 stakeholders identified as unique. In closed consultations the number of responses is a bit higher – 382. This number doesn't include registered participants in workshops (388). While workshop participation is quite a passive form of engagement, the Commission attracted a large number of stakeholders. Since the European Commission's data doesn't always include the names of respondents, I do not have an insight if any of these stakeholders have participated in one or more different consultations, so the ratio between the two groups might be different in reality.

The level of involvement of stakeholders in different forms of consultations is not even. For example, in open consultations 163 responses to a request for open feedback (in two different rounds), and 206 are responses to open questionnaires. In closed consultations, 382 stakeholders were interviewed or responded to questionnaires, while 388 took part in workshops. The obvious conclusion could be that questionnaires are a more accessible and encouraging form of consultation, in both open and closed consultations. However, there could be another explanation for higher participation – the importance and the context of a particular consultation. The first round of open consultation - Roadmap - aimed to assess the

state of cybersecurity across the EU, to identify issues and regulatory costs and benefits and received 42 responses in a free form. The most responses were received in the second phase of open consultations (206) that aimed to collect views on the implementation of the NIS Directive. For this round the Commission prepared 200 questions related to the revision of the Directive. Lastly, the third phase was evaluation of the implementation and was organised as an open request for feedback and received 121 responses.

When it comes to stakeholder's types, in closed consultations the European Commission targeted national authorities (178), Operators Essential Services (192) and Digital Service Providers (29) by defining them as stakeholder groups in the report (European Commission, 2020). There is a striking difference with open consultations where participation of public authorities, EU and standardisation bodies is much less – only 10 unique stakeholders were identified as a part of this group. There are also less Operators Essential Services and Digital Service Providers that took part in public consultations: 46 and 14 respectively, while these stakeholders are most likely to be organisations that are involved in the operation of the Internet. Based on this data I can conclude that when the Commission proactively targets stakeholder groups and invites them to participate in closed consultations, it increases the chances for stakeholders to provide their feedback.

Most challenging in my research was to determine, directly or indirectly, which stakeholders, and how many of them, were already regulated. The closest indication of that is the data showing whether Operators Essential Services and Digital Service Providers stakeholders were covered by the previous NIS Directive or not. In closed consultations only one dataset - targeted online questionnaires - includes this information and shows a more active response from stakeholders that were already regulated by the NIS1 Directive: 67% Operators Essential Services and 44% Digital Service Providers that took part in the consultations. In open consultations similar data is available for the second round of

consultations. The breakdown is a bit different due to a larger variety in stakeholders, that includes organisations that are directly affected by the legislation, but also stakeholders that are representing other organisations and their interests. As mentioned above, more than one third (35,7%) responders were from Digital Service Providers and Operators Essential Services, or from business associations that were already covered by the NIS1 Directive; 21% were stakeholders representing both covered and not covered entities and 8,6% were not covered or representing not covered. For this dataset I was able to identify specific stakeholders. This revealed that the majority of Operators Essential Services, covered by the NIS1 Directive, are companies from the energy and financial sectors. Digital Service Providers are represented by telecommunications (Deutsche Telecom, Orange, Liberty Global) and technology industries (Huawei, Microsoft, Cisco), thus related to the operations of the Internet. These organisations are large multinational corporations.

Several conclusions can be drawn from these data. The majority of regulated stakeholders in closed consultations might indicate that these entities developed past experience in interaction with public authorities and policymakers. On the other hand, being regulated means greater visibility and increased chances of being approached by policymakers to participate in the consultations. So being regulated in closed consultations is more external than internal motivation for participation.

In open consultations the largest groups that participate are business associations, followed by large corporations. The fact that these companies are already regulated seem to be an incentive to participate, however, what really sets them apart is their capacity to participate. As to business associations, no matter the size of these organisations, their primary function is to represent stakeholders associated with them through membership or similar arrangements. Business associations are not affected by the regulations directory, but

their members are. Their incentive to participate in policy consultation does not come from their own interest, but from the interests of their members.

My research is industry focussed, and the analysis of the aggregated dataset from open consultations revealed that only 29 organisations (13,5%) were related to the operations of the Internet. The majority of the companies on the list are large multinational telecommunication companies or companies related to the Internet infrastructures or technologies. So zooming into the Internet industry shows a similar trend as in the larger dataset. This leads me to the conclusion that smaller organisations, unlike large corporations, have limited capacity to participate in public consultations and rely on their associations, even though the European Commission creates equal conditions for all stakeholders through open consultations. This uneven participation might create a serious problem for fair policy making, as these stakeholders, even though coming from the same industry, operate in a different way and have not only different interests and participation capacities, but also less advanced capacities to implement the new legislation into their operational practices.

Does the empirical picture represented by this patchwork of data and conclusions help to answer my research questions and test the hypotheses? It does, by only partly. Despite the inconsistency of the data, I found strong indications that allow me to confirm the following hypotheses:

H1: Experienced and impacted by regulation stakeholders (II) are most likely to participate in policy consultations

H4: Not experienced and not impacted by regulation stakeholders (IV) are least likely to participate in policy consultations

On the other hand, my expectations in the hypotheses H2 (Not experienced stakeholders impacted by regulation (I) are likely to participate in policy consultations) and H3 (Experienced and not impacted by regulation stakeholders (III) are less likely to

participate in policy consultations) were more challenging to confirm. My research revealed that not experienced stakeholders impacted by regulation (I), were most likely represented in the consultations by their business associations. As to stakeholders that are not impacted but still respond to consultations, this participation can indicate organisations with high participation capacity, or organisations with a broad interest in the industry developments that use consultations strategically to secure their reputation or to influence policy makers.

### **Limitations of the Research**

The main limitations of my research were the composition and completeness of the publicly available stakeholder data. While serving the policy-making process, the data published by the Commission may be incomplete for research purposes.

Better Regulations Guidelines also instruct the Commission to publish contributions to consultations on the dedicated consultation webpage. Depending on the used consultation tools, a relevant Directorate General publishes summary minutes, speeches or presentations (for consultation events such as meetings, hearings, and conferences). In the consultations for the NIS Directive revision, the European Commission collected and categorised the data for its purposes based on different participation criteria than the tension that is at the base of my research – experienced versus not experienced participants. Namely, I found the data difficult to find and not uniform, even if presented in the same report (European Commission, 2020). The Commission made its selection of stakeholders and used the classification of the stakeholders that serve the purpose of the policy-making process and not aimed to be fully transparent.

In the analysis of stakeholders, the European Commission is using different classifications of stakeholders for different activities. Stakeholder groups are classified by country, including inside or outside the European Union, or sometimes by a stakeholder type (the European Commission distinguishes between business associations,

companies/business/organisations, EU citizens, NGOs, public authorities, trade unions and consumer organisations). In some cases, the Commission differentiated between stakeholders from sectors covered by the NIS Directive and sectors that do not fall within the scope of the NIS Directive, including Digital Service Providers and Operators of Essential Services, covered or not covered by the NIS Directive. However, this approach was not consistent for all consultations, which made it difficult to analyse the result.

