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# Master Thesis

Who has access? An analysis of access and resources in the AI Act legislation process

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# Abstract

Interest groups are becoming increasingly important in the digital age, as digital technologies such as AI become part of our daily lives. Since lobbying is a part of policy-making, it is of societal relevance to see why and who gets access to the European Parliament and the Commission in the case of the EU Artificial Intelligence Act. Therefore, this thesis examines existing theoretical mechanisms for interest group access in the context of the AI Act legislation. For the analysis, data from the EU Transparency Register of EU Integrity Watch were used. A quantitative cross-sectional analysis is carried out using regression models, t-tests and cluster analysis. The results of the analysis show that none of the tested mechanisms could be confirmed. However, the result of the cluster analysis shows an alternative approach to clustering interest groups. Due to the small sample size and the limited scope of this thesis, the results of this thesis are not generalisable. For future research, qualitative approaches to closed legislative processes may provide more detailed insights.

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# 1.    Introduction

In this century the use of computers and digital technologies and their development is continuously rising and one might think that every new technology and new step in development speeds up this dystopian or utopian spiral of the digital age even more. The question of whether this progress is more beneficial than being a danger to our society remains unanswered and might only be answered in the future. (Cabral et al., 2021; Franck & Peitz, 2021; Mazzucato et al., 2023) Products and technologies of companies that are developed and launched on the market not only give the users the benefits of using it but also give more influence to the companies themselves. Prominent companies that emerged with the spiral of the digital age possess special power in this area and are companies that are well-known by most people. These companies are summarised under the term Big Tech or GAFAM (Birch & Bronson, 2022; Dijck et al., 2019; Franck & Peitz, 2021; Mazzucato et al., 2023; Tarrant & Cowen, 2022). This acronym summarises the companies Google, Apple, Facebook, Amazon and Microsoft, but the change of Facebook to Meta and newer companies from Asia like Bytedance Ltd. are not included (Franck & Peitz, 2021; Liu, 2022; Zulkifli, 2022). However, the dominant role that these Big Tech companies have in the digital sector is visible and as the amount of policy regulations in this area increases, the question arises to what extent the power of these companies can also be transferred to politics.

With the adoption of the General Data Protection Regulation (GDPR) and since then the EU set a stronger focus on regulations in the digital sector. With the new cabinet of President von der Leyen, the European Commission set the targets for "a Europe fit for the Digital Age" announcing various legislative and non-legislative proposals that aim to shape the digital future of Europe. These proposals laid the foundations for the Data Governance Act, the Digital Services Act (DSA), the Digital Markets Act (DMA), the Cybersecurity Strategy, the EU AI Act (AIA), and some more to name the most important (European Commission, 2020, 2021). The Data Governance Act, the DSA and the DMA already came into force, while the AIA is still in the legislative process. Especially the DSA and DMA show that EU lawmakers are aware of the power potential of Big Tech companies in the digital sector and set rules for a more fair market, more transparency and control for example, in the case of mergers (European Commission, 2023c, 2023b). So as these regulations do focus on the companies themselves or want to set legal frameworks for products or technologies that are also represented in branches of Big Tech one might argue that there is an interest of these companies to take part in the legislative process to provide information to lawmakers but also to obtain advantages for their

own. Especially, as some of the EU regulations include an extraterritorial application there might be one more reason for international, mostly American, Big Tech companies to get active in the legislative process. For example, during the legislation process of the GDPR corporations influenced the EP and without the Snowden revelations, they might have been more successful, as it was proofed that Silicon Valley companies were able to influence committees and mobilised their power for inside lobbying (Rossi, 2018). The NSA whistleblower Edward Snowden leaked documents which revealed that the NSA and the General Communications Headquarters of the UK were able to collect private data from different American companies, for example, Google, Microsoft, Facebook and Apple(Gellman & Poitras, 2013; Rossi, 2018). Given the special circumstances with the revelations of Snowden which mobilised more Data Protection advocates, it would have been interesting how different the GDPR would look today without these revelations. A case that would have the potential to mirror this other scenario might be the AIA.

Regarding the AIA, which is always compared with the GDPR in scholarly and politics and was introduced like that by the President of the Commission von der Leyen in her speech when she was elected as President of the Commission, there is already proof that Big Tech is lobbying EU Lawmakers (Nemitz, 2018; von der Leyen, 2019). There is a report of the Corporate Europe Observatory that shows how a part of Big Tech companies united to lobby against the forthcoming AI rulebook for the AIA and other news state that more unpopular shady strategies like the so-called astroturfing are used (Deutsch, 2022; Goujard, 2022; Lomas, 2022; Schyns, 2023). In detail, this report claims, that organisations funded by Big Tech companies lobby on the AIA with the assertion to represent small and medium enterprises (SMEs), which led to a complaint by MEPs about "covert misleading ways" (Schyns, 2023, p. 16). This shows how Big Tech and other companies try to influence the legislative process and thereby this gives an impression of the relevance of this upcoming regulation for Big Tech and the digital sector in general.

The literature on lobbyism in the EU places the institution in the realm of pluralism, even if there are gradations here between elite pluralism and chameleon pluralism. However, in the pluralist system, some factors increase the chances of getting access to political decision-makers or providing access to certain interest groups (A. Binderkrantz, 2004; A. S. Binderkrantz et al., 2015; Eising, 2007b). These factors can be of different kinds and are an integral part of

the research on lobbyism. These factors can, on the one hand, be bound to the interest groups, such as their resources or characteristics, or on the other hand, be based on the specific institution (Eising, 2007b; Stevens & De Bruycker, 2020). In sum, these different inputs lay out the motivational reasons for this research and thereby this thesis aims to bring transparency and structure into the lobby resources, policy venue mechanisms and strategies of interest groups lobbying the AIA at the European Commission (EC) and European Parliament (EP) by analysing the interest group types and characteristics of involved actors as well as the two EU institutions. In detail, this comes down to finding out to what extent interest group resources and policy venue mechanisms can explain the access of interest groups to the EU Commission and the EU Parliament in the AIA legislation process. Therefore, the guiding research question for this thesis is:

