

Master Thesis

Policy Change Around Batteries: Understanding The Change Towards Resource Efficiency In The EU Batteries Policy With The Advocacy Coalition Framework.

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Abstract:

The relevance of batteries in the face of electrification in the European Union (EU) seems to have increased. In recent decades, resource efficiency elements have become increasingly important in high-tech battery policy. This paper explores the internal and external dynamics influencing policy change. Using the Advocacy Coalition Framework (ACF), it was found that there are indeed indicators of coalition formation within the policy subsystem in the form of material and purposive coalitions, which also suggest potential cross-coalition interactions. Furthermore, the impact of external events on battery policy has been studied, especially in the political subsystems of electromobility and climate protection. Nevertheless, further research around the policy subsystem would be highly recommended to further substantiate the findings of the paper.

Abbreviations:

ACF	Advocacy Coalition Framework
CEAP	Circular Economy Action Plan
CE	Circular Economy
DG	Directorates-General
EPR	Extended Producer Responsibility
EU	European Union
EV	Electric Vehicle
NGO	Non-Governmental Organisation

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INTRODUCTION

Relevance of the battery sector at the European Union (EU) level

Batteries are an integral part of our daily lives. They are used for a wide range of home appliances but are also important for various industries, such as the automotive industry, for instance, and are expected to play an significant role in the European energy transition. Batteries are an important factor in achieving the EU's goal of a zero-emissions economy by 2050, as they are crucial not only for mobility, for instance, electric vehicles but also for renewable energy storage. (European Commission 2020a)

Nevertheless, the growing number of batteries on the market is also of particular concern because they contain substances that can be harmful to the environment and human health, especially if they are not properly handled and disposed of, such as mercury, lead, or cadmium (Akram et al. 2019). Moreover, the procurement of raw materials can have a significant environmental and social impact (Camilleri 2020). An example is the lithium production in South America, which is associated with environmental damage due to the mining of raw materials and large water usage (Flexer et al. 2018; Gautam et al. 2018; He et al. 2020). Cobalt mining in the Democratic Republic of the Congo (DRC) has also come under fire for significant human rights concerns in recent years (Sharma and Manthiram 2020).

Over the last few years, those (critical) raw materials and the resource efficiency of products have become an increasing concern in the EU, which can be most prominently seen in the Circular Economy Action Plans (CEAP) of 2015 and 2020 (European Commission 2015; European Commission 2020a, Friant et al. 2021). The focus on resource efficiency and circular economy (CE), so the idea of a closed loop economy in its product/material streams, has been generally rising over the last years also due to the increasing awareness of limits to growth related to the idea of a finite planet (Cecchin et al. 2021). That course can also be observed

regarding batteries with an increasing emphasis on elements of circular economy and resource efficiency, with a greater number of life cycle stages and battery types covered by the legislation over time. It is therefore interesting to understand whether the EU can exploit economic opportunities while mitigating social and environmental harms by looking at how this industry is governed by the EU.

Governance of batteries at the EU level

Batteries are regulated at the EU level, and this regulation has been replaced once in the last three decades; with another proposal currently being processed, indicating that there recently has been considerable movement in this policy area. Directive 91/157/EEC was the first piece of legislation at the EU level to deal specifically with batteries. The directive focused on the end-of-life phase and the disposal of hazardous substances and it was limited to batteries and accumulators containing certain amounts of cadmium, mercury, or lead (Council of the European Union (1991)). Overall, the directive was criticized for its limited impact on the market collection rates were relatively low, varied widely among Member States, and applied to only a small number of batteries on the market (European Commission 2003, Farmer 2012). An impact assessment for future legislation showed, for instance, an EU-wide recycled input of 15% of (small) portable batteries sold and 19% of NiCd batteries sold in 2002 (BIO Intelligence Service 2003). Two amendments were made to Directive 93/86/EEC and Directive 98/101/EC due to technical progress (Council of the European Union (1991)).

The following directive, Directive 2006/66/EC, no longer focused only on the disposal of certain batteries/chemicals, but on overall waste management in a way “to re-incorporate waste in the economic cycle (‘closing the materials loop’)” (European Commission 2003). The main changes in the 2006 directive, Directive 2006/66/EC, were the inclusion of a wider range of batteries and accumulators, the introduction of producer responsibility, including financial responsibility for awareness campaigns and collections, and a mandatory collection and

recycling quota for Member States (European Parliament and Council of the EU (2006)). Over the years the directive has been amended several times, with the latest amendment introduced in 2018 (European Commission 2019b). The first amendments Directive 2008/12/EC and Directive 2008/103/EC were for Member States to ensure that batteries and accumulators that did not fulfil the requirements of the directive were not put on the market (European Parliament and Council of the EU 2008). The next amendment, Directive 2013/56/EU, was specifically dealing with cadmium-containing batteries and accumulators that are used in cordless power tools and button cells that contain low amounts of mercury. Directive (EU) 2018/849 amended the Battery Directive together with Directives 2000/53/EC and 2012/19/EU in regard to setting specific targets for individual materials in the waste stream (European Parliament and Council of the EU 2018). In 2019, 51% of the average annual sales of portable batteries in the EU were collected for recycling, however, some EU Member States showed collection rates below the since 2016 targeted collection rate of 45% with the lowest rate being 28.3% in Malta (Eurostat 2022).

In 2020, a proposal for a new regulation on batteries was published by the European Commission, showing how a shift toward a circular economy is starting to take hold. The proposed regulation aims to cover the entire lifecycle of batteries and create a competitive, sustainable European battery industry (European Commission 2020a). Although comprehensive the change shows itself to be a minor policy change as it does not differ completely from the outlined path of the previous policies on batteries regarding the focus on environmental protection in the Directive in 2006 the issue of resource efficiency already took hold in the legislation in terms of recycling rates for instance (Council of the EU and European Parliament 2006). The extent of the legislation was, however, still mainly limited to the end-of-life phase of the batteries, on waste. Therefore, the change with the upcoming regulation mostly seems to occur on secondary aspects that are illustrated in the table below (Table 5). Changes

to the proposal published in 2020 include, for example, the transition from a directive to a regulation, higher collection and recycling rates, a recycled content quota, the introduction of a digital product passport (battery passport) and EV batteries as a separate battery category (European Commission 2020). The proposed regulation also takes into account a second battery life and the social and environmental concerns related to critical raw materials used in battery production (European Commission 2020a).

Aspect	Change	Legislation
Extended Producer Responsibility (EPR)	Introduced	Directive 2006/66/EC
Collection Target	Extended	Directive 2006/66/EC
Recycling Target	Extended	Directive 2006/66/EC
Restriction of Hazardous Substances	Extended	Directive 2006/66/E C
Second Life	Introduced	COM(2020) 798
Recycled Content	Introduced	COM(2020) 798

Carbon Footprint	Introduced	COM(2020) 798
Battery Passport	Introduced	COM(2020) 798
Due Diligence	Introduced	COM(2020) 798

Table 1: Secondary aspects¹ and their time of introduction

Over recent years, the batteries policy became a strategic part of the of the EU's industrial strategy, which aims to create a globally competitive European battery industry²(European Commission 2019a). There are major financial incentives to strengthen the European battery industry, as it is a growing market that is estimated to become a €250 billion (per year) industry in Europe by 2025 (ibid.). Thus, the European Commission established the European Batteries Alliance (EBA) in 2017 (KIC InnoEnergy 2022). In that context, there has been an increased amount of strategic investments into research on batteries and the battery industry such as investments, for instance, with the BATT4EU project under Horizon Europe (BEPA (2022).

For the legislation in the field of batteries the ordinary legislative procedure, as laid out in Art. 289 and Art. 294 TEU, is used. It generally functions in the following way: In the formulation stage the European Commission is the institution with the right to initiative and therefore it is the only institution that can directly propose a legislation. Thus, it is also an important access point for stakeholders in the policy-making process (Klüver 2013). In this stage, the Commission can receive input from stakeholders through public consultations for instance. Additionally, there is the European Economic and Social Committee (EESC) (representing

¹ A further explanation around some of the individual aspects can be found in Appendix 1

² Currently, the EU is dependent on battery imports, mainly from the Asian market, and hopes to become more independent (European Commission 2019a).

employers and workers) and Committee of Regions (representing local governments) that function as advisory agencies with a consultation by the Commission in several policy areas. The Council of the EU and European Parliament decide through a joint decision-making process, with a so-called trilogue phase on whether the proposal will be realized into law. Additionally, to the access point through at the Commission stakeholders can also try to influence policy making through the European Parliament and Council of the EU. The European institutions often even rely on the technical expertise, as well as the stakeholders' position on policies to "define politically safe ground" and to "avoid the opposition of major societal interests" (Klüver 2013, p.45).

At the time of the thesis writing the legislative procedure for the upcoming regulation is still in progress. The legislative stages of the upcoming battery regulation are summarised in Figure 1. It shows the steps in the legislative procedure making of the policy and positions the public consultation in a frame. The first public consultation on the upcoming regulation was held in 2020 before the proposal was published by the European Commission and the second consultation took place right after the publication of the proposal from December 2020 until March 2021.

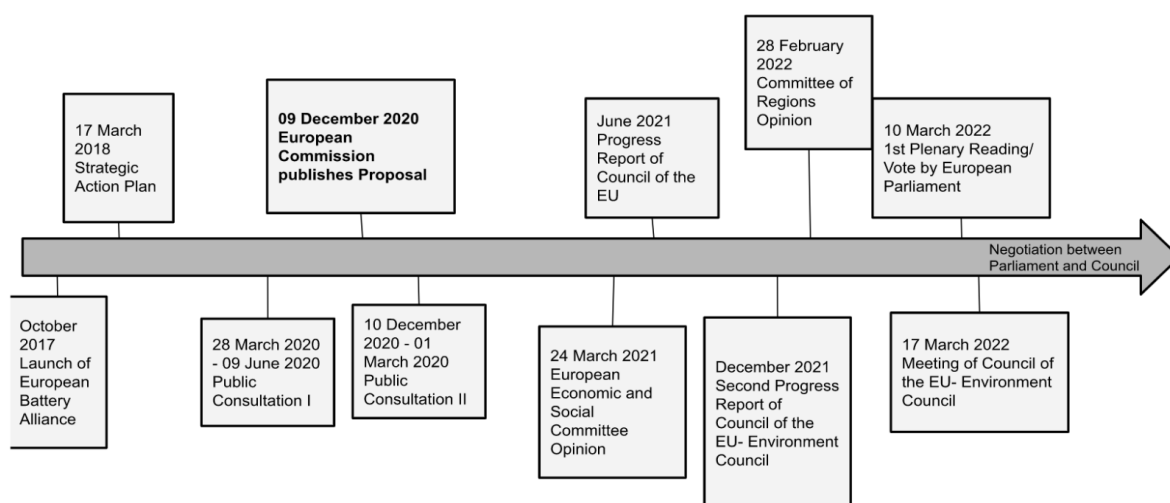


Figure 1: Timeline around the Proposal of a Regulation on batteries

The policy on batteries evolves around highly complex and technical issues. Especially the introduction of new technologies in this area has been thoroughly investigated particularly in regard to lithium-ion batteries. Such would be the implications for future legislation (Giosuè et al. 2021), environmental concerns (Bai et al. 2020, He Tian et al 2020, Sharma und Manthiram 2020,) and the implications on policy through their use in electric vehicles (EV) (Malinauskaite et al 2021) or the implications of the EU policy on a global level (Melin et al. 2021) and battery cell production in Europe (Duffner et al. 2020) or a focus on specific angles such as producer obligations (Turner and Nugent 2016; Giosuè et al. 2021).

Nevertheless, the analysis of policy change within the policies around batteries often times does not consider internal factors such as people, interests or beliefs, resources and coordination between them. Thus, less attention has been paid to actors and how they influence policy-making from within. There have been, however, a few analyses of some parts of the internal dynamics regarding batteries in Europe. Significant examples here are the work by Häge (2013) who looked at the coalition making within the Council of the EU in the making of the Batteries Directive, Gupta et al (2018) with an analysis of stakeholders regarding the recycling and collection of batteries, and Bonsu (2020) who has explored the views of the various stakeholders driving the transition to electric vehicles and a carbon-free economy concerning lithium-ion batteries in the UK.

The following section will show the research questions that examine the policy changes between the current directive on batteries, Directive 2006/66/EC and the newly proposed regulation. That part will be followed by a literature review of the selected framework and a research design for the thesis.

Research question

Battery regulation shows changes towards a stronger focus on resource efficiency. This thesis aims to investigate these changes. More specifically, it examines how the changes in the EU Battery Legislation towards a stronger focus on aspects of the circular economy from 2003 until 2022 can be explained by answering the research question (RQ):

What explains the policy change in the subsystem around batteries in the EU?

This research question is made more manageable by unpacking it into three closely related sub-questions (SQs). These sub-questions are:

SQ1: To what extent do internal factors contribute to policy change in the domain of battery legislation? Change can be motivated by an external shock, but it can also be stimulated by developments from within a system. More specifically, this thesis looks at the role of beliefs policy change. When it comes to batteries, an important belief may be that the environment needs to be protected from damage caused by potentially hazardous elements in the products. Thus, policymaking at the EU level is necessary. Another belief related to batteries could be the belief that batteries are an essential element of the economy and the mobility transition that must be produced economically and competitively within the EU, especially in consideration of the highly competitive nature of the global economy. This thesis expects that beliefs form the basis for political coordination among like-minded actors, and competition between coalitions ascribing to different systems of beliefs. Policy change, therefore, is the result of cooperation and competition between different belief-driven actors in a policy subsystem.

SQ2: What external factors to the subsystem explain the policy change? Factors outside the subsystem can also influence coalitions within the political subsystem and ultimately affect political decision-making. These include changes in public opinion, in other political subsystems, in political structures, or in “socioeconomic conditions” (Jenkins-Smith et al. 2014, 149). In the subsystem around batteries, changes in public opinion and the influence of changes in decisions in other subsystems are of particular interest.

Given this thesis’ focus on internal and external determinants of policy change, it uses the Advocacy Coalition Framework as a conceptual tool to address the research question. This Framework offers an explanation to the question by emphasising beliefs as a basis for political organisation among actors (governmental and private) operating one subsystem, e.g. the EU battery subsystem. It posits that these actors organise into coalitions based on different belief systems to influence policy-making and outcomes. Coalitions compete and act at different levels of intensity (Sabatier 1988).

Understanding changes in the legislation on batteries through the lens of the ACF is important because it illustrates how politics may play a role in the design of a highly technical policy. Various stakeholders have participated in the discussion on battery legislation in the EU. In particular, non-governmental organisations such as environmental and human rights organisations have expressed their concerns about battery sustainability. Other stakeholders in this policy area are battery manufacturers and producers as well as suppliers, end-of-life facilities and the different levels of government, from the EU institutions and the EU Member States to the regional and local actors in this field. In addition, there are a large number of different industries that are either directly or indirectly involved with batteries, such as automotive manufacturers.

Over the years, there have been political debates on various aspects of batteries, which shows the social relevance of this policy area. An example of such a debate would be the ban on cadmium which was discussed before the introduction of Directive 2006/66/EC (e.g. letsrecycle.com 2001). More recently, the importance of batteries at the EU level has increased as the EU aims to regain competitiveness and create a European battery industry characterised by sustainability and an independent value chain (European Commission 2019a). This change is particularly interesting to analyse in terms of stakeholders and how they influenced the development of the proposal for a new battery regulation in 2020. The battery sector is also relevant it has been discussed on human rights abuses and environmental concerns in the sourcing of critical raw materials (e.g. (Sharma and Manthiram 2020)). Overall, the socio-economic significance of the issue can be identified, and research could be used to better understand changes, not only in this particular subsystem but potentially concerning future legislation on circular economy and sustainability in the EU.

Although the framework has been applied to policy at the EU level, it has not yet been applied to the specific policy area of batteries. Thus, this is an opportunity to apply the framework to another subsystem. The issue is not only important on an environmental level but also on an industrial level (European Commission 2018). Especially, since the upcoming regulation is seen as important for future legislation, the development of the particular policy area and the fact that the regulation may pave the way for regulation in other important industries (Halleux 2022). As the ACF is often applied differently to various policy subsystems this approach could bring another angle to the application of the theory in a highly technical policy such as the one around batteries.

Overview of the thesis

This paper first presents the theoretical framework of the ACF and then explains the methodology and how the research design contributes to answering the research question. The

following part describes theoretical framework and the operationalization of the research. After that, the results of the interviews, webinars and document analysis are presented followed by a discussion of the results and a conclusion.

THEORETICAL FRAMEWORK

This thesis aims to understand changes in European battery policies. In doing so, it aims to simultaneously examine the influence of internal and external factors on policy making. More specifically, it seeks to compare the relative influence of actor-driven (internal) and system-driven (external) factors on the European battery legislation. Thus, it requires theorizing that considers these factors simultaneously. Therefore, it leverages theorizing on policy change outlined in the ACF framework, a framework that was introduced by Sabatier and Jenkins-Smith (1993, 1988). A large amount of research done with the ACF framework is in the policy domain on environment and energy (Weible et al. 2009; Pierce et al. 2020). The ACF is a framework that focuses on policy change over a longer period of time (minimum of ten years) within so-called “policy subsystems” which describe the interaction between actors and institutions within a particular policy field (Sabatier 1988), p. 131). This actor-based approach considers formal and informal actors who are rational and organised in competing coalitions based on their belief systems to reach a certain policy aim within a specific subsystem (Sabatier 1988).

In the flow diagram (Figure 1) the overall structure of the framework is visualized. The idea of the ACF is that policy change happens within a subsystem, however, there are several external factors and parameters that can influence such. Jenkins-Smith et al. (2014) describe four ways of policy change in the ACF (Jenkins-Smith et al. (2014)). The first one is via external shocks or events that are not in the control of the members of the subsystem that, however, influence the subsystem and ultimately also the policy outcome (Box in lower, left-hand corner of Figure 2). The second pathway is through internal shocks that occur within a particular subsystem (Box

in the upper, right-hand corner of Figure 2). The third way is policy-oriented learning. And the final pathway is through negotiated agreements mostly between coalitions with different belief systems policy brokers are seen as key for making negotiated agreements possible (Jenkins-Smith et al. 2014). The marked sections in the diagram show the sections on which this work will particularly focus, namely internal factors such as the belief systems and coalition interaction within the political subsystem and the external factors. Each of these sets of policy determinants is discussed in more detail below.

Flow Diagram of the Advocacy Coalition Framework

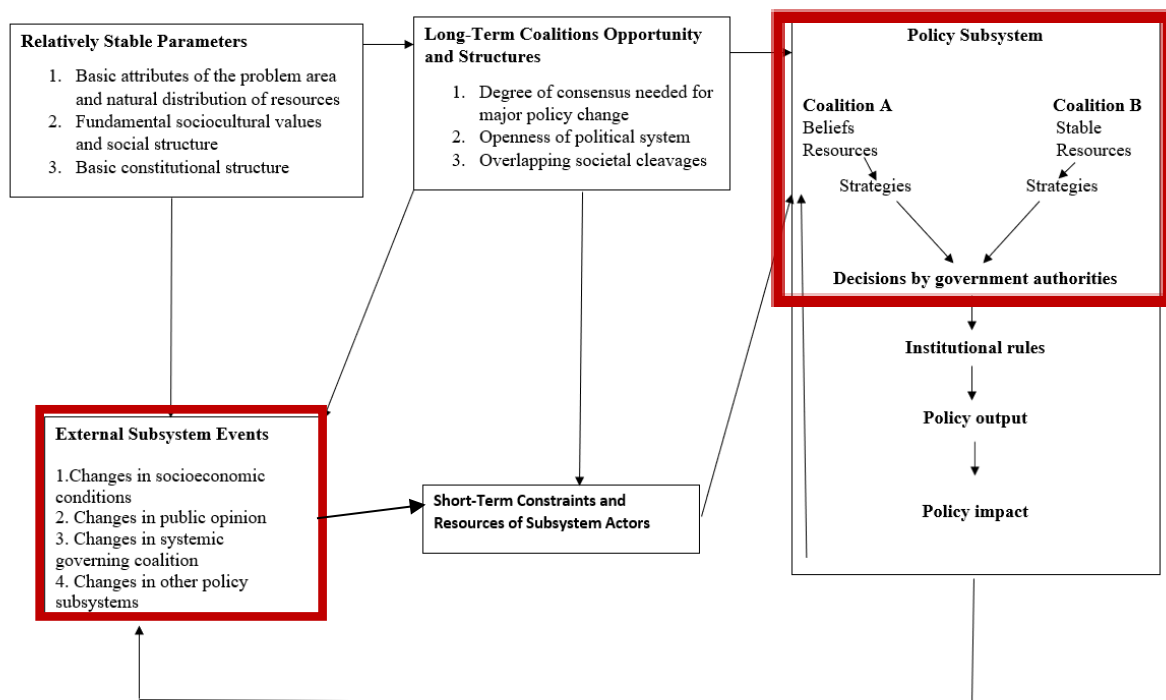


Figure 2: Flow Diagram of the Advocacy Coalition Framework. Adapted from (Jenkins-Smith et al 2014; Weible und Sabatier 2006)

Internal determinants of policy making

The second sub-question aims to understand to what extent the dynamics within the subsystem (internal factors) can influence policy-making, here the ACF provides the following answer: actors organise themselves into coalitions according to their belief system. Such a belief system can be described as “sets of value priorities and casual assumptions about how to realize them” (Sabatier 1988). Belief systems can be divided into three different types of beliefs: deep core beliefs, policy core beliefs and secondary beliefs (Sabatier 1998). Since the chemical policy is related to battery policy, as both are based on the restriction of hazardous substances in connection with the issue of toxicity, some examples of the different beliefs based on the research of Pesendorfer (2006) are presented below.

Deep core beliefs are fundamental and extremely resistant to change and are described as “fundamental normative orientations” such as “normative values and political ideologies” (Weible and Ingold 2018). Examples of such deep core beliefs in a subsystem in the EU are the belief in “globalisation, competitiveness, jobs” or “the priority of ecological and health concerns” (Pesendorfer 2006b). The following deep core beliefs are expected to be relevant for this thesis: In terms of the deep core beliefs in the form of material interest in form of profits and market shares such as identified by Brooks (2018), for instance, there seems to be an ongoing debate and a need for further research and clarification on whether such could be considered a core belief or not. This study follows the assumption in line with Jenkins-Smith and Sabatier (1994) that the material interest or the orientation for profit, an open market and market shares is within the deep core beliefs (Jenkins-Smith and Sabatier 1994).

Therefore, it can be assumed that actors can be divided into material actors “seeking to maximize their own material self-interest” and purpose actors “committed to an ideology stressing the collective welfare” who do not have material interests potentially forming coalitions according to that belief system (Jenkins-Smith and Sabatier 1994, 138). The purposive groups have fewer opportunities to express their beliefs and policy positions than

actors from material groups (Jenkins-Smith et al 2014). Examples of previous research in Europe identified such material and purposive coalitions examples are for instance by Pesendorfer (2006) in policies on chemicals in the EU and Brooks (2018) on pharmaceutical policies in Switzerland.

Then there are policy core beliefs which prove themselves more flexible than deep core beliefs, however, are still relatively resistant to change and are defined as “normative and empirical beliefs concerning policy subsystems” (Weible und Ingold 2018, p. 334). They are the translation of deep core beliefs into a specific policy and can be defined as “general goals for the policy subsystem and positions on general policy solutions and policy instruments” (ibid,p. 334). In the policy on chemicals on an EU level, it was for instance identified as “‘hazardous substance’ paradigm technical solutions” or a ‘no data – no market’ paradigm, precautionary principle partly modified ‘hazardous substance’ paradigm” (Pesendorfer 2006).

Lastly, the secondary beliefs are “instrumental beliefs or beliefs about a policy system” that could be “instrumental means for achieving policy-core ends (and goals) and relative weight of casual mechanisms and problems” (Weible and Ingold 2018). Here the examples on an EU level are for instance “soft regulation, bans only when alternatives are available, voluntary measures, incentives vs strict regulation and bans, phase-outs of hazardous substances” (Pesendorfer 2006). While advocacy coalition members generally agree on core policy issues, this is not always the case for secondary issues. The ACF provides a distinction between minor and major policy change. Major policy is defined as a “change in the policy core aspects of a governmental program, whereas minor change is a change in the secondary aspects” (Jenkins-Smith et al. 2014). Policy core aspects are “components that span a policy subsystem”, and secondary aspects are “components that deal with only a part of a subsystem or technical components of a policy” (Nohrstedt and Olofsson 2016). It is also more likely

that an actor will abandon secondary beliefs rather than admitting errors in their deep core beliefs or policy beliefs (Jenkins-Smith and Sabatier, 1994).

On the basis of the preceding discussion, I put forward the following hypothesis in response to SQ1:

H1: The policy change in the subsystem is brought by changes in (secondary) beliefs.

When significant conflict occurs within a political subsystem and policy beliefs are threatened a coalition of coalition partners and opponents is usually quite stable over a period of ten years (Sabatier 1998). Figure 1 provides a simplified account of how interactions between coalitions may impact policymaking through the influence coalitions exert on governmental decision-makers. To identify advocacy coalitions another important characteristic is the level of resources and strategies used within a subsystem to influence a policy area (Jenkins-Smith et al. 2014). This part is related to the basic idea of collective action by coalitions, where coalitions take collective action to be able to achieve a specific policy goal (Jenkins-Smith et al. 2014). Some coalitions are dominant and some are in the minority. Dominance within a subsystem is reflected in greater control over a policy outcome, often associated with a greater number of available resources. Resources in the EU have been identified in past research as expertise or information on a specific field that could be provided by interest groups. However, financial resources also play a large role in coalitions as well as the size for instance (Rozbicka 2013).

Another aspect of the ACF can be so-called “cross-coalition” interactions or ties where actors with different belief systems interact with each other. Reasons for such an interaction could be actors who want to be policy brokers and therefore try to reduce conflicts between opponents

and it can also occur more commonly in some subsystems to reduce politicisation, failures in the implementation and costs (Sato et al. 2021). Policy brokers can be defined as “one or more individuals or most likely an organisations whose primary goal coalitions or constant affiliate in is consensus and the mitigation of conflict” and are positioned “central between or peripheral to one the subsystem coalitions” (Weible and Ingold 2018).

Therefore, the following additional hypothesis is put forward in response to SQ1:

H2: The policy change is brought by a policy broker leading to increased cross-coalition interaction.

External determinants of policy change

Since the subsystem does not exist in a vacuum, there are also external factors that may have an influence. Therefore, the third sub-question (SQ3) examines external factors that may have contributed to policy change in more detail. One hypothesis of the ACF is that such “significant perturbations external to the subsystem are one of the necessary, but insufficient, paths to changing the policy core attributes of a governmental program” (Sabatier 1988). That this may be a translation of the hypothesised effect of external events on the political subsystem is shown in Figure 2, where short-term opportunities such as the short-term constraints and resources of subsystem actors [Figure 2, lower middle section] are affected by changes outside the subsystem ().