Besides, the respondents of consultations are given the option to remain anonymous in the published reports (European Commission, 2021). In other words, the Commission has no obligation to publish stakeholder information, and there is a clear focus on the content of the contributions. The data of stakeholders that participated in “targeted” - closed-consultations is not publicly available.

The Commission’s data as presented in the reports (European Commission, 2020; European Commission, 2021a) (see the summary in the Table 2) is also not very suitable for quantitative analysis of stakeholder participation. The Commission focuses more on the amount of responses received or participants to the workshops rather than how many unique stakeholders took part in the consultations. Conclusions based on which stakeholder groups were more active based on the amount of received responses will not be accurate and may contain an error with an unpredictable impact. I also found that data presented on the website and in different reports (European Commission, 2020; European Commission, 2021a) sometimes varies a bit. Besides, different reports provide different aspects of the same consultation process and different classification of the same stakeholders. This means that there is no one comprehensive pull of data which allows to analyse stakeholders from different points of view.

## **Recommendations for Future Studies**

In studies for balanced interest representation in consultation on the EU policies, scholars often focus on participation of non-business actors, as they lack resources and expertise when compared to experts, business interest or public authorities (Arras & Beyers, 2020). In these studies business interests are often seen as a homogeneous group with high participation capacity. It is also implied that regulated businesses have one common interest unlike “general interest” and have high incentive to supply policy makers with technical information (Beyers & Arras, 2020). Surprisingly, Arras & Beyers (2020) found that while regulated businesses dominate closed consultations, they have no higher chance to participate in open consultations. Other studies also found non-business interests were well represented despite having more difficulties in mobilising and getting access to policymakers (Dür & Matteo, 2016; Olson, 1965; Rasmussen & Gross, 2015). Arras & Beyers (2020) concluded that “while business interests clearly dominate in absolute numbers, institutionalised interest representation in EU regulatory agencies is not as biased towards regulated business as capture theory would expect, and agencies clearly try to avoid such bias” (Arras & Beyers, 2020, p. 851).

My study revealed a different angle of participation bias: in open consultations for the NIS 2 Directive arena was dominated by big corporations and business associations. I did not find much variety within businesses of my focused industry in terms of potential capacity. While scientific research on stakeholder participation is often designed around tension between business and non-business interests, some scholars point towards conflict between different business interests in studies about financial policies (Young & Pagliari, 2017; Pagliari & Young, 2016). My recommendation for the future studies is to distinguish between businesses with different participation capacities, access to policy makers and experience in the policy making process. Small and medium business organisations, for example, have no

less technical expertise that policy makers are looking for than large transnational corporations. These organisations contribute to society in a different way and are often much closer to their customers (civil society) than their larger competitors. Despite having information advantages and high incentive to participate in policy consultations due to the impact of the policies on their operations, their capacity to follow policy initiatives and to participate in consultations are often limited. Besides, these organisations might have different needs and require more time when it comes to the implementation of the policies and it is important for policy makers to take them into account. Shifting the paradigm that each business is privileged by definition towards a more granular approach will contribute to the fairness and greater stakeholder inclusivity and to the better policy.

### **Recommendations for Practice**

This research revealed active participation in consultation activities from large corporations and business associations and a lack of involvement from smaller business actors, despite the perspective of great regulatory oversight. How organisations that have not built participation capacity, that are missing public policy experience or connections to public authorities can still contribute to the policy making process and make sure their interests are taken into account? There are practical ways to make sure their voices are heard. Judge & Thomson (2019) found no evidence of EU legislator's bias towards business stakeholders, instead their study suggested that policy makers were more responsive to associations than to individual actors. Members of business associations should take advantage of this bias. It is crucial for small and medium businesses that are restricted in their ability to participate directly to provide their business associations with technical information to help them represent their interests in the most efficient way. Associations, in turn, will benefit from keeping a close contact with their members and securing an exchange of expertise and policy developments. Another recommendation for actors with experience in self-regulation will be,

where possible, redirect part of collaborative activities within their own technical groups and discussion fora towards engagement with policy makers.

My research is built on the broadly accepted assumption that ensuring stakeholder diversity in the policymaking process is essential for the effective and legitimate outcome of these policies. The NIS Directive, as shown above, has a significant impact on a broad scale of organisations from different sectors, putting extra pressure on the organisation of the consultation process. The starting point was to examine whether the consultation activities of the European Commission match the stakeholders' culture in the technical core of the Internet that for many years relied on self-regulatory practices. Has my research revealed a match or a tension? I believe there is a tension of which the European Commission is not quite aware. My recommendation to the policy makers will be similar to the researchers: to look beyond business – civil society division and seek diversity within business stakeholder groups by treating all vulnerable stakeholders and stakeholders with fewer resources fairly. This can be done for example, by proactively involving business actors with limited engagement capacity directly or via their business associations. Or by making a better use of online questionnaires, that are still very lengthy and require sometimes a whole policy team to reply, that smaller organisations obviously do not have.

As observed by many scholars, the European Commission operates in an increasingly complex policy context and, having only limited in-house expertise, collects feedback from different stakeholder groups to reinforce its problem-solving capacity (Princen, 2011). I believe that the institution can go beyond this approach and learn from the multistakeholder model of the Internet Governance that made the Internet such a successful project.

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**Table 2***Overview consultations activities revision NIS Directive*

| <b>Total</b> | <b>Consultation form</b>                                                                                                                                                | <b>Period</b>                                              | <b>Targeted group</b>                            | <b>Type of consultation</b>  | <b>General stakeholder's information</b>                                                                                                                                                                                                                                                                             | <b>Stakeholder's data</b>                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9            | Targeted interviews (by the Commission) to assess the consistency of the approaches taken by the Member States in the identification of operators of essential services | OES report published 28 October 2019                       | Competent authorities                            | Closed – targeted interviews | Germany, Estonia, Croatia, Hungary, Lithuania, Malta, Poland, Portugal and Sweden.                                                                                                                                                                                                                                   | Representatives from the competent authorities (100%)                                                                                                                                                                 |
| 42           | The combined evaluation roadmap/ Inception Impact Assessment                                                                                                            | Feedback period 25 June 2020 – 13 August 2020              | Citizens and stakeholders                        | Open – request for feedback  | 42 responses (details available for further analysis)<br><br>By country:<br>Belgium 14 responses (33%)<br>Germany 7 responses (17%)<br>France 7 responses (17%)<br>Italy 4 responses (10%)<br>US 3 responses (7%)<br>China 2 responses (5%)<br>Slovakia, Netherlands, Hungary, Finland, Spain – each 1 response (2%) | Business Association – 21 (50%)<br>Company/business/organisation – 15 (35,7%)<br>EU citizen – 2 (4,7%)<br>NGO – 1 (2,4%)<br>Public authority – 1 (2,4%)<br>Trade union – 1 (2,4%)<br>Consumer organisation – 1 (2,4%) |
| 06           | 2 Open Public Consultation (OPC) (by the European Commission)                                                                                                           | Consultation period 7 July 2020 – 2 October 2020 (7 weeks) | Citizens, stakeholders and cybersecurity experts | Open – Questionnaire         | 206 replies were collected online of which 182 were replies provided by actors located in EU27<br><br>Companies/business organisations<br>business associations                                                                                                                                                      | Trade associations representing both sectors covered by the NIS Directive and sectors that do not fall within the scope of the NIS Directive make up a third of the dataset (68 responses)                            |