*To what extent can interest group resources and policy venue mechanisms explain the access of interest groups to the EU Commission and the EU Parliament in the AIA legislation process?*

This research question is guided by two sub-questions that allow a more detailed answer to the research question:

1. *Do certain types of interest groups have more access to the EC or the EP*

2. *How can IGs be clustered based on the access frequency to venues EC and EP?*

The first descriptive sub-question aims to identify if certain types of interest groups have more access to the EC or EP. This question is based on the assumption of interdependence and exchange theory, which argues that certain interest groups can provide specific goods of access (Bouwen, 2002b). The second sub-question follows a bottom-up approach and aims to know if the interest groups that have access to the EP or EC can be clustered by their access-frequency. This explanatory sub-question thereby tests, if common theories of access prevail in the case of the AIA legislation. Especially, as given typologies of interest groups are based on a mix of the interest group type and their financial and informational resources (Bouwen, 2002b; Dür & de Bièvre, 2007) do not include other interest group characteristics such as influence or access (Baroni et al., 2014).

## 1.1 Societal relevance

As already mentioned in the paragraph above, this thesis has relevance for society. First of all, should be considered, that digital policy domains like the AIA only mark the beginning of the digital age, especially when it comes to policies. Due to those circumstances, this research can provide helpful insight into how legislation in this policy domain might be targeted by different stakeholders now and in the future. Furthermore, Big Tech companies are becoming more and more influential in general and for the policy process, it is important to know which lobby actors are involved in digital policy domains. Therefore this thesis provides a cross-section of acting players and addresses implications that are important for the application of new lobby rules and mechanisms on the European level. In addition, the following research can show which stakeholders have more access to the EP and the EC when it comes to legislation in the digital sector and whether the activity of industrial stakeholders exceeds that of civil society and the case of the GDPR and the Snowden revelations remains as a unique case. Finally, the findings of this thesis provide information on which resources of actors might lead to more access to the EP and the EC and thereby contribute to the research literature, which currently speaks of unequal distribution of access to institutions (Zimmer, 2023). These insights provide citizens with important knowledge about lobbying on digital policy issues and the important interest groups in this field and allow a more critical reflection on this forward-looking subject.

## 1.2 Scientific relevance

Due to the broad coverage of different theories and approaches, this work can contribute to different areas of sociological and political science research, even if this is initially limited to the issue of the AIA or most legislation in the digital field and further the effect of interest group resources, types and policy venue mechanisms. First and foremost this research helps to assess already tested mechanisms and crucial characteristics of interest groups in the context of the AI legislation and to identify possible implications. These findings might also apply to other issues in the digital sector. Secondly, this thesis contributes to the sparse literature on lobbying in the context of the digital sector and Big Tech. As the research on lobbyism in the digital sector is still quite scarce and only a few researchers focused on individual issues in this legislation field, this work helps to provide approaches and open areas for further research, especially when it comes to the role and power of Big Tech companies and the legislation process of extraterritorial regulations. Due to the particular relevance of Big Tech in this

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European field of legislation, this thesis can assess the general mechanisms of interest group access, type, resources and policy venues, especially the interplay of these.

Thirdly, these research contributions can also be found in demands for further research. For example, Berkhout et al. (2017) and Coen (2007) formulated the need for more research on different policy domains to motivate researchers to do more cross-institutional and cross-disciplinary research. Due to the temporal and thematic proximity, as well as similar addressees of the legislation, this work and the insights gained therein can provide insights into the political process for regulations such as the DSA and DMA, and also the other way around. Given the article by Tarrant and Cowen (Tarrant & Cowen, 2022) Big Tech seems to be less successful in lobbying the EU in regards to the DSA and the question arises, if this is the case for the AIA as well. Finally, the paucity of research examining lobbying in the context of the AIA suggests that more research is needed in this area and this work already seeks to fill gaps.

This is underlined by the work of Stevens and de Bruycker (2020), as they argue that interest groups with more financial and human resources have more chances to have an impact on the policy decisions in the EU and thereby confirm the elitist view on European lobby politics. These assumptions are also already made by several researchers (A. S. Binderkrantz et al., 2015; Eising, 2007a; Klüver, 2010). Additionally, as Stevens and de Bruycker (2020) requested further research to see the influence of economic resources on political influence in combination with more technical policy issues, this thesis sets the cornerstones with the analysis of the influence of resources, interest group types, policy venue mechanisms and their effect on access to the EP and EC. Finally, by considering access as a characteristic of interest groups and as a factor to cluster interest groups as addressed by Baroni et al. (2014) this thesis can enrich the literature on lobbying in the narrow field of AIA regulation.

## 1.3    Research Structure

Based on the research question the following structure emerges. Firstly, a review of recent literature on the various factors that influence access of interest groups to political institutions helps to determine the current state of research and at the same time gives first arguments for the relevance of this research. Secondly, two parts focus on lobbyism in the context of the AIA and the EU in general, which includes a detailed overview of the important EU institutions. Additionally, this section continues with the presentation of arguments as to why the AIA represents a special case of lobbyism and why only the EP and EC are considered

in the analysis. Thirdly, the theoretical part looks into common theories, like pluralism or corporatism, on lobbyism in the EU. Further, this part addresses different theories on lobby strategies before focusing on the role of interest group characteristics and policy venues. Based on these theories the hypotheses are derived. Fourthly, after a discussion of already existing research designs and methodological approaches in this field of research, the research design is presented. This is followed by the presentation of the data and additionally, the units for measurement are explained. The used data is described in detail and names the relevant independent and independent variables. In addition, this chapter describes the suitability of the data for this research. Chapter seven provides a descriptive analysis of the data and gives away the results of the analysis. Subsequently, in section eight the results are discussed and reviewed with the help of existing theories. This part concludes with the limitations of this thesis and the interests of research for future research.