In the ACF, external subsystem events could be “changes in socio-economic condition, change in public opinion, changes in systematic governing coalitions, or policy decisions and impacts from other subsystems” (Jenkins-Smith and Sabatier 1994, 149). Jones and Jenkins-Smith's (2009) research, for example, specifically examines the impact of public opinion and the cross-subsystem nexus that can influence policy change (Jones and Jenkins-Smith's 2009). Such a

cross-subsystem connection around the battery subsystem could relate to the circular economy or electromobility especially as the Battery Action Plan was published as part of the transition to electrification of the European transport sector (Brooks 2018; European Commission 2019a) and is part of a larger campaign on the circular economy, the Circular Economy Action Plan. It stands to reason, therefore, that events in these policy subsystems could ultimately have an impact on the policy subsystem around batteries themselves. An example of this could be the Dieselgate affair, which, if not explicitly in this policy area, could have given a boost to electromobility and thus also to batteries as one of the main components of it in the automotive industry policy as a counterweight to the negative reputation of combustion engine vehicles (Hörber and Weber 2022). However, other aspects could be the shortage of materials on the world market or a shift in the political agenda that could have an impact on the subsystem (Zeng et al 2022). According to the ACF, such external events are a factor that increases the likelihood of policy change, but some factors such as “heightened public and political attention, agenda change, and, most importantly, redistribution of coalition resources and opening and closing of policy venues would have to be part of these events” (Jenkins-Smith et al. 2014, p. 202)

Therefore, hypothesis 3 of this thesis in response to sub question 3 is that external events such as public opinion on batteries or changes in other policy subsystems such as climate protection and the mobility transition influence policy change in the batteries subsystem towards resource efficiency.

H3: Policy change in the subsystem is influenced by changes in other subsystems, in public opinion or by socio-economic changes.

In the following part, the research methodology and the way it was used to test the hypotheses about the batteries subsystem in the EU will be explored in more detail.

METHODOLOGY

Case Study

This thesis adopts a qualitative case study approach. A case study can be defined as “an intensive study of a single unit for the purpose of understanding a larger class of (similar) units” (Gerring 2004). Generally, this approach focuses on a single unit or multiple single units that can be analysed through both, quantitative and qualitative, methods (Gerring 2007). The strengths of this approach are the possibilities for an in-depth analysis especially concerning research with explanatory and evaluative or “why” and “how” questions and research designs (Yin 2014). This approach is not without its own advantages, however, there are several drawbacks when it comes to the approach of a case study. Most prominently, there is a discussion about the representativeness that one case study has as a theoretical contribution as it only looks at specific circumstances which limit the possibility for generalisation (Yin 2014). Another issue is oftentimes its limited replicability which can decrease its external validity and case studies are criticized to be prone to researcher biases (Gerring 2007).

Nevertheless, the advantages of a case study may explain why case studies are the most commonly used approach in research that leverages ACF. More specifically, the lion’s share of these studies employs “qualitative single case studies that utilize interviews and/or document analysis” (Pierce et al. 2017)). So, to answer the research question a mixed-methods approach with a combination of qualitative document analysis and interviews was also chosen for this thesis. There are, however, also large variations in how advocacy coalitions are identified in the application of the framework, for instance, as it was found in the research by Pierce et al. (2020). Such variations of methodologies and research designs can be argued as a disadvantage of the framework or an advantage making it more general and flexible in its application in a large array of policy fields (Satoh et al. 2021).

Sampling

The sampling is based on a non-representative but purposive method. While this approach has the disadvantage of potentially missing important stakeholders in the analyses, the pool of stakeholders involved was too large and it would not have been possible to conduct a representative sample with every single stakeholder involved. Overall, the final sample size is limited due to the time constraints of a Master's thesis and access to potential respondents. The initial interviewees were selected through a preliminary document analysis to identify the key stakeholders in the policy-making process. An example of this would be the actors identified in the impact assessments (e.g. European Commission 2003, Stahl et al. 2020). However, in order to be able to analyse the beliefs of the different actors in the subsystem, which consists of actors from different sectors, the respondents were included in the selection. In order to cover the broad spectrum of different actors, it is advantageous to divide the actors into different categories and to select typical representatives from these. Finally, the sample to identify the most important stakeholders in the subsystem was conducted through scoping interviews and an initial document analysis. Two short semi-structured scoping interviews were conducted with an initial interview guide (overview in Table 1).

A content analysis of the interviews and documents was used for data collection. It consists of a qualitative analysis with contextual categorisation into different discussion points on elements of the ACF and the research question. This chapter focuses on the application of the ACF to the policy subsystem around batteries at EU level.

Document Analysis

The initial stage of the research is the scoping of the main actors within the policy subsystem. The document analysis entails documents relevant to the debate around the battery directive and the proposed regulation. Initial document analysis to identify core issues and stakeholders were done via a range of sources (Table 2).

Policy Document	Year	Author	Source
Stakeholder Responses in Public Consultations	2003	Various	http://ec.europa.eu/environment/waste/batteries/consultation.htm (via Web Archive: http://web.archive.org/web/20060623064944/http://ec.europa.eu/environment/waste/batteries/consultation.html)
	2020	Various	https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12399-Batteries-modernising-EU-rules/feedback_en?p_id=7925105
	2021	Various	https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12399-Batteries-modernising-EU-rules/feedback_en?p_id=16675210
Impact Assessments/Studies	2003	BIO Intelligence Service (Eric Labouze; Véronique Monier)	https://ec.europa.eu/environment/pdf/waste/batteries/eia_batteries_final.pdf
	2020	DG Environment (European Commission); Öko Institut; Tinomics (Stahl, Hartmut; Mehlhart, Georg; Gsell, Martin; Sutter, Jürgen; Dolega, Peter; Baron, Yifaat; Löw, Clara; Williams, Robert; Keeling, William)	https://op.europa.eu/en/publication-detail/-/publication/d8eb3539-8089-11eb-9ac9-01aa75ed71a1/language-en
Directive 2006/66/EC	2006	Council of the EU; European Parliament	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32006L0066
Proposal COM(2020) 798 final; 2020/0353 (COD)	2020	European Commission	https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2020:798:FIN

Table 2: Overview Documents

Additionally, a guide for the qualitative analysis of documents can be found in the work around ACF by Sabatier and Jenkins Smith (1993) proposing a content analysis (Pierce et al. 2017). One part of the analysis was done with a qualitative text analysis in the form of a document analysis. (Bowen 2009) describes a document analysis as an "[...] analytical process [that] involves locating, selecting, evaluating (making sense of), and synthesising data contained in documents" (Bowen 2009, p. 28). The main reason why a document analysis was chosen for this research is its advantage in the accessibility of documents and the fact that it is a reliable means of obtaining an overview and making direct comparisons between different categories and texts (Bowen 2009). Nevertheless, there are disadvantages compared to other methods such as interviews, as some aspects could be explored more easily with interviews. Especially, when it comes to an analysis of the reasoning behind policies or the intentions of policymakers, a document analysis comes to its limits.

For the document analysis, a more descriptive approach was taken by analysing the documents with a content analysis. A content analysis can be described as "the process of organizing information into categories that relate to the central questions of inquiry" (Bowen 2009). In terms of sampling units, the content analysis was based on words and phrases. The summative nature would be the search for keywords that were particularly broad within the given framework before the analysis (Hsieh and Shannon 2005).

The initial document analysis as a general overview of the documents was conducted to identify the main actors and discussion topics as well as the policy change within the subsystem. A total of 39 documents were selected for the final document analysis. The selection was based on prior scoping of actors and stakeholders. In total, responses from 25 stakeholders and 3 common positions (from the 2003/2020 and/or 2021 public consultations) on specific secondary aspects of resource efficiency identified in SQ1 were analysed. These stakeholders were mostly

associations representing a larger number of stakeholders; however, two organisations were not associations. However, as the number of stakeholder responses analysed does not provide a fully representative picture, an attempt is made to give a general indication of the positioning of stakeholder groups in relation to specific issues discussed in the policy-making process. The positioning results from the exemplary overview of the positions on issues within the battery subsystem. Such an overview is less common in other studies using the ACF, but due to the nature of the subsystem it is helpful to understand the positioning as a whole. In particular, the nature of the low-salience policy subsystem may make it useful to examine specific aspects of resource efficiency.

To identify relevant aspects in the statements of the stakeholders, a keyword search was conducted. The following table shows the individual aspects in question and the keywords used in the search.

Aspect	Keywords
Ban of Cadmium	ban
Collection Target	collection target
Recycling Target	recycling target

Table 3: Keywords and Aspects around Resource Efficiency (CE aspects)

After the keyword search, all relevant quotes were organised in an Excel spreadsheet and ranked according to the stakeholders' position on the aspect in their response. The ranking was done through the input of two experts in the field on a scale from 1 (completely opposes the aspect) to 10 (completely supports the aspect). The aspects (Table 6) were selected taking into account their relevance, however also their presence over time to be able to see changes over time.

Other aspects were also considered to be analysed in more detail, but this is beyond the scope of this Master thesis. Furthermore, it was decided to go into more detail in order to be able to clearly identify the positions of the stakeholders. The other aspects identified were hazardous substances (which are now only partially covered by the "cadmium ban"), due diligence, extended producer responsibility (EPR), recycled content, battery passport and carbon footprint.

Interviews and Webinars

The interviews were conducted, recorded and transcribed from late May 2022 to early July 2022, after obtaining informed consent and ethical approval from the university. The code for ethical approval is **220279**. The transcription of the webinars was done using the automatic transcription created for the video and a subsequent manual formatting into a workable format. The transcription of the interviews was done with AmberScript and the content analysis using the programme MaxQDA.

The interviews were semi-structured so interview guides were created beforehand, however, during the interview it was possible to loosely follow such to enable the interviewer to react to the particular interviewee more freely. In preparation for the interviews, an appropriate interview guide was prepared and suitable interview partners were identified and contacted. For the interviews, a total of around 40 different stakeholders from various fields were contacted with a relatively low response rate. Interviews are suitable as an addition to the document analysis to identify the cooperation between actors that are initially not visible through only a document analysis and therefore the interviews and the webinars are necessary to retrieve a larger amount of information. Additionally, interviews provide the possibility to ask targeted questions to the interviewee shaped to the needs of the research while such is not the case with the document analysis or the webinars.

The sampling for the identification of significant stakeholders in the subsystem was done via scoping interviews and initial document analysis. There were two short semi-structured scoping interviews done with an initial interview guide (Overview in Table 1).

Interview	Industry/Sector	Length
Scoping Interview 1	Research	30 minutes
Scoping Interview 2	Research	35 minutes

Table 4: Scoping Interviews

Interview	Industry/Sector	Level	Length
Stakeholder Interview 1	Recycling (Association)	European	45 minutes
Stakeholder Interview 2	Environmental Organisation	International	40 minutes
Stakeholder Interview 3	Supplier of Materials/Recycling (Association)	European	45 minutes
Stakeholder Interview 4	Consumer Organisation	National	35 minutes

Table 5 Overview Stakeholder Interviews

Four stakeholder interviews were conducted. The interviewed stakeholders were from the field of the recycling industry, environmental protection, metal industry and consumer protection (national). Additionally, a total of 3 webinars in the timespan from 2021-2022 with a length between 79 and 110 minutes were analysed.

Webinar	Organiser	Date	Length	Source
Webinar 1	BATTERY 2030+ and RECHARGE ³	09.06.2021	87 mins	https://www.youtube.com/watch?v=fVszIdLTbrU&t=1003s
Webinar 2	Euractiv and Cobalt Institute ⁴	13.10.2021	79 mins	https://www.youtube.com/watch?v=WGFHDNU60sI
Webinar 3	RECHARGE	21.03.2022	110 mins	https://www.youtube.com/watch?v=FMoKiahuisU&t=2498s

Table 6 Overview Webinars

The webinars were used to gain additional insights into the dynamics between the different stakeholders. This approach was chosen after the response to the interviews was limited in order to fill in gaps regarding the perspectives of other stakeholders, but also to obtain more general information about the priorities of the policy. Particularly for the period around the earlier 2006 policy, the availability of interviewees on this topic was very limited. The primary sources for the earlier period were mainly policy documents, responses to the 2003 public consultation and earlier research by (Häge 2013) on coalition building in the Council on the Batteries Directive.

³ RECHARGE: European industry association for advanced rechargeable and lithium battery manufacturers; BATTERY 2030+: European large-scale research initiative

⁴ Euractiv: Online news outlet with a focus on EU policies; Cobalt Institute: Trade association around cobalt

In the interviews, the questions were already able to provide some structure in relation to the research question. The webinars were not designed to answer specific questions about the ACF. Therefore, in these cases it was important to use a mixture of closed and open coding. The following indicators were used to potentially categorise the responses.

Indicator
Coalition
Resource
Policy Change
Belief/Motivation
Consensus
Disagreement
External Factor

Table 7: General Aspects ACF

The following part presents the results of the data analysis, starting with sub-question 1 and the changes within the political system that could be observed over the last two decades. This is followed by sub-questions 2 and 3, which deal with the internal and external dimensions of the political subsystem and the political change within it.

RESULTS

The influence that internal factors (actors and beliefs) have on policy change (SQ1)

The expectation for the results is according to the hypotheses laid down prior that there are likely to be coalitions found in the subsystem of batteries that are divided between material and purposive coalitions that have been relatively stable over time. Such expectations have been mostly confirmed. The coalitions seem to be on their core beliefs and their policy beliefs, the opinion on secondary aspects can however differ from each other. The secondary beliefs identified seem to be regarding instruments such as bans, voluntary agreements and calculation methods for the policy around the directive in 2006 and additionally expended to more detailed

issues such as second life, recycled content, carbon footprint, due diligence and the double legislation on hazardous substances. A more detailed explanation is given in the section below.

The stakeholders and groups associated with these concerns were identified through the scoping interviews and the impact assessments that were conducted in the timeframe from 2017 until 2020. Indeed, the analysis indicates that the upcoming regulation and the involved actors in the policy subsystem became much broader. There seem to be more are more stakeholders involved in the making of the legislation (Scoping Interview 1). As the pool of stakeholders involved is relatively large with a large number of small and medium-size actors and organisations involved the stakeholders were categorised into the following groups. The impact assessment identified:

“Industry associations (producers, manufacturers, waste batteries collectors and recyclers; automotive, electro and electronic and batteries industry; including small and medium enterprises), Consumer organisations, Environmental protection organisations, Public administrations (...) Other stakeholders e.g. think-thanks, consultants, etc“ (Stahl et al 2020, p. 14).

Altogether the major stakeholder groups were identified as follows:

Category of Stakeholders	Type
Industry	Raw Material/Mining
	Suppliers of Battery Components
	Recyclers
	Battery Manufactures

	Product Manufactures
NGOs	Environmental Organisations
	Consumer Organisations
	Human Rights Organisations
Public Authorities	European Commission
	Council of the EU
	European Parliament
	Member States (represented in the Council)
Others	Media
	Academia
	Other stakeholders that were mentioned such as testing facilities, repairers, collectors, employee organisations/trade unions, retailers

Although the ACF is mostly used for high-salience policy issues, (Giordono 2020) tested the framework on a low-salience policy issue concluding that the framework is indeed, also suitable for the analysis of less controversial policies (Giordono 2020), like batteries. The policies around batteries are generally less contested and a large topic of public discussions that shows itself in comparison to other environmental issues (e.g. nuclear energy (Nohrstedt 2005)). The application of the framework in Europe, in particular, has also been discussed in various papers (e.g. (Brooks 2018), (Sabatier 1998)). In the overall relatively low salience and complex policy subsystem around batteries, policy making can be dominated by technocrats and experts. Therefore, actors in this system are likely to have a rather stable set of beliefs (Jenkins-Smith et al. 2014). For a long time, this was indeed the case in the EU (Stakeholder Interview 2).

However, the increasing politicization of many domains tangential to batteries and also technological change seems to have drawn greater attention to this domain, potentially attracting new actors who introduce new knowledge that can have an impact on beliefs. Therefore, it is interesting to examine potential changes in belief systems from the lens offered by the ACF. Indeed, the analysis indicates that the upcoming regulation and the involved actors in the policy subsystem became broader. There seem to be more are more stakeholders involved around the legislation (Scoping Interview 1).

As described in the work of (Rozbicka 2013), the multileveled and institutional structure of the EU is a complex structure within. The role of the European Commission, the Council of the EU and the European Parliament. The different Directorates-Generals (DG)s of the Commission and Committees in the Parliament support different points of view from each other. Additionally, the political groups in the Parliament also play a role in the discussion representing different motivations and beliefs in the subsystem.

Overall, the three different aspects of environmental, social and industrial concerns were mentioned in regard to the proposed regulation (Scoping Interview 1). Indications for the differentiation of deep core beliefs into material and purposive beliefs could be found within the subsystem. The convergence of actors' core beliefs is an important indication of a coalition between actors. However, another aspect is the significant coordination and sharing of resources between actors in a coalition. In the proposed 2020 regulation, greater complexity can be observed, yet coalitions were relatively stable (Stakeholder Interview 3, Stakeholder Interview 2). One act of coordination is joint papers published by stakeholders such has been the case on multiple occasions. Industry representatives from primary resources and recycling as well as component suppliers and battery manufacturers work together. Joint statements by environmental NGOs, joint papers between (social) NGOs, mostly at an international level, not only at the European level, and joint position papers by industry (battery manufacturers, product

manufacturers, recycling, component suppliers) could be found indicating towards the coalitions. In 2003, battery manufacturers organised themselves in the so-called Battery Industry Coalition and published joint papers in the context of the public consultation. Material beliefs such as competitiveness, an open market and jobs so economic or material interests could be found (Webinar 3, Stakeholder Interview 1). The purposive beliefs found are the protection of the environment and human health (Stakeholder Interview 2). Such material and purposive beliefs could be observed in the analysed documents of 2003 and also in the data around the upcoming regulation around 2020/2021. For the associations, the interest of their members was considered to be at the forefront of their motivation (Stakeholder Interview1, Stakeholder Interview2). The analysis, therefore, identifies at least two coalitions in the subsystem, namely an industry coalition and a coalition of NGOs.

Nevertheless, there was no significant coordination found between consumer organisations and environmental organisations. However, there are indications that there is at least some degree of coordination based on similar beliefs (Stakeholder Interview 4). However, it was only possible to interview one national consumer organisation, which tends to act independently, suggesting that the federation of consumer organisations at the European level has a greater degree of interaction within the subsystem. This mostly happens at the EU level, national or regional organisations are less involved, tend to form coalitions and are mostly only in contact with EU-level associations.

The policy core beliefs in the subsystem on batteries there is due to the large and increasing complexity of the policy a mix of beliefs that could be seen in the analysis. Policy core beliefs translate the core beliefs of actors into the specific policy subsystem, the battery manufacturers and product manufacturers, for instance, were mentioned to be driven by mainly economic interest they do not want to lose competitive advantage though obligations that would increase the cost of production (Scoping Interview 1). Generally, the industry seems to be more inclined

to minimise the amount of regulation while the purposive groups demand stricter levels of ambition when it comes to legislation (Stakeholder Interview 2, Stakeholder Interview 4). Nevertheless, one NGO mentioned being rather divided between other (more environmentally ambitious) environmental organisations and the feasibility of the transition towards electrification of mobility as such would ultimately be positive for climate change mitigation (Stakeholder Interview 2).

The European Parliament seems to be known to tighten the rules and add additional points to the proposed regulation of the Commission hinting towards the direction of the coalition NGOs so environmentally and health focused without, however, being identified an active part of the coalition (Stakeholder Interview 4). The authorities could not be identified as a member of any coalition, nevertheless, the data set is relatively small on the European Commission and the especially for the two parts of the webinars and the interviews and provide therefore only limited findings. In his analysis (Häge 2013) describes the different coalitions in the Council around the Battery Directive of 2006. The Commission a moderate position, conflict DG Environment and DG Internal Market, the Parliament had a more environmentally ambitious position while the Council was divided but most member states in favour of more environmentally ambitious regulations (Häge 2013). With the recent proposal for a new regulation on batteries, a conflict in Parliament was described as initially the internal market committee got assigned the legislation under protest of ENVI committee which ultimately gained the lead on the legislation (Stakeholder Interview 2) That was interpreted as demonstrating the regulation as varied when it comes to its association as part of as a climate and environmental and also industry policy (Stakeholder Interview 2)

The issue of the profitability of the recycling of lithium-ion batteries is not yet given also of concern. Currently, recyclers heavily rely on the EPR to cover the cost of recycling (Stakeholder

Interview 1). It was also stated by battery producers that there is concern about whether regulation would hinder the expected increase in profitability that is assumed in regard to the recycling of those batteries due to the metals it contains (Webinar 1)

Secondary Beliefs

As secondary beliefs of actors are related to the translation policy core beliefs the specific instruments within a policy such are associated with secondary aspects. Here the industry can be observed to demand less regulation, especially the hazardous substances, arguing that such is already covered by other legislation such as REACH and would create an additional financial and administrative burden (Stakeholder Interview 2). Such is often brought up as overregulation, an issue for battery producers and suppliers of components. (Webinar 3). Additionally, NGOs seem to justify ambitious targets while the industry criticises the increasing ambition in terms of the collection target although the original target (of the 2006 Batteries Directive) has not yet been met (Webinar 3, Stakeholder Interview 2). Some disagreements with the Commission, especially around the topics of the overlap of the new Regulation with the REACH Regulation and the increased Collection targets that were set in the proposal (Stakeholder Interview 3).

This part brings the identified beliefs and potential coalitions together and looks at the positioning of secondary aspects to identify the secondary beliefs of some of the actors. The position of the individual stakeholders is based on the responses to the public consultation. Additionally, the positioning of the actors regarding distinct issues could help to further deepen the results. It provides an overview of how the potential coalitions line up in public consultations when it comes to policy issues within the subsystem. The stakeholders of the industry as potential material coalition members are framed in blue while the stakeholders with non-material core beliefs and potential purposive coalition members are framed in green.

Restriction of hazardous substances: Ban of cadmium

In the discussion around the ban on cadmium, a division between the industry, on one hand, and environmental organisations and consumer organisations, on the other, could be observed. Beyond the results through the keyword search, there are elements of the public consultation in 2006 worth mentioning. Firstly, in the public consultation of 2003, there was a petition of environmental organisations (signatures for a ban of cadmium) with around 900 signatories. Secondly, the responses of over 40 industry members such as mainly battery manufacturers, product manufacturers such as manufacturers of appliances and car manufacturers and association were stating their opinion against the ban with the same wording and most responses were only limited to the specific statement regarding the ban. The responses for the public consultation were in the case of economic operators limited to only the cadmium ban as a theme. The same wording was used to describe the opposition to a ban of cadmium in the public consultation response of 2003. Additionally, there was the industry's effort before the vote by the parliament by handing out comic strips about the dangers of banning cadmium. The reaction of the Parliament was of the opposite effect as the Parliament introduced the ban on cadmium in their proposal (Häge 2013)

Ban of Cadmium (2003)

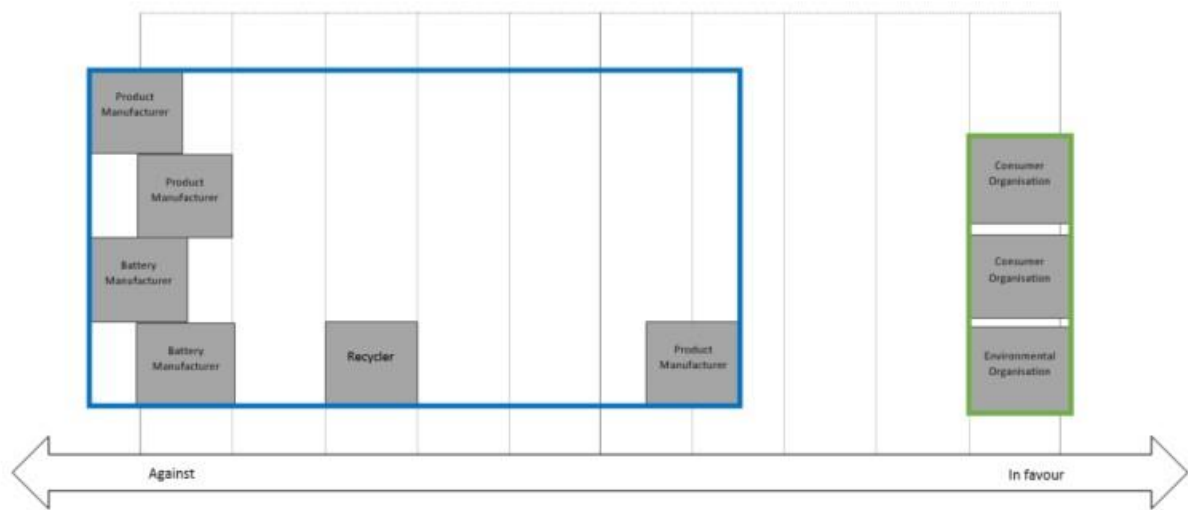


Figure 3: Public Consultation: Ban on Cadmium (2003)

So generally, the industry members seemed to be generally against the ban while environmental and consumer protection organisations were in favour of the ban. Initially, the European Parliament also adopted an approach in favour of a ban but after a second reading, this addition was dropped from the changes to the proposal.

The ban on cadmium was, as previously mentioned as highly controversial in the drafting of the 2006 Battery Directive. Such division could also be clearly observed in the document analysis. There are the clear oppositional groups of consumer organisations and environmental organisations and the battery manufactures and mostly also the product manufacturers on the other side. The exception to this division is the recycling association and the largely different to the other product manufacturers one of the associations representing the product manufacturing industry.

Collection and Recycling Targets

In the call for the public consultation in 2003 various options for collection and recycling targets were shown. The collection and recycling targets were proposed as the following:

In the public consultation the Commission proposed an “establishment of collection targets [in the range of 30%-40%; 60%-70%; 70%-80%] for all spent batteries and accumulators placed on the Community market” and of “separate collection targets [in the range of 70%-80%; 80%-90%; 90%-100%] for all spent automotive batteries⁵ and accumulators placed on the Community market” and an “establishment of recycling targets [in the range of 45-55%; 55%-65%; 65%-75%] for all spent batteries and accumulators placed on the Community market” and an “establishment of separate recycling targets [in the range of 50%-60%; 60-70%; 70%-80%] for all spent automotive batteries⁶ and accumulators (European Commission 2003). As instruments for these targets the Commission asked for an opinion on the following aspects: An “[i]ntroduction of a producer responsibility principle for spent batteries and accumulators (establishing free take-back system/financing separate collection and recycling facilities)”, an “Introduction of a voluntary agreement with producers for collection and recycling of spent batteries and accumulators placed on the Community market” and a “use of alternative calculation methods for the targets” (European Commission 2003).

The analysis of the responses showed that a collection and recycling target for batteries was not questioned itself as much as the calculation method of such. There have been dividing views on the calculation method of the targets. The collection target for batteries has been a topic in the public consultation in 2003 and also again with the upcoming regulation. The positioning on collection targets is quite broad. The environmental and consumer organisations, however, are clearly positioned on the favourable side when it comes towards a stricter regulation on the

⁵EV batteries not included

⁶ EV batteries not included

Collection Target (2003)



The reference document for the public consultation on batteries provided by the European Commission in 2020 entailed the following statement regarding recycling and collect rates: “Establishing objectives and measures to improve the collection, treatment and recycling of waste batteries and ensure materials recovery” (European Commission 2020b). In the public consultation of 2021, the collection and recycling rates were proposed in more detail on a scale from medium, high and very high ambition including recycling efficiencies on specific materials, especially in regard to lithium-ion batteries (Table 9).