| Total | Consultation form                                              | Period                    | Targeted group                                                             | Type of consultation | General stakeholder's information                                                                                                                                                                                                                                                                                                                                                       | Stakeholder's data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|----------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                                |                           |                                                                            |                      | <p>academic/research institutions<br/> consumer organisations<br/> EU citizens<br/> non-governmental organisations (NGO)<br/> public authorities<br/> trade unions</p> <p>By country:<br/> Belgium 47 responses (22.8%)<br/> Germany 24 responses (11.7%)<br/> Austria 18 responses (8.7%)<br/> France 17 responses (8.3%)</p> <p>Outside the EU<br/> The USA – 12 responses (5.8%)</p> | <p>Companies covered by the NIS Directive, i.e. operators of essential services and digital service providers (57 responses)</p> <p>Other stakeholders (36 responses) include economic operators not covered by the NIS Directive, consumer organisations and EU bodies</p> <p>14 responses – national competent authorities (CSIRTs included),</p> <p>10 responses – individual citizens</p> <p>Company/business 91 (43%)<br/> Business association 59 (28%)<br/> Public authority 17 (8%)<br/> EU citizen 14 (7%)<br/> Other 11 (5%)<br/> Academic/Research institution 7 (3%)<br/> Consumer organisation 6 (3%)<br/> NGO 3 (1,5%)<br/> Trade Union 2 (1%)</p> |
| 104   | Surveys (by the contractor, ENISA and the European Commission) | July 2020 – 7 August 2020 | Competent authorities, OESs, DSPs, organisations that could potentially be | Closed – surveys     | <p>National competent authorities by country:<br/> Danish 17%<br/> Italian 13%<br/> Polish 9%<br/> Finnish 7%<br/> Dutch 7%</p>                                                                                                                                                                                                                                                         | <p>Competent authorities – 46;<br/> OES – 49<br/> DSPs – 9</p> <p>National authorities</p> <p>66% - centralised authorities</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Total | Consultation form | Period | Targeted group                                                    | Type of consultation | General stakeholder's information                                                                                                                                                                             | Stakeholder's data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------|-------------------|--------|-------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                   |        | included in the scope of the NIS Directive following its revision |                      | <p>4% of replies provided by authorities from Bulgaria, Latvia, Luxembourg, Slovakia and Sweden.</p> <p>The rest of the Member States provided replies that equal 2% of the total number of replies each.</p> | <p>34% - sectoral authorities</p> <p>Centralised authorities: CSIRTs and Single Points of Contact (SPOC) – both 37%,<br/>bodies representing both CSIRTs and SPOC – 13% 13% of respondents did not specify their functions</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       |                   |        |                                                                   |                      |                                                                                                                                                                                                               | <p>67% of respondents represented OES currently covered within the NIS Directive</p> <p>14% - providers of essential services outside of the current scope of the NIS Directive</p> <p>18% 'Other' (ex. Financial sector collaborative defence and information sharing consortium, ATM/ANS, DSP, Cybersecurity researcher, EU Agency, Trade Association; Telecoms, Professional association; German Technical and Scientific Association for Gas and Water).</p> <p>44% of respondents addressed to DSPs are DSPs currently covered within the NIS Directive</p> <p>56% 'Other' (ex. Providers of secure hardware for OES and DSPs, Information security company, Interested party, Cybersecurity company, Provider of security</p> |

| Total | Consultation form                                                    | Period                                              | Targeted group        | Type of consultation                   | General stakeholder's information                                                   | Stakeholder's data                                                                                                               |
|-------|----------------------------------------------------------------------|-----------------------------------------------------|-----------------------|----------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
|       |                                                                      |                                                     |                       |                                        |                                                                                     | technologies)                                                                                                                    |
| 16    | In-depth interviews by the contractor to understand security threats | Q2-Q3 2020                                          | Not specified         | Closed – interviews                    | 16 interviews                                                                       | 4 competent authorities<br>7 OESs<br>2 DSPs<br>2 EU Institutions and Agencies<br>1 Think-Tank                                    |
| 119   | Workshops organised by the contractor, virtual                       | Opening Workshop<br>8 and 11 June 2020              | Not specified         | Closed – workshop                      | 119 registered participants                                                         | No data                                                                                                                          |
| 144   | idem                                                                 | Intermediate Workshop<br>16 July 2020               | Not specified         | Closed – workshop                      | 144 registered participants                                                         | No data                                                                                                                          |
| 65    | idem                                                                 | Closing Workshop<br>12 October 2020                 | Competent authorities | Closed – workshop                      | 65 registered participants                                                          | No data                                                                                                                          |
| 60    | idem                                                                 | Closing Workshop<br>13 October 2020                 | Private sector        | Workshop, exchange of views            | over 60 participants                                                                | The evidence collected from the Closing Workshop was thus used to feed into the forward-looking element of the evaluation study; |
| 253   | Country visits (by the Commission)                                   | Spring 2019 – July 2020                             | Member states         | Closed – Interviews and questionnaires | Interviewed 253 responders, incl 231 responses to questionnaires                    | 117 national competent authorities<br>136 OES<br>18 DSP                                                                          |
| 121   | Commission adoption                                                  | Feedback period<br>16 December 2020 – 21 March 2021 |                       | Open request for feedback              | 121 responses (available for own analysis)<br><br>By country:<br>Belgium – 35 (29%) | Business association 50 (42%)<br>Company/business 40 (33%)<br>Other 12 (10%)<br>NGO 7 (6%)<br>EU citizen 4 (3%)                  |

| Total | Consultation form | Period | Targeted group | Type of consultation | General stakeholder's information                                                                                                    | Stakeholder's data                                                                                                 |
|-------|-------------------|--------|----------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|       |                   |        |                |                      | Germany – 16 (13%)<br>US – 15 (13%)<br>France – 12 (10%)<br>UK – 7 (6%)<br>Netherlands – 6 (5%)<br>Italy – 5 (4%)<br>Sweden – 4 (3%) | Public authority 3 (2,5%)<br>Non-EU citizen 2 (1,5%)<br>Academic/Research institution 1 (1%)<br>Trade Union 1 (1%) |

*Note.* Consultations in the table are in the chronological order.