# 2.  Literature Review

This literature review provides an overview of the recent theoretical developments that take into account the types and resources of interest groups and the different characteristics of the EP and the EC that try to explain access of these groups to the EU institutions. The review of the research on the interest groups can be summarised as the characteristics of lobby groups and consider the financial and human resources and additionally the type of these groups. The mechanisms that explain the impact of policy venues on interest group access are kept separate from the interest group characteristics, as they sometimes lead to the same results but argue from another perspective. This literature review aims to show what recent literature added to the research on access and lobbyism.

## 2.1  IGs Characteristics

As already touched upon in parts, the characteristics, like the financial and human resources of interest groups can influence the respective behaviour concerning interest representation. Further, the specific types of interest groups, as separated by Peter Bouwen (2002b) in European Associations, national associations and large individual firms, can provide different access goods and therefore influence the connection to political stakeholders. In combination with the role of the different EU institutions, this creates a theoretical framework for how different interest group types have access to the three main EU institutions (Bouwen, 2002b). This framework suggests, that for the EC large individual firms have more access than European associations which are followed by national associations. In the case of the EP European associations have the most access followed by national associations and large individual firms. At the Council of Ministers, national associations have more access than European associations and large individual firms (Bouwen, 2002b). The details of this approach are described further in the theoretical framework. In a more recent work Klüver (2012) demonstrated, that the internal organisation of interest groups, which are mostly accepted as black boxes, is important for effective lobbying and further research has to be done in combination with different interest group types. Another overarching approach by Baroni et al. (2014) compared different classification schemes and concluded that the organisational background characteristics of interest groups of the same type show a lot of variation and for future research background organisational characteristics should be considered more. Finally, the focus of Pakull et al. (2020) is back on interest groups in the EU and in their work they consider how the use of different access points and venues differs by the type of interest groups. Firstly, concerning the EC they conclude, that business and non-business groups target the EC

in the same way. Given the EU Parliament they state, that business groups focus on targeting rapporteurs more than non-business groups, while non-business groups target more ordinary members of the EP (MEPs) as business groups (Pakull et al., 2020). Further, they argue, that this recognition is perhaps because the lobbying of rapporteurs is more costly than lobbying ordinary MEPs and lobbying activities on the EC level might influence that (Pakull et al., 2020).

Another approach by Binderkrantz (2008) based on a survey of national interest groups in Denmark compared the political activities of different lobby groups to see how stakeholders differ in the strategy choice to lobby political institutions. The results show that corporate groups focus on lobbying the bureaucracy and public interest groups focus more on public strategies, especially the media agenda (A. Binderkrantz, 2008). However, as this study is limited to Danish national interest groups, questions remain about the applicability of the findings to the EU. As already mentioned by Binderkrantz (2008) the role of the institutions or the mode of decision-making of a system can already have an influence, which does not weaken the argument that there are differences between the group types. The work of Binderkrantz (2008) was considered by Dür & Mateo (2013) who extended the approach of Binderkrantz to five European countries to see a difference in the choice of strategy based on the group type differentiation in business associations, professional associations and citizen groups. They again find that the stakeholder type plays a significant role in explaining the choice of strategy and highlight in particular that the effect of the type is strongly dependent on the resources and the policy issue (Dür & Mateo, 2013).

This draws attention back to the different resources of interest groups. Unarguably, the resources of an interest group have an effect on lobbying political stakeholders, which is widely assumed in political science literature (De Bruycker & Beyers, 2019; Eising, 2007a; Holyoke et al., 2012; Klüver, 2012; Kohler-Koch et al., 2020; Pakull et al., 2020). However, resources are not resources and there are different characteristics of a lobby group that are considered a resource. This means resources can either be limited to material definitions, such as staff size and budget or can be defined as rather immaterial resources, such as information to be passed on, the ability to reformulate preferences, mobilize ideas and knowledge, or the ability to put pressure on policy-makers (De Bruycker, 2016; Klüver, 2012; Mazey & Richardson, 2015). Furthermore, the resources set the frame for the lobby strategies of an interest group, the accessed policy venues and access to subsidy systems (A. Binderkrantz, 2008; Crepaz & Hanegraaff, 2020; Holyoke et al., 2012; Klüver, 2012). However, when an interest group has sufficient resources the question of which policy venue to lobby is not an either/or choice

(Holyoke et al., 2012). Finally, the resources of an interest group are dependent on the interest group type and for example, corporate lobby groups are mostly considered resource-rich (A. Binderkrantz, 2008). Overall this short overview shows, that the literature on interest group resources is very rich and provides several approaches to interpret and define them.

## 2.2 Theories on policy venues

The interplay of resources and policy venues is not limited to just one direction, some mechanisms function the other way around. First of all, based on the different roles of policy venues in the policy cycle, it is important to distinguish between the different policy venues. One approach chosen by Holyoke (2012) is the distinction between venues on different governmental levels in a federal system and the venues within the same level. Further, this leads to the assumption that in general, the structure of an institution has an effect on the lobbied policy venues by interest groups. Another theoretical approach that includes policy venues is the one described by Hanegraaff & Pritoni (2019) which argues from an élite pluralist perspective, that for example, the EU limits the access to policy venues like other corporatist countries. This allows the conclusion, that the government system whether it is corporatist or pluralist has an effect on which interest groups can access specific policy venues. Besides the superordinate structure of a country or an institution, there are also mechanisms regarding the policy venue that focus on the inside of an institution. A perfect example of this approach is the EP, as its structure with different roles of MEPs, "ordinary" MEPs and Rapporteurs, in the legislative process, or the different party groups provides some variation inside the policy venue. Based on this variation interest groups choose different political Stakeholders inside the policy venue, also based on their behaviour (Marshall, 2015).