Measures	Option 2 - medium level of ambition	Option 3 - high level of ambition	Option 4 – very high level of ambition
(...)			
3. Collection rate for portable batteries	65% collection target in 2025	70% collection target in 2030	75% collection target in 2025
4. Collection rate for automotive and industrial batteries	New reporting system for automotive, EV and industrial batteries	Collection target for batteries powering light transport vehicles.	Explicit collection target for industrial, EV and automotive batteries
5. Recycling efficiencies and recovery of materials	Lithium-ion batteries and Co, Ni, Li, Cu: Recycling efficiency lithium-ion batteries: 65% by 2025 Material recovery rates for Co, Ni, Li, Cu: resp. 90%, 90%, 35% and 90% in 2025 Lead-acid batteries and lead: Recycling efficiency lead-acid batteries: 75% by 2025 Material recovery for lead: 90% in 2025	Lithium-ion batteries and Co, Ni, Li, Cu: Recycling efficiency lithium-ion batteries: 70% by 2030 Material recovery rates for Co, Ni, Li, Cu: resp. 95%, 95%, 70% and 95% in 2030 Lead-acid batteries and lead: Recycling efficiency lead-acid batteries: 80% by 2030 Material recovery for lead: 95% by 2030	

Table 9: Exert from “Table 1: Preferred Options” (European Commission 2020a, p.9)

In the public consultations of 2020 and 2021 only one of the environmental organisations that were observed commenting on the issue of an increased collection target (Figure 6, Figure 7) and two on the increase in recycling target (Figure 8, Figure 9). Overall, it could be also seen that the responses on these issues were less compared to the public consultation of 2003. The positioning on the collection target in (Figure 6) seemed generally mixed with the battery manufactures being less inclined to an increased target. The raw material industry and

component suppliers, however, are closer to the rather more positive view on an increased target.

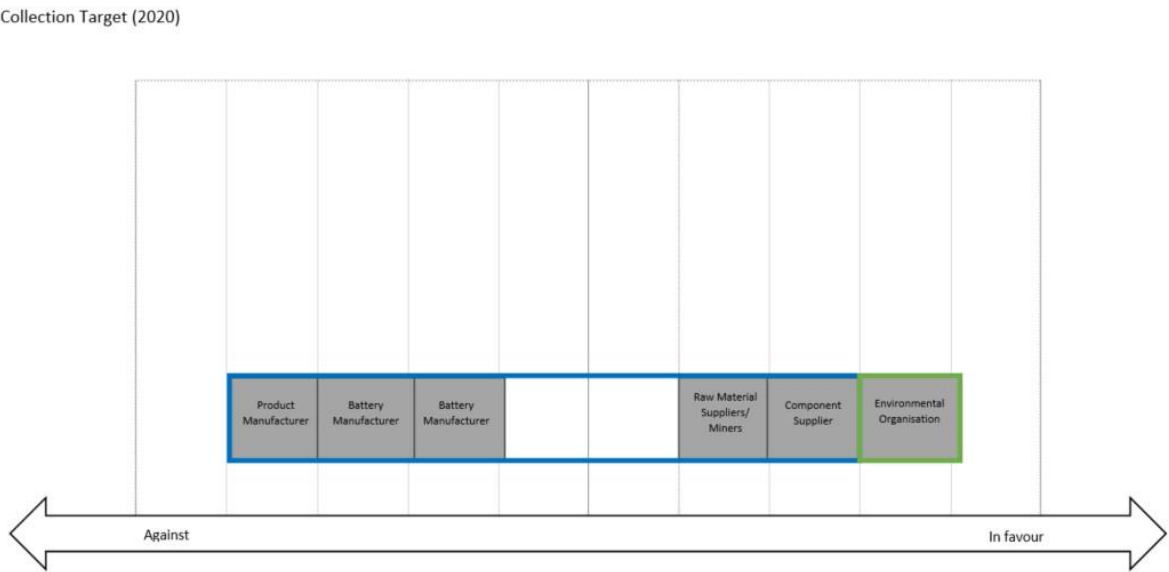


Figure 6: Public Consultation: Collection Target (2020)

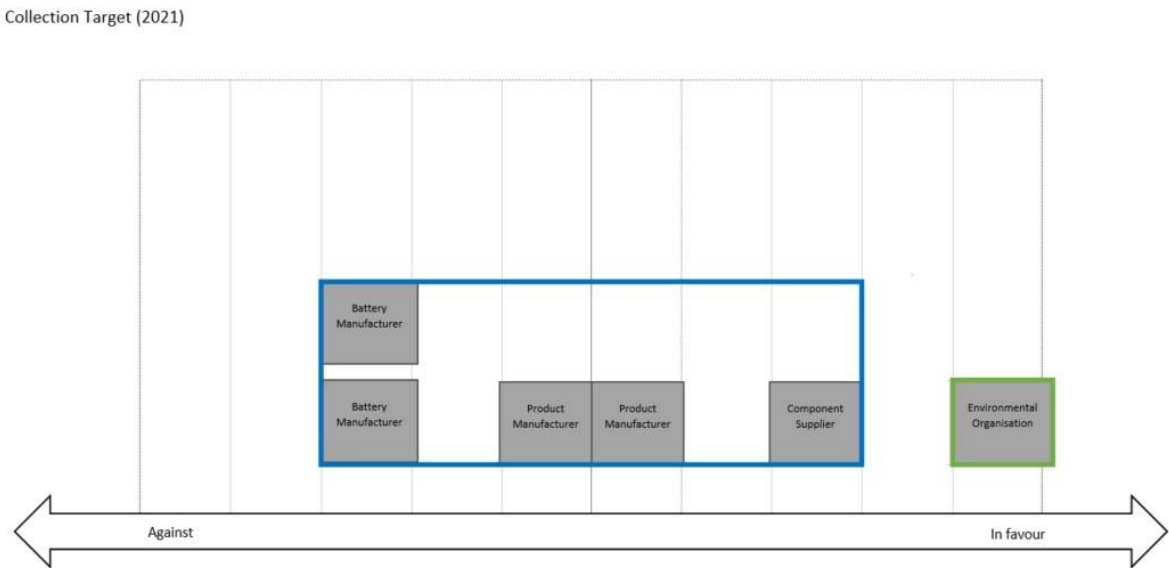


Figure 7: Public Consultation: Collection Target (2021)

The positioning on the recycling targets (Figure 8, Figure 9) show a similar picture to the collection target with the environmental organisations the furthest in favour and the industry following close after.



Figure 8: Public Consultation: Recycling Target (2020)

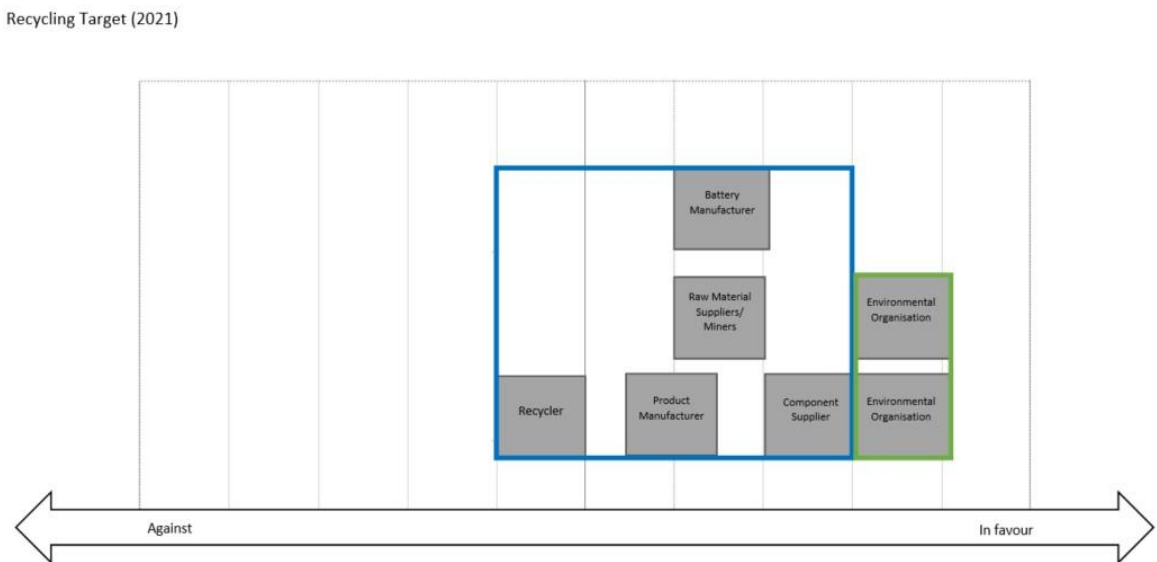


Figure 9: Public Consultation: Recycling Target (2021)

In the case of the positions on recycling and collection targets, the difference in the positioning of NGOs and industry is less significant if not insignificant in its extent. Nevertheless, there is still a slight tendency to be observed that generally, NGOs tend to be in favour of more or stricter regulation than members of industries. In terms of changes in position over time, there could be no significant changes observed.

After looking at the overall changes in policy changes and the beliefs of the stakeholders in the subsystem and potential coalitions the following section will present the results around a potential cross-coalition interaction within the subsystem.

Cross-coalition interaction

After looking at the potential coalitions and their belief systems H2 hypothesized that such coalitions could have had an increased cross-coalition communication potentially brought by a policy broker. Nevertheless, a general consensus across actors on the proposed regulation has been mentioned multiple times, especially by public authorities but has also been confirmed in one of the interviews. (Webinar 2, Stakeholder Interview 3). In terms of cross-coalition interaction, there seems to be a strong increase over the years. Previously there was less overall engagement between the various stakeholders of a larger amount of cooperation of the various stakeholders. That was identified in form of increased communication between the stakeholder of different fields e.g recyclers and producers of batteries (Stakeholder Interview 1). Such seems to be encouraged by the European Commission to have discussions and joined positions of the various sectors (Stakeholder Interview 1) This increased communication and cooperation can also be observed by the example of joint statements to push a quicker decision-making process of the Council in particular. Environmental and human rights organisations worked together with industry members (mainly battery companies) (Stakeholder Interview 2). Although both groups created individual joint statements the wording is partly the same and the cooperation was confirmed (*Stakeholder Interview 2*). The letters: “European companies warn

against unnecessary and counterproductive delays to new EU battery regulation” and “Subject: 40 human rights and environmental NGOs warn against unnecessary and harmful delays to new sustainable battery rules

The following part takes a closer look at the external events and influences, outside of the sphere of the individual stakeholders and coalitions in the batteries subsystem that may have brought about the change in battery policy at the EU level.

The influence of external factors on policy change (SQ2)

The SQ 2 was asking in how far external events have brought the policy change within the policy on batteries. The expectation was that external events in other policy subsystems such as had an influence on the policy change in the subsystem on batteries, in particular, the shift towards resource efficiency in the EU and on the other hand the policies around climate change mitigation and with that the mobility transition. Several aspects were looked at and the analysis showed that the influence of external factors was mixed. Another aspect related to another policy field is the increased attention to the sustainability of batteries by the public brought by their importance in the electrification of the economy. Additionally, the technological change simply made an update of the former policy necessary as especially lithium-ion batteries were not yet included in the legislation previously but pose an integral part of the market today. The following is a detailed look at these different factors external to the subsystem that were identified.

The technological change that has taken place over the last years, especially in regard to lithium-ion batteries, provided and still provides an increasingly improved performance of batteries (Scoping Interview1). This introduction of lithium-ion batteries replacing the previous primary rechargeable batterie NiCd batteries had a large effect on the industry (Stakeholder Interview 1). The change is also closely related to the next point of the development of policies outside of the subsystem as lithium-ion batteries play a large role in electro-mobility. The transition

towards the electrification of transport as a response on climate change has also brought public awareness for the sustainability of EVs as an environmentally friendlier alternative to fuel-based vehicles (Scoping Interview 2). But increased levels of emission limits for cars which were difficult to keep up with (Scoping Interview 1). The transportation sector was mentioned as the driver for research in the field of batteries (Webinar 1).

External events related to the increasing awareness of the issue of climate change and resource efficiency or circular economy play a large role in the development. When asked about potential external factors that could have influenced the policy on batteries the issue of climate change mitigation was most often stated (Scoping Interview 2, Stakeholder Interview 4) In that context the Paris Agreement was mentioned (Scoping Interview 2). Concerning climate change mitigation and the shift towards electro-mobility, it was also mentioned that such have been part of the EU strategy for the last couple of years, especially, with the Green Deal under which the upcoming regulation is placed (Scoping Interview 1). The climate goals of the EU Green Deal, in particular, were mentioned as a significant part that made policy change necessary (Stakeholder Interview 4).

Additionally, the Ukraine conflict is mentioned as a potential external factor, increasing the focus on the dependency on raw materials from outside of the EU. Also in relation to gas and the electrification of the economy and renewable energy (Scoping Interview 2). Moreover, the scarcity of materials, cobalt nickel in particular was stated to have had an effect on the policy of batteries (Stakeholder Interview 1). Additionally, the EU's relationship with China and its position in the world economy has been mentioned as a major topic (Scoping Interview 2). There were suggestions for the role of public opinion in this regard to batteries. However, there is also an influence on the coalition members especially in the industry to satisfy the demands of the public to remain in a competitive position. Over the last few years, there has been a strong presence in media questioning the origin of the materials used in battery production especially

the issue of cobalt from Congo as a large point of discussion for some time (Webinar 2, Scoping Interview 2). Additionally, the pushback from anti electric vehicle side points out the issues in the EV supply chain, especially with batteries as an integral part of the vehicles. Therefore, the Regulation is also useful in gaining more acceptance by the public in solving the issues regarding the sustainability issues of batteries (Stakeholder Interview 2). Although, it is not an external shock, and therefore less strong in its effect on the policy and the subsystem it seemed to have an effect on external policy influencing the policy subsystem and the public opinion on the issue. The following part will take a closer look at the findings and their implications on the policy change in the policy on batteries in the EU.

DISCUSSION

The changes found were overall minor with policy changes mostly regarding secondary aspects and a continuation of a focus on circular economy aspects. However, the shift from a primarily environmental to a significant industry policy is an aspect of the policy on batteries that could be further investigated. As it could be connected to the idea of venue shifting which could be used by coalitions to take advantage of such within a policy subsystem. In all regards, further research would be required to fully confirm the assumptions.

Additionally, to the industrial aspect, the policy is shown to be more and more embedded within policies on climate change and transportation. Those policies, external to the subsystem of batteries itself, that were identified in the results show that there has been a large influence on the other policy subsystems that affected the policy change within the subsystem. The connection between the electrification, especially in the transport sector in Europe shows how expected the larger public and political focus on circular economy and climate change issues influenced the subsystem. Electrification and consumer awareness when it comes to the electro-

mobility are suggested, however, still requires additional research. In that regard the so-called diesel gate affair has been hinted at as one of the influential external effects on the battery sector, however, it also requires additional research to be fully identifiable. In terms of the public opinion on the use of electric vehicles, it was stated that consumers had no sufficient confidence in the environmental aspects of electric vehicles, especially concerning the batteries (lack of information on EVs, uncertainty for buyers), and do not know whether actual CO₂ performance is better in comparison to combustion engine vehicles and pointing out on the difficult disposal of used batteries (Biresselioglu et al. 2018; Haddadian et al. 2015).

The results of SQ 1 show that there are at least two advocacy coalitions within the subsystem of batteries on an EU level. It goes with the traditional assumption of purposive groups and material groups with different core beliefs. Nevertheless, the study did not identify additional coalitions although hints towards such could be found. That is an aspect that could be further developed in the future. Other than in similar environmental policies on an EU level the battery subsystem seems to be unique when it comes to the industrially strategic perspective on the policy. Only in the discussion around the ban of cadmium clear coalitions could be identified the secondary aspect within the subsystem that had been controversial in that period (Häge 2013). Additionally, the identified coalitions match the research by (Pesendorfer 2006) around the same period regarding the policy on chemicals in the EU. Especially, with the upcoming regulation, it was also seen in the section around H2 on potential cross-coalition interaction that the lines of coalitions are less clear-cut than the framework would suggest and stakeholders of different coalitions are showing increasing communication and cooperation. This result goes with the assumption and the findings of Giordono (2020) that clear-cut coalitions are more easily identifiable on salient issues (Giordono 2020).

Limitations to the research and recommendations for further research

The research was limited by time constraints which only made it possible to analyse a small sample size of stakeholders. Another issue would be the lack of information concerning the belief system of each coalition partner stakeholder in the subsystem. In some aspects the research project might have fallen into the drawbacks that have are often criticized when it comes to the use of a case study method such as the difficulty of providing a sufficient degree of replicability and validity to the research. It is therefore possible that the chosen sources did not deliver a large amount of sufficient information on the beliefs that the results are overall less reliable.

Although it is possible to use the ACF on a low salience subsystem although it gives less clearly defined results than the framework applied to a salient subsystem (Giordano 2020). A similar result could be also found. Furthermore, the acquisition of information regarding the earlier years of interest was difficult due to the large number of actors involved in the individual stakeholder organisations and limited access to media information and documents of the time. The documents were hard to find as those are less digitised and recorded stakeholder sessions could not be found as most things were done in person.

Although it would be beneficial to continue the research on the topic with larger sample sizes to be able to analyse the topic further and obtain more reliable information on the individual stakeholders' beliefs and coalitions built one of the major problems in the application of the ACF is the issue of providing "comparable empirical results" while still upholding flexibility that enables a researcher to apply the framework to a range of cases and contexts (Pierce 2017, p.81). Such struggle shows itself also in the light of this application trying to make use of the framework to suit the particularities of this subsystem on batteries in the EU but at the same time providing a case study that can be used within a pool of ACF applications. Therefore, it would be beneficial to extend the research in the future to analyse other elements of the

framework such as policy learning, for instance. Several aspects are not yet clearly defined and studied such as policy learning, and cooperation between opposing coalitions (Pierson (2017). Additionally, a more systematic approach on the sampling and positioning of stakeholders would be beneficially compared to this project. An example could be a network analysis such as Leifeld's (2013) Discourse Network Analysis which could be a beneficial angle to analyse the subsystem and identify all relevant actors and coalitions (Leifeld 2013).

CONCLUSION

The policy on batteries in the EU is a multi-faceted policy that not only belongs to the field of environmental policy but increasingly shows itself as an integral part of the industrial strategy of the European Union. All in all, the application of the ACF as a case study around policies such as the policy around batteries is an approach to deepen the understanding of the dynamics beyond the focus on only policy input and output. The strong link to policies regarding climate mitigation and the electrification of transport, in particular, were identified to have an influence on the diversity of the policy subsystem with a growing number of stakeholders involved. Nevertheless; also, internal aspects such as an increased potential of cross coalition interaction or at least a larger array of various stakeholders could be found. As the development of future legislation is still ongoing when it comes to the upcoming regulation on batteries and the results will be interesting to follow over the next years. Therefore, future research in the policy field could be very beneficial. Another future point of research could be the application of another framework potentially in combination with the ACF such as the Multiple Streams Framework or similar to draw a larger picture of the policy change in the subsystem. In spite of the limitations, this application of the ACF in the field of batteries could provide some insights that could, ideally combined with potential future extended analyses, bring a valuable contribution to the increased understanding of the political dynamics in highly-technical policy fields.

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APPENDIX

Appendix 1

Definition Extended Producer Responsibility

“**Article 47** Extended Producer Responsibility 1. Producers of batteries shall have extended producer responsibility for batteries that they make available on the market for the first time within the territory of a Member State, to ensure the attainment of the waste management obligations set out in this Chapter. This responsibility shall include the obligation to: (a) organise the separate collection of waste batteries in accordance with Article 48 and Article 49 and the subsequent transport, preparation for repurposing and remanufacturing, treatment and recycling of waste batteries, including the necessary safety measures, in accordance with Article 56; (b) report on obligations relating to batteries made available on the market for the first time within the territory of a Member State in accordance with Article 61; (c) promote the separate collection of batteries, including by covering the costs of carrying out surveys to identify batteries discarded inappropriately by endusers in accordance with Article 48(1); (d) provide information including end-of-life information about batteries in accordance with Article 60; (e) finance the activities referred to in points (a) to (d). 2. Producers may entrust a producer responsibility organisation authorised in accordance with paragraph 6 to carry out the extended producer responsibility obligations on their behalf. 3. Producers and, where appointed in accordance with paragraph 2, producer responsibility organisations acting on their behalf shall: (a) have the necessary organisational and financial means to fulfil the extended producer responsibility obligations referred to in paragraph 1; (b) put in place an adequate self-control mechanism, supported by regular independent audits, to regularly appraise: (i) their financial management, including compliance with the requirements laid down in paragraph 1(e) and point (a) of this paragraph; (ii) the quality of data collected and reported in accordance with paragraph 1(b) of this Article and with the requirements of Regulation (EC) No 1013/2006.⁵⁷ EN 78 EN 4. In the case of a collective exercise of extended producer responsibility, producer responsibility organisations shall ensure that the financial contributions paid to them by producers: (a) are modulated as a minimum by battery type and battery chemistry and, as appropriate, taking into account the rechargeability and the level of recycled content in the manufacture of batteries; (b) are adjusted to take account of any revenues by the producer responsibility organisations from reuse and from sales of secondary raw materials from the batteries and waste batteries; (c) ensure equal treatment of producers regardless of their origin or size, without placing a disproportionate regulatory burden on producers, including small and medium sized enterprises, of small quantities of batteries. 5. Where, in accordance with Articles 48(2), 49(3), 53(1), 56(1), and paragraphs 1, 2 and 3 of Article 61, activities to carry out obligations referred to in points (a) to (d) of paragraph 1 are carried out by a third party other than a producer or a producer responsibility organisation, the costs to be covered by producers shall not exceed the costs that are necessary to provide those activities in a cost-efficient way. Such costs shall be established in a transparent way between the producers and the third parties concerned and adjusted to take account of any revenues from reuse and from sales of secondary raw materials from the batteries and waste batteries. 6. Producer responsibility organisations shall apply for an authorisation from the competent authority. The authorisation shall be granted only where it is demonstrated that the measures put in place by the producer responsibility organisation are sufficient to meet the obligations set out in this Article with regard to the amount of batteries made available on the market for the first time within the territory of a Member State by the producers on whose behalf it acts. The competent authority shall in regular intervals, verify whether the conditions for the authorisation laid down in paragraphs 1, 3, 4 and 5 continue to be met. The competent authorities shall fix the details of the authorisation procedure and the

modalities for verifying compliance, including the information to be provided by producers to that end. Producer responsibility organisations shall notify the competent authority without undue delay of any changes to the information contained in the application for an authorisation, of any changes that concern the terms of the authorisation and of the permanent cessation of operations. Where, in the territory of a Member State, multiple producer responsibility organisations are authorised to fulfil extended producer responsibility obligations on behalf of producers, they shall carry out their extended producer responsibility obligations in a coordinated manner so as to ensure a coverage across the whole territory of the Member State of the activities under paragraph 1(a). Member States shall entrust the competent authority or appoint an independent third party to oversee that producer responsibility organisations fulfil their obligation to coordinate in accordance with the previous sentence. 7. In order to demonstrate compliance with paragraph 3(a), producers or, where appointed in accordance with paragraph 2, producer responsibility organisations acting on their behalf, shall provide a guarantee which may take the form of a recycling insurance or a blocked bank account, or participation by the producer in a producer responsibility organisation. EN 79 EN 8. Producer responsibility organisations shall ensure the confidentiality of the data in its possession as regards proprietary information or information directly attributable to individual producers or their authorised representatives. 9. Producer responsibility organisations shall publish the following information on their websites by the end of each year, subject to commercial and industrial confidentiality: (a) ownership of the producer responsibility organisation; (b) list of producers that have entrusted the producer responsibility organisation to carry out their extended producer responsibility obligations on their behalf; (c) the rate of separate collection of waste batteries, the level of recycling and recycling efficiencies achieved based on the amount of batteries made available on the market for the first time in the Member State by their member producers; (d) the financial contributions paid by their member producers per battery or per weight of batteries, indicating also fee modulation categories applied in accordance with paragraph 4(a). 10. The competent authorities shall verify compliance of producers, including those that supply batteries by means of distance contracts and, where appointed in accordance with paragraph 2, producer responsibility organisations acting on their behalf, with the obligations set out in this Article. 11. Member States shall establish a mechanism to ensure a regular dialogue between relevant stakeholders involved in the fulfilment of extended producer responsibility obligations for batteries, including producers and distributors, private or public waste operators, local authorities, civil society organisations and, where applicable, social economy actors, re-use and repair networks and preparing for re-use operators. 12. Where necessary to avoid distortion of the internal market, the Commission is empowered to adopt an implementing act laying down criteria for the application of paragraph 4(a). That implementing act cannot concern the a precise determination of the level of the contributions. That implementing acts shall be adopted in accordance with the examination procedure referred to in Article 74(3). 13. Articles 8 and 8a of Directive 2008/98/EC shall not apply to batteries.” (European Parliament and Council of the EU 2006)

Definition Battery Passport:

“Article 65 Battery passport 1. By 1 January 2026, each industrial battery and electric vehicle battery placed on the market or put into service and whose capacity is higher than 2 kWh shall have an electronic record (“battery passport”). 2. The battery passport shall be unique for each individual battery referred to in paragraph 1 and shall be identified through a unique identifier that the economic operator placing the battery on the market shall attribute to it and which shall be printed or engraved on it. 3. The battery passport shall be linked to the information about the basic characteristics of each battery type and model stored in the data sources of the

System established pursuant to Article 64. The economic operator that places an industrial battery or an EN 93 EN electric vehicle battery on the market shall ensure that the data included in the battery passport is accurate, complete and up-to-date. 4. The battery passport shall be accessible online, through electronic systems interoperable with the System established pursuant to Article 64. 5. The battery passport shall allow access to information about the values for performance and durability parameters referred to in Article 10(1), when the battery is placed on the market and when it is subject to changes in its status. 6. When the change in the status is due to repairing or repurposing activities, the responsibility for the battery record in the battery passport shall be transferred to the economic operator that is considered to place the industrial battery or the electric vehicle battery on the market or that puts it into service. 7. The Commission is empowered to adopt implementing acts to establish the rules for accessing, sharing, managing, exploring, publishing and reusing of the information and data accessible through the battery passport. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 74(3).” (European Commission 2020a)

Definition Carbon Footprint

“‘carbon footprint’ means the sum of greenhouse gas (GHG) emissions and GHG removals in a product system, expressed as carbon dioxide (CO₂) equivalents and based on a Product Environmental Footprint (PEF) study using the single impact category of climate change” (European Commission 2020a)

APPENDIX 2: Interview Guidelines

Interview Guideline 1 (German Version) : Scoping-Interviews

Vielen Dank, dass Sie sich die Zeit genommen haben, an diesem Interview teilzunehmen. Das Ziel dieser Arbeit ist es, politische Veränderungen in der EU-Batteriegelgesetzgebung zu analysieren. Sie konzentriert sich darauf, wie Interessengruppen organisiert sind, um politische Veränderungen zu unterstützen. Die theoretische Grundlage der Arbeit ist das Advocacy Coalition Framework, das die Überzeugungen und Motivationen der Interessenvertreter sowie die Koalitionen untersucht, die sie mit anderen Interessenvertretern bilden. Um solche identifizieren zu können, möchte ich Ihnen einige Fragen stellen.

1. Könnten Sie mir bitte zunächst etwas über Ihren Hintergrund und Ihre derzeitige Funktion erzählen?
2. Was waren die wichtigsten Veränderungen auf EU-Ebene bei der Regulierung von Batterien in den letzten 20 Jahren?
3. Gab es wichtige externe Ereignisse, die diese Veränderungen ausgelöst haben? Wenn ja, welche?
4. Wer sind die Hauptakteure, die an der Batteriegelgesetzgebung beteiligt sind? Haben sie sich in den letzten 20 Jahren verändert? [Fragen Sie nach Einzelheiten: Namen/Organisationen]
5. Wie waren die Interessengruppen organisiert? Gab es zum Beispiel Befürworter- und Gegnergruppen für bestimmte Themen?
6. Gab es Elemente, die diskutiert, aber nicht in den Vorschlag/die Gesetzgebung aufgenommen wurden? Warum nicht?
7. Gibt es sonst noch etwas, das Sie mir über die Batterie Regelungen mitteilen möchten?
8. Gibt es jemanden, den Sie empfehlen würden, um mit ihm über diese Fragen zu sprechen? [WENN JA, bitte Name und Organisation]

Interview Guideline 2 (English Version): Stakeholder Interviews

Thank you very much for taking the time to participate in this interview. The purpose of this thesis is to analyse policy changes in EU battery legislation. It focuses on how stakeholders are organized to support policy change in particular. The thesis' theoretical basis is the Advocacy Coalition Framework, which examines stakeholders' beliefs and motivations, as well as the coalitions they form with other stakeholders. To be able to identify such I would like to ask you a few questions.