**Table 3***Aggregated Stakeholders Data from Open Consultations*

| <b>Name of the organisation</b>                                | <b>OES / DSP Coverage</b> | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b> | <b>Industry</b>       | <b>Company size</b> |
|----------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|---------------------------------|-----------------------|---------------------|
| ACEA (European Automobile Manufacturers Association)           |                           | 3                    | 1                           | Belgium        | Business Association            | Transport             | Small               |
| ACT   The App Association                                      | Representing both         | 3,2                  | 2                           | Belgium        | Business Association            | Technology            | Small               |
| Digital- Asociación Española de la Economía Digital            |                           | 3                    | 1                           | Spain          | Business Association            | Finance               | Small               |
| Aerospace and Defence Industries Association of Europe (ASD)   | Representing not covered  | 2                    | 1                           | Belgium        | Business Association            | Transport             | Small               |
| AIM                                                            |                           | 3                    | 1                           | Belgium        | Business Association            | Manufacturing         | Micro               |
| Aktionskreis gegen Produkt- und Markenpiraterie e.V.           |                           | 3                    | 1                           | Germany        | Business Association            | Anti-counterfeiting   | Micro               |
| Alliance for Internet of Things Innovation IVZW                |                           | 3                    | 1                           | Belgium        | Business Association            | Technology            | Micro               |
| Alliance for Safe Online Pharmacy in the EU                    |                           | 3                    | 1                           | United Kingdom | NGO                             | Healthcare            | Micro               |
| American Chamber of Commerce to the European Union (AmCham EU) | Representing both         | 2                    | 1                           | Belgium        | Business Association            | Trade Association     | Small               |
| AMETIC                                                         |                           | 3                    | 1                           | Spain          | Business Association            | Technology            | Small               |
| ANDEMA                                                         |                           | 3                    | 1                           | Spain          | Business Association            | Intellectual Property | Micro               |

| Name of the organisation                                  | OES / DSP Coverage       | Consultations | Nr. of consultations | Country        | Type of the organisation          | Industry            | Company size |
|-----------------------------------------------------------|--------------------------|---------------|----------------------|----------------|-----------------------------------|---------------------|--------------|
| Andersen                                                  |                          | 1             | 1                    | Spain          | Company/<br>Business organisation | Legal Services      | Large        |
| Anonymous                                                 |                          | 1             | 1                    |                |                                   |                     |              |
| Anonymous                                                 |                          | 3             | 6                    |                |                                   |                     |              |
| Anonymous                                                 |                          | 2             | 82                   |                |                                   |                     |              |
| APPLiA                                                    | Representing not covered | 3,2           | 2                    | Belgium        | Business Association              | Manufacturing       | Small        |
| Arthur's Legal, Strategies & Systems                      |                          | 3,2           | 2                    | Netherlands    | Company/<br>Business organisation | Cybersecurity       | Small        |
| Association of Financial Markets in Europe                | Representing covered     | 2             | 1                    | United Kingdom | Trade Union                       | Finance             | Medium       |
| Association of Foreign Banks in Germany                   | Representing both        | 3,2           | 2                    | Germany        | Business Association              | Finance             | Small        |
| ASSURALIA                                                 | Representing not covered | 2             | 1                    | Belgium        | Business Association              | Finance             | Medium       |
| BDEW Bundesverband der Energie- und Wasserwirtschaft e.V. | Representing both        | 2             | 1                    | Germany        | Business Association              | Energy              | Medium       |
| BEUC – The European Consumer Organisation                 |                          | 1,2           | 2                    | Belgium        | Consumer Organisation             | Consumer Protection | Small        |
| Bitkom e.V                                                | Representing both        | 1,3,2         | 3                    | Germany        | Business Association              | Technology          | Medium       |
| BlackBerry                                                |                          | 2             | 1                    | Canada         | Business Association              | Cybersecurity       | Large        |
| BP PLC                                                    | OES covered              | 2             | 1                    | United Kingdom | Company/<br>Business organisation | Energy              | Large        |

| <b>Name of the organisation</b>                     | <b>OES / DSP Coverage</b> | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>      | <b>Company size</b> |
|-----------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|----------------------|---------------------|
| BSA   The Software Alliance                         | Representing covered      | 1,3,2                | 3                           | Belgium        | Business association              | Software             | Medium              |
| Bundesrechtsanwaltskammer                           |                           | 3                    | 1                           | Germany        | Business Association              | Legal Services       | Small               |
| Business & Science Poland                           |                           | 3                    | 1                           | Poland         | Business Association              | Business Association | Small               |
| CCIA Europe                                         | Representing both         | 1,2                  | 2                           | Belgium        | Business Association              | Technology           | Small               |
| CEDEC European Federation of Local Energy Companies |                           | 2                    | 1                           | Belgium        | Company/<br>Business organisation | Energy               | Micro               |
| Cetome                                              |                           | 3,2                  | 2                           | France         | Company/<br>Business organisation | Cybersecurity        | Micro               |
| Chanel Ltd                                          |                           | 3                    | 1                           | United Kingdom | Company/<br>Business organisation | Luxury Goods         | Large               |
| ChargeUp Europe                                     |                           | 1                    | 1                           | Belgium        | Business association              | Transport            | Micro               |
| Charter of Trust                                    |                           | 3                    | 1                           | Belgium        | Business Association              | Cybersecurity        | Large               |
| Cigref                                              | Representing both         | 2                    | 1                           | France         | Business Association              | IT Services          | Small               |
| Cisco Systems Inc.                                  | DSP covered               | 2                    | 1                           | United States  | Company/<br>Business organisation | Technology           | Large               |
| City of Stockholm                                   |                           | 3                    | 1                           | Sweden         | Public authority                  | Public authority     | Large               |

| <b>Name of the organisation</b>                                                        | <b>OES / DSP Coverage</b> | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>         | <b>Company size</b> |
|----------------------------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-------------------------|---------------------|
| CLECAT – European association for forwarding, transport, logistic and Customs services | Representing not covered  | 3,2                  | 2                           | Belgium        | Business Association              | Transport               | Micro               |
| CLEPA – European Association of Automotive Suppliers                                   |                           | 3                    | 1                           | Belgium        | Business Association              | Transport               | Small               |
| Cloud Infrastructure Service Providers in Europe (CISPE)                               | Representing covered      | 3,2                  | 2                           | Belgium        | Business Association              | Cloud Services          | Micro               |
| Cloudflare                                                                             |                           | 2                    | 1                           | United States  | Company/<br>Business organisation | Internet Infrastructure | Large               |
| Coalition for Online Accountability (COA)                                              |                           | 3                    | 1                           | United States  | Business Association              | Internet Governance     | Micro               |
| COCIR                                                                                  | Representing covered      | 1,3,2                | 3                           | Belgium        | Business association              | Healthcare              | Micro               |
| Com Laude Group                                                                        |                           | 3                    | 1                           | United Kingdom | Company/<br>Business organisation | Internet Infrastructure | Medium              |
| Comité Colbert                                                                         |                           | 3                    | 1                           | France         | Business Association              | Luxury Goods            | Micro               |
| Community of European Railway and Infrastructure Companies (CER aisbl)                 |                           | 3                    | 1                           | Belgium        | Business Association              | Transport               | Small               |
| COMRCD                                                                                 |                           | 2                    | 1                           | France         | Public authority                  | Cybersecurity           | Large               |
| Confederation of Danish Industry                                                       |                           | 3                    | 1                           | Denmark        | Business Association              | Manufacturing           | Large               |
| CPME – Standing Committee of European Doctors                                          |                           | 2                    | 1                           | Belgium        | NGO                               | Healthcare              | Micro               |
| CrowdStrike                                                                            |                           | 3                    | 1                           | United States  | Company/<br>Business organisation | Cybersecurity           | Large               |