In summary, the literature is aware of the different aspects of the interplay between interest groups and political actors and none of them is reduced to a black box where the characteristics or internal processes are irrelevant to the bigger picture. However, this wide variety of explanations of interest group access also leads to a wide field of possible mechanisms and approaches that are developed within a particular framework. To add to this literature, the following research tests some of these theoretical approaches in the context of AIA.

# 3.    AIA in the context of lobbyism

As already mentioned in the introduction, the lobbying for the legislation of the GDPR took place under certain circumstances through the revelations of Snowden and corporate lobby groups, especially from Silicon Valley, who were already successful in lobbying parts of EP committees (Rossi, 2018). Furthermore, the strategies of the corporate interest groups were described as "[…] aggressive and unprecedented […]" (Rossi, 2018, p. 107). Based on these conditions for the GDPR the question arises if these will be repeated for the legislation process of the AIA. But before we approach the question further, in advance, we look at why the GDPR and the AIA can be compared.

The overarching Digital Single Market Strategy of the EU led to both regulations, the GDPR and the AIA but there are far more commonalities (Floridi, 2021; Krarup & Horst, 2023; Moreira, n.d.). For example, if the AIA is approved, also individuals will have the possibility to sue for the observance of their rights and it is extraterritorial as well like the GDPR (Floridi, 2021). Regarding the implementation of the AIA, there are also similarities to the GDPR. Both regulations have an extra board, the European Data Protection Board for the GDPR and the European Artificial Intelligence Board for the AIA, which are similarly structured and on the national level national supervisory authorities ensure the application. Finally, it is expected that the AIA will harmonise the work between countries in the research field of AI like the GDPR (Floridi, 2021). So from this perspective, both regulations show similarities and reasons why corporate lobby groups especially from Silicon Valley and based in the AI sector might have the motivation to influence the legislation.

From a lobbyism perspective, there are expectations and already examples of intense lobbying from corporate lobby organisations that try to influence EU policy makers. Tech companies from the US, further Big Tech companies, are trying to loosen up the regulations for AI as a report of the Corporate Europe Observatory mentions (Schyns, 2023). In detail, the focus point of Big Tech companies is the section of general-purpose AI systems, as this corresponds to a large part of the sales business. Additionally, the report states that the lobbying approaches did not always take place in public, and were even obscured through associations that at first glance only represent Startups (Schyns, 2023). This behaviour, the so-called astroturfing was already criticised by MEPs (Deutsch, 2022; Goujard, 2022). This additionally shows that the AIA is a strongly lobbied regulation and thereby provides an interesting insight into how regulations in the digital sector are lobbied and by whom.

# 4.    EU Institutions

This chapter provides insight into lobbying at the European level and why the EU as such is accessed by lobby groups. To understand the role of the EU institutions in detail, the three main institutions in the legislative process and their role in the process itself are explained. For this description, the élite pluralism approach and its further development into chameleon pluralism is used to provide a theoretical embedding.

The élite pluralist approach, which is an advancement of or a criticism of the pluralist approach, was used to describe the contact patterns in the EU for the first time by Hueglin (1999) and attested to the EU an imbalance towards the upper class. However, in more recent research the results were not as clear as originally stated. An analysis of the lobbying in the EU by Eising (2007b) demonstrated, that the EU is not fully an elitist institution in which business groups have more access but prefers interest groups that have knowledge over technical issues and economic weight and European associations over national interest groups that represent domestic interests. At the same time, Coen (2007) concludes, that access depends on the different policy issues and venues for both, public and private lobby groups. Finally, the latest approach to theoretical embed lobbying in the EU by Coen & Richardson (2009) and Coen & Katsaitis (2013) describe the EU as a chameleon pluralist system where several factors influence which interest groups have how much access during the policy process. In detail, they argue that facets of élite pluralist and insider politics still exist but can vary with the point in the policy process, the policy issue or the sub-sector over time (Coen & Richardson, 2009). And Coen & Katsaitis conclude, that the "[…] chameleon pluralism and the flexibility it offers defines much better the existing interest representation model for the EU sub-system level." (Coen & Katsaitis, 2013, p. 1117).

In addition, to the theoretical background of élite or chameleon pluralism, Marshall & Bernhagen (2017) confirm in their work that lobbying the EU is more attractive for businesses from corporatist backgrounds and for those that experience a deterioration of the relationship with the national government. Based on these confirmations of the hypotheses, it could be argued that companies from corporatist systems are more likely to be found at the EU level.

The European Commission stands at the beginning of a policy process, as it hast the right of legislative initiative and thereby is the agenda-setter of the EU through this special role in the EU the EC is one of the strongest institutions in the EU (Hüttemann, 2023). Based on this role the EC needs in-depth knowledge for the drafting of proposals, especially for

regulations and in complex and new areas, and also to improve the initial status of the draft (Bouwen, 2002b). To achieve this status, due to limitations in budget and staff, the EC reaches external resources to get this special knowledge (Bouwen, 2002b; Michalowitz, 2003; Spence, 1997). Additionally, the EC has several options to gain this expertise, which simultaneously makes it difficult to prevent distortions and imbalances (Hüttemann, 2023; Quittkat, 2011).

The second institution in the legislative process in the EU is the European Parliament which is, in contrast to the EC directly elected (Hüttemann, 2023). In the policy process the EP, is besides the European Council, the second institution that works with the draft of the EC and can make amendments to it. As the EP already works with a draft version of a new law, less in-depth knowledge is needed, but still sufficient knowledge to be able to understand and evaluate the EC's draft (Bouwen, 2002b; Michalowitz, 2003). To reduce dependence on other institutions for knowledge transfer, the MEPs reach out to interest groups to be provided with sufficient information. Due to the large number of employees and the different roles MEPs can have, for example being a member of one of the twenty committees or being the rapporteur of a policy issue, the EP has several access possibilities which at the same time make it difficult to overview them (Hüttemann, 2023; Michalowitz, 2003). In general, the EP became more important for interest groups, as its power in the legislative process increased (Bouwen, 2002b).