1. First of all, could you please tell me something about your background and your current role?
2. What were the most significant changes regarding the regulation of batteries over the last 20 years?
 - a. How relevant is the issue today? How relevant was it then?
 - b. What were the main arguments for and against the change?
3. Were there any significant external events that were driving those changes? If yes, which ones?
4. Who are the main stakeholders involved around the battery legislation? Has it changed over the last 20 years?
5. How were the stakeholders organised? Were there supporting and opposing groups for specific topics, for instance?
6. Which groups does your organisation cooperate most with, and why?
7. Which groups do you not work with, and why? How has this changed over the last 20 years, if at all?
 - a. How were any differences resolved, if at all?
8. Were there elements that were discussed but not included in the proposal/legislation? Why not?
9. What is your organisation's approach to resource efficiency of batteries and has it changed over the last 20 years?
10. Is there anything else about the policies on batteries that you would like to tell me about?
11. Is there anyone you would recommend to speak to on these issues? [IF YES, please name and organisation]

Appendix 2: Interview Transcripts: Scoping Interviews

Scoping Interview 1

00:00:56

Interviewer: Erstmal ganz kurz vielleicht etwas zu deinem Hintergrund. Und was ist deine derzeitige Funktion und Hintergrund?

00:01:04

Interviewee: Ich bin ja universitären Standpunkt aus Maschinenbauingenieur, (...) war dort schon relativ früh im Bereich von Produktionssystem unterwegs und bin relativ früh auch in Berührung gekommen mit dem Thema Elektromobilität und Batterien und hab das Thema jetzt auch schon seit zehn Jahren dann eben immer weiter begleitet, insbesondere Entwicklung des Markt, Umfeldes der Technologie und da wir zahlreiche Monitoring und Marktstudien durchgeführt und parallel habe ich ein zweites Standpunkt im Bereich der Energieeffizienz gehabt, in dem wir auch relativ viele EcoDesign Studien durchführen, (...) da gab es dann eben beide Themen so ein bisschen zusammen, dass eben die Batterie eben Gegenstand von dieser Überarbeitung der Direktive wurde. Genau, und da kam ich ebenso in diesen Prozess, wegen dem es dich letzten Endes auch interessiert, hinein.

00:02:12

Interviewer: Ja, Wie hat sich das denn so in den letzten zehn Jahren, aber vielleicht auch ein bisschen vorher schon. Wie hat sich das dann in den letzten Jahren verändert? Ungefähr in den letzten 20 Jahren? Wie weit du auch zurückblicken kannst auf EU Ebene.

00:02:29

Interviewee: Auf EU Ebene. Das Thema der Batterien ist ein bisschen vergleichbar mit den Solaranlagen damals her, bloß ohne die immense Förderung durch die EU. Die hatte auch eine eigenständige Batterie Produktion gehabt, Ausgang des Jahrtausends. Jedoch wurde sie halt zunehmend unwirtschaftlicher und wurde dann halt auch letzten Endes eben ein Stück weit aus der Hand gegeben in Richtung Asien. Mit ihr dann halt auch die Forschung ein Stück weit, so dass das Thema ein Stück weit auch brach gelegen hat. Das hat sich dann aber auch geändert. So seit 2000-, sagen wir mal seit der Finanzkrise, ungefähr seit 2007 ist das Thema dann auch wieder neu hochgekommen, insbesondere auch mit dem mit dem Wandel hin zur Elektromobilität, wo ja die Batterie eben ein Schlüssel Komponente darstellt und man auch gemerkt hat Hoppla, letzten Endes ist das ja eigentlich das Kernstück des zukünftigen Automobils, nicht nur das Kernstück, sondern auch das, wo das Know how drinsteckt und dazu natürlich auch das, wo auch der Wert drinsteckt. Teilweise macht die Batterie eben mittlerweile viel günstiger geworden, aber beim ersten Modell war das halt 60 % der Kosten, die die Batterie ausgemacht hat. Da blieb halt für den Rest vom Fahrzeug wenig übrig. Und wenn das dann ein Zukauf Teil ist, das eben aus Asien importiert werden muss, hat es natürlich immense Auswirkungen auch zu einem Wirtschaftsstandort wie Deutschland oder auch Europa, wo die Automobilproduktion natürlich ein tragender Pfeiler darstellt. Gerade vor dem Hintergrund war das, glaube ich, zuerst aus industriepolitische Sicht immer relevanter geworden. Das war die eine Schiene. Dann kam es natürlich auch zum Zweiten dazu, dass eben das Thema des Klimaschutzes auch immer mehr präsent wurde und auch man sich damit auseinandergesetzt hat, wie man eben solche CO₂ Ziele eben erreichen kann, man völlig schärfere Grenzwerte aufgesetzt hat, die letzten Endes eben durch reine Optimierung des Verbrennungsmotors auch nicht mehr machbar waren oder Hybridisierung, dass dann auch klar war, dass die Reise eben auch in Richtung Elektromobilität gehen muss. Und dann hat man diese beiden Schienen gehabt. Also das eine war eben das rein industriepolitische, wirtschaftliche getrieben und das andere war dann eben diese Umweltaspekte, die da mit rein gespielt haben, wobei die Umweltaspekte eher so ein bisschen nachgelagert waren zu Beginn und so hat sich das Thema dann halt auch langsam wieder entwickelt. 2010 war da noch relativ wenig los. Die ersten Batterie Status Treffen, die wir dann gemacht haben in in Köln. Damals hat einer der (Teilnehmer) damals spaßeshalber bei der Eröffnung gesagt, dass wenn der Zug hierher entgleist wäre, wäre die komplette Batterie Forschung in Deutschland erledigt gewesen, weil es dann tatsächlich ganz schnell zu viel war. Und wenn man sich das jetzt mittlerweile anschaut, sieht man eben, dass dieses Thema halt doch schon ein Stück weit

floriert ist. Sie haben wir haben jetzt zahlreiche Lehrstühle, die sich damit beschäftigen, Professuren, die eingerichtet wurden, aber auch so dieses ganze Ökosystem Geschmack denn ausdrücklich verwendet. Aber mal der Batterie hat es natürlich auch dahingehend entwickelt, dass man natürlich die OEMs hatte, die die Fahrzeuge herstellen, an Wert zu liefern, also sich auch gleichsam diese komplette Wertschöpfungskette auch ein Stück weit darauf einstellt. Das ist natürlich schon ein riesen Transformationsprozess für die komplette Wirtschaft, der damit einhergeht als geradezu diese traditionellen Zulieferer, diese World Class Champions, die eben ein konkretes Produkt herstellen, das halt total spitze ist. Und auf einmal wird das halt nicht mehr gefragt, weil der Verbrennungsmotor wegfällt. Der für die ist es natürlich existenzbedrohend. Um diesen Transformation hinzubekommen, dass man dann zum Beispiel auf einmal dann Klimatechnik produziert anstelle von Diesel, Partikelfilter etc.. Das war natürlich auch eine große Herausforderung, viel zu stemmen und der Prozess ist bei weitem noch nicht abgeschlossen, aber er wurde angestoßen. Es ist halt auch konsequent, dass sich deshalb dieser Wandel so auf sehr vielen Ebenen geschieht. Ja, insbesondere auch Forschung ist vorangegangen. Dann ist die Industrie nachgezogen und die Politik ist halt immer so flankierend dabei und das natürlich schon auch ein Stück weit zu steuern und zu lotsen.

00:06:51

Interviewer: Ja, hat sich das dann auch widergespiegelt in den Veränderungen, also in den in der Gesetzgebung, also dass das die Unterschiede, also zu 2006 da Richtlinie und jetzt zur Verordnung, dass da ganz bestimmte Punkte, dass das auch.

00:07:14

Interviewee: Ja, es besteht. Genau. Definitiv. Ich würde sagen, man es so mit der Zeit gegangen. Was wird das Jahr 2016? Gut war, dass man sich auf Sammelwut der Berater konzentriert hat. Was hat dann mit dem Aufkommen? Wir sind ja von diesen kleinen Batterien, diesen unzähligen Batterien weggekommen, immer zu größeren Batterien hin. Auch die technische Technologie hat sich geändert. Da war es natürlich notwendig, diese Direktive auch anzupassen, und die hatte ihre Schwachstellen gehabt. Das war natürlich auf Materialien bezogen, die sie war auch nicht schlecht. Es wurde damals auch schon drüber nachgedacht, dass man Batterien natürlich sammeln und recyceln muss, aber damals waren es dann halt die massenhaften Teile. Wenn man das jetzt auf die heutige Zeit widerspiegelt, wäre das natürlich so Du hast eine Batterie, die 200 Kilogramm und für diese 200 Kilogramm musst du halt 60 % recyceln. Du kannst sinngemäß da draußen das Metallgehäuse nehmen, das wiegt 60 Kilogramm, das beseitigt und den Rest ist weg. Das ist natürlich nichts gewonnen, weil da geht es ja nicht darum, sondern da geht es ja um diese wertvollen Metalle, die drinstecken. Das heißt, man muss da halt auf relativ vielen Ebenen neu denken und eben diese Directive überarbeiten. Das war am Beispiel der Batterie, aber das war nur das eine, woran man das halt festgemacht hat und das man quasi als Blueprint benutzt hat. Auf der anderen Seite hat man natürlich auch gemerkt, dass dieser gesamte Ich sind zwei Regulierungs Prozess halt auch dem ganze nicht mehr gerecht wird. Ja, diese Eco Design Schiene parallel dazu gibt über viele Jahre hinweg noch sehr erfolgreich, das muss man sagen. Die wurde ja auch immer weiterentwickelt von Energieverbrauch und Produkte zu Energy Related Products und so, dass man halt versucht hat, da auch immer den Fokus ein bisschen weiter zu machen, ist da auch ein Stück weit in die Sackgasse gekommen. Weil ursprünglich war es ja natürlich so, dass du da ein Produkt hattest, das wurde irgendwie hergestellt, das war nebensächlich, es wird recycelt, das war nebensächlich. Das ist halt ein Haupteffekt. Erschaffen hat man einfach die, die du brauchst. Er hat der Kühlschrank zum Beispiel oder der Fön. Und das man halt versucht hat, genau solche Sachen eben zu optimieren. Das war jetzt auf einmal. Aber es sind immer mehr Produkte auch aufgekommen. Die bei denen das gar nicht mehr so war. Also die Batterie war das prominenteste Beispiel, einfach weil diese

Herstellung, die ja auch zu Recht teilweise auch sehr kontrovers diskutiert wurde. Ja, auf einmal hast du halt ein Produkt, dass halt gerade bei der Herstellung riesen Impact hat. Während der Nutzung relativ wenig und dann eben aber beim Recycling. Das heißt, diese ganze Methodik muss auch umgelenkt werden und da kam dann halt schon relativ viel zusammen, dass du die Notwendigkeit gesehen hast, dieses Produkt Batterie neu zu bewerten, weil es halt einfach zwischen der Größe verändert hat, in der Stückzahl und auch in der Anwendungsbereich und einfach aufgrund dessen, dass die stationären Speicher und die Elektromobilität eingegangen ist. Halt auch auf einer ganz anderen Stellung, in der in der Volkswirtschaft eingenommen hat, weil es extrem wertvoll war und weil halt auch Arbeitsplätze damit verbunden waren und ganz Zulieferindustrie. Auf der anderen Seite dann eben die Direktive, die da auch nicht mehr zeitgemäß war und angepasst werden musste.

00:10:39

Interviewer: Ja, da ist jetzt Arbeitsplätze und Industrie und alles erwähnt. Wer sind denn die Hauptakteure überhaupt dann in der Gesetzgebung, die sich daran beteiligt haben? Und hat sich das dann auch verändert in den letzten 20 Jahren? Das ist.

00:10:55

Interviewee: Gut. Ich glaube die letzten 20 Jahren. Also wir haben die Forschung gemacht, wie wir uns die Technologien machen. Ja, ich glaube, das Thema war schon teilweise auch präsent gewesen, aber das war jetzt nicht in der großen Breite auch diskutiert worden. Wenn man sich mal anschaut, die European Battery Alliance zum Beispiel, die das Thema beackern, die wurde, glaube ich, erst 2017 oder so ins Leben gerufen. Das ist alles noch gar nicht so alt. Und das war eben auch ein extrem koordinierter Akt. Dann damals von der EU, die die WTO da an sich. Dass das ein Umbruch kommt, war glaube ich relativ klar. Also Politik, die sich schon frühzeitig auch Gedanken drum gemacht hat, wie man diese Transformation gestemmt bekommt und dann eben auch der Industrie, die sich dann langsam auch damit Gedanken gemacht hat, weil auch die Betriebsräte das dann natürlich auch mitbekommen haben, dass da eben gegebenenfalls irgendwie eine große Keule auf sie zukommt. Das war halt auch irgendwie so, zur gleichen Zeit 2017 rum wurde es dann eben relativ stark. Dann auch an Präsenz gewonnen hat die Akteure diese Zeit vor allem eins war natürlich dann diese diese Arbeitnehmer Institute wird es auch dem typischen IG Metall, Hans Böckler Stiftung etc. auf nationaler Ebene wieder relativ viel. Also ich kann es immer nur aus meiner Sicht sagen der Akteure. Aber das wo wir jetzt sind, es ist auch noch existent, ist Energie. Energie ist nicht. Ja, wir haben auf jeden Fall schließlich eine Studie zu so Beschäftigungseffekte gemacht. Und auch mit dem VDMA habe ich schon 2000 17181 Studie über die Arbeitsplätze Potenziale durch die Batterie Fertigung erstellt. Also da gibt es unterschiedliche Interessensgruppen, Verbände, NGOs, die da mit involviert sind, die natürlich alle im Prinzip Interesse daran haben, diese Transformationsprozess, der stattfindet, möglichst sanft zu gestalten und da eben eine neue Industrie auch entlang der kompletten Wertschöpfungskette hervorzuheben. Weil es ist ja so, diese Produktion, diese eigentliche Batteriezellen Produktion, die wird diese Arbeitsplätze garantiert nicht ersetzen und dafür viel zu hoch automatisiert. Außerdem einfach nicht so viele Arbeitskräfte. Aber es geht ja darum, ein komplettes Ökosystem drum herum zu spinnen. Dass du diese Wertschöpfungskette möglichst ganzheitlich in Europa etabliert und es dadurch auch diese diese Jobs entstehen, dass du vielleicht auch nachgelagert neue Ansätze wie zum Beispiel solche Second Life Anwendung Schichten Industrien etabliert oder Service Provider etc. Noch lässt das ganze Thema mit der Elektrifizierung, also die die Infrastruktur für Ladesäulen ist.

00:14:04

Interviewer: Die dann auch Interesse daran haben, die sehr daran beteiligt sind eine Infrastruktur Gestaltung.

00:14:11

Interviewee: Mit sich bringt an der Gestaltung der Batterie Directive. Beispiel eigentlich. Aber die sind natürlich auch unterwegs und kümmern sich darum, dass diese Ladeinfrastruktur aufgebaut wird, sodass diese Elektromobilität als Ganzes eben Erfolg hat.

00:14:27

Interviewer: Okay, du hast auch erwähnt, dass das vor allem gerade so angefangen hat mit der Industrie als industriepolitisch, aber auch dann wieder Klimaschutz und Umwelt. Gab es da dann auch wieder NGOs, die in der Hinsicht sich dann wieder von der Umwelt her oder ist das alles eher industriepolitisch gesteuert worden von den Akteuren her? Und gab es da auch vielleicht verschiedene Gruppierungen oder ist das nicht so aufgefallen?

00:14:58

Interviewee: Das ist schwer. Werden zwar Stakeholder Meetings gehabt mit über 100 Teilnehmern, die sind aber natürlich nicht alle gleich aktiv gewesen. Ja, du hattest natürlich die die Fraktion der Batterie Hersteller und der OEMs, die natürlich diese wirtschaftlichen Interessen primär im Fokus hatten. Dass das ja kein Wettbewerbsnachteil eben dadurch, dass sie halt Produkte zum Beispiel irgendwie zu mehr Kosten als die Konkurrenz produzieren müssen oder bisher gezwungen sind, halt irgendwie einen bestimmten Anteil an Materialien zu verwenden, denen es vielleicht in dem Umfang gar nicht gibt und dass sie dann halt höhere Preise zahlen müssen. Auf der anderen Seite hattest du schon natürlich auch deine NGOs gehabt, die insbesondere auch diese sozialen Aspekte, also den Nutzer, die Kunden letzten Endes im Auge hatten. Das Thema Batterie betrifft halt unterschiedliche Ebenen. Ich habe jetzt die die Umwelt angesprochen. Das war auch der maßgebliche Treiber für die Directive, also der Grund warum es gemacht wurde und der Eco Designs ja immer auch diese diese Umweltaspekte. Aber es spielt natürlich auch darüber hinaus der Kunde eine Rolle, weil diese Batterie Directive enthält natürlich auch Elemente, wie zum Beispiel, dass du Daten zugänglich macht, dass du siehst, wie diese Batterie genutzt wurde, sodass du zum Beispiel als Käufer von einem Auto weißt, wie die Batterie beansprucht wurde, dass du halt auch weißt, welche Daten von dir da drin gespeichert werden. Und das sind halt alles Aspekte, die da mit reinkommen, die natürlich auch beachtet werden müssen, dass die Endkunden Sachen. Ansonsten ist natürlich, über diese komplette Wertschöpfungskette hinweg werden auch unterschiedliche Personengruppen betroffen, also die einen teilen, diese Diskussion über die Batterie ist natürlich auch sehr sozial geprägt. Das ist ein bisschen auch wie in der Textilindustrie. Da gibt es teilweise auch die Notwendigkeit, ganz harte Due Diligence Maßnahmen einzuführen, um sicherzustellen, dass diese Materialien, die verwendet werden, halt auch auf eine sozialverträgliche Art und Weise abgebaut werden. Also es gab ja relativ viel zu diesem Artist Mining im Kongo, wo dann eben teilweise auch unter Kinderarbeit etc. das Kobalt abgebaut wurde. So was gilt es natürlich dann auch zu vermeiden, oder dass dann die Batterien Komponenten wird, die hergestellt werden, dass da Arbeitnehmerschutz eingehalten wird, sowohl gesundheitlich aber auch Mindestlöhne etc.. Da gab es natürlich auch. Die das natürlich dann auch hervorgehoben haben und auch zensiert haben, dass das berücksichtigt wird, was auch notwendig ist und sinnvoll, weil diese wie gesagt, diese Batterie, die ultimative Blaupause, wie du so ein Produkt eben aus unterschiedlichen Blickwinkeln wirklich ganzheitlich versuchen kannst zu optimieren. Und wir davon halt auch mehr sehen werden. Das sind so die drei großen Gruppierungen der Industrie. Du hattest halt Menschenrechte, NGOs und du hattest natürlich diese, die Umweltaspekte, die fremd geworden.

00:18:18

Interviewer: Okay. Und da hat sich das geändert. Über die letzten 20 Jahre, also seit der im Gegensatz zur Einführung der Direktive und jetzt zur Regulation.

00:18:30

Interviewee: Also ich war jetzt von Anfang an nicht dabei. Hat es dann postuliert. Aber ich bin jetzt die Directive damals, die hat einen ganz anderen Umfang gehabt. Werden da die kleinen Partner, Batterien etc. aber ich glaub da hat kein Hahn danach gekräht damals. Es war sehr spezifische Interessensgruppe, so wie es meistens ist. Jetzt ist es halt auf diesen ganz kleinen Bereich und Betroffenen halt viel breiter geworden, weil dann viel viel mehr Akteure auf einmal mit drinhängen.

00:19:08

Interviewer: (...)

00:19:19

Interviewer: Ich denke, das sind vielleicht auch Elemente, die jetzt bei der Better Regulation diskutiert wurden, aber nicht mit aufgenommen wurden. Und warum vielleicht nicht?

00:19:35

Interviewee: Ich muss mir überlegen. Das war schon sehr umfänglich, was diskutiert, anspruchsvoll, sehr kontrovers. Diskutiert wurde eben die Recycling Effizienzen und auch die verwendeten Recycling Materialien, wie viel dann möglich ist, was man machen kann. Der ganze hat auch im Diskurs zwischen der Industrie und Interessensvertretern wie Wieland, wobei die halt auch relativ gut zusammengearbeitet haben. Also letzten Endes, dass man da von Industrie seite sich auch nicht quergestellt hat, sondern eben auch zu diesem Diskurs bereit war und auch das teilweise angenommen hat. Die diese immer noch nicht komplett gänzlich glatt gezogen kollektiv. Von daher kann ich ja gar nicht sagen, was jetzt so groß im Prozess ist. Aber man hätte natürlich noch mehr Materialien mit reinnehmen können und noch mehr Anwendungsfälle mit reinnehmen können. Teilweise hat man das halt auch versucht mit reinzunehmen. Also zum Beispiel vom Parlament sind da noch mal die Electric Vehicles mit reingenommen worden, die ursprünglich mit drin gesteckt haben. Diese, dieser ganze Umgang, glaube ich, wobei das auch relativ gut aufschlüsselt, schon an anderer Stelle. Der Zugang, die Verwendung von Daten darüber kann dann. Ich glaub, im großen Ganzen wird mir tatsächlich nichts wirklich Schwerwiegendes ein, was man hätte noch ergänzen sollen. Es ist schon ein relativ gute Rundumschlag, weil man versucht das eben Industriepolitik, Umweltauswirkungen und das Soziale eben mit einzubringen. Und vor allem, weil es halt auch nicht nur dabei bleibt. Also es fängt nicht mit September. Es ist nicht so, dass man halt Grenzwerte festgelegt hat, sondern dass man sich auch darüber Gedanken gemacht hat wie. Wie? Wie gelang es denn dazu, eben Informationen zu erlangen, wie was belastbar Grenzwerte sind? Das Beispiel ist halt der CO2 Rechenfehler. Man beginnt dann halt erst mal Daten zu sammeln. Also das ist Reporting Pflicht. Wie viel CO2 deine Batterie verursacht und dann kannst du. Wenn du eine belastbare Datenbasis hast, kannst du dann darauf basierend eben so eine CO2 Grenzwert festlegen? Und das ist halt auch im Prozess des Jetzt bis 2027 bis 2024 soll dann das Reporting bestehen. Dann hat man eine Datenbasis, die man zu verwenden kann. Und es kann natürlich auch ein sehr guter Ansatz, so vorzugehen. Ja, man ist dann halt auch ein Stück weit belastbar ist. Auf der anderen Seite hat man auch gemerkt, dass man eben mit den normalen Mitteln, wie man diese Daten erfasst, auch nicht weit kommt, sondern gerade so, wie die Batterie betrieben wurde oder wo die Materialien herkommen. Und da gilt Arbeiten summiert man so, dass man halt parallel jetzt so ein komplett neues Werkzeug entwickelt mit dem digitalen Produkt Passport, der in der Lage ist, diese Produkt Historie zu speichern und auch zugänglich zu machen. Das heißt, du hast halt hier verschiedene Bereiche, die adressiert werden. Du hast ein Konzept, wie die Grenzwerte und Werte dafür definiert werden und parallel entwickelst du halt noch ein komplett neues System, um diese Werte dann auch in der Breite zu erfassen.

00:23:19

Interviewer: Also sehr viel Erneuerung zur bestehenden Gesetzeslage.

00:23:25

Interviewee: Nein. Also ein komplett neuer Ansatz, eben weil er halt auch ein Produkt und dessen Nutzung weggeht und auch versucht, wirklich dieses komplette Produkt und seinen Lebenszyklus ganzheitlich zu betrachten und auch in seinen Auswirkungen ganzheitlich zu betrachten.

00:23:44

Interviewer: Okay, gibt es sonst noch irgendwas zu den Batterie Regelung auf EU Ebene zu dem man noch irgendwas sagen könnte?

00:23:53

Interviewee: Ja, also das die Batterie Regulierung eigentlich momentan zumindest aus meiner Sicht zu. Das ist spannend. Der Ansatz ist, weil es quasi eine Blaupause ist, eine Blaupause für nachfolgende Regelungen, wie du eben auch andere Produkte eben in dem systemischen oder ganzheitlichen Ansatz eben regulieren kannst. Ich glaube, das ist etwas, was wir in der EU, wenn wir wirklich unseren Werten gerecht werden wollen, dass wir umweltfreundliche und soziale Produkte herstellen wollen, unbedingt auch brauchen und es natürlich auch eine Möglichkeit, sich aus politischer Sicht gegenüber von Wettbewerb und auch ein Stück weit zu differenzieren. Also diese, dieser Anspruch an Umweltverträglichkeit und an soziale Gerechtigkeit, das ist natürlich etwas, wo dann gegebenenfalls andere Mittel produzierende Länder eben auch nicht mithalten können, sodass du dann halt auch sicherstellen kannst, dass du gegebenenfalls auch nur diese Produkte drin hast. Wir sehen das ja auch. Es wurde jetzt auch die Sustainable Product Initiative eben verkündet, bei der es darum geht oder wo auch wieder um die Batterie ein Bestandteil davon ist, wo dann aber auch andere Materialien, wie zum Beispiel Beton jetzt ganz neu betrachtet werden soll, oder? Bis auf ganz andere Produkte jetzt eben beurteilt werden. Und es werden dann auch diese. Diese Elemente oder dieses Vorgehen, das man bei der Batterie angewendet hat, jetzt auch versucht, auch andere Produkte zu übertragen, Textilien etc. um zu schauen, dass man da eben auch auf eine neue Bewertungsmaßstab kommt.

00:25:35

Interviewer: Okay, dann habe ich noch eine theoretische zwei Fragen, aber könntest du noch jemanden empfehlen? Also erst mal so als Person, die auch theoretisch als Experte überhaupt Bescheid weiß über über die Batterie Gesetzgebung auf EU Level, vielleicht auch über noch ein bisschen weiter hinaus empfehlen könntest, den man noch fragen könnte.

00:25:59

Interviewee: Wen hast du denn nun? Willst du denn wissen wie bitte? Mit wem willst du denn sprechen? Also mit wem hast du denn schon gesprochen? Sagen wir mal.

00:26:07

Interviewer: So, du bist bisher der Erste, also, also da ist da sehr viel Auswahl im Moment.

00:26:16

Interviewee: (..) Mal schauen, wer in diesen Prozess involviert war. Aber das sind halt dabei nicht so leicht zu kriegen. (...) Und du kannst schon mal verschiedene Richtungen denken.

00:27:52

Interviewer: Perfekt. Dankeschön. Und vielleicht noch mal zu diesen. Zu den Hauptakteuren.

Was für Organisationen oder Verbände würdest du empfehlen, dass man da noch mal nachfragt, die vielleicht daran beteiligt waren?

00:28:08

Interviewee: Du kannst die European Battery Alliance, du kannst versuchen auf Transport and Environment zuzugehen, kannst versuchen auf Bosch zuzugehen, als die Batterie Vertreter. Du kannst versuchen, noch mal reinschauen. Damals, als es vorbei war. NGOs kennen sich. (...)