| <b>Name of the organisation</b>                                | <b>OES / DSP Coverage</b>     | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>                   | <b>Company size</b> |
|----------------------------------------------------------------|-------------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-----------------------------------|---------------------|
| CSC – IT Center for Science                                    | OES covered                   | 3,2                  | 2                           | Finland        | Company/<br>Business organisation | IT Services                       | Large               |
| currENT Enabling Network Technology throughout Europe E.E.I.G. | Representing both             | 3                    | 1                           | Belgium        | Business Association              | Energy                            | Micro               |
| Cybersecurity Coalition                                        |                               | 3,2                  | 2                           | United States  | Business Association              | Cybersecurity                     | Micro               |
| CYPRUS CHAMBER OF COMMERCE AND INDUSTRY                        | Representing both             | 2                    | 1                           | Cyprus         | Business Association              | Business Association              | Small               |
| Danish Ritghts Alliance                                        |                               | 3                    | 1                           | Denmark        | Business Association              | Intellectual Property             | Micro               |
| DATEV eG                                                       | Economic operator not covered | 2                    | 1                           | Germany        | Company/<br>Business organisation | IT Services                       | Large               |
| DEKRA e.V.                                                     |                               | 1                    | 1                           | Germany        | Company/<br>Business organisation | Standardization and Certification | Large               |
| Deloitte (on behalf of all firms in the EU)                    |                               | 2                    | 1                           | Germany        | Company/<br>Business organisation | Transport                         | Large               |
| DENIC eG                                                       |                               | 3                    | 1                           | Germany        | Company/<br>Business organisation | Internet Infrastructure           | Medium              |
| Deutsche Börse Group                                           | OES covered                   | 3,2                  | 2                           | Germany        | Company/<br>Business organisation | Finance                           | Large               |
| Deutsche Telekom AG                                            | DSP covered                   | 2                    | 1                           | Germany        | Company/<br>Business organisation | Telecommunications                | Large               |

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|---------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|---------------------------------|-----------------------------------|---------------------|
| Developers Alliance                         | Representing both         | 2                    | 1                           | United States  | Business Association            | Software                          | Micro               |
| DIGITALEUROPE                               | Representing both         | 1,3,2                | 3                           | Belgium        | Business association            | Technology                        | Small               |
| DIHK                                        |                           | 3                    | 1                           | Germany        | Business Association            | Business Association              | Large               |
| DIN Deutsches Institut für Normung e.V.     |                           | 3                    | 1                           | Germany        | Standartisation body            | Standardization and Certification | Large               |
| Dirección General de la Marina Mercante     |                           | 2                    | 1                           | Spain          | Public authority                | Transport                         | Large               |
| DSNA French Air Navigation Service Provider |                           | 1                    | 1                           | France         | Company/ Business organisation  | Transport                         | Large               |
| eBay                                        |                           | 3                    | 1                           | United States  | Company/ Business organisation  | E-commerce                        | Large               |
| eco - Verband der Internetwirtschaft e.V.   |                           | 1,3                  | 2                           | Germany        | Business association            | E-commerce                        | Small               |
| ECPAT International                         |                           | 3                    | 1                           | Thailand       | NGO                             | Child Protection                  | Small               |
| EDF (Électricité de France)                 | OES covered               | 3,2                  | 2                           | France         | Company/ Business organisation  | Energy                            | Large               |
| EDiMA                                       | Representing both         | 2                    | 1                           | Belgium        | Business Association            | Media                             | Micro               |
| EE-ISAC                                     | Representing both         | 2                    | 1                           | Belgium        | Business Association            | Cybersecurity                     | Small               |

| <b>Name of the organisation</b>                                   | <b>OES / DSP Coverage</b> | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>    | <b>Company size</b> |
|-------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|--------------------|---------------------|
| Eesti Infotehnoloogia ja Telekommunikatsiooni Liit                |                           | 3                    | 1                           | Estonia        | Business Association              | Technology         | Micro               |
| ElecLink                                                          | OES covered               | 2                    | 1                           | United Kingdom | Company/<br>Business organisation | Energy             | Small               |
| Employers Association of Polish Copper                            | Representing covered      | 2                    | 1                           | Poland         | Business Association              | Manufacturing      | Micro               |
| ENCS (European Network for Cyber Security)                        | Representing both         | 2                    | 1                           | Netherlands    | NGO                               | Cybersecurity      | Small               |
| Enedis                                                            |                           | 3                    | 1                           | France         | Company/<br>Business organisation | Energy             | Large               |
| Enel SpA                                                          | OES covered               | 1,3,2                | 3                           | Italy          | Company/<br>Business organisation | Energy             | Large               |
| ENGIE                                                             |                           | 3                    | 1                           | Belgium        | Company/<br>Business organisation | Energy             | Large               |
| Erdöl-Lagergesellschaft m.b.H.                                    | OES covered               | 2                    | 1                           | Austria        | Company/<br>Business organisation | Energy             | Medium              |
| Ernst & Young (EY Advisory S.p.A.)                                |                           | 2                    | 1                           | Italy          | Company/<br>Business organisation | Finance            | Large               |
| ESET spol. s r.o.                                                 |                           | 2                    | 1                           | Slovakia       | Company/<br>Business organisation | Cybersecurity      | Large               |
| ETNO - European Telecommunications Network Operators' Association | Representing both         | 1,2                  | 2                           | Belgium        | Business Association              | Telecommunications | Micro               |