Finally, the Council of Ministers, the representation of the member states' national governments by national ministers is the third Institution in the EU legislative process and is the most intergovernmental in comparison with the other two (Bouwen, 2002b). As for the EP, the Council can confirm the Draft of the EC or can add amendments to it. Regarding lobbying the Council Klüver et al. (2015) state, that interest groups lobby this institution already on the national level and that the interests of interest groups are brought to the EU by the national ministers (Michalowitz, 2003). This adds to the assumption by Hüttemann (2023) that the Council of Ministers is the most discerning institution to lobby. Additionally, he argues that the ambassadors of the Council lobby the EP and EC as well. That the lobbying of the Council mostly takes place on the national level might already lead to less available data regarding the lobbying at the Council. Finally, there is no agreement regarding the Transparency Register with the Council, which leads to even less available data (Dialer & Richter, 2019).

Concluding the different roles of the EU Institutions in the legislative process it firstly shows, that lobbying on the European level in direct proximity mostly takes place at the EP and the EC. However, secondly, as the two institutions, EP and EC, fulfil different purposes, the

information that is needed by the institutions and shared by interest groups varies. In the following chapter, the theory of lobbying is considered in general before the hypotheses are derived.

# 5.    Theoretical framework

The theoretical framework serves two purposes, firstly the general introduction to the theory on lobbyism, which starts with general theories on lobby systems, goes on with lobbying strategies, further inside lobbying, and closes with mechanisms that consider interest groups types and their resources. Secondly, based on the mechanisms described in advance, the hypotheses that aim to answer the research question are derived.

Lobbyism, advocacy, representation of interests or interest mediation nowadays are all terms that are, firstly, well known to the general public and secondly, more or less describe the same issue. The basic definitions focus on the processes of articulating, aggregating, and bringing interests to bear in the political decision-making process and, if necessary, in policy implementation, where the coordination of interest groups and the state is concerned (Schmidt, 2010a). Further, the term lobbyism is described as efforts to influence public institutions and office-holders to promote the interests of lobbyists, in particular through the transmission of information, the provision of contacts and the promise or refusal of material or immaterial support (Schmidt, 2010c). The essence of the given definitions of the above-mentioned terms can be summarised as follows: Lobbyism describes the mutual exchange of resources between policy-makers and stakeholders, that try to influence public institutions. Based on this definition the following terms are to be understood with the same meaning and are used synonymously.

Interest groups or the act of lobbyism can be viewed from different theoretical angles, as it is part of the policy process in nearly every political institution, no matter at what level, whether regional, national or international. Due to this diversity, the topic of lobbyism is present in various research areas and theories. From a communication science perspective, the ways and strategies of communication between interest groups and political actors open up a multifaceted field of research. The legal aspects of lobbyism constitute a part of the legal sciences, as there are rules and laws on lobbyism in most states or international organisations. Finally, from a philosophical point of view interest group action represents another field of research, as lobbyism might rise ethical and moral questions. However, the focus lies on the political science aspect of lobbyism and interest groups with different theories describing the lobby system of states or institutions differently.

In an overall approach to lobbyism, there is not a straight forward theory that describes what advocacy is and how it works or interacts with political actors. Rather there are diverse theoretical approaches, that roughly outline the topic and are adapted based on the state or a

specific issue (Zimmer, 2023). For a long period, corporatism and pluralism set the theoretical cornerstones for interest group research but were extended by the concept of civil society (Zimmer, 2023; Zimmer & Speth, 2009).

### 5.1.1 Concept of civil society

The concept of civil society, compared to the two other theories, is a younger concept that is partly based on the Habermaasian theory of communicative action and describes social structures as communication-based, which was influenced by new social movements in the 1970s and 1980s (Zimmer, 2023). The theory itself strongly focuses on the civil society, formed by NGOs, NPOs and (voluntary) Associations and their form of social action, especially when it comes to interest mediation and pooling (Zimmer & Speth, 2009). Furthermore, the theory sees civil society as a corrective in the international and European context, which at the same time is also the challenge of the current debates (Zimmer & Speth, 2009). In the European polity context, this concept remains a vague field, as the term itself can be interpreted differently, depending on the perspective or overall frame and a broad variety of organisations can be added to this (Schoenefeld, 2021).

More recent critiques and views on the concept of civil society show that civil society defines a broader scope of lobbyism which is not only limited to organisations that act in the public interest (Schoenefeld, 2021; Zimmer, 2023). Further, the modern view of the general public as an important arena of advocacy led to the softening of the categorisation of actors and a multi-layered use of strategies, which makes it difficult to capture the impact of lobbying in policy-making (Zimmer, 2023).

Based on the concept of civil society, the area of social capital also came more to the fore. Social capital as engagement in civil society organizations, led to studies which analysed the possible influence of social capital on democracy, without providing detailed insights on mechanisms (Putnam, 1993; Rasmussen & Reher, 2019). Therefore, more detailed approaches tried to identify mechanisms that could link social capital to democracy (Rasmussen & Reher, 2019). A recent approach by Rasmussen and Reher focused on a possible relationship between engagement in civil society organisations and policy representation (Rasmussen & Reher, 2019). Specifically, their findings showed that the positive impact of voluntary associations in terms of political representation is lower than most assumed and that the influence of civil society organisations is not limited to lobbying but generally improves the flow of information and reduces uncertainty for citizens and political actors. (Rasmussen & Reher, 2019).

In general, the literature on civil society is broad and difficult to overview, as it combines the meaning of specific organisations, which is also undefined, and represents the name of the theoretical concept. However, based on these aspects the political literature remains vibrant and contributes to lobbyism, especially when it comes to the interplay between the public and policy-makers.