Scoping Interview 2

00:02:56

Interviewer: Also jede Hilfe, jede Information hilft. Genau. Und in diesem Gespräch wird es auch erstmal besonders darum gehen, wer überhaupt dabei war und was für Veränderungen überhaupt passiert sind. Aber könnte ich erst mal ganz kurz fragen: Könntest du ganz kurz etwas über deinen Hintergrund und deine Position erzählen?

00:03:22

Interviewee: Ach so, ja, genau. (...) ich bin in dem Forschungs Kontext hauptsächlich tätig im Battery Bereich und ich beschäftige mich in meiner Arbeit mit Batterie Recycling und habe vor ein paar Monaten auch ein Review veröffentlicht zu dem Thema, wo ich mich eben auch viel mit der Regulierung, also Gesetzgebung in drei der größten Märkte EU, USA und China beschäftigt habe und das so ein bisschen recherchiert habe. Das heißt, dass es so mein Wissens Hintergrund eigentlich dazu und ansonsten ist der Hintergrund insbesondere eben eher im Forschungsbereich, also Material Ebene, Recycling Prozesse so weiter.

00:04:19

Interviewer: Okay. Sehr gut. Das hört sich schon gut an! Was waren denn, was hast du rausgefunden, waren die wichtigsten Veränderungen auf der EU Ebene und da die letzten 20 Jahre? Aber vielleicht auch einfach wie weit du zurückblicken kannst.

00:04:35

Interviewee: Also auf EU Ebene gibt es ja eigentlich nur eine wirkliche Regulation von 2006 die Battery Direktive. Genau, das war so die erste wirkliche Regulierung von Battery Recycling in der EU. Und jetzt gab es ja mit dem European Green Deal noch mal zumindest einen Vorschlag für eine für ein Ersetzen dieser Batterie Directive von 2006. Genau, und das sind eigentlich so die zwei wichtigsten in dem Bereich.

00:05:10

Interviewer: Genau. Und innerhalb dieser, wie hat sich das so verändert?

00:05:16

Interviewee: Also genau. Also inhaltlich geht es in diesem Vorschlag von 2020 im Rahmen des Green Deal. Das geht eben deutlich weiter. Also zunächst mal 2006 ging es hauptsächlich darum, zumindest schon mal eine Grundlage zu setzen. Da wurde zum Beispiel die Producer Responsibility and Production, was sie ein Producer Proposal Responsibility heißt, auf jeden Fall eingeführt, sodass die Produzenten von Batterien verantwortlich sind für. Für das Recycling, für das Sammeln, für den Transport von Batterien. Das ist schon mal ein Riesenschritt gewesen. Das war auch in der EU im Prinzip die erste, die erste Region, in der das so richtig vorangetrieben wurde. Mittlerweile gibt es das aber auch in China und

teilweise auch in manchen Staaten Bundesstaaten in den USA ist aber meiner Meinung nach eigentlich der wichtigste Punkt, dass man eben klärt, wer es einmal ganz physisch für diese Sachen verantwortlich. Aber wer ist auch finanziell verantwortlich für das Recycling von Batterien? Und genau das ist eben so geregelt worden, dass es der Hersteller ist. Dann wurden soweit ich weiß noch mehr Recycling oder erst mal Sammel Quoten quasi festgelegt, die dann sich sukzessive mit den Jahren steigern. An das lag so im Bereich von 25 bis 45 % oder so was. Und das wurde auch noch mal überprüft. Es gibt einen Bericht, in dem überprüft wurde, ob das eingehalten wurde, ob die Länder das überhaupt geschafft haben. Und da wurde eben leider festgestellt, dass das nicht so gut funktioniert hat, nur in sehr wenigen Ländern tatsächlich. Dann eben bis zu dem. Ich weiß nicht ganz genau, welches Jahr es war, ist irgendwann zwischen 2006 und 2020 definitiv nur wenige Länder überhaupt diese 45 % Quote erreicht haben für diese Altverträge? Im Prinzip ja genau. Und dann war es natürlich auch wichtig. Wichtiger Teil dessen ist sind die Recycling Quoten also oder die Recycling Effizienzen. Wie viel Prozent der Materialien aus Batterien können wir jetzt überhaupt recyceln? Das wird festgelegt, ich glaube ähnlich wie die Sammelkarten, dass das eben auch sukzessive gesteigert wird. Aber da gibt es eben so ein paar Kritikpunkte, gerade an dieser Regulierung von 2006. Einerseits zum Beispiel die Sammel Quote, wie die überhaupt definiert wird. Die wurde nämlich damals so festgelegt, dass im Prinzip die die eingebrachten Batterien für ein Jahr sozusagen in den Markt eingebrachten Batterien, dass es darauf bezogen wird, das heißt 25 % beispielsweise aller Batterien, die in diesem Jahr produziert wurden. Ich weiß nicht genau, ob es aufs Folgejahr bezogen wird oder auf das entsprechende Jahr. Das ist dann eben die same Quote, was das Gesamte ist, was allerdings nicht wirklich realistisch ist, weil eigentlich müsste man darauf abzielen, wie viele Batterien denn für das Recycling verfügbar sind. Das heißt, nicht alle Batterien haben den gleichen Lebenszyklus, Autobatterien zum Beispiel. Und so sagt man so ungefähr 8 bis 10 Jahre halten die und dann sind sie ja erst verfügbar für für das Recycling. Bzw könnten dann eventuell sogar noch eine Second Life Anwendung gehen und dann erst recycelt werden, was dann den Lebenszyklus noch deutlich verlängern würde. Das heißt man hat eben so einen zeitlichen Shift. Das heißt, die Batterien, die ich jetzt in diesem Jahr auf den Markt bringe, sind für das Recycling nicht verfügbar und dementsprechend wäre es eigentlich sinnvoller, das auch in die Berechnung der Sammelwut mit einzubeziehen. Das ist zum Beispiel ein Kritikpunkt gewesen und 2020 die, dass es eben deutlich umfangreicher, die dieser Vorschlag, der gemacht wurde. Das hat verschiedene Komponenten. Einerseits natürlich die Sammelkarten, da geht es aber auch zum Beispiel ins Detail, also Sammelkarten zum Beispiel, was zum Beispiel auch ein Kritikpunkt an dieser den Vorschlag von 2020 wäre. Beziehen sich nur auf Autobatterien und industrielle Batterien. Und ich meine auch auf portable Batterien. Das heißt für Handys, Laptops usw aber zum Beispiel nicht für E Bikes und die der ganze E Bike Bereich, der wächst natürlich extrem. Das heißt, das wäre zum Beispiel jetzt ein Kritikpunkt an der aktuell an dem aktuellen Vorschlag. Der feurige Kritikpunkt gilt übrigens auch für den aktuellen Vorschlag, weil da ist es auch noch nicht mit drin mit der same Quote. Ja genau. Und dann sind da noch andere Punkte drin. Genau wie gesagt Sammel Quoten dann aber auch die Recycling Quoten für einzelne Materialien wurden hinzugefügt und auch teilweise erhöht. Dann das ganze Labeling. Das wird noch thematisiert, dass zum Beispiel für für größere Batterien auch der Chip der sogenannte Batterie Passport eingeführt wird. Das ist super entscheidend. Also das ist wirklich ein sehr wichtiger Punkt, dass man das Sortieren vor allen Dingen von den Batterien vereinfacht während des Recycling Prozesses. (...)

00:11:18

Interviewer: (...)

00:11:25

Interviewee: Genau das war jetzt erst mal so ein Rundumschlag. Vielleicht hast du spezifischere Fragen noch. Dann zu den einzelnen Themen.

00:11:34

Interviewer: Weniger zu den einzelnen Themen, aber eher dazu, was wie die Leute darauf reagiert haben oder wie das passiert ist. Also wer allgemein zu sehen wa, deiner Meinung nach, die Hauptakteure in der Batterie Gesetzgebung. Also hat es sich zum Beispiel auch verändert, vielleicht von der Richtlinie jetzt zur Verordnung, dass andere Leute involviert waren?

00:12:01

Interviewee: Ich kann das eher so aus einer Überlegung heraus (beantworte). Also ich stecke da jetzt nicht so intern drin, dass ich wüsste, wer da jetzt tatsächlich aktiv war bei der, bei der Entwicklung dieser dieses Vorschlags. Aber definitiv sind die Produzenten relevant. In der EU sind sicherlich die Autohersteller einer der wichtigsten Faktoren. Zurücknehmen kann man zum Beispiel diese Producer Responsibility nicht. Das wäre sicherlich gar nicht so weit vom Interesse dieser der Batterie Hersteller oder der Autohersteller weg. Aber da das war eben schon mal schon mal drin. Von 2006 dann sicherlich die die Umwelt aktiviert oder was? Umweltaktivisten aber Umwelt Lobby sag ich jetzt einfach mal! Es ist natürlich super relevant. Das war in den Medien total präsent, zeitweise. Wo kommen überhaupt die Materialien her, die in Batterien verbaut werden? Wo gehen sie hin? Was passiert damit? Lange Zeit war dieses Thema Kobalt aus, aus dem Kongo zum Beispiel relativ bekannt, sag ich mal, ist natürlich jetzt aktuell auch noch mal ein Thema, wenn man mal überlegt, was passiert mit der neuen Weltordnung, wo wird sich China positionieren? Und so weiter. Aber das ist natürlich nicht in den letzten 20 Jahren, sondern vielleicht gerade sehr aktuell. Aber es ist natürlich auch eine Frage von. Produzenten von Ressourcen. Also wo liegen die Ressourcen? Und da sind eben bestimmte Länder wie Australien, China und afrikanische Länder ziemlich wichtig. Genau das heißt Hersteller, ich sage mal Anwender sicherlich auch. Das heißt, die die Konsumenten von von Batterien, insbesondere Autobatterien sind da sehr relevant, weil da eben diese ganze Thematik Reichweite, Schnelllader Fähigkeit Langlebigkeit extrem relevant ist. Und vor allen Dingen auch Was passiert denn überhaupt mit meiner Batterie, wenn ich sie. Wenn es. Wenn ich mein Auto zu Ende gefahren hab, sozusagen. Was mache ich damit überhaupt? Kann ich sie hinbringen? Das ist sicherlich relevant für diese ganze sammel thematik, dass auch eine Infrastruktur aufgebaut wird, wo man beispielsweise Autobatterien entsorgen kann, bringe ich sie einfach zurück zum Hersteller und das wird ja auch mit aufgenommen in dieser Regulierung. Also die die Hersteller sind ja zum Beispiel auch dafür verantwortlich, das im Prinzip Sammelpunkte zu organisieren oder bereitzustellen, teilweise auch die Retailer. Also für für die tragbaren Akkus in Handys usw sind ja auch die Verkäufer von diesen Geräten verantwortlich. Das heißt man muss zum Beispiel sein seine Akku Geräte bei Saturn Mediamarkt Elektronik Verkäufern auch zurückgeben können. Das heißt das werden definitiv noch Akteure, also im Prinzip über die Wertschöpfungskette hinweg. Also Rohmaterial Hersteller sicherlich, also die, die wirklich direkt involviert sind. Also nennt man das Stakeholder, glaube ich. Ne, Sekunde. Und Shareholder gibt es ja genau.

00:15:48

Interviewer: Also Stakeholder, die Leute, die Interesse daran haben. Interessensgruppen.

00:15:51

Interviewee: Genau.

00:15:52

Interviewee: Stakeholder wären alle und Shareholder wenn, dann die, die direkt quasi auch finanziell involviert.

00:15:58

Interviewer: Genau.

00:15:59

Interviewee: Genau, also Rohmaterial Hersteller, Batterie Hersteller vielleicht sogar noch zwischengeschaltet ist, weil da gibt es teilweise noch Elektroden Material Hersteller oder so, also wie sagt man das? Es ist diese Teile Lieferant bei der Automobilindustrie. Ich weiß nicht genau wie man es nennen soll, aber Material Hersteller, vielleicht Batteriehersteller und dann vielleicht auch Fahrzeughersteller und dann oder oder Endgeräte Hersteller. Dann natürlich die Retailer, also die Verkäufer und die Konsumenten. Und dann gibt es natürlich noch die äußeren Interessen und politische Interessen. Und eben die. Also wozu da zum Beispiel. Die Umwelt Lobby als Beispiel gehört?

00:16:50

Interviewer: Ja. Okay. Sehr gut. Danke schön. Dann weißt du denn auch zufällig, wie die Gruppen sich vielleicht auch organisiert haben? Also das ist schon ein bisschen angesprochen mit dem Begriff der Responsibility. Also welche Interessengruppen, was für Themen? Also ob es Befürworter Themen oder Gegner Gruppen für irgendwelche bestimmten Punkte gab.

00:17:24

Interviewee: Ja gut, also ich würde sagen, Befürworter für möglichst viel Regulierung sind sicherlich diese Umwelt Lobby ist ganz klar. Die sind natürlich nicht daran interessiert, dass irgendwelche Materialien oder Alt Batterien irgendwo deponiert werden und nicht weiter genutzt werden oder irgendwie die Umwelt verseuchen oder oder ähnliches. Was das angeht, als also Batterien als Ressource zu sehen, als sekundäre Ressource für Rohmaterialien, das ist sicherlich auch für die Batterie Hersteller interessant. Vor dem Hintergrund, dass man einfach Kosten sparen kann und vielleicht auch eine Diversifizierung von Lieferanten bekommt. Wenn man beispielsweise Rohmaterialien nicht nur im Ausland kaufen muss, jetzt insbesondere in der EU, sondern eben auch von Recycling in der EU bekommen kann, weil im Prinzip durch die Nutzung, durch die durch den Konsum von Batterien in der EU schafft man sich ja im Prinzip einen Rohstoff Lager sozusagen. Das heißt, das ist auch strategisch eigentlich sinnvoll für sowohl für Produzenten von Materialien als auch für Batterie Hersteller. Andererseits ist natürlich diese Producer Responsibility ist natürlich für die Produzenten erst mal was Negatives, weil sie natürlich ja Verantwortung auf die Produzenten legt, die die müssen sowohl finanziell als auch eben physisch sich darum kümmern, dass die Batterien eben entsprechend behandelt werden, wenn sie gebraucht wurden. Da ist wahrscheinlich das Finanzielle nicht mal so das Relevante, weil das wird einfach eingepreist. Aber die physische Komponente dieser political Responsibility ist halt relevant, weil sie sich eben drum kümmern müssen und das ist natürlich auch der zusätzliche Ressourcen bedarf. Einfach um sich darum zu kümmern. Teilweise wird das outgesourct, das heißt, es wäre vielleicht noch eine zusätzliche Interessengruppe. Es gibt, ich weiß nicht mehr genau, wie man es nennt, aber das sind im Prinzip Agenturen, die sich im Prinzip für die Produzenten um diese ganzen Themen Recycling kümmern, uns vielleicht noch. Das wäre, die wären natürlich für so eine Regulierung, weil sie dann Arbeit bekommt und im Prinzip dann erst ein Geschäftsmodell für die entsteht. Ähm, so, wir haben ja noch. Gut. Politik ist natürlich vielfältig, aber ich sag mal, sitzt auf dem wenn man. Wenn man vor dem Hintergrund des Klimawandels sich das Ganze anschaut, ist das Recycling eben auch relevant. Das heißt, wenn man jetzt sagt, die die Agenda Klimaschutz ist für diese Recycling Regulierung auch

interessant, weil das Recycling an sich und der Gebrauch recycelten Materialien reduziert auch den CO2 Fußabdruck für die Produktion von Batterien. Das heißt, das sind sicherlich auch eher Pro Regulierung sein. Wo ich jetzt tatsächlich nicht so im Detail Bescheid weiß, ist, was so Standardisierung zum Beispiel angeht, weil das ist tatsächlich auch noch mein Thema. Soweit ich weiß, gibt es zumindest für die Herstellung von Batterien. Für das Design und so weiter gibt es keine Normen. Es gibt jetzt keine bestimmten Batterie Typen oder Bauarten, sage ich mal, die reguliert werden und die standardisiert werden. Was vielleicht auch ein Kritikpunkt an der aktuellen, an dem aktuellen Vorschlag ist. Und das ist tatsächlich für die Recycler vor allen Dingen, was vielleicht noch mal eine Interessengruppe wäre, nur noch eine die Recycler sehr relevant, weil je komplexer oder je unterschiedlicher die Batterien aufgebaut sind und je mehr Diversität sozusagen da drin ist, sei es auf Material Ebene oder eben auch auf der Bauart, einfach auf dem Design, auf dem Bereich, desto komplizierter wird auch der Recycling Prozess und desto teurer wird der Recycling prozess und desto weniger rentabel wird der Recycling Prozess. Das heißt, dass es sicherlich auch noch mal ein Punkt, dass es vor allem diese Gruppen würden sicherlich für eine stärkere Standardisierung dieser ganzen ganzen Batterien sein.

00:22:39

Interviewer: Okay, sehr gut!

00:22:40

Interviewee: Ja. Ich habe etwas vergessen. Ich weiß nicht.

00:22:43

Interviewer: Es hat schon sehr viel geholfen. (Du hast) sehr viel aufgelistet. Genau. Fallen dir dann auch noch irgendwelche Elemente auf, die die vielleicht nicht jetzt bei der neuen Verordnung mit reingekommen sind oder auch früher, die aber diskutiert wurden.

00:23:03

Interviewee: Ob sie diskutiert wurden, weiß ich tatsächlich nicht. Aber ein Punkt ist sicherlich diese Standardisierung. Das ist sicherlich extrem wichtig. Wir hatten ja vorhin schon mal zwei Kritikpunkte genannt. Einmal das mit der mit der sammel rate eben der bezug, also quasi die basis der sammel rate bezogen auf eingebrachte batterien und auf für das recycling verfügbarer batterien am. Gibt es Zeit nach. Ich überlege gerade. Vielleicht ein bisschen umfassendere. Vorgaben ohne Ausnahmen. Also ich sag mal so was wie EBike Batterien sind eben nicht mit eingeschlossen in dieser Sammelrate. Was natürlich schon schwierig ist, weil gerade der Bereich, das sieht man ja eigentlich im Alltag, ist ja extrem am Wachsen. Kurz überlegen, ob mir noch was einfällt. Also im Allgemeinen ist es schon eine relativ umfassende Regulierung, um Ehrlich zu sein.

00:24:26

Interviewer: Ja. Also sehr viel.

00:24:31

Interviewee: Ja, es ist. Es ist. Das steht schon sehr, sehr viel drin. Es ist halt die Frage, wie viel dabei am Ende auch rumkommt. Weil das ist ja, soweit ich weiß noch nicht. Final ist noch nicht verabschiedet worden, da weißt du wahrscheinlich auch ein bisschen mehr darüber, weil du dich gerade damit beschäftigt.

00:24:43

Interviewer: Genau. Es ist noch nicht ganz durch. Es ist noch nicht fertig.

00:24:47

Interviewee: Noch nicht ganz. Weißt du, ob es das schon neuere Version von gibt? Weil die letzte, die ich gelesen habe, ist, glaube ich, tatsächlich die von 2020. Diese erste Version.

00:24:56

Interviewer: Ja, ja, es wurde vom. Das Parlament hat schon abgestimmt im März über. Deren Fassung, also den Vorschlägen für Änderungen, sollten dann auch Änderungen kommen zu der zu dem Vorschlag der Kommission.

00:25:18

Interviewee: Ich meine, es gab auch, es gab ja im Prinzip verschiedene Versionen von diesem Vorschlag, also verschiedene, weitgehende Versionen sozusagen. Und dann gab es irgendwie eine Empfehlung und das Maximum, was man machen könnte und das Minimum, was man machen müsste. Und prinzipiell ist gerade das Maximum natürlich schon eigentlich zumindest als umwelttechnisch und auch aus zweifelhaft erreicht, dass das sinnvollste, sage ich mal, was da vorgeschlagen wurde.

00:25:50

Interviewer: Weißt du zufällig auch, ob das auch der Fall war in 2006? Das hast du ja selber wahrscheinlich nicht beobachten können, aber..

00:25:59

Interviewee: Das weiß ich leider nicht. Da bin ich überfragt, wie es sich entwickelt hat vorher. Was ich halt gemacht habe ist halt dieser Vergleich vor allen Dingen zwischen den Ländern ja bzw zwischen den Batterie Märkten. Ich habe jetzt im Prinzip nur die drei größten Märkte, also EU, USA und China mehr angeschaut. Aber da ist es definitiv so, dass das unsere Regulierung von 2006 wirklich Vorreiter war, mittlerweile China extrem nachgezogen hat und teilweise sogar weitergeht. Was ein paar Punkte angeht nicht alle so ein paar Sachen sind deutlich weniger reguliert, was zum Beispiel diese finanzielle Responsibility angeht. Das ist nicht so wirklich geregelt, aber da wurden extrem viele. Gesetze erlassen, die das ähnlich weitgehend regeln wie die aktuelle. Der aktuelle Vorschlag der EU Kommission? Genau. Die USA zum Beispiel haben im Prinzip nichts gemacht. So als Vergleich. Da ist wirklich fast nichts passiert.

00:27:13

Interviewer: Aber das ist auch sehr interessant zu sehen. Die Entwicklung in anderen Ländern, auf anderen Märkten. Dann gab es dann allgemein, also auch ich meine innerhalb der EU, aber auch überhaupt dann global, irgendwelche externen Ereignisse. Du hast gesagt, dass China sich auch sehr verändert hat, die dass auch diese Veränderungen vielleicht noch vorangetrieben hat oder ausgelöst hat.

00:27:38

Interviewee: Na ja, also sagen wir mal national. Ich würde mal sagen, dieser ganze E Auto Boom. Es ist global gesehen natürlich super relevant. Viele Länder kommen auch deutlich schneller voran als als Deutschland. Jetzt als Beispiel vor allen Dingen europäische Länder. Das wird im Prinzip weltweit erkannt. Also China ist natürlich ein extrem wichtiger Produzent von Batterien, auch von Rohstoffen. Also sicherlich diese. Dieser gesamte Klimawandel, die gesamte Klimawandel Thematik ist schon so ein Punkt. Aber das ist jetzt ja nicht so ein so ein spezifisches Ereignis. Das ist ja im Prinzip schon seit den 80er Jahren im Gange. Vielleicht Pariser Vertrag werden vielleicht. Oder Pariser Abkommen nennt man das eigentlich. Ist sicherlich wichtig, weil das ja im Prinzip so die erste verbindliche Einigung Satz sag ich mal war. Ähm, vielleicht eben national gesehen. Vielleicht. Jetzt hat sich die Flut im Ahrtal. Was? Das einfach noch mal diese diese Klimawandel Thematik nochmal befeuert

hat. Dann generell so zu Wetterereignisse, Waldbrände in Russland, in Australien, Überschwemmungen in auch in Australien, in Bangladesch, wo auch immer sie sonst noch waren, vielleicht auch Waldbrand im Amazonasgebiet. Das war ja auch noch mal so, so ein Riesenthema. Zeitweise. Ich überleg gerade, woran man jetzt so spezifische Ereignisse festmachen kann. Aber ich würde sagen, so generell dieses des Wachstums bestreben im e auto bereich. Vielleicht auch Entwicklung im Battery Bereich allgemein, also technologische Entwicklung und dass es den Batterien dort mittlerweile deutlich sicherer. Deutlich längere Laufzeiten haben und deutlich schneller geladen werden können im Vergleich zu vor zehn 20 Jahren. Also da ist schon extrem viel passiert. Und jetzt eben aktuell tatsächlich auch. Der Ukraine Konflikt ist sicherlich auch sehr relevant, weil eben jetzt zumindest in Deutschland bekommt man es ja mit, sicherlich auch in anderen Ländern, dass eben die Abhängigkeit von Lieferanten internationalen Lieferanten sehr stark in den Fokus rückt. Jetzt natürlich mit Fokus auf Gas, was allerdings sehr sich übertragen lässt, auch auf auf den auf die Energie. In dem den sagt man, dass die Transformation der der Energieindustrie sag ich mal auf erneuerbare Energien, was ja im Prinzip zusammenhängt direkt mit Batterien und eAutos usw und Recycling. Also es sind eher Ketten, die da quasi immer so aufeinander aufbauen.

00:30:57

Interviewer: Sehr gut. Das hilft schon mal sehr viel. Fällt dir vielleicht sonst noch irgendwas ein? Was was es noch so zur Batterie Regelung überhaupt auf EU Level zu sagen gäbe? Also irgendwas, was noch nicht erwähnt wurde, was noch wichtig ist.

00:31:18

Interviewee: Was wir jetzt oder was ich jetzt noch nicht erwähnt habe oder was da nicht erwähnt wird.

00:31:22

Interviewer: Was ich jetzt vielleicht noch nicht gefragt habe, angesprochen habe oder du noch nicht erwähnt hast.

00:31:35

Interviewee: Ja, was ich, also was man sicherlich gar nicht so häufig sagen kann, ist, dass die die Sortierung und die das Labeling von Batterien wirklich extrem wichtig ist für die Zukunft, für das Recycling. Also, das ist wirklich einer der wichtigsten Punkte. Und. Das weiß ich im Detail tatsächlich nicht, wie das in der dem Vorschlag aussieht. Aber es gibt ja diesen Battery Passport, der vorgeschlagen wird, der wirklich umfassende Informationen über die Batterien geben soll. Allerdings gilt das, soweit ich weiß, nur für größere Batterien ab einer bestimmten Kapazität, das heißt für kleinere Batterien eher nicht. Und das wäre eben auch für kleinere Batterien sehr, sehr wichtig, weil es eben verschiedene Techniken für das Recycling gibt, die darauf angewiesen sind. Zumindest. Einigermassen Sorten reine Batterien zu bekommen, um eben auch möglichst geringe Kosten und auch im Prinzip Umweltbelastung während des Recyclings zu bekommen. Das ist. Also das wäre so ein Punkt, den ich, den ich wirklich ziemlich relevant finde.

00:32:54

Interviewer: Ja, also lag der Fokus wahrscheinlich auch auch mehr auf den, dass das jetzt öfter erwähnt, dass die kleinen Batterien nicht sehr viel beachtet wurden bei den ganzen.

00:33:05

Interviewee: Die sind eher so ein bisschen rausgefallen. Ja, ist natürlich auch in gewisser Weise logisch, weil das ein bisschen schwieriger ist, das Ganze zu regeln, also auch die Sortierung. Und so weiter. Aber es würde eben einfach nur ein Labeling, was als sinnvoll ausgelesen werden kann, durch irgendwelche Techniken Absätze empfehlen werden, per QR

Code oder sonst was ist, die einfach ein einfaches automatisches Sortieren ermöglicht. Es ist halt schwierig festzulegen für größere Batterien, das sind einfach weniger. Also in der Anzahl, das ist sicherlich bisschen einfacher, aber das würde ich schon sagen, dass die kleineren Batterien da eher so ein bisschen durchfallen, sozusagen durchs Raster.

00:33:49

Interviewer: Okay, danke schön. Sehr viele gute Informationen. Ich habe nur noch eine letzte Frage. Weißt du zufällig jemanden, oder könntest du noch jemanden empfehlen, mit dem man sonst noch sprechen könnte über die Fragen?

00:34:05

Interviewee: Oh ja. Also ich würde tatsächlich sagen, so bei uns (...) bin ich wahrscheinlich schon der, der sich am meisten jetzt mit diesem ganzen Zeug, also allgemein mit Messaging, beschäftigt hat. (...) Aber ansonsten, ich schicke dir noch mal eine Mail. (...)

Appendix 3: Interview Transcript (Stakeholder Interviews)

Stakeholder Interview 1:

00:03:33

Interviewer: (...) So could I maybe just ask you shortly to say something quickly about your position and your background?