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|---------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-----------------------------------|---------------------|
| ETSI                                                                |                           | 2                    | 1                           | France         | EU body                           | Standardization and Certification | Medium              |
| EurEau - European Federation of Water Services                      | Representing both         | 1,2                  | 2                           | Belgium        | Business Association              | Public Services                   | Micro               |
| Eurelectric                                                         | Representing covered      | 2                    | 1                           | Belgium        | Business Association              | Energy                            | Small               |
| EUROCHAMBRES                                                        | Representing both         | 2                    | 1                           | Belgium        | Business Association              | Business Association              | Small               |
| Euronext                                                            | OES covered               | 2                    | 1                           | Netherlands    | Company/<br>Business organisation | Finance                           | Large               |
| European Association of Co-operative Banks (EACB)                   | Representing covered      | 2                    | 1                           | Belgium        | Business Association              | Finance                           | Small               |
| European Banking Federation                                         | Representing covered      | 1,2                  | 2                           | Belgium        | Business association              | Finance                           | Small               |
| European Committee for Interoperable Systems                        |                           | 3                    | 1                           | Belgium        | Business Association              | Technology                        | Micro               |
| European Community Shipowners' Associations' (ECSA)                 | Representing both         | 2                    | 1                           | Belgium        | Business Association              | Transport                         | Small               |
| European Cultural and Creative Industries Alliance (ECCIA)          |                           | 3                    | 1                           | Belgium        | Business Association              | Creative Industries               | Micro               |
| European Data Centre Association (EUDCA)                            | Representing not covered  | 1,3,2                | 3                           | Belgium        | Business association              | Internet Infrastructure           | Micro               |
| European DIGITAL SME Alliance                                       |                           | 3                    | 1                           | Belgium        | Business Association              | Technology                        | Small               |
| European Energy - Information Sharing and Analysis Centre (EE-ISAC) |                           | 3                    | 1                           | Belgium        | NGO                               | Energy                            | Micro               |

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|-------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-------------------------|---------------------|
| European Internet Services Providers Association (EuroISPA) | Representing both         | 3,2                  | 2                           | Belgium        | Business Association              | Internet Infrastructure | Micro               |
| European Railway Infrastructure Managers (E.I.M.)           |                           | 3                    | 1                           | Belgium        | NGO                               | Transport               | Small               |
| European Sea Ports Organisation (ESPO)                      | Representing covered      | 2                    | 1                           | Belgium        | Business Association              | Transport               | Small               |
| European Tyre & Rubber Manufacturers Association            | Representing both         | 2                    | 1                           | Belgium        | Business Association              | Transport               | Micro               |
| Europol EC3 Advisory Group on Internet Security             |                           | 3                    | 1                           | Netherlands    | Other                             | Cybersecurity           | Small               |
| Eurosmart                                                   | Representing not covered  | 1,2                  | 2                           | Belgium        | Business association              | Cybersecurity           | Micro               |
| EuroUSC Italia ltd                                          |                           | 1                    | 1                           | Italy          | Company/<br>Business organisation | Transport               | Micro               |
| F-Secure                                                    |                           | 2                    | 1                           | Finland        | Company/<br>Business organisation | Cybersecurity           | Large               |
| Facebook Ireland Limited (FB-I)                             |                           | 3                    | 1                           | Ireland        | Company/<br>Business organisation | Social Media            | Large               |
| FBF Fédération Bancaire Française                           |                           | 1                    | 1                           | France         | Business association              | Finance                 | Medium              |
| Fédération Française de l'Assurance                         | Representing both         | 3,2                  | 2                           | France         | Business Association              | Finance                 | Small               |
| Fédération Internationale de l'Automobile (FIA) Region I    |                           | 2                    | 1                           | France         | Consumer Organisation             | Transport               | Medium              |
| Fédération nationale des Travaux Publics (FNTP)             |                           | 2                    | 1                           | France         | Business Association              | Construction            | Medium              |

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|----------------------------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|---------------------------------|--------------------|---------------------|
| Federation of Craft Businesses in the automotive sector and in mobility services (FNA) |                           | 1                    | 1                           | France         | Trade Union                     | Transport          | Small               |
| Federation of European Risk Management Associations (FERMA)                            | Representing both         | 2                    | 1                           | Belgium        | Business Association            | Finance            | Micro               |
| Federation of European Securities Exchanges (FESE)                                     | Representing both         | 2                    | 1                           | Belgium        | Trade Union                     | Finance            | Micro               |
| Federation of German Industries / Bundesverband der Deutschen Industrie e.V.           | Representing both         | 1,3,2                | 3                           | Germany        | Business association            | Manufacturing      | Medium              |
| Federation of Risk Management Associations (FERMA)                                     |                           | 3                    | 1                           | Belgium        | Business Association            | Finance            | Micro               |
| FEPOR                                                                                  | Representing covered      | 3,2                  | 2                           | Belgium        | Business Association            | Transport          | Micro               |
| FFTélécoms                                                                             |                           | 3                    | 1                           | France         | Business Association            | Telecommunications | Small               |
| FIGIEFA, the European Federation of Automotive Aftermarket Distributors                | Representing both         | 1,2                  | 2                           | Belgium        | Business association            | Transport          | Small               |
| Finland - Ministry of Transport and Communications                                     |                           | 2                    | 1                           | Finland        | Public authority                | Transport          | Large               |
| Foudation ElaadNL                                                                      |                           | 2                    | 1                           | Netherlands    | Academic/ Research Institution  | Transport          | Small               |
| French Banking Federation (FBF)                                                        | Representing both         | 2                    | 1                           | France         | Business Association            | Finance            | Medium              |
| Fundación ESYS (Empresa, Seguridad y Sociedad)                                         | Representing covered      | 2                    | 1                           | Spain          | Academic/ Research Institution  | Security           | Micro               |

| <b>Name of the organisation</b>                                           | <b>OES / DSP Coverage</b>     | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b> | <b>Industry</b>     | <b>Company size</b> |
|---------------------------------------------------------------------------|-------------------------------|----------------------|-----------------------------|----------------|---------------------------------|---------------------|---------------------|
| German Technical and Scientific Association for Gas and Water (DVGW e.V.) |                               | 2                    | 1                           | Germany        | Academic/ Research Institution  | Public Services     | Large               |
| Gesamtverband der Deutschen Versicherungswirtschaft e.V. (GDV)            | Representing not covered      | 2                    | 1                           | Germany        | Business Association            | Finance             | Medium              |
| Global Brand Owner and Consumer Protection Coalition                      |                               | 3                    | 1                           | United States  | Business Association            | Consumer Protection | Micro               |
| Government of Catalonia (Cybersecurity Agency)                            |                               | 2                    | 1                           | Spain          | Public authority                | Cybersecurity       | Large               |
| GRTgaz                                                                    |                               | 3                    | 1                           | France         | Company/ Business organisation  | Energy              | Large               |
| GSMA Europe                                                               | Representing both             | 1, 2                 | 2                           | Belgium        | Business Association            | Telecommunications  | Large               |
| Hangzhou Hikvision Digital Technology Co.                                 | Economic operator not covered | 1,2                  | 2                           | China          | Company/ Business organisation  | Security            | Large               |
| Huawei Technologies                                                       | DSP covered                   | 1, 3, 2              | 3                           | China          | Company/ Business organisation  | Telecommunications  | Large               |
| Iberdrola, S.A.                                                           | OES covered                   | 2                    | 1                           | Spain          | Company/ Business organisation  | Energy              | Large               |
| IBM                                                                       |                               | 3                    | 1                           | Belgium        | Company/ Business organisation  | Technology          | Large               |
| ICANN                                                                     |                               | 3                    | 1                           | United States  | Business Association            | Internet Governance | Large               |