### 5.1.2    Corporatism

Corporatism was developed as a somewhat counterpart to pluralism and led to a wider field of political theories on lobbyism, which nowadays can be seen as an "anything goes" mentality when it comes to the description of the relationship between politics and public and economic interests (Zimmer, 2023). The origins of corporatism lie in the tradition of the Estates State, which today is no longer considered in political science (Schmidt, 2010b). Furthermore, the modern interpretations of corporatism reach from either the highest form of capitalism to the designation of the mode of representation of interests (Schmidt, 2010b). According to the approach of corporatism, lobbying takes place through member organisations and associations, which are represented extensively in policy-making and are seen as co-governance (Reutter, 1991; Schmidt, 2010b; Zimmer, 2023). Associations in this context are democratically legitimised and represent large parts of the economy and society (Zimmer, 2023). The role of the state in corporatist states is a rather active one, as the state tries to achieve a balance between the different interest groups by distributing special access to the political system to selected ones and supporting and promoting them (Zimmer, 2023). But de facto this is a privilege that only large and member-rich associations with a high readiness for compromise and consensus enjoy (Zimmer, 2023). The mechanisms in this system of corporatism are based on an exchange and negotiation logic in which associations provide their resources in exchange for freedom in the relevant policy field (Zimmer, 2023). These arrangements lead to advantages on both sides.

However, there is also criticism, which is also easy to recognise on closer inspection. Three points reflect the critique of corporatism. Firstly, through the privilege and the monopoly of representation of some interest groups or associations, it is more difficult to get access to the policy-making for new organisations (Zimmer, 2023). The other two arguments for critique are more based on sociology and micro-economics and aim at the danger of the decoupling of membership and influence logic or the decoupling of interests of association elites and members (Olson, 2004; Streeck, 2017; Zimmer, 2023). This means for the former, that the members of associations are not members because of the common interests, rather the advantages of a membership and thereby larger associations do not necessarily reflect the interests of their

members (Olson, 2004; Zimmer, 2023). This is coupled with the idea that officials of large federations think primarily about maintaining influence rather than the interests of the members (Zimmer, 2023). The latter focuses on the consequences of a pluralistic society, in which tight connections to specific social groups do not exist (Streeck, 2017; Zimmer, 2023). Finally, this leads to a shrinking membership base while the association elites are still involved in political processes (Streeck, 2017; Zimmer, 2023). These points of criticism ultimately lead to a loss of democratic legitimacy that can end in corruption (Zimmer, 2023).

### 5.1.3  Pluralism

Initially, pluralism functioned as a re-interpretation of the liberalist values and is seen as a theory that values the variety of interests and a group and participatory theory taking note of individual participation by social associations (Eisfeld, 2006). In regards to lobbyism, pluralism focuses on the input of the political system, so the representation of plural interests that take part in a fair competition for decision-making (Zimmer, 2023). Ideally, in a pluralist system various interests, also opposing ones, are accepted, represented, part of the policy process and willing to compromise (Zimmer, 2023). The normative approach of pluralism legitimises lobbying as an almost necessary means for society and business to influence the policy-making process (Zimmer, 2023).

Based on the ideal-typical normative approach of pluralism from the very beginning there were serious critics. From an elite theoretical perspective, Elmar Schattschneider argued that in the Pluralist system, only the elite is considered in the political process and not the full plurality of interests (Schattschneider, 1960; Zimmer, 2023). Another point of criticism comes from Claus Offe (1969) who argues from a neo-Marxist perspective that not all interests can organise and are capable of conflict (Offe, 1969; Zimmer, 2023). This again creates an elitist reality in a pluralist system. Only interests with some leverage, free enterprises and unions, can participate in legislation in a welfare state (Zimmer, 2023). Another point of critique is the unequal possibilities of access for interest groups, as resources often play a role in which stakeholders get how much access to different policy venues (Holyoke et al., 2012; Zimmer, 2023). In summary, the critique on the pluralist approach leaves an elitist perspective which argues that the elite and resource-rich interest groups are more successful which also can be transferred to the unequal distribution of access possibilities to policy venues. These assumptions can also be found in general political science, where resource endowment and access are seen as important factors for the success of lobbyists (Schiffers, 2016; Zimmer, 2023).

However, the pluralist approach is not the only fitting theory to describe lobbyism and can grasp and explain in its entirety. The possible uniqueness of different political systems should be considered and makes it difficult to assign a system to only one theoretical approach. Rather the adaptation and further development of different theories create individual descriptions of how the representation of interests functions in different systems. Given the example of the EU, which is described by some authors as a chameleon pluralist system that can change over the time of a policy cycle, it shows the variety of approaches for the description of interest mediation (Coen & Katsaitis, 2013; Coen & Richardson, 2009).

## 5.2    Inside(r) Lobbying

Besides the political system and the overarching theory on lobbyism, other aspects analyse or describe the interaction between interest groups and policy-makers further and play an important role in the research of lobbyism. This refers to the distinction between different strategies used by interest groups to influence policy-makers. Research into the different strategies has long enjoyed an interest in American politics and more recently it has become more popular in the European context (Beyers, 2004; Dellmuth & Tallberg, 2017; Dür & Mateo, 2013; Hansen, 1991; Kollman, 1998; Kriesi et al., 2007; Schlozman & Tierney, 1986). There is a defined separation of lobbying strategies into two different categories: inside and outside lobbying (Dellmuth & Tallberg, 2017; Weiler & Brändli, 2015). These two strategies are defined through the different approaches the strategies pursue. For outside lobbying, the strategy is to influence the policy process indirectly by going public and putting pressure on policy-makers through influencing public opinion and for inside lobbying the tactics are to achieve influence through direct contact with decision-makers (Dellmuth & Tallberg, 2017; Pakull et al., 2020; Weiler & Brändli, 2015). Further, information is the important 'currency' in inside lobbying and as already described above the EU institutions need specific knowledge on policy issues to be able to understand and assess a new policy regulation or directive due to the lack of time as well, the information provided is almost indispensable (Weiler & Brändli, 2015).