00:04:36

Stakeholder: Yeah. (..) we represent the companies that are sorting and recycling batteries. So we are really at the end of the supply chain. So you know of it for a certain number of goods in Europe. Normally when when you buy something, you buy it. And then the seller has no of a job to do. It's not responsible for anything else, right? But if you buy some, some electronic equipment, you have a guarantee of two years where the seller has to repair your device within the two years. But there is also an additional requirement is what we call the extended producer responsibility. If I use a term. You don't know. Tell me.

00:05:36

Interviewer: That's all right. I know about that.

00:05:40

Stakeholder: It means that the seller has also to make sure that at the end of life, there is a collection and a recycling of the object of the goods. This is valid for electronic electronic items, for batteries, for end of life, automobiles, cars. Right. But it is not. Let's say I take a stupid example. It is not the case for a music instrument. Non electronic music is like a trumpet, for example. The keyboard. Yes. Because that's electronics, right? But a trumpet where there is no electronics, nothing. Then there is no EPR.

00:06:22

Interviewer: Yeah. And that extended producer responsibility was introduced in 2006 in the directive right before it wasn't in the legislation on batteries. Right?

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Stakeholder: So it was introduced in the European Waste Framework Directive. Which is a generic one. And there you have, you have total directive like the battery one, the electric

electronic items, the cars, end of life vehicles and so on. Yeah. And they specified in more details how the EPR is applied.

00:07:00

Interviewer: Perfect. Yeah. Talking about that, how did it generally change the the legislation on batteries? How did it change over the last 20 years, as you have a lot of knowledge about that?

00:07:14

Stakeholder: Okay. So you have to make a distinction between the lead-acid batteries that we have in our cars. And the other types of batteries, the lead-acid batteries that you have in your car are huge in volumes. We are talking about a few hundred thousand tons per year and it's a specific business model in a sense that when you recycle those batteries, you make new batteries and the revenue generated by the recycling covers the cost of recycling. So some years it's a little bit positive. So it's a bit negative, but on average it's zero is self-supporting, right? So basically the EPR is going is implemented by - it goes by itself. Right. There is no need to have a big motivators. If you take all the other batteries, the alkaline batteries, the portable batteries you have in your phone or in your computer up to the the batteries of the electric cars, all of them cost money to recycle. That means the revenues that the recyclers generate by recycling materials out of those batteries does not cover for the total cost of collection, sorting, recycling. And the seller, they have because of the principle of the European, the EPR, the seller has to compensate for the difference. So recycler has a source of revenues. One source is the money you get when you sell the recycled material from the batteries. And they get to recycle the battery from the producer manufacturer, importer or any company placing the batteries on the market. And he needs both to make sure that they can do the job. In other words, if you don't have EPR and this source of revenue, no recycling will happen because nobody will recycle and lose money.

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Interviewer: And nobody will pay for it in the end. Okay.

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Stakeholder: So that's a big difference between the lead-acid on one side and the rest. That's why the lead-acid has its own association and it's own way of working. No problem. And we have a separate associations for all the other batteries like (our organisation). We don't cover the lead-acid. We cover all the other types because of this big difference in the business model. And since the the directive, the Battery Directive of 2006, it is pretty clear that the sellers or the people who are placing the battery on the market have to make sure that they compensate the recycler for the job of recycling the batteries.

00:10:26

Interviewer: Yeah. So has anything of your interest changed as well over the years, like since the 2006 Directive for the upcoming Regulation as well?

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Stakeholder: Nobody was talking about lithium-ion batteries. At that time even the phones and all the rechargeable device were based on nickel cadmium batteries. And today the lithium-ion is, outside the lead-acid, but if you take on the rest, the number one is the additional volume of batteries. An it is increasing a lot. So because we use more and more devices like phones, computers, all that use rechargeable batteries. But chiefly because of the the market for electric vehicles.

00:11:27

Interviewer: Yeah. So an increasing demand as well over the time. Could you maybe tell me how the different stakeholders were organized over the time to influence the policy change and how the EPR was part of it. So was there anything? You were talking about the extended producer responsibility but there's also a collection rates and recycling rates that were in the legislation. Were there any supporting or opposing groups to any specific changes?

00:12:08

Stakeholder: And so you have still today, but existing since a very long time. You have different associations pursuing different goals and representing different stakeholders. Right. Okay. So first of all, the Battery Directive, the one that is still existing today, divide the battery world into two categories. You have the portable batteries and the industrial batteries, right? The portable battery is where you have a collection rates and it's also stipulated that in every Member State, there must be at least one, sometimes more than one collection system for the for the portable batteries. Right. So in Holland it's Stichting Batterijen, in Germany it's GLS, in Belgium, BEBAT and so on, right? They collect they set up the collection system where you can as a consumer, you can bring back your portable batteries into supermarkets and schools. Plenty of different places, right? They have an association called Ecobat. If he defends the interest of this collection scheme to be very complete, they defend the interests of the not for profit collection scheme, which is the majority, is only one or two exceptions of a private collection scheme. That is, of course, trying to make some profit, but most of them are not for profit. So that's one. Then you have another lobby for the rechargeable batteries representing manufacturing up to the end of life. It's called Recharge. Okay. That's another one. He's chiefly targeting the industrial batteries. Not so much the portable, a little bit of the portable, but not so much, but only the rechargeable batteries. So they don't they don't cover the non rechargeable batteries. The alkaline batteries and so on. Right. Then you have the EPBA. And they are the representing the manufacturer of portable batteries, European Portable Battery Association, whatever rechargeable or not, but only the portable. They are not involved in the big ones. Right. Okay. So then another big stakeholders that should be mentioned is the car manufacturers. Because of the lithium-ion use in electric vehicles. Basically when they produce and they put on the market an electric car, they also put a battery on the market and therefore they have also responsibilities and they are represented by an association called ACEA. Right. What else do we have in Europe? I mean, maybe I missed one.

00:15:34

Interviewer: No, no. I mean, there's also NGOs, right? That are also having their own agenda.

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Stakeholder: Associations representing the actors in the in the supply chain, then you have NGOs. Yeah. You have Transport and Environment. Yeah, you have different ones. You have different ones. They are not really active. So they have positions and they defend their position and that's fine. But what I mean is that they are not really active in handling the batteries.

00:16:12

Interviewer: Yeah. So that is not specifically for the batteries and also other topics because you are specifically your organisation is specifically for batteries and you have like um, been through the, been with (your organisation) for a few years now. Could you maybe tell me if there have been any changes of groups that you worked with or who did you work with of other organisations? And has that changed the dimension, the dynamic over the time with the with more environment and electronic vehicles, for example?

00:16:53

Stakeholder: Well. In 2006 like I mentioned, nobody was talking about the batteries. So the topics and the discussions were more on the alkaline batteries and the former zinc-carbon batteries and things like that. The phase out of the NiCad today, you cannot use nickel cadmium batteries anymore for consumer applications. So that was the big change. And today is new change is the lithium-ion batteries not for consumer because the additional batteries for consumer applications and computer desktop is already very old, but chiefly for the mobility, the electric cars versus everything. Right. That's a big change. Now, the associations, as such, they didn't change that much they just changed a little bit the scope of the activities or the priorities. Is, for example, Recharge was very much focused on NiCad batteries before and today less they are still one of the topics but they are more concerned about the lithium-ion then about the NiCad, right. For us it was the same, the recyclers we had at the beginning were mainly recyclers of non-rechargeable batteries then came little bit by bit the recycling of lithium-ion batteries and nickel metal hydride batteries. Right. But today the market for nickel metal hydride batteries is very small and it's not growing. Came in and now these actors are also developing themselves to be involved with the recycling of big lithium-ion batteries from the mobility sector. But we see also now plenty of new entrants in the market. So today we are just, just fine with the installed capacity for recycling for lithium-ion batteries. But I have to explain something here. First of all, when you put a new lithium ion battery on the market, portable or for mobility applications the battery has a long life because you recharge it for a long time. If you take a car, you would use it ten years on average. When you change your electric car to another one. They would extract the battery because the battery is still functioning and then they give it a second life as the static storage of electricity. You know this principle, right?

00:19:33

Interviewer: Yeah. The second use is also new in the regulation, right?

00:19:39

Stakeholder: So it means that a battery as - let's see, on average, they are always exceptions, but on average, ten years in a car and maybe 5 to 10 years in a second life. So it means that from the moment that the battery is placed for the first time on the market, in the car, and the moment the recycler will receive it, they will be 15 to 20 years. It's a huge gap. In 2006 when we had the Battery Directive we were talking mainly about the primary non rechargeable battery and unlike it the rotation is one year on average. Right. So you see the huge difference, right. Okay. So when we are talking about the increase of the market traditional battery has definitely increased a lot and is still increasing. But on the manufacturing side, on the placing on the market side, yeah, for the recyclers, everything is delayed. We still - we see that we receive damaged, accidental batteries, things like that, you know, but we are still not receiving the huge volumes that are still on the road today. It's too early. So we've installed capacity we had today, we were able to recycle everything that was collected. But now we are approaching saturation and we need new recycling capacity. And so the existing recyclers can invest and increase the capacity. But you will have also new entrants, more and more new companies that were not active in other kinds of batteries before that are entering the market now.

00:21:22

Interviewer: Yeah. So new, new actors that are involved in everything. Yeah.

00:21:26

Stakeholder: Yes. And that will change the landscape deeply in the future. Yeah.

00:21:33

Interviewer: Yeah. And in terms of, because when I looked everything up, it was very interesting that in 2006 it seemed like a very two sided thing with the nickel cadmium batteries and the ban of of the nickel cadmium batteries. And nowadays it feels more in all the like all the interviews and any talks that it was more a consensus in, like the environmental organizations, the recyclers and the industry are more working together. While before it was on specific topics, it was a very supporting or opposing.

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Stakeholder: Yes, correct. So we have we have today more discussions and and between the various associations. Yeah, sometimes we write even joint papers. With common positions also because the European Commission prefer to have joint positions. Let's work for them. No, it's correct. I must say that in the past there was absolutely no discussions or no link between the people who were designing the batteries and the recyclers. It was two different worlds. Not talking to each other. There was no material recycled from the recycler used to make new batteries. There was no closed loop, nothing. It was two separate worlds. Today, with the growing market share of lithium-ion batteries, we face new problems. For example, the fact that in Europe we don't have, we have almost no mining of lithium, cobalt, manganese and so on. So we miss the raw materials. We are completely dependent from sources outside the EU. Right. So the idea emerge to make sure that the batteries at the end of life are recycled and that from the recycling of it we could create materials that can be used to make new batteries. Up to recently, there was no production of lithium-ion batteries in Europe. Now thanks to the European commissions and the batteries Europe programme, then they do everything to have production of batteries for electric cars in Europe and they are such plants already.

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Interviewer: Do you think there were any external events, like any events that could have that have been driving those changes as well, like outside of the stakeholder involvement. But anything that um, from outside or.

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Stakeholder: Well the scarcity of cobalt nickel will definitely have an impact even if it was not supported by the EU. Definitely. Because Yeah. It was not possible to sustain all of this.

00:24:59

Interviewer: Thank you. And back to back to your organization. I mean, this is also very self explanatory, but just to to have it on paper as well. But what is the motivation of (your organisation) in general to when it comes to the policies and batteries?

(...)

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Stakeholder: Well. We want first and we want to make sure that the requirements of the various Regulations, because it's not only the Battery Directive and tomorrow the Battery Regulation, the recycler of batteries has also to follow all the Regulations that we follow this and we implement this correctly. And one of the basic role of (our organisation) is to make sure that we explain this to our members. Right, and that we develop best practices. Another point is that we see also that the Battery Directive, for example, and the Waste Framework Directives are Directives. That means that they are translated into national laws in each member states, and each member states can add a bit of pepper and salt, and they can also interpret the Directives a little bit differently from each other. So if it leads to a market, recycling market that is not fair, not transparent, and not a level playing field where the

conditions are the same for everybody. And this is creating some competitions disturbance and we are fighting this. We want to have a fair, sound, competitive market where everybody believes the same rules. Right. So I explain what they mean by this in the current battery directive you have for the recyclers. I'm not talking about collection because collection is not our job. For the recyclers, the main requirement is that they need to achieve a recycling efficiency of 50% each for the lithium-ion, for example, or for the alkaline batteries. That's easy. In the concept is easy. 50% of the weight must be recycled. You choose whatever you want to recycle as long as you achieve 50%. The question is, I have I'm a recycler, I recycle batteries, I have a certain number of outputs. Some of them are recycled materials. Some of them are waste. Because when you have a recycling process, you also generate waste, right? Not everything- there is no such thing as a 100% recycling rate. In some member states one would be considered to be recycled materials and count towards the 50% recycling efficiency in another member state not. And that's a distortion because it gives an advantage to certain recycler in certain member states. Another problem, for example, is that the the alkaline and the lithium ion batteries are actually considered to be non-hazardous waste. So it means the recycler has a permit to handle non-hazardous waste. It's easier to get that than if you are handling hazardous waste. The transport of Non-hazardous waste is easy between Member States between the collection point and the recycler is easier if you are non-hazardous compared hazardous within Europe. Now what happens is that certain Member States have declared that some batteries are hazardous. Some declaration. For example, Austria. All batteries in Austria are hazardous. Or if you take the lithium-ion, Poland hazardous, Belgium not hazardous, Spain hazardous. In Germany, it depends where there are some Länder. You know, Germany's federal country, some say hazardous, some say non-hazardous. So it has an impact because if a member state declare that the lithium ion is hazardous, you cannot ship it to a recycler that is only a permit for non-hazardous waste. Even if you do an excellent job.

00:30:10

Interviewer: So is it of advantage for you? So does it change with the regulation now? Because the Regulation is all binding and not like the directive, where the Member States can make up their own laws. But the Regulation is already directly binding.

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Stakeholder: Yeah, but the problem, it's true that a regulation is better than a directive. But the Regulation, the future Regulation on batteries will not resolve everything because the decision is whether or not a waste is hazardous or not. Is a different Regulation. It's the European Waste Catalog list? If that Regulation is not modified at the same time, you still have the discrepancies between the two.

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Interviewer: So it's still like a point that is up for change. Is there anything else that is maybe should have maybe been on the regulation or should have also been changed, but has not been changed, but has been discussed but just been thrown out of the window?

00:31:15

Stakeholder: Another issue we have. We have a different Directive for the recycling of end of life for electric and electronic devices. When the consumer brings back its electric or electronic devices, most of the time the battery is still inside of the device. And the Regulation on batteries is that the recyclers of electronic devices should remove the battery and send it to the battery recyclers. In practice, it is not always the case because it costs money to do it. It's better to to recycle the device with the battery inside, it's cheaper. The problem is then that the what we call the WEEE recycler, waste electric and electronic recycler is not respecting the 50% recycling efficiency. So it's a way to to recycle the device, but to escape in between

brackets, to escape the requirement of the batteries. That's not correct. So these are associations equivalent of (our organisation), but for the electronic device, it's called EERA are a European Electronic Recycling Association. And we are working together to make sure that both the WEEE Directive and the Battery Directive will in the future be more harmonised on that point. But it's a long way because today we are updating the Battery Directive into a Battery Regulation, but it's still a regulations that will be updated later. So that we will still get.

00:33:16

Interviewer: In between. Yeah. Okay. So that's also like a still like a missing points for you. How would you - because the Regulation is, is almost finalized now. How would you define the whole process? You mentioned that there's still like a gap between the WEEE Directive and the new Regulation, but how was it in general the did the whole process?

00:33:45

Stakeholder: Commission started with an evaluation of what was going well or not so well looking at the implementation of the Battery Directive If it was a first step. If there's a report you can find. And during that exercise, the consultant appointed by the commission's already contacted all the associations, and we had a lot of discussions. All, everybody, including the NGOs and so on. They had a lot of talks. Then based on this report, the Commission prepared in the second step prepared the proposal of a new battery regulation, and then the Commission's with the help of a consultant. But the Commission itself held a lot of webinars. It was during the COVID period, so it was not possible to meet face to face. Right. But we organized a lot of webinars with stakeholders on certain issues to discuss and to come to the final proposal. Right now, is the proposal perfect? No, it is not perfect. There are still points subject to discussions. For example, for the recycling, because they introduce also a new, totally new. Yeah. The new view into the system is that in the Battery Directive of 2006, nobody was talking about circular economy. Today, it's a big part of the new Regulation, the new proposal. That means that the new proposal of Battery Regulation, when you look it from the eyes from a recycler, you have more requirements to fulfill. So you still have the 50% that might even go higher than 50%. But you have also what we call the material recovery targets specific for cobalt, nickel, manganese, lithium, copper. And then you have also the recycled content that will come later, not straightaway at the beginning, but later, where the certain percentage of material recovered from the recycling of battery must be used to make new batteries. So, like I say, today, a recycler of batteries produce recycled materials but not necessary to make new batteries. And before anything else, right in the future, there will be a minimum percentage. And they fixed they get already in the Regulation. But we we are not against the principle of a recycled content, so a closed loop. What we say is that it's too early to fix the target now because like I explained a recycler will have something like- we receive batteries aged 15 to 20 years old now. All say that at that time it will be possible to recycle materials to make new batteries because the technology of new batteries will evolve in the meantime. Right. So if possible, fine. But we don't want to have an obligation to achieve a certain loop. If it in practice, it's not possible. So let's put the principle into the Battery Directive, the Battery Regulation, that's fine. But let's say that the target would be defined five years before implementation. Not today. That's the kind of things that we are still discussing with the Commission to try to modify little bits of text. But we would like also to have a more transparent report. Today, when you look at the Eurostat about batteries collected and so on. Don't believe it. Don't believe it. It's full of mistakes. The Commission knows about.

00:37:52

Interviewer: Yeah. Some countries are missing as well sometimes.

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Stakeholder: Exactly. The Member States are sometimes publishing, sometimes not. Their own data. Right. And this is not good for making sure that globally we achieve the targets. So we say, okay, let's make it a bit more transparent. There is no secret to say I recycled so many tons of lithium-ion, so many tons of this and so on, and there is no issue about it. We are not talking about the cost, the money. We are not talking about the quantity of material you sell and so on. No, these are confidential information, but the quantity itself, it should be more, made more public. And that certainly will help to have a better uniform applications or implementations of the Battery Regulation. Another big important aspect that is for me missing this a little bit in the Battery Regulation, but not enough is the safety issues. And the safety issue is mainly for the lithium-ion batteries and that is a market that is growing a lot. So lithium-ion batteries are dangerous things if you treat them. Never put them in a fire you would create fireworks, right? Even at the recycling plant, the recyclers have to take a lot of precautions. That also drives the cost higher because prevention means cost, costing measures. Right. And there's not enough, I think, incentive built in the Regulation. To force the different actors in the supply chains to do the job regarding safety, everybody has to do its own thing, do its own thing on its own thinking that it's doing a good thing. But there is not an overall strategy. See what I mean?

00:39:58

Interviewer: Yeah.

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Stakeholder: From the design to the end. Although everybody will tell you: Yes, but soon we will have a new types of lithium ion batteries on the market. That's what we call the solid state batteries where there is no electrolytes and where the risk of having an explosion of fire or whatever is reduced to the minimum. Okay, we welcome that. No problem. The problem we have as a recycler is that it means there will be some changes in the composition of the battery. And we don't know what impact this will have on the recycling cycle. Right. We don't know because we don't have enough transparency, not enough information. And that's why the Battery Regulation has incorporated a new concept that is the battery passport. And the battery passport is the first attempt to make compulsory the delegation of certain informations to the actors in the recycling chain. What the transporter needs to have, what the sorting needs to have, what the recycler. And we are not talking about that. We are talking about certain confidential information. But everybody received the information that he needs to have to. Do a good job. Today, for example, recyclers with what I call a black box. It's an issue on batteries, but we don't know what it is inside. But which type is it, right? Only if you open it but if you open it, then you have to take extra precautions. So if we know more information about the compositions and the danger of such batteries, then we can reduce the cost of safety. If it's good for everybody.

00:41:52

Interviewer: Yeah. Is that why has something like this not been introduced before? Like, why didn't the producers-

00:41:59

Stakeholder: Manufacturer of batteries, were saying, my battery is better than my competitor and I don't want to say anything about the composition of my battery because I don't want to release my secrets.

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Interviewer: Even not for the recyclers.

00:42:11

Stakeholder: Even not for the recyclers.

00:42:12

Interviewer: Okay. So that's also like a part that is beneficial for you in the end.

00:42:17

Stakeholder: Well, what it would be is not yet implemented. Yeah, that's the object.

00:42:22

Interviewer: Yeah. And but do they producers, the manufacturers are now also for it for it?

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Stakeholder: They have no choice because it's written in the battery regulation. But of course they will try to to give only the strict minimum. But if we can live if on the other side, we don't ask more than what we really need, if we have what the minimum we need is fine with us. The Commission may be asking too much if we if we have, what we need as a minimum for us is fine. Right.

00:42:57

Interviewer: Yeah. Okay, that's perfect.

00:43:00

Stakeholder: The other the other big change also. But it is for the manufacturers, not for the recyclers, is the fact that when you put big batteries on the market as a manufacturer or importer or whatever, you will have to calculate the CO2 footprint. It was not existing before. Right. Now. We had the beginning of the story. We still have to to agree on the methodology to calculate this. The recyclers, they will contribute a little bit. They will have to provide some data to the manufacturer. But the recyclers contribution is not the most critical part. The most critical part is the CO2 footprint coming from the primary materials used to make you, but not the recycling. But of course we would contribute that and that's something completely new that does not exist before.

00:43:53

Interviewer: That's perfect. So there have been a lot of changes that have been driving up the Regulation- have been included in the regulation. And it's really interesting to hear the recyclers side of it. Thank you so much. (...)

00:44:30

Interviewer:(...) Can I ask you one more question to to also maybe see who else what what kind of perspective I'm missing? Who would you also like to talk to about this topic to have get more insights?

00:44:58

Stakeholder: You can talk to a Recharge, EPBA, Cobalt. But all these associations the Transport and Innovation - Transport and Environment an NGO and the other NGO is the Environment, European Environmental Bureau. Right. These are often very active for the lead-acid. You have to contact EUROBAT.

00:45:29

Interviewer: Thank you so much. Uh, yeah. This was very, very helpful.

00:45:37

Stakeholder: And you can contact EERA under the European Electronic Recycling Associations, because they will tell you also the problem they face with the batteries.

00:45:46

Interviewer: Yeah. The one that the one that you already mentioned that the batteries are inside and you have to ship them. That's very good.

Stakeholder Interview 2

00:05:26

(...)

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Interviewer: Is there anything else you could tell me about your current position or background that would be important?

00:08:05

Stakeholder: Well, basically so the current position is (...) but basically it's an advocacy position or policy position. I mean, in (our organisation) , we have kind of two types of people broadly. We have policy people. We have kind of like technical, analytical people. And because we produce a lot of analysis and reports and studies, some of which we kind of outsource to other consultancies or kind of organisations, but we do a lot of it ourselves and that's obviously the kind of analytical people who lead that work will do that work, but it's all focused on eventually kind of getting policy changes because our main objective is to get this is to meet our objectives through regulatory change. So all of yeah and so that's kind of my job is there's, there's a lot of policy people as well in the organisation who kind of co-ordinate the outreach with the kind of European institutions and and stakeholders in Brussels basically. So that's, that's what I do in terms of some policy areas. So specifically for me, I work on vehicles broadly, but I follow issues related to CO2 pollutant emission standards for cars and vans. And then obviously what is of interest for you is the batteries side. So yeah, in terms of legislation, I've been following the this battery regulation proposal that has been going through the last however many years it is now here.

00:10:01

Interviewer: Great. Do you have also looked at the past a little bit? Could you do you also know a little bit about the last year or so. Could you maybe tell me something about what has changed? Like I have it over the last 20 years. But however far you can look back, what have been the most significant changes in regard to the regulation of batteries on EU level?

00:10:33

Stakeholder: Do you mean so. Sorry. Can I just, Just to be sure I understand the question. So sorry. Are you asking. Maybe you can repeat the question because I wasn't exactly sure what you mean.

00:10:43

Interviewer: So you've been talking about the upcoming regulation and I'm looking at that one, but also about what was driving changes that were, maybe are, now in the regulation. So from the Directive in 2006 and a little bit like some years before that that were driving changes and now so at the last 20 years, it's like a framework as like a time frame. But I know you maybe cannot look back all the way, so however far you can look back. But what has changed?

00:11:20

Stakeholder: Well, so I mean, I haven't been - Well, what has changed is that there's been I mean, the batteries that the the European so how policymakers view batteries has changed from seeing them as primarily an issue to do with waste disposal and hazardous waste to seeing batteries as more as well as that as more of a strategic opportunity or strategic kind of industrial policy opportunity. As it became clear that, I mean, recently, the batteries obviously was going were going to be the key technology driving the green transition, you know, primarily in energy storage and in electric vehicles that, you know, the electrification of the economy, which, you know, most people in the green movement and amongst most policy makers accepted that this was a necessity, electrifying, as much of the economy as possible was a necessity for climate action. That, you know, I think the the policymakers and the European Commission and and general kind of, you know, I mean, starting from the European Commission, start, you know, realize that how we view batteries and how legislation, how regulation viewed batteries had to change fundamentally because because it was out of date. The regulation, the directive before was very much out of date and not suited for. Yeah, for today and how. So there was I guess a new. Yeah, like I didn't say what changed, but I guess climate policy is a whole kind of, you know, and the energy transition changed how we viewed batteries and how policymakers read batteries. And and I think there was an understanding that the regulation, of course, had to be updated significantly to accommodate that and to, you know, to promote the technology as an industrial policy, but also to make sure that it was promoted in a sustainable way. And also, of course, the the the other stuff in there around waste disposal and end of life was also still there but updated. Yeah.

00:13:58

Interviewer: Perfect. Thank you. Did that also reflect on how the different stakeholders were organised? Because you mentioned that were they like ready any supporting opposing group to any specific things.

00:14:17

Stakeholder: In terms of what. So I mean in my head when I came into this, when I started working on this on this proposal where essentially it was just before the commission proposed. So actually kind of proposed the the the published proposal. Sorry, and I know that. So my colleague (..), who I assume you haven't spoken to because I mean, yeah, so she was responsible for she was leading (our organisations) work in terms of engaging with the European Commission and other stakeholders to try and shape the new proposal that was going to come. And I think there was it's difficult to say in terms of the general direction of travel. I think there was a lot of consensus about what. You know for example, the carbon footprint stuff that including rules on carbon footprint of batteries and the accounting and eventually emission limits and classifications. This would benefit European industry and European economy via regulation. So obviously this would place European companies or stakeholders that have advantage compared to at least Asian competitors. So I think here. But then when you come to the detail, of course, when it comes to discussions around actually what's in the regulation and the detail around that, then of course, there's disagreement. I don't know if I can really answer that question from details of who, because in terms of who was saying what before the proposal was published, I really was not involved at that point. And I don't know. I can't say I can't say with any authority who was saying what about what the different parts of the proposal, I'm afraid. Yeah.

00:16:12

Interviewer: Okay. But did (your organisation) like your group? Did you experience maybe also maybe a colleagues changes in which groups you worked with or which groups that you work with?