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|-------------------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-------------------------|---------------------|
| ICANN Business Constituency                                                   |                           | 3                    | 1                           | United States  | Business Association              | Internet Governance     | Medium              |
| ICANN Intellectual Property Constituency                                      |                           | 3                    | 1                           | United States  | Business Association              | Internet Governance     | Medium              |
| ICANN The At-Large Advisory Committee                                         |                           | 3                    | 1                           | United States  | Business Association              | Internet Governance     | Large               |
| ICT4Water Cluster - Cybersecurity Action Group                                |                           | 3                    | 1                           | Belgium        | Business Association              | Cybersecurity           | Medium              |
| IFPI - representing the recording industry worldwide                          |                           | 3                    | 1                           | Switzerland    | Business Association              | Creative Industries     | Medium              |
| INDICAM - the Italian Association for the protection of Intellectual Property |                           | 3                    | 1                           | Italy          | Business Association              | Intellectual Property   | Micro               |
| InfoNetworks                                                                  |                           | 3                    | 1                           | United States  | Company/<br>Business organisation | Technology              | Micro               |
| Information Technology Industry Council (ITI)                                 | Representing both         | 1, 2                 | 2                           | Belgium        | Business association              | Technology              | Small               |
| ING Bank N.V.                                                                 | OES covered               | 2                    | 1                           | Netherlands    | Company/<br>Business organisation | Finance                 | Large               |
| Insurance Europe                                                              | Representing both         | 3,2                  | 2                           | Belgium        | Business Association              | Finance                 | Small               |
| Interactive Software Federation of Europe (ISFE)                              | Representing not covered  | 2                    | 1                           | Belgium        | Business Association              | Software                | Micro               |
| International Trademark Association (INTA)                                    |                           | 3                    | 1                           | United States  | Business Association              | Intellectual Property   | Medium              |
| Internet Infrastructure Coalition                                             |                           | 3                    | 1                           | United States  | Business Association              | Internet Infrastructure | Small               |

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|--------------------------------------------------|-------------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-------------------------|---------------------|
| Internet Systems Consortium                      |                               | 3                    | 1                           | United States  | Business Association              | Internet Infrastructure | Small               |
| InTheCyber Group                                 |                               | 2                    | 1                           | Italy          | Company/<br>Business organisation | Cybersecurity           | Small               |
| ITI, the Information Technology Industry Council |                               | 3                    | 1                           | Belgium        | Business Association              | Technology              | Small               |
| Japan Business Council in Europe                 |                               | 3                    | 1                           | Belgium        | Business Association              | Business Association    | Micro               |
| Japan Registry Services Co., Ltd. (JPRS)         |                               | 3                    | 1                           | Japan          | Company/<br>Business organisation | Internet Infrastructure | Medium              |
| JMTBA (Japan Machine Tool Builders' Association) |                               | 3                    | 1                           | Japan          | Business Association              | Manufacturing           | Small               |
| Kaspersky Labs GmbH                              | Economic operator not covered | 1,3,2                | 3                           | Germany        | Company/<br>Business organisation | Cybersecurity           | Large               |
| Liberty Global                                   | DSP covered                   | 1, 2                 | 2                           | Netherlands    | Company/<br>Business organisation | Telecommunications      | Large               |
| London Stock Exchange Group                      | OES covered                   | 2                    | 1                           | United Kingdom | Company/<br>Business organisation | Finance                 | Large               |
| Malta Digital Innovation Authority               |                               | 2                    | 1                           | Malta          | Public authority                  | Telecommunications      | Small               |
| Mastercard                                       | Economic operator not covered | 2                    | 1                           | United States  | Company/<br>Business organisation | Finance                 | Large               |

| <b>Name of the organisation</b>                                                                                               | <b>OES / DSP Coverage</b> | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>         | <b>Company size</b> |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|-------------------------|---------------------|
| MEDEF                                                                                                                         | Representing both         | 3, 2                 | 2                           | France         | Business Association              | Business Association    | Medium              |
| MedTech Europe                                                                                                                |                           | 3                    | 1                           | Belgium        | Company/<br>Business organisation | Healthcare              | Small               |
| Messaging, Malware and Mobile Anti-Abuse Working Group                                                                        |                           | 3                    | 1                           | United States  | Other                             | Cybersecurity           | Micro               |
| Microsoft Corporation                                                                                                         | DSP covered               | 1, 3, 2              | 3                           | United States  | Company/<br>Business organisation | Technology              | Large               |
| MTÜ Eesti Infotehnoloogia ja Telekommunikatsiooni Liit (Estonian Association of Information Technology and Telecommunication) | Representing both         | 2                    | 1                           | Estonia        | Business Association              | Technology              | Micro               |
| Nederlandse Publieke Omroep                                                                                                   |                           | 2                    | 1                           | Netherlands    | Company/<br>Business organisation | Media                   | Large               |
| Netnod Internet Exchange i Sverige AB                                                                                         |                           | 3                    | 1                           | Sweden         | Company/<br>Business organisation | Internet Infrastructure | Small               |
| Netz Niederösterreich GmbH                                                                                                    | OES covered               | 2                    | 1                           | Austria        | Company/<br>Business organisation | Energy                  | Large               |
| Nikhef                                                                                                                        |                           | 3                    | 1                           | Netherlands    | Academic/<br>Research Institution | Scientific Research     | Medium              |
| NXP Semiconductors                                                                                                            |                           | 3                    | 1                           | Netherlands    | Company/<br>Business organisation | Manufacturing           | Large               |

| <b>Name of the organisation</b>                           | <b>OES / DSP Coverage</b>   | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>     | <b>Company size</b> |
|-----------------------------------------------------------|-----------------------------|----------------------|-----------------------------|----------------|-----------------------------------|---------------------|---------------------|
| OMV Aktiengesellschaft                                    | OES covered                 | 2                    | 1                           | Austria        | Company/<br>Business organisation | Energy              | Large               |
| Open-Xchange AG                                           |                             | 3                    | 1                           | Germany        | Company/<br>Business organisation | Software            | Medium              |
| Orange S.A.                                               | DSP covered                 | 1, 2                 | 2                           | France         | Company/<br>Business organisation | Telecommunications  | Large               |
| Palo Alto Networks                                        | DSP covered                 | 1, 2                 | 2                           | Germany        | Company/<br>Business organisation | Technology          | Large               |
| Payments Europe                                           | Representing<br>not covered | 2                    | 1                           | Belgium        | Business Association              | Finance             | Micro               |
| Pietro BARBAGALLO                                         |                             | 1                    | 1                           | Italy          | Private Person                    | Private Person      |                     |
| Plinacro d.o.o.                                           | OES covered                 | 2                    | 1                           | Croatia        | Company/<br>Business organisation | Energy              | Large               |
| Port of Rotterdam Authority                               | OES covered                 | 2                    | 1                           | Netherlands    | Company/<br>Business organisation | Transport           | Large               |
| Poste Italiane                                            | OES covered                 | 2                    | 1                           | Italy          | Company/<br>Business organisation | Postal Services     | Large               |
| Public provider for digital health organisation in vienna | DSP covered                 | 2                    | 1                           | Austria        | Consumer Organisation             | Healthcare          | Large               |
| RIPE Cooperation Working Group Co-Chairs                  |                             | 3                    | 1                           | United Kingdom | Other                             | Internet Governance | Large               |