In detail, the methods of outside-lobbying include "[…] media campaigns, […] mobilizing citizens and staging protests." (Weiler & Brändli, 2015, p. 3), "[…] press releases and conferences, contacts with journalists, public campaigning, social media advertising or protest events." (De Bruycker & Beyers, 2019, p. 5). However, these two strategies are not either-or choices but mostly coexist in the combination of both approaches (Baumgartner & Leech, 1998; Mahoney, 2007; Weiler & Brändli, 2015; Zimmer, 2023). This adds to the assumption that the lobbying strategy does not depend on the interest group type and traditional

actors discovered the more modern outside-lobbying for themselves and less-traditional NGOs use the classic inside-lobbying to get access to political decision-makers (Schiffers, 2016; Zimmer, 2023).

In a more recent work by Pakull et al. (2020), more emphasis was put on the access-seeking part of inside lobbying. The focus of his paper is set on the question "[…] which policy-making venues they [interest groups] should target." (Pakull et al., 2020, p. 521). To answer this question Pakull et al. consider all EU institutions that play a role along the policy cycle and try to identify the differences in the use of these different policy venues by interest groups. By doing so, the results show, that the type of the interest groups have an impact on the chosen policy venue to access and lobby (Pakull et al., 2020). This study shows, that research on lobbyism and possible influence should consider multiple policy venues for the analysis, as the chosen policy venue can vary with the type of the interest group.

## 5.3    Interest group access to the EC and EP

But before the choice of policy venues and the effects of the interest group type are described further, the theoretical framework for access is set. The first wholesome approach to a theory of access is done by Bouwen (2002b) and is based on exchange theory and resource dependence. For the framework, exchange models from sociology (Blau, 1964; Levine & White, 1961) are considered by Bouwen and combined with resource dependence views (Pfeffer & Salancik, 1978) which leads to the consequence, that there is an interdependence between the organisations and the organisations they interact with. (Bouwen, 2002b). If this interdependence is projected to the EU level, the following picture emerges. On the one hand, there are the public EU institutions that offer that can provide access to the EU policy-making process and on the other hand, there are the private organisations that offer different access goods (Bouwen, 2002b). These access goods are described further by Bouwen (2002b) as *Expert knowledge, information about the European/domestic encompassing interest*. So, summarised briefly, due to the need for different goods of public and private organisations an interdependence is created between interest groups and EU institutions.

Narrowing down the term of access it is helpful to look at common definitions of access, which was done in an analysis by A. S. Binderkrantz et al. (2017). Besides the fact that most articles do not define access further and assume a general understanding. However, where a definition is given, it is mostly limited to the interpretation of meetings between stakeholders and decision-makers. (A. S. Binderkrantz et al., 2017). Variations of this definition focus on a

broader interpretation of meetings and consider even smaller contacts as access. However, to maintain the interdependence and exchange framework of the access theory, the access provided to policy makers needs to be controlled, otherwise, free access won't create interdependence. (A. S. Binderkrantz et al., 2017).

Finally, it has to be stated that access cannot be equated with influence, it is a factor besides many that can explain the level of influence of an interest group (Eising, 2007b). One might even argue that access is somehow sufficient for gaining influence for interest groups. In summary, Eising concludes, that the "[…] study of the access pattern helps to identify the features of those organizations that assume crucial positions in EU policy networks as well as important patterns in the European political process." (Eising, 2007, S.387).

## 5.4     Drivers of Lobby access

As already presented in parts of the literature review, several factors can affect the access of interest groups to EU institutions. However, as this thesis aims to focus on the assumptions Stevens and de Bruycker (2020) presented, interest group types, financial and human resources, and the venues of the already described EU institutions, the EP and the EC, which are part of the inside lobbying strategy, play a central role in this thesis. Based on this scope the theories of these mechanisms are described in detail to allow the derivation of the hypotheses. However, to set a fitting theoretical framework which is separated into two parts, interest group characteristics which combine the types of interest groups and the resources of these groups are considered in detail (Crepaz et al., 2019; Crepaz & Hanegraaff, 2020; Holyoke et al., 2012; Mazey & Richardson, 2015; Pakull et al., 2020). The second part focuses on the mechanisms that consider the policy venues, respectively the EP and the EC (Beyers et al., 2009; A. S. Binderkrantz et al., 2017; De Bruycker, 2016; Holyoke et al., 2012; Pakull et al., 2020).

### 5.4.1     Financial and human resources

As already alluded to in points in the literature review the resources of interest groups, hereafter the financial and human resources, are factors that affect lobbyism and further improve the chances for interest groups to get access to political decision-makers (Dür & Mateo, 2013). Well, there is the tendency that corporate interest groups are mostly considered resource-rich, however, there is no general distinction of the resources between interest group types (A. Binderkrantz, 2008).

Theoretical framework

In the paper of de Bruycker & Stevens (2020), they analysed how far economic resources have an effect on EU public policy and they found that, indeed resource-rich interest groups are more influential in the EU. With that, they were also able to confirm previous research (A. S. Binderkrantz et al., 2015; Eising, 2007a; Klüver, 2010). In detail, they defined economic resources as the availability of different ways to lobby the EU institutions, no matter inside- or outside lobbying and following this logic means also the availability of hiring staff to influence political decision-makers (Stevens & De Bruycker, 2020). As Stevens & de Bruycker (2020) make use of previous research of Eising (2007b) and Binderkrantz (2004) argue that resources play a role no matter what institution is lobbied and both resources, finances and staff size, affect their professional engagement with political stakeholders. The basis of this argument lies in the resource dependence and exchange model, as more resources give political decision-makers a more professional impression of interest groups. And as the EU institutions need clear expert knowledge for the drafting or assessment of policies this affects the choice of an interest group to give access to political decision-making (A. Binderkrantz, 2004; A. S. Binderkrantz et al., 2015; Eising, 2007b). Finally, they expect that these resources have a positive effect on interest group access in all policy venues (A. S. Binderkrantz et al., 2015). Additionally, regarding the possible argument, that interest groups do choose only one policy venue, Holyoke et al. (2012) were able to demonstrate, that lobby groups target more venues with sufficient resources. Based on this mechanism, that more resources provide a more professional image and finally lead to more access to EU institutions, I expect that the resources of an interest group will have a positive effect on interest group access to the EP and EC:

*H1*: IGs with more financial and human resources have more access to the EP and

EC

However, despite analysing the effect of resources in general on the EP and the EC the differences between the financial and human resources and the EU institutions should be considered. The financial resources of interest groups are seen as a common and important factor for lobby group research as a higher budget of organisations can afford more activities to get access to EU institutions (Eising, 2007a). This again can be combined with the theoretical framework for access, as the bigger budget makes it easier to afford the exchange goods that are requested by political decision-makers (Eising, 2007a). But also another factor, the staff size should be considered, even with de Bruycker & Stevens (2020) arguing that staff size indicates the financial resources of interest groups for lobby activities this connection is

reviewed for the case of the AIA. This is also due to the general standing of staff size as it is commonly used in lobbying research and works as an indicator for interest group resources (Crepaz et al., 2019; Mahoney, 2008). Additionally, these effects of staff size and economic resources should also be controlled for each institution the EP and the EC as de Bruycker argued, that the distinction between different policy venues is a powerful factor that should not be dismissed (De Bruycker, 2016). Here again, the different needs of access goods show that the distinction between the two institutions is a factor that could lead to additional findings. Therefore based on *H1* the following sub-hypotheses are formulated.

*H1.1*: IGs with more financial resources have more access to the EP

*H1.2*: IGs with more human resources have more access to the EP

*H1.3*: IGs with more financial resources have more access to the EC

*H1.4*: IGs with more human resources have more access to the EC

### 5.4.2    Interest group types

Already related to the effect of resources on gaining access to EU institutions the interest group type is also seen as a factor to explain interest group access to the EC and EP. This already has been touched on in points. Also in the analysis of de Bruycker & Stevens (2020), the interest group type is used as a control variable to explore alternative explanations. For the theoretical basis and approach for the explanation, the work of Bouwen (2002a) is considered, as this theoretical framework is considered throughout several other research (Coen, 2007; De Bruycker & Beyers, 2019; Dür & de Bièvre, 2007; Eising, 2007b; Klüver, 2010). Here again, the theory of access with its background of interdependencies and the exchange model can explain why the interest group type matters. Based on the assumptions of Bouwen (2002b) for individual firms the size and the background is important. Large firms on the European or national level, referred to as national/European champions, can provide information on the European and national level. The expert knowledge of firms represents a uniqueness that national or European associations cannot compete with. Again the resource advantage might prevail. In contrast to individual firms, associations can differentiate themselves from individual companies through their role as representatives of several companies and thus legitimise access to EU institutions (Bouwen, 2002b). Here again, the differentiation between national and European associations leads to different advantages to gain access. On the one hand, national associations are focused on their national government and therefore are less effective in providing access goods to the EU institutions. On the other hand,

the EU associations provide information at the European level, that is based on finding consensus between their members, which can be seen as a much better access good to provide for the EU institutions (Bouwen, 2002b). However, Hanegraaff & Berkhout (2019) go further and test, if, based on the non-democratic background, the EC is driven less by incentives for re-election and therefore prefers technical information, which at the same time attracts business interest groups. This mechanism is also tested for the EP. As for the MEPs, there are more incentives to be re-elected they prefer political information over technical information and thereby citizen groups benefit (Hanegraaff & Berkhout, 2019). Despite the assumptions of Hanegraaff & Berkhout (2019) could not be confirmed I argue that based on the very technical scope of the AIA and the special interest of business groups the assumptions should be tested again in this unique case. This leads to the following Hypotheses:

*H2*: Business interest groups have more access to the EC than NGOs.

*H3*: NGOs have more access to the EP than NGOs.

### 5.4.3 Policy Venues

Finally, as in parts already visible through the theory of access by Bouwen (2002b), it is clear, that access is not only influenced by the mechanisms that focus on the interest groups and thereby on only one side of the interdependence of the theory of access but also by the other side, the political decision makers or in the case of the EU the institutions, EP and EC. Again it is important to mention, that due to the different roles in the policy process, each institution needs other information, and access goods, to be able to fulfil its role in the legislative process (Bouwen, 2002b). This logic of argumentation is also followed by Eising (2007b) who focused in his work, on the access of business interests to EU institutions, on what the institutional opportunities are in the EU and based on this framework he argues that interest groups have the most contacts to the EC. He explains in detail, that based on the unique role and competencies of the EC, the sole ability to initiate policies, and the fact that the draft of the EC is more difficult to influence when it is already forwarded to the EP and the Council, interest groups see the EC as a most valuable institution to contact (Eising, 2007b; Mazey & Richardson, 2002). Even with respect to the increase of power of the EP (Eising, 2007b; Wallace & Reh, 2014). Having in mind that the AIA is more technical regulation that leads to a higher need for expert knowledge I argue that interest groups in general have more access to the EC than to the EP:

*H4*: Interest groups have more access to the EC than the EP (Eising, 2007)

# 6.     Research Design and Methods

This chapter focuses on existing approaches and research designs to arrive at a most fitting operationalisation to answer the research question and the specific sub-questions. This includes the discussion of different research designs, methodologies, the used data for measuring access and its source.

## 6.1     Methodical approaches

Through the richly available research in the field of interest groups, the used methods are similarly diverse, which at the same time also means that there is no specialised literature on how to study interest groups (Eising, 2017). In the first instance, a distinction can be made between four addressed research problems, which Eising calls "[…] (1) the identification of the relevant interest group population; (2) the analysis of access patterns and venue shopping in legislative politics; (3