00:16:27

Stakeholder: And maybe well, I mean, maybe if I can ask this question that the if it's okay for for for you that because I can talk about who we've worked with since the proposal has been out as well. If that still answers your question, fine. I can't really answer before. That's perfect. I mean, we've worked with in terms of trying to promote our objectives, we've worked with industry, lots of industry actors as well as NGOs. So yeah, I mean so there's a platform. So the association where we call it, it's called a platform. We're part of the Platform for Electromobility, which is a collection of, I think primarily industry and it's mostly companies and industry associations and some NGOs like us who are the the objective is obviously around to promote electromobility and we have different working groups and one of the working groups we have have is on batteries. And and so, you know, we work in terms of we try and find common interests with industry. And there's been several you know, there is some common interest in terms of the battery association Recharge. So we are aligned with them on some aspects on the bigger picture rather than the detail. But yeah, so Recharge and then there's Europe, that's who again we are aligned with on some issues. Then of course, you know, kind of companies, we are very aligned with some battery companies start ups in Europe. So like Northvolt, we work with them a lot. We are very aligned with them. On most of the big issues in the regulation. Also company called Verkor, French company battery maker vehicle, you can actually see we so actually this reminds me we did a letter when in late December last year which we sent to members of the European Council. So Council of the EU. So the Environment Council to to with all we had as basically signatories of companies to basically say, look, we didn't want any delays because there was lots of delays being proposed to the council in the council's text. So they have a list of lots of companies that we worked with, you know, on things like I said, you that letter, if it's helpful.

00:19:05

Interviewer: I think I think it's about the delay. Right. And yeah, it's exactly two versions of the same letter. One of the NGO. Well.

00:19:12

Stakeholder: Exactly. Yes.

00:19:12

Interviewer: Oh, perfect. Yeah, then I have seen that.

00:19:14

Stakeholder: Then I see that that's that's good. But yeah. No, we worked with lots of industry players and obviously also with, with NGOs as well.

00:19:21

Interviewer: So yeah. So so you don't know if that may be. I mean, the the the motivation has maybe I mean, changed a little bit as well for some of the stakeholders over time.

00:19:37

Stakeholder: So. Yeah, I would say so yeah.

00:19:39

Interviewer: Yeah, yeah. So what was the like? Just, uh, I mean, it's pretty self servicing saying, but what was the main motivation for, for your organisation to.

00:19:49

Stakeholder: Yeah. So for us I mean there was a strategic motivation for us. So not only is it just that. It's the sustainable, the sustainability of electromobility. So our main objective as an

organisation is the decarbonisation of, of transport modes basically. And we say actually there's a point, I'm going to find the wording on our website just so I get it exactly right. But about us. So we say, (our organisations) vision is a zero emission mobility system that is affordable and has minimal impacts on our health, climate and the environment. So the key thing there is that the zero emission mobility system for vehicles, which is the team, I mean is is so know all. So we also want fewer cars. But in terms of the cars on the road, we want them to be zero emissions. So that means basically electric electric battery electric or fuel cell electric, so that the transition to that vision has for us as to have minimal impacts on the environment. And then obviously for that to happen, you need things like battery regulation to ensure that the metals and materials that are going into the batteries and how the batteries are produced are sustainable as possible. So that's kind of part of our vision is that the transition to EVs is sustainable, however, strategically for us as well, because politically there the pushback that comes from anti electric vehicle politicians or stakeholders often points to kind of hotspots or around the EV supply chain or batteries. So you have how the metals for the batteries are mined or where they come from, human rights issues, then how you know, the production of the battery. So if you use dirty electricity or dirty energy to make the battery kind of negates a lot of the benefits you get from having the electric car and then, of course, the recycling of the battery. So it's the battery recycling and this battery regulation, it deals with all of those issues. It puts binding rules in place to make sure that there's a due diligence for the for the sourcing of the metals, that there's mandatory recycling and that there's carbon footprint rules for the production. So it also resolves any issues there are. And so it kind of we hope that it will also increase political and public support for electrification.

00:22:40

Interviewer: Okay. That's great. Where are they on the on the way to it? Because you said that was there was a lot of consensus. But were there any conflicts about anything that you've experienced?

00:22:56

Stakeholder: Yeah. You mean amongst the stakeholders? Yeah. So, yeah, yeah. The levels of the targets and some of the definitions. So I mean, I only will talk about some of the stuff we've been involved in. But for example, there's this something that we're not really heavily involved in, but there's a big disagreement is around this to kilowatt hour threshold. So you know that where the batteries below two kilowatt hours should be included. There's been a big disagreement there amongst stakeholders, amongst basically NGOs and industry. Then, for example, in the Carbon Footprint article, it's not in the article, it's in the annex and it's to there. So we've been pushing with some industry. So like Northvolt worker who's who say that as part of the energy accounting for your carbon footprint calculation that guarantees of origin. So I don't know how aware you are on the kind of different terminology, but guarantees of origin for renewable energy shouldn't be counted or shouldn't be allowed to be counted. And whereas we're saying that you have to prove real world use of renewable energy. And so basically this idea that because you can buy very cheap guarantees of origin which are linked to production of renewable energy, but it doesn't prove any real world link between the energy you are using. So you can by using offsets you can use like coal, electricity, and you can buy a guarantee of origin which is generated from solar in Spain and you can claim you would be able to claim that your battery is green. We're saying you shouldn't be able to do that, whereas some industry is saying you should. Then also on the level of the targets, I mean, for recycling, we, the Commission did quite ambitious targets for most of the recycling, but there was a target for lithium metal. Lithium recycling, which we think we think was was way too low. Now we've had a bit of an argument with with with Recharge about this as well and EUROBAT who says that and Umicore, as well, it's another

big stakeholder who we've disagreed with on on this point. But on other points, we agree with them. We think the targets should be much higher in line with best available technology. And the others are saying, no, it should be lower for longer because it gives time for the technology to be scaled up and things like this. So yeah, there are obviously lots of other disagreements, stuff that I've not been working on. So it's a very, very big regulation and as t as (our organisation) are interesting, the regulation is actually quite limited. I mean, obviously it's only related to electric vehicles and also only really focused on a few of the articles. Most of a lot of the articles we I, you know, we're not following and there's a lot of stuff in there that's really around the internal market which we're not really interested in. Yeah. So by giving obviously our perspective.

00:25:58

Interviewer: That's great. So was there anything that you discussed or that was discussed that didn't like for you? It's like about the electric vehicles that didn't get in at all into the proposal. Sorry, that you like any aspect, any thing that you maybe supported or opposed but didn't get into the proposal at all.

00:26:26

Stakeholder: To the original proposal? No, I don't think so. And now in terms of the co-decision process, now it's been discussed by the institutions. There were some things that we were pushing for that weren't in the proposal. Well, in terms of improving the proposals. So basically what I'm saying is like, yeah, okay, there was stuff that we wanted the proposal which was there, but now we're trying to improve it. So yeah. By adding things or by taking things away, if that makes sense.

00:26:53

Interviewer: Yeah. So like like the like the target levels.

00:26:57

Stakeholder: Yes, exactly.

00:26:58

Interviewer: Okay. Perfect. And so was that like just like seeing a generally again, was there also like any that you know, of any external events that could have maybe also brought the change?

00:27:21

Stakeholder: Events brought what change?

00:27:24

Interviewer: The policy change. So the change towards, um. The new regulation.

00:27:30

Stakeholder: Yeah. Yeah. External events. Well, I mean, beyond what I said, I guess. I mean, I think the fact as well I mean, this is kind of what I already said that like the fact that Europe was lagging very much behind Asia in terms of battery production capacity and also in terms of kind of supply chains. I mean, supply chains is a bit wider because, of course, you do need different policy tools to deal with the supply chain dependency. But in terms of battery manufacturing, I mean, this was something where Europe was clearly lagging behind. And I think the European policymakers who commissioned and saw this new battery regulation or that shift in policy as a way to help promote battery manufacturing in Europe. Yeah.

00:28:20

Interviewer: Great. But there's not like any any thing that happened that that was like bringing the regulation on on the road that you're like.

00:28:34

Stakeholder: I don't I mean, maybe. But not the one that's come to mind. I mean, is there anything which has come up from other people's interviews that they've said.

00:28:43

Interviewer: And not not in particular. I'm just it's interesting to see if there is anyone saying some that some event could have influenced it. But I mean, you mentioned climate change in general and the whole climate change action that has brought even further. So that's already like something from the outside.

00:29:05

Stakeholder: Yeah. And I think, you know, as part of that, like the rapid electrification of transport that's been happening in the last couple of years, basically. Yeah.

00:29:14

Interviewer: Okay, perfect. Yeah. So I feel like you've already, uh, um, taught me a lot about the different things, but is there anything else that you would that is important when it comes to the new regulation or also like, um, from the view of (your organisation) that I didn't like ask or anything that you think is.

00:29:44

Stakeholder: Sorry, is there anything about sorry.

00:29:46

Interviewer: Anything that is of interest also when it comes to the battery legislation. So yeah, I don't know, maybe the opinion from the outside or anything that you would like to, to tell me about that is of interest. In general on the changes potentially. Ah, like on different stakeholders being involved or not involved any more. Like generally.

00:30:21

Stakeholder: Well I mean so. I mean, there's been like. I think one thing that's quite interesting is that there's a lot of different European Commission departments involved in this. So whenever they have their press conferences for this, there's always three or four commissioners. So you have like you have Breton, the industry commissioner, and you have like sync of issues, the environment, and you have Timmermans, the climate and you have Sefcovic who used to do the battery. He's like the battery guy in the commission. So you have kind of like lots of points of interest in the European Commission. And also, you know, you have this kind of fight in the European Parliament from the different committees about who was going to do it, whether it was the IMCO committee or the Environment Committee. That took a lot of time. And I think that just reflects all of the multifaceted elements of this proposal. There is a bit it's environment policy, it's climate policy, it's industrial policy. I don't know if that really is interesting. It's just something to note and I think. Well, look, one of our we're happy to admit to to say this openly, but so we, I think found ourselves a bit as transformed environment in the middle of a not always depends on the issue and depends on the company or the industry. But we found ourselves a bit in the middle of the general industry voice and the general NGO voice because actually we have been, we're not fully at all aligned with some of the asks or recommendations of the green community in general on this file, because a lot of the other NGOs that work on this are ECOS for European Environmental Bureau, EEB and some other national ones. We think we think some of their

demands are too extreme or too. Yeah. Too too too. Yeah. I mean, because we so because they come at it from a purely environmental perspective. So how can we completely reduce the environmental impact of batteries where for us it's half of that or no, it's even a third of that. A third of it is like, how can we promote industrial policy and batteries in Europe? And the other third of it is actually like around the climate kind of side of it. But actually what's most important for us overall is how can we promote batteries in electric vehicles? And if this regulation is too extreme or too ambitious, in some places, it can increase costs of batteries for electric vehicles, or it can create supply chain bottlenecks or production bottlenecks. This will either one or two or both. It will increase the cost of battery electric vehicles and it could slow down their production. And those two things are the most important for us beyond anything else as an organisation. So it's not at any cost. It's not like batteries at any costs. That's why we work on this regulation. But for us it's a balance, whereas for other organisations is less of a balance. So we have been kind of finding a middle ground where it's okay, we shouldn't have targets that are too strict or rules that are too strict because if they are too difficult to implement, then it's going to have an impact on the electrification of transport and who wins. In that case is the oil and gas industry because they continue to sell their combustion engine cars with their fuel. So that's the kind of bigger picture that we have on this. Yeah.

00:33:53

Interviewer: Yeah. So do you think that's also like one thing? Because, I mean, (your organisation) has been active for years now. But do you think that maybe has changed also because you said and I mentioned at the beginning that it changed from like just legislation based on waste and hazardous substances towards more industry based legislation. Do you think that maybe could have also changed over the years that the position became more in the middle?

00:34:33

Stakeholder: You mean in the European, the European Commission, you mean.

00:34:37

Interviewer: And general like also of the NGOs. You mentioned that some of the NGOs are very strict, but you mentioned that you are more in the middle between like the.

00:34:46

Stakeholder: I think that's just different because I think that just reflects different priorities, to be honest. Yeah, I think because our priority, we're one of the only NGOs that works on transport decarbonisation, whereas other NGOs, they have other wider remits but they don't work on transport like. So I think it's just, I think it's just different priorities, to be honest. It's not a change in particular. It's just different. It just reflects different priorities. But there's certainly been a change in the policy focus on policy objectives, that's for sure, of the European Union. That's clear. But I wouldn't say there's been a change in terms of the stakeholders kind of reaction to their priorities. I don't think.

00:35:30

Interviewer: Okay, that's good. That's an interesting answer.

00:35:33

Stakeholder: Yeah.

00:35:34

Interviewer: Yeah, (...) Could you maybe tell me who are the, the main actors who are involved in general? Like you said, you work together with the Recharge, EUROBAT and

Northvolt and also NGOs. Could you maybe give me like a broader picture like in general who was there?

00:36:18

Stakeholder: In terms of stakeholders. Yeah. Well I mean yeah. You have in terms of associations you have. Yeah, you have. Recharge in Europe as obviously the two main industry associations for batteries. Yeah. Then you have, I mean I'm just going to look at actually our platform for E-mobility in case I miss any members just because I might forget some of my head. You then have. Yeah. I mean in terms of actual companies you have. Yeah. Northvolt and vehicle for manufacturers and then you have also you Verkor for recycling and raw materials. You also have Tesla you know very active because of course they buy batteries then. Yeah, I mean then in terms of NGOs, you have European Environmental Bureau, the EBB course, which is the European Environmental Organization for its standards. I can't remember what the actual full name of them is this ECOS then you have some other companies that are involved like three M's, the three M is like A is like a raw materials company, like a chemicals company, yeah. Three then energy providers like Vattenfall and NL. Then as a no, I mean obviously then there's yeah, that's, that's, I mean they're the kind of main. Yeah. Oh there's Aerobat as well as the raw materials company alphabet. Yeah. Yeah. I met some North American ones which are increasingly becoming part of the discussion, but they're not really part of the EU debate. There's like Life Cycle, it's American company, and then there's like Redwood Materials. Yeah. Anyway, that's, that's what.

Stakeholder Interview 3

(...)

00:04:26

Interviewer: (...) Could you maybe a little bit about your current position and your background as well?

00:04:34

Stakeholder: Yeah, I'm I'm with the organisation since five years. Right now, the Sustainability Department (..) is busy with a lot of batteries. Now it is really the first number. It's the number one of the files we are dealing with and the batteries from the previous. How do you say allocation by the commission? They belong to the family of the waste legislation. So with that waste legislation, we not only follow the batteries, but we follow waste framework directive, the waste shipment regulation - anything that goes around the waste phase. But from that we need to move as well to the beginning of the design of the products. So this is really we maybe have now really a lot of focus on waste because these are the processes going on by the European Commission. They launched their review, etc. But they are new things of legislation, proposals that have appeared that will tackle really the design of the of the products. So here we are from the end. We are really going to the starting point. And even before that, if you consider how do you prepare a product, we also have to go to the step before for the acquisition of the raw materials. So this is really a full spectrum we are looking at in the sustainability, keeping in mind that for every step you also now need to be more conscious about things like the carbon footprint or even if you look to the wider stage to the entire product environmental footprint. Yeah. So this is, this is what we need to look at. We are organized in such a way that a lot of topics and batteries are really the one and the perfect example. It's not only me working on that, but I need to involve colleagues who are working on the management of the chemicals that are used in the batteries. By chemicals I also mean the metals that are used in the batteries. I need to connect with the colleagues that

are dealing with the trade because we will be looking in the batteries under the aspect of the responsible sourcing of the of the battery metals. And this is in our case, allocated under the trade department. So there is also an aspect of the carbon footprint that we will have to calculate now for the batteries. That's why the topic as such is very interesting because it is breaking really the rules that you are working in now. You need to work in a full cooperation in the team and involve people with many backgrounds.

00:08:02

Interviewer: Yeah. So you mentioned a lot now, a lot about the different life stages like CO2 footprint and everything. Just to take a step back, what in general were the most important changes in the battery legislation over the last I mean, you've been there for five years in your organization now, but maybe you can look a little bit further as far as 20 years.

00:08:27

Stakeholder: So the batteries regulations set up in 2006. Right. It's quite an oldie, I would say. And then the one from 2006 is really looking very much with a style of waste, typical waste legislation, the biggest. Change in the current proposal that is still debated, not finished. Even though we hoped it will be finished by the summertime, we were nearly sure. Yeah. The biggest change for the Commission Proposal. It is to really reflect the fact that the full product lifecycle. This is really this is the biggest the biggest change. You will also see with the batteries ever everlasting debate about the collection targets. We know very well, according to the official statistics, that that is run by the by the Eurostat, that this collection duty is not very well fulfilled, that there are many member states that really have. Big, big shortcomings on that. Again, as every new legislation, you will see another level of ambition that the commission wants to wants to bring to that to that area. Industry very often explains and asks, why do you want to put us with higher targets if we are not even meeting the old ones that are lower? It's a little bit a discussion about chicken and egg. In fact, somehow we we can it was easy to expect the higher targets, but that will be also with the with the intention of the legislator that they still want to stimulate. Because if they would leave the old targets untouched, that would send a bad sign. That would show that the European Commission is not ambitious with the assumption of really bringing the environment angle and the recycling so the circular economy to the core of the legislation. You will also see as the big change the fact that there is now more emphasis given to the chemical side of the batteries. So. There will be there is a proposal that the batteries regulation will have a separate mechanism how to evaluate substances that are used in the batteries, especially those that are hazardous and those that are called this hazard. How do you say hazardous chemicals or unwanted substances? They are a lot of names. Everyone has its own favorite, favorite wording. So here that the proposal brings a separate procedure to such an evaluation. We were puzzled a bit as the industry group why something like that appears if since ages we have another instrument to ever evaluate chemicals so the rich regulation. And for a number of months we have been trying to explain to the commission that it is a tool and we can just make a reference in the legal proposal to the research process. And that would be all the reply was here from the Commission that in fact REACH as such, is an effective tool and we can not neglect all the successes it has received. But the research, according to the Commission view, does not evaluate enough the waste phase. Hence their reply. And also the same evaluation or the same or just the repetition of the commission. Opinion comes from the Parliament and also from the European Council. So here we understood that in fact that will be pretty much the case. We will have a separate procedure for evaluating substances used in the batteries. It will be a reflecting a lot of the REACH procedure, but it will not be a pure reference. Please go to reach and follow the steps there.

00:13:39

Interviewer: Yeah. So you've also talked about all the - you've talked about the whole life cycle and all the different people that you have to work with. Now, what has that changed? Um, so who, what kind of groups do you work with in your organization? Is there different organizations that you are also partner with?

00:14:03

Stakeholder: So aside from exactly (our organisation), because here we are only representing a part of this battery world, so we are the ones that are delivering the materials to the metals for the production of batteries. And we are also recycling the batteries, but we are not the battery producer. That is why we are connected with two organizations with Eurobat and Recharge. I don't know if you are familiar with them. Yeah, yeah, you are. So with them. We are cooperating on the regular basis, also because they are members in the [organisations] family, but above all because they are representing the battery producers. Now we also cooperate with an organization called EBRA, European Batteries Recycling Association, as they are exclusively representing the recycling sector. And aside from that, this is our tighter cooperation. There is a wider cooperation of the industry. That represents downstream users. So that will be producers of cars. That will be the producers of the solar panels, that will be the organization representing the charging infrastructure for the electric vehicles. And I suppose that in your research for the as a preparatory work, you must have come across a paper where we had 11 logos of the different organizations. Did you see that paper?

00:16:08

Interviewer: I'm not entirely sure which paper you're referring, but there have been a few joint ones. Exactly. So if you could maybe send that to me as to if you have that.

00:16:19

Stakeholder: I'm just I'm just going to do it right away.

00:16:21

Interviewer: Thank you so much.

00:16:25

Stakeholder: At [our organisation] I have typed in the right way now. So there you see like really the big the big bunch of of those 11 organizations that were the most important ones that we were able to to get for the signature of the paper next to that. But it has never been really formalized with a joint paper, with the logos, etc. Very important for us. It's also the cooperation with the chemical sector. But this I leave exclusively to my colleagues from the chemicals management. Because, you know, one person cannot do all. But I think this is very good division and cooperation we have inside the team. It really allows me to just put the question and they. And they give me an answer.

00:17:25

Interviewer: Nice. Um, but has that also changed, maybe since the Directive in 2006 until now? Like the different groups that you work with or has it just stayed the same in a way?

00:17:46

Stakeholder: By nature it has stayed the same, of course, but now really we all. It is like that really with the industry at the beginning when the when the commission puts a legislative proposal. So, you know, everyone, everyone starts working on that in the house. You are really analyzing that and then you think, okay, my first duty to do is it is to prepare the written statement about our opinion. And this is something that usually appears with just the log of your organization. Then the next stage is, I have my evaluation ready, I'm sitting, I'm inviting

others to the table. And then we share our views. We, we try to find the common points eventually to find the points of disagreement or the different evaluation we discuss. And, and then usually it is like, guys, we need to write a common, a common paper together. So this is like a natural, natural step. And it is very, very easy to see that a statement that is signed by a number of organizations instead of just one, it has really bigger power to be to be better seen, to be better understood. So it's like a good communication vehicle.

00:19:27

Interviewer: Yeah. So that's why all the joint statements always appearing at the consultations.

00:19:39

Stakeholder: Exactly.

00:19:40

Interviewer: Nice. Is there any or are there any organizations that you don't really work with that you.

00:19:50

Stakeholder: There will be in the meantime as well, some organization with whom we still keep a dialogue about about the file. But for example, they do not decide to put a logo on the paper. Only because this might not be the topic of their work. They are familiar with the developments, etc., but they will not give stage statements about it. That's it. And and hear absolutely nothing to nothing to do about it. It's the same on our side. They are other topics going on. We are aware about them, but we do not work deep. Enough to really to really give to really give our visible support.

00:20:47

Stakeholder: So you also mentioned that you, you have like discussions - like the different things that have changed over time, like the collection targets and the different opinions there. Are there any big issues that like examples where people are really in favor and opposed to to things.

00:21:13

Stakeholder: On the industry side? Rather not. Really more on the institution side. Yeah. If you really look into the, into the level of institutions of the Parliament Commission and the Council. Then, of course, the biggest issue will be, as I said, this this collection targets. Between the , for example, industry vis a vis the commission. We are not happy with the proposal of the recycled content target because we do not see it as a tool to stimulate the bigger use of metals, because already the metals is there, they are there and the demand is there. So for us, this is absolutely not necessary to perform this way. However, having a lot of discussions about it. We know that this is a political will from the commission side and this is not going to be dropped. This is all the beauty of the job that I'm doing since six years and I was working with the different types of industry. Yeah, it is exactly this. You go to those meetings, you are prepared perfectly with all your very logical arguments, but sometimes the discussion is concluded with a statement. This is a political will. Full stop. And. It will be like that.

00:23:08

Interviewer: Yeah. Is there then also like any external events that have maybe like except for maybe the political will, but anything that has happened over the last year that brought the change as well. Oh, thank you so much for the link.

00:23:25

Stakeholder: Yes. This is the this is the paper that has got this bigger amount of the biggest amount of of the loggers. And then the others will have logos of ourselves. Europe. But to Recharge and EBRA.

00:23:46

Interviewer: Perfect. Thank you so much.

(...)

00:24:09

Stakeholder: But yeah, back to the events. We were speaking about events.

00:24:10

Interviewer: Yes, exactly. Do you know anything like outside of of your hand or any, um, interest group that just brought the changes as well? Any external events.

00:24:26

Stakeholder: Not really very much. We have organized an event together with Europe and recharge. Yeah. In the first quarter. In the first part of of this year.

00:24:45

Interviewer: More like, like external events in terms of any other influences that were out of your hand as like uh influencing policy and out of the policymakers just like anything that happened that could have also. For the change to. Yeah.

00:25:04

Stakeholder: No, here I do not have anything any example arriving to my head.

00:25:09

Interviewer: No. Okay, that's a good answer. But yeah. Was there anything that you maybe have in your head right now that has been mentioned and like the for the proposal for the new one that has not come in but has been discussed as an element.

00:25:35

Stakeholder: Upfront? No. From our side, really, we do not have anything that we would, let's say, bring upfront to the commission and say, please regard into that into the proposal and. We we really did not have any disappointment. Okay. That's that's a good way to say we were not we were really not disappointed with the proposal of the commission, because, in all fairness, we thought this is a good proposal that we see now.

00:26:14

Interviewer: Yeah, it's yeah, I've, uh, see, like a lot of, um, like in the other workshops that people are saying that there has been a lot of, like all the different groups have been kind of happy with the proposal.

00:26:30

Stakeholder: Yes, exactly. Yeah. And this is even, um, you know, important because by nature, for example, NGOs, they will be more critical than, than industry. Yeah. And even from the NGO side, we did not see a big, a big statement to say something is clearly wrong or they are shortcomings. No, I think really the commission did a good a good job. Yeah.

00:27:02

Interviewer: That's great. I have another question that is like a step back again, but and it's

probably really self explanatory, but what is the main motivation for your organisation when it comes to the better legislation or in general?

00:27:19

Stakeholder: Okay, so, so the biggest, the biggest aspect now for us it will be of course this, this recycling part right where because this is the. This is the core interest of of our members. Yeah. So all of what comes to the end of life, that means collection of the batteries, then the efficiency of the recycling process itself. This is on on one side. On the other side, going to the very beginning, responsible sourcing rules for the responsible sourcing of the of the battery materials. And in the middle, of course, the management of the chemicals that are used in the batteries.

00:28:23

Interviewer: Yeah.

00:28:26

Stakeholder: And so I started from from the end. I went to the beginning and then I landed. In the back. In the middle. Exactly.

00:28:38

Interviewer: Yes. But I also. Yeah. That's how the conversation how I'm leading this conversation right now.

00:28:43

Stakeholder: So what at the end you need to get what you, what you are, what you need. So if we speak about the end, go through the beginning and land in the middle, it's fine as long as you have your answers.

00:28:58

Interviewer: Yeah, but like to the to the beginning again, just like as also like, I mean, as motivation, as like a whole motivation of your organization. Why, why do you do what you do in general? Like what is the whole.

00:29:16

Stakeholder: The whole the whole motivation boils down ready to the background rules of the existence of our organization. We are really providing the voice of the metal industry, European metal industry to the European institutions, to the policymakers in Europe. Of course, we will start from the level of the biggest. So Commission, Parliament and the Council. But if necessary, we are also intervening on the national level. On the national level, of course it will be less because in the membership of the (organisation), we have organizations from various countries that are the first. To interact on a country level, but if needed, if they say for some reason we need your support, we are coming there and we are standing just right next to them. So this is this is really the basic rule of the organization existence. We are there because we need to bring the voice of the of the industry to the, to the legislative work of of the EU.

00:30:41

Interviewer: Yeah. Perfect. Yeah. So that's how I'm jumping on now. So in general, is there anyone, any organizations or any one that you would recommend talking to on this, uh, issues as well.

00:31:00

Stakeholder: The batteries exclusively. Okay. So, you know, already Recharge, you know, already your EUROBAT. Right. EBRA, if you are familiar with it. This. Yeah, you are

familiar with it. Next one that I would think about. And it escaped my memory now. Yes. The association for the portable batteries.

00:31:31

Interviewer: E. P. B. A. Yeah.

00:31:37

Stakeholder: Yeah. These are really the ones.

00:31:42

Interviewer: That you would recommend talking to?

00:31:44

Stakeholder: I would fully recommend. Have you already talked to them or not yet?

00:31:48

Interviewer: (...) But the others it's - I chose the one time I think it's the summer. So everyone is busy right now.

00:32:01

Stakeholder: Yeah. I mean, still. Yes, still still. People are busy. Plus you need to exactly combine it. You know, July or August.

00:32:09

Interviewer: It's not the best time.

00:32:13

Stakeholder: Maybe right now because for the battery process, as such, the second dialogue discussions, they have just taken place. So there will be little bit less pressure now. So I recommend starting again.

00:32:31

Interviewer: Yeah. Thank you so much. Yeah. I just have like one more question because you talked about like the the whole loop and the circular economy and you've said you have been been in the loop for 16 years. Has that changed? Has it increased? Has there been more like awareness for circular economy or has it always been there?