| Name of the organisation                    | OES / DSP Coverage   | Consultations | Nr. of consultations | Country     | Type of the organisation          | Industry            | Company size |
|---------------------------------------------|----------------------|---------------|----------------------|-------------|-----------------------------------|---------------------|--------------|
| RIPE NCC                                    |                      | 3,2           | 2                    | Netherlands | Business Association              | Internet Governance | Medium       |
| Rundfunk und Telekom Regulierungs-GmbH      |                      | 2             | 1                    | Austria     | Public authority                  | Telecommunications  | Medium       |
| Salesforce                                  |                      | 3             | 1                    | Belgium     | Company/<br>Business organisation | Software            | Large        |
| SANET - Slovak Academic Network Association |                      | 1             | 1                    | Slovakia    | Academic/<br>Research Institution | Academic Network    | Small        |
| SeaTopic SAS                                |                      | 1             | 1                    | France      | Company/<br>Business organisation | Transport           | Micro        |
| SGI Europe                                  |                      | 3             | 1                    | Belgium     | Company/<br>Business organisation | Public Services     | Micro        |
| SNCF                                        | OES covered          | 1,2           | 2                    | France      | Company/<br>Business organisation | Transport           | Large        |
| SSE                                         |                      | 3             | 1                    | Ireland     | Company/<br>Business organisation | Energy              | Large        |
| Swedenergy                                  | Representing covered | 2             | 1                    | Sweden      | Business Association              | Energy              | Medium       |
| Swedish Post and Telecom Authority (PTS)    |                      | 3             | 1                    | Sweden      | Public authority                  | Telecommunications  | Large        |
| Syntec Numérique                            |                      | 3             | 1                    | France      | Trade Union                       | Technology          | Small        |
| TECH IN France                              | Representing both    | 3, 2          | 2                    | France      | Business Association              | Technology          | Micro        |

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|-------------------------------------------------------|---------------------------|----------------------|-----------------------------|----------------|-----------------------------------|----------------------|---------------------|
| terra strategic services (terra ss)                   |                           | 2                    | 1                           | Bulgaria       | Company/<br>Business organisation | Cybersecurity        | Small               |
| The Coalition to Reduce Cyber Risk                    |                           | 1, 3                 | 2                           | United States  | Company/<br>Business organisation | Cybersecurity        | Micro               |
| The Federation of Finnish Enterprises                 | Representing both         | 1, 2                 | 2                           | Finland        | Business association              | Business Association | Medium              |
| The Institute of Electrical and Electronics Engineers |                           | 2                    | 1                           | United States  | Business Association              | Scientific Research  | Large               |
| The Polish Confederation Lewiatan                     |                           | 2                    | 1                           | Poland         | Business Association              | Business Association | Large               |
| Thierry LEBLOND                                       |                           | 1                    | 1                           | France         | Private Person                    | Private Person       |                     |
| TIM S.p.A.                                            | DSP covered               | 2                    | 1                           | Italy          | Company/<br>Business organisation | Telecommunications   | Large               |
| U.S. Chamber of Commerce                              | Representing both         | 2                    | 1                           | United States  | Business Association              | Business Association | Large               |
| UNIFAB - Union des Fabricants                         |                           | 3                    | 1                           | France         | Business Association              | Anti-Counterfeiting  | Micro               |
| UNIFE - The European Rail Supply Industry             | Representing covered      | 1, 3, 2              | 3                           | Belgium        | Business association              | Transport            | Small               |
| Union Française de l'Electricité (UFE)                |                           | 3                    | 1                           | France         | Business Association              | Energy               | Small               |
| Unipol Gruppo                                         |                           | 3                    | 1                           | Italy          | Company/<br>Business organisation | Finance              | Large               |

| Name of the organisation               | OES / DSP Coverage               | Consultations | Nr. of consultations | Country       | Type of the organisation          | Industry                | Company size |
|----------------------------------------|----------------------------------|---------------|----------------------|---------------|-----------------------------------|-------------------------|--------------|
| UP KRITIS                              | OES covered/Representing covered | 3, 2          | 2                    | Germany       | Business association              | Cybersecurity           | Large        |
| Vattenfall AB                          | OES covered                      | 2             | 1                    | Sweden        | Company/<br>Business organisation | Energy                  | Large        |
| VDMA                                   | 3                                |               | 1                    | Germany       | Business Association              | Manufacturing           | Large        |
| Ventocom GmbH                          | Economic operator not covered    | 2             | 1                    | Austria       | Company/<br>Business organisation | Telecommunications      | Medium       |
| Ventocom.SI, telekomunikacije, d.o.o.  | Economic operator not covered    | 2             | 1                    | Slovenia      | Company/<br>Business organisation | Telecommunications      | Micro        |
| Verband kommunaler Unternehmen e.V.    | Representing both                | 3, 2          | 2                    | Germany       | Business Association              | Business Association    | Medium       |
| Verbraucherzentrale Bundesverband e.V. |                                  | 2             | 1                    | Germany       | Consumer Organisation             | Consumer Protection     | Medium       |
| VERBUND AG                             | OES covered                      | 2             | 1                    | Austria       | Company/<br>Business organisation | Energy                  | Large        |
| Verisign, Inc.                         |                                  | 3             | 1                    | United States | Company/<br>Business organisation | Internet Infrastructure | Large        |
| VMware International Unlimited Company | DSP covered                      | 2             | 1                    | United States | Company/<br>Business organisation | Technology              | Large        |
| VNO-NCW                                |                                  | 3             | 1                    | Netherlands   | Business Association              | Business Association    | Medium       |

| <b>Name of the organisation</b>                                    | <b>OES / DSP Coverage</b>     | <b>Consultations</b> | <b>Nr. of consultations</b> | <b>Country</b> | <b>Type of the organisation</b>   | <b>Industry</b>    | <b>Company size</b> |
|--------------------------------------------------------------------|-------------------------------|----------------------|-----------------------------|----------------|-----------------------------------|--------------------|---------------------|
| Vodafone Group                                                     | Economic operator not covered | 3, 2                 | 2                           | Belgium        | Company/<br>Business organisation | Telecommunications | Large               |
| VÖWG- Association of public services and enterprises Austria       |                               | 3                    | 1                           | Austria        | Business Association              | Public Services    | Small               |
| WindEurope                                                         |                               | 3                    | 1                           | Belgium        | NGO                               | Energy             | Medium              |
| ZVEI - German Electrical and Electronic Manufacturers' Association | Representing not covered      | 1,3,2                | 3                           | Germany        | Business association              | Manufacturing      | Medium              |