00:32:59

Stakeholder: I mean, it has always been there but. But it may be, it wasn't called since the beginning. Circular economy. It had different names at the time. Now, since 2016, we have this circular economy. We have now widely understood sustainability. So you have to also look at it sometimes as a fashion about. About the names. But the concept the concept has been basically there. So nothing has changed in that respect about the presence of the presence of the concept. Now more and more it is about really the execution of the of this concept. So to really make sure that whatever is available for recycling that is actually recycled in the best conditions that we can. And everyone would love to see it recycled in Europe. Yes, of course. That would be our dream to. So the- Really, I do not see much more changes in the arguments we use since ages. You can and this is really not a joke, you can open a document from ten years ago and you will see the arguments. The same that we are using today.

00:34:50

Interviewer: Yeah. Just that, like back then it was less like less complex, less like. Yes, in terms of.

00:35:02

Stakeholder: Complex because right now what we can see in the battery thing, it is that the example you are really now connecting throughout the different areas and you are really connecting all the dots, all the dots together.

00:35:17

Interviewer: That's great. Yeah, I think I've technically asked all the like the main questions and is there anything else you could maybe tell me about the battery legislation that would be important that you have maybe not set.

00:35:37

Stakeholder: Yeah, that might be like content wise.

00:35:41

Interviewer: Yeah. Or like in general, maybe also about the changes. I mean, you've seen the development over the last years.

00:35:52

Stakeholder: Almost. Yeah. Okay. About that, there will be one development that can be seen. Definitely. It is about the so called battery chemistry. So the type of batteries that that you will use. So until a certain time, there was just a clear division. You had the lead acid batteries and then you had the family of the lithium batteries. But you will see that there are more and more other types of batteries that are coming. They are not going maybe to be dominating on the market because they will be, for example, applied for just a certain applications that are less on the market but still important for the certain applications. Yeah, but also in the typical composition of the batteries so that the metals that are used, you will see that with the technology changes, the amount of certain metals will also be will also be different. So a metal that I can bring up the first example, it is cobalt. Some time ago there was much more cobalt used in the batteries. Now we see that with the technology development, we are able to reduce the amount of cobalt necessary. So this is this is something that comes as a change. Also, the also the proposal from the from the Commission now is as well addressing various types of the of the batteries. So not only the lead acid and lithium and lithium family, you will you will see that this is especially even now the proposal is really concentrated on the electric vehicles batteries and this this is already this is already, you know, ahead a forward looking step, because we know that the battery market will really move strongly to that to that end of the electric batteries. It will not only be for the cars, you see it more and more with the light transport, like these electric bicycles, this and that. So. What might be what also has to be kept in mind that it's not only going to be about the batteries that we have for the transportation, but also the batteries that we have in all different devices. This is also the battery family. So this is what comes as the battery to charge your laptop or the battery in your mobile phone or the little, you know, flat battery somewhere in another device. All that, all that has to be taken into account. Some time ago, for example, there was an idea. That we should eliminate from the market the batteries that are non rechargeable. That you should only stick to the one to the to the rechargeable batteries. But again, there was, there was a reaction from industry explaining that that would not be really the smartest move. And at the end, if I did not follow that exactly that that discussion. But but I think they they didn't go so radically for the for elimination of non rechargeable batteries. I would need to refresh my memory about it because. That's not really my very core daily daily topic.

00:40:32

Interviewer: Yeah. But yeah, so, so let's shift towards the, the lithium ion batteries and the electric cars.

00:40:43

Stakeholder: And electric cars. Yes. As well, speaking again about really the batteries family and now it will be more and more regarded. These are the batteries that are serving for the energy storage. So these are really the primarily the industry application, but there can be as well. An individual consumer use of the batteries for the energy storage too. And one thing that now came to my head speaking about it that the big the big change in the current proposal it is also the focus about a second life of battery. Or how to extend the life of the battery. So all these thing that is defined as remanufacturing refurbishing. This is something important because the current trend would be to keep a product leaving as long as possible before it will be decided. This is a waste battery that has to go to the collection. That has to go to the recycling. So this is also a big change in the current Commission proposal.

00:42:14

Interviewer: Yeah. And what is your position to that? Like how-

00:42:20

Stakeholder: Here I have I cannot tell you, but we are not the battery producer. Recharge and Eurobat will be the best ones.

00:42:31

Interviewer: To ask about that one? Yes. Perfect. Thank you so much for all the insights. It has really helped a lot to to see all the different things.

00:42:43

Stakeholder: Well, I hope it helped. I know maybe some things sound strange, but the more discussions and exchanges you will have if you organize the meetings with Recharge and EBRA, etc., then you know the picture will get. It's like it's like having a puzzle to, to make, you know. So exactly every talk, you get one element here and there to, to make the picture full.

(...)

00:03:02

Interviewer: (...) Und vielleicht können Sie mir dazu ein bisschen helfen. Erst einmal können Sie mir vielleicht ganz kurz etwas über Ihre derzeitige Funktion und Ihren Hintergrund erzählen.

00:03:55

Stakeholder: Ja, kein Problem. Also. Genau. (...) Also meine Hauptthemen sind Ladeinfrastruktur und Batterien. Zunächst war der Fokus eigentlich mehr auf Ladeinfrastruktur, aber dann genau kamen Batterien auch noch dazu, weil das natürlich für eAutos super wichtig ist. Also es ist halt ein teurer Teil vom Auto und genau für Verbraucher auch wichtig. Also so eine die wichtigste Forderung für uns eigentlich zu Beginn war das halt gerade auch für den Gebrauchtwagenmarkt ist es wichtig, dass man den Batterie Zustand auslesen kann, weil also wenn man jetzt einen gebrauchten ein gebrauchtes Auto kauft, dann will man wissen, in welchem Zustand befindet sich die Batterie? Ist die noch in Ordnung oder sollte man das Auto eher nett kaufen oder auch B? Also wie viel Geld möchte man dafür ausgeben, je nachdem in welchem Zustand die Batterie ist? Also es kommt ja auch drauf an, wie der davor damit gefahren ist, wie der geladen hat. Und genau. Ich arbeite als Referentin bei (meiner organisation)Also das heißt eigentlich Lobbying für meine Themen. Also wir

setzen uns bei der Politik dafür ein, dass wir halt die, also dass wir die Verbraucher sozusagen unterstützen, also Verbraucherfreundliche Forderungen stellen.

00:05:39

Interviewer: Okay, dass er der die ganze Forderung mit dem Batteriezustand bringt mich dann auch schon zu denen. Zu der nächsten Frage Was war denn die wichtigsten Veränderung? Weil eine Veränderung, die jetzt mit der neuen Regulierung kommt, hat damit ja auch ein bisschen zu tun mit den mehr Informationen dazu, aber von von Ihrer Sicht. Was waren so die wichtigsten Veränderungen auch vielleicht über die letzten Jahrzehnte? Soweit wie Sie halt wissen?

00:06:07

Stakeholder: Genau. Also ich bin mehr in der neuen EU Batterien Verordnung drin, wie jetzt in der Richtlinie. Aber genau also unsere Forderung bezüglich der Richtlinie war zum einen das mit dem Batterie Zustand, weil das halt für uns sehr für Verbraucher sehr wichtig ist. Und wir wollten halt auch, dass der Umweltteil noch mehr mit rein kommt. Also in der Richtlinie war ja auch schon mit drin, dass man zum Beispiel Batterien austauschen können muss und jetzt aber in der EU Batterien Verordnung. Also ich muss sagen, ich war sehr froh als die EU Batterien Verordnung kam. Zum einen, dass es jetzt eine Verordnung ist und dann nur noch eine Richtlinie. Das gilt ja dann sofort in allen Mitgliedsländern, sobald es verabschiedet ist. Das war schon mal super und dann auch, dass da jetzt so viel mehr drin ist wie noch in der Richtlinie, also zum Beispiel bezüglich recycelten Materialien, dass da auch recycelte Materialien verwendet werden müssen. Das Labeling wurde ausgeweitet. Ich meine, da haben wir jetzt auch noch ein paar zusätzliche Forderungen. Also jetzt zum Entwurf von der Kommission, aber also Rat und EU Parlament haben da ja jetzt sind jetzt nochmal weitergegangen, was super ist. Also ich jetzt noch mal ambitionierter. Was mich sehr freut. Ja genau. Also das mit dem Batterie Zustand war eigentlich so unsere Hauptforderung, aber dann auch. Also was wir auch noch gefordert haben, war eigentlich, dass die Batterien auch schon so aufgebaut sein sollten, dass sie einfacher recycelt werden können. Das ist jetzt da nicht mit aufgenommen, aber das ist vielleicht auch was, was dann eher was für die Ecodesign Richtlinie ist.

00:07:56

Interviewer: Ja, sind denn noch andere Sachen die, an die Sie vielleicht gedacht haben, die aber und die auch erwähnt wurden, aber nicht in den Vorschlag gekommen sind? Fallen Ihnen da irgendwelche Sachen? Ach so, ja, grad.

00:08:14

Stakeholder: Also gerade das mit dem Aufbau hatten wir auf jeden Fall gefördert. Also ich hab da ein Dokument, das weiß schon lange her, dass wir das gemacht haben, aber ich kann ihnen das auch gerne im Nachgang noch zuschicken. Also da hatten wir dann halt die Forderungen an die EU Kommission geschickt, was wir gerne in der neuen. Also man wusste ja nicht, ob es eine Richtlinie bleibt oder eine Verordnung wird, aber was da dann drin sein soll, das kann ich Ihnen gerne noch zuschicken.

00:08:45

Interviewer: Okay, vielen Dank. Das wär. Das wäre nett (...) Sie waren jetzt an der an der neuen Verordnung mitbeteiligt. Ein bisschen. Mit welchen Organisationen haben Sie so zusammengearbeitet?

00:09:15

Stakeholder: Ich könnte jetzt nicht sagen, dass wir mit irgendeiner Organisation zusammengearbeitet haben. Es sind eher unsere eigenen Forderungen. Ja, wir haben uns eher

an die Politik gerichtet mit unseren Forderungen, was wir wollen, was drin ist. Ne, gab jetzt - also mit mit BEUC arbeiten wir grundsätzlich zusammen. Das ist ja die europäische Verbraucherorganisation. Aber ansonsten - ne, ansonsten eigentlich nicht.

00:09:49

Interviewer: Ja.

00:09:50

Stakeholder: Ich glaube, wir haben uns das auch angeguckt. Zum Beispiel, was die DUH fordert. Aber wir haben jetzt nicht mit denen zusammengearbeitet. Genau.

00:10:00

Interviewer: Okay. Also haben Sie es alleine-

00:10:05

Stakeholder: Ja, wir haben halt geschaut, was ist schon für Verbraucher wichtig und auch für die Umwelt natürlich. Ressourcenschutz ist auch ein wichtiges Thema.

00:10:14

Interviewer: Haben Sie sich denn mit der BEUC auch eher an gemeinschaftlichen ein Angehen gerichtet oder war das dann auch eher separat?

00:10:27

Stakeholder: Also in dem Fall war es eher separat, als es sich oft so, dass wir also Positionspapiere zusammen machen. Und wir haben auch. Also das Positionspapier von BEUC natürlich auch drauf geschaut und da noch Punkte von uns reingebracht. Aber ja, also wir hatten schon Gespräche, wir haben Gespräche geführt, geguckt, dass wir da auch so in die gleiche Richtung gehen. Aber genau.

00:11:01

Interviewer: Okay. Würden Ihnen vielleicht - Sie haben es jetzt bestimmt ein bisschen beobachtet, Würden Ihnen vielleicht irgendwelche externen Ereignisse, die jetzt dazu geführt haben, dass die neue Verordnung gekommen ist oder kommt, wie sie kommt und die Veränderung gebracht haben? Irgendwelche externen Sachen, die unabhängig von irgendwelchen Stakeholdern.

00:11:27

Stakeholder: Also ich denke, dass der Klimawandel auf jeden Fall, also das Thema Klimaschutz, auf jeden Fall dazu beigetragen hat und dass die EU halt die Ziele hat, also die Klimaziele hat. Ich denke, dass das einen wichtigen Part gespielt hat, also das, dass es dann so gekommen ist, dass einfach Veränderungen, also dass man sieht, es sind Veränderungen nötig und genau, dass man da ambitioniert sein muss.

00:11:55

Interviewer: Ja. Aber so eine, wie speziell eigentlich der Klimawandel an sich ist ja, existiert ja schon eine Weile. Ja, sonst. Aber so an richtig Ereignissen wissen wir jetzt nicht, dass da irgendwas.

00:12:16

Stakeholder: Also ich. Ich denke, ich meine, gut, es ist vielleicht eher so für die Verbraucher der Fall war. Man hat ja schon immer mehr, also jetzt mehr Auswirkungen vom Klimawandel und dann auch die Demonstrationen und so was. Aber gut, ich weiß jetzt nicht, ob das eher danach war oder ob das schon davor war. Ehrlich gesagt. Ja. Schwierig zu sagen.

00:12:44

Interviewer: Ja. Okay. Was waren Sie denn als. Als Organisation? Haben Sie jetzt? Ja, besonders wegen dem. Wegen der Elektromobilität. Sind Sie jetzt da drin? Haben Sie vorher dann auch als Verbraucherzentrale schon viel mit den Batterien zu tun gehabt oder war das dann eher?

00:13:08

Stakeholder: Also wir hatten innerhalb von Deutschland schon mit dem Batterie Gesetz zu tun, aber eher mehr mit Ladeinfrastruktur. Also Ressourcenschutz ist schon lange ein Thema (unserer organisation). Das macht meine Kollegin aber. Also Batterien waren da jetzt noch nicht so Fokus. Das ist jetzt wirklich erst dann gekommen, also durch die Mobilität eigentlich.

00:13:40

Interviewer: Also sind die theoretisch dann neu als da ein bisschen neuer dazugekommen mit als Thema Batterien.

00:13:48

Stakeholder: Ja doch, kann man so sagen. Also wir haben, ich glaube 2020 zum ersten Mal da eine Stellungnahme abgegeben zum Batterie Gesetz.

00:14:02

Interviewer: Ja, genau. Und wie kommt es das vorher- Ich meine, das ist jetzt nicht wirklich in Ihrer Domäne, wenn sie Verkehr machen, aber Batterien sind ja theoretisch schon vorher ein Thema gewesen, auch für Verbraucher. Dass da und wie. Also Ressourcenschutz haben Sie erwähnt und wer war vorher dafür zuständig?

00:14:30

Stakeholder: Theoretisch wäre also die Verbraucherzentralen haben sich auch schon länger damit beschäftigt und halt mehr dann so mit dem Sammeln. Also dass es auch für Verbraucher einfach ist die Batterien abzugeben. Also es war dann mehr so zu Service Sachen sag ich mal also dass die- der Verbraucher ist da einfach hatten die Batterien dann zurückzugeben. Das war mehr so und das war dann also war Thema der Verbraucherzentralen, aber so das Lobbying, das hat dann erst später, also kam dann erst also mit der Immobilität eigentlich würde ich sagen. Ich weiß nicht ob ich das jetzt ausreichend beantwortet habe.

00:15:21

Interviewer: Nein, es ist interessant, dass es dann erst später richtig relevant wurde, dann der Mobilität halt.

00:15:29

Stakeholder: Wir müssen halt auch- also wir haben natürlich auch nur eine begrenzte Anzahl von Leute und Ressourcen und dann muss man halt auch immer gucken, auf welche Themen man sich konzentriert. Und Batterien war halt da einfach noch kein so ein großes Thema. Klar, für die die Geräte Batterien sind natürlich auch wichtig für die Verbraucher, aber da war halt dann mehr so das Sammeln im Fokus, also das, dass es einfach ist für Verbraucher, die die Batterien abzugeben. Und dadurch, dass Mobilität jetzt so ein großes und wichtiges Thema ist. Genau, macht es einfach Sinn, sich dann auch mit dem Thema Batterien mehr zu beschäftigen.

00:16:08

Interviewer: Ja. Okay, ich hätte noch mal eine allgemeine Frage. Ich springe gerade so ein bisschen hätten. Wissen Sie, vielleicht auch wenn Sie sich jetzt ein bisschen mit der neuen

Verordnung beschäftigt haben, wer sonst andere Akteure sind also die Hauptakteure, die sich an der Batterie Gesetzgebung beteiligt haben?

00:16:31

Stakeholder: Also viele Hersteller auf jeden Fall, die DUH, das weiß ich. Und also ich weiß nicht, ob sie da Zugriff haben, aber bei der Kommission, also da, wo ich dann auch damals unsere Stellungnahme eingereicht hat, das sieht man ja auch, welche Akteure da alles Stellungnahmen abgegeben haben. Und es waren unglaublich viele, also über 100. Na ja, genau.

00:16:59

Interviewer: Genau deswegen müssen wir ein bisschen, muss ich ein bisschen versuchen zu gucken-

00:17:07

Stakeholder: Welche dann aufgenommen werden, oder?

00:17:08

Interviewer: Ja, genau. Also Verbraucherverbände da sind sie jetzt erst mal der erste, da es auch immer wieder erwähnt wurde, dass das es wichtig war.

00:17:23

Stakeholder: Also ich würde sagen, genau Hersteller, Umweltverbände, dann natürlich Recycling Unternehmen. Ja, ich glaube, da waren auch so kleinere Unternehmen dabei, die wahrscheinlich irgendwie mit Batterien zu tun haben. Ja, also ich habe jetzt bestimmt nicht alle genannt. Also die Beteiligung war schon sehr, sehr groß. Aber das wissen jetzt nur die. Also, an die ich als erstes denke.

00:18:02

Interviewer: Ja, sehr gut. Das hilft schon ein bisschen.

00:18:07

Stakeholder: Gut.

00:18:10

Interviewer: Genau. Also, ich kann jetzt ja nicht wirklich danach fragen, was sie für die letzten, also über die Veränderungen so richtig, weil Sie das ja gar nicht so so viel mitbekommen haben, dann am Ende, wenn sie erst in 2020 so richtig angefangen haben sich damit-

00:18:29

Stakeholder: Ja, ich kann. Also ich kann für die Batterien Verordnung sagen, also was da jetzt genau in den letzten Jahren passiert. Also doch in den letzten Jahren kann man schon sagen. Also 2020 kam sie Jahr um Jahr vor. Also davor eher weniger. Ja.

00:18:46

Interviewer: Aber im Vergleich zur Richtlinie. Sie haben gesagt, dass es sehr viel dazugekommen. Und genau das hat sich auch dann positiv verändert.

00:18:56

Stakeholder: Das sieht man allein schon am Umfang. Ich meine, die Batterie Richtlinie hat wenige Seiten und die Verordnung, ich glaube auch über 100 Seiten waren das genau das Lied. Das Lieferant hat Lieferketten gesetzt, aber es sind ja dann auch noch Due Diligence Vorgaben mit aufgenommen worden. Genau. Also hat sich wirklich zum Positiven verändert.

00:19:22

Interviewer: Ja, sehr gut. Genau. Sie haben jetzt gesagt, dass Sie nicht wirklich mit anderen Interessengruppen zusammengearbeitet haben. Haben Sie denn irgendwas mitgekriegt? Wahrscheinlich auch nicht, dass es irgendwelche Befürworter oder Gegner Gruppen für bestimmte Themen gab.

00:19:42

Stakeholder: Ja doch. Also das bekommt man dann schon auch über die Medien mit. Oder wenn man sich dann mal austauscht oder so. Also so von den von den Herstellern, die haben natürlich bei manchen Sachen bissel andere Vorstellungen, wie es wir. Also gerade jetzt zum Beispiel das Thema Reparatur auch von Batterien. Also wir haben uns da auch noch nett dazu geäußert, weil wir auch nicht wussten, was da möglich ist. Also Batterien sind ja auch jetzt nicht ungefährlich, wenn man da eine Reparatur durchführt. Und da ist halt auch so, dass man da halt dann halt so die Hersteller gegen die Reparature. Also die Reparatur sagen, dass können wir machen, ohne dass es gefährlich ist und die Hersteller sagen, es ist zu gefährlich, die können dann immer getestet werden oder so. Ja, genau. Also, das ist so ein Beispiel.

00:20:44

Interviewer: Ja. Fallen Ihnen noch irgendwelche anderen Beispiele? Einsetzen.

00:20:50

Stakeholder: Also jetzt zum Beispiel bei der. Es ist ja auch vorgesehen, dass man recycelte Materialien dann verwenden muss, also nur in den großen Batterien. Und ja, also ich glaube, es war schon erstaunlich, dass da doch relativ viele das auch positiv gesehen haben. Aber für die Industrie ist das natürlich auch eine Herausforderung. Die müssen ja dann auch die recycelten Materialien irgendwo her herbekommen. Und im Moment wird ja noch gibt die die Batterien sind noch nicht alle da und auch natürlich noch nicht recycelt. Und dann versucht man da halt dann irgendwie so die die Deadlines zu pushen, dass es so spät wie möglich das und damit man das dann auch schafft. Zum Beispiel. Was noch? Also was für uns halt auch noch so eine wichtige Forderung ist, das hat jetzt das EU Parlament aufgenommen und der EU Rat aber nicht. Also dass halt auch Anforderungen an die Geräte Batterien bezüglich Haltbarkeit und Leistung gelten sollten. Das ist jetzt nur für für die Allzweck Batterien vorgesehen, also für die kleineren und also für Verbraucher. Sind halt so Laptop, Handy. Das ist alles super wichtig und deshalb sind wir da halt der Meinung, das sollte da als solche auch für solche Batterien gelten und nicht nur für die ganz Kleinen. Das sieht die Industrie natürlich auch anders.

00:22:21

Interviewer: Na ja. Das sind schon mal sehr gute Beispiele. Danke schön. Gerne. Ja, genau.

00:22:31

Stakeholder: Vielleicht noch eins mit dem CO2 Fußabdruck. Also wir - Ich meine, es geht vielleicht auch ein bisschen weit, aber - also wir sind halt auch der Meinung, der CO2 Fußabdruck oder es wäre halt schön für Verbraucher, wenn der natürlich auch auf den Geräte Batterien stehen würde, weil ansonsten hat man halt nicht wirklich eine Idee. Also welche Batterie ist jetzt die bessere für die Umwelt? Also für welche sollte man sich entscheiden? Das ist sicherlich für die Industrie aufwendig, aber halt auch eine Forderung von uns, weil wir halt sagen, wenn die Verbraucher nachhaltig einkaufen sollen, dann müssen sie natürlich dann auch die Infos haben. Also sonst, sonst geht es halt nicht. Genau.

00:23:21

Interviewer: Genau, der CO2 Fußabdruck ist ja auch ein auch eine Erneuerung mit der Verordnung.

00:23:25

Stakeholder: Ja, das auch echt super.

00:23:31

Interviewer: Okay, ich glaube das dauert jetzt gar nicht mehr so lange, weil ich habe ja gar nicht mehr so viel über die, die die letzte über die Richtlinie reden können. Aber fällt Ihnen noch irgendwelche anderen Sachen ein, die vielleicht wichtig sind zu erwähnen, wenn es um die Verordnung oder die auch die alte Richtlinie geht?

00:23:52

Stakeholder: Genau. Also was für uns noch so eine Sache ist, ist, dass halt die Haltbarkeit auf der als Kennzeichnung als Labeling angegeben werden sollte und am besten in Zyklen und auch Kalenderjahr. Also dass es für Verbraucher einfach ist zu verstehen. Und das ist auch so eine Sache. Das EU Parlament hat es jetzt aufgenommen, der Rat leider nicht. Und genau da hoffen wir einfach das, dass es dann vielleicht vom Rat doch noch aufgenommen wird. Und genau was noch, was wichtig ist, was ich vergessen habe. Also am Anfang waren ja die von der EU Kommission die leicht Fahrzeuge und bissle also leichten Verkehrsmittel ist die Übersetzung so ein bisschen vernachlässigt. Und das war halt auch eine große Forderung von uns zu Beginn, dass die noch mehr mit reingenommen werden sollen, also dass die in mehr Paragraphen noch eine Rolle spielen müssen, weil die halt auch immer mehr werden und für Verbraucher auch super wichtig sind. Und das ist aber was, wo jetzt wirklich Rat und EU Parlament haben das beide aufgenommen, was echt super ist. Also das ist auch ne tolle Veränderung. Dann noch mal von der Entwurf zum - genau - also von EU Parlament und Rat dann.

00:25:10

Interviewer: Ja sind da denn sonst noch irgendwelche Sachen, die auch vom vom Parlament und vom Rat jetzt geändert wurden? Sie haben jetzt die Haltbarkeit erwähnt, die Fahrzeuge und auch die Haltbarkeit und Leistung war schon genau. Sonst noch was, was so einfällt, was dann auch anders war? Zum Vorschlag von der Kommission.

00:25:35

Stakeholder: Das ist eine gute Frage. Also wir haben uns halt so auf die Artikel ich glaub 9 bis 14 konzentriert. Aber also die größte Veränderung war wirklich, dass die leicht Fahrzeuge noch in vielen Artikeln dann mit aufgenommen worden sind. Ich glaube das waren aber auch wirklich alle, wo wir dann auch gefordert hatten, dass die noch mit aufgenommen werden sollten. Und das EU Parlament hatte einige Sachen noch aufgenommen. Aber der Rat jetzt nicht alles. Aber jetzt zum Beispiel. Es hieß ja in der im Entwurf von der Kommission nur, dass Batterien austauschbar sein müssen, damit zum Beispiel die Fahrzeuge auch gefehlt. Das wurde jetzt aber auch geändert, also oder soll geändert werden. Naja, lassen wir das da also zählen. Nicht unbedingt als Geräte, sondern als Verkehrsmittel. Genau. Das war noch so eine Sache. Und ich glaube in dem Artikel. Genau bei Artikel 14 also da war es auch so, dass die leicht Fahrzeuge das wir gefordert hatten, dass die noch aufgenommen werden sollten. Das ist der Artikel zu dem Batterie Zustand. Ja. Jetzt hab ich bestimmt irgendwas vergessen.

00:27:11

Interviewer: Ja, kein Problem. Das kann man ja alles nachlesen am Ende. Aber ist interessant zu sehen, was aus Ihrer was für Sie dann die wichtigsten Punkte sind?

00:27:23

Stakeholder: Ja, ja, genau. Also Kennzeichnung natürlich auch. Und ja, so, die Anforderungen an die Batterien. Ja, genau.

00:27:36

Interviewer: Perfekt. Danke schön. Ich habe noch eine Frage. Es ist wirklich kürzer als gedacht. Aber es ist ja auch ganz gut. Dann haben wir. Wie ist das? Wissen Sie. Können Sie vielleicht noch jemanden empfehlen, mit dem man über das Thema sprechen könnte?

00:27:52

Stakeholder: Also, ich weiß nicht von der DUH, haben Sie da schon einen Ansprechpartner?

00:27:59

Interviewer: Ich habe schon angeschrieben, aber noch nicht.

00:28:02

Stakeholder: Ich weiß gerade Nachname nicht, aber ich glaube (...) glaube ich, der hat sich damit beschäftigt. Und ansonsten die GRS. Haben Sie vielleicht auch schon als. (..) Ja, ich glaube, ansonsten fällt mir da niemand. Obwohl, also man könnte mit Bosch zum Beispiel sprechen, aber das ist natürlich ein großes Unternehmen. Da vielleicht ein Ansprechpartner zu finden, ist vielleicht schwierig. Und ja. Also ein Reparateur vielleicht noch. Ich weiß nicht, wie genau Sie, die sich mit den Verordnungen beschäftigen. Vielleicht auch noch nicht so im Detail.

(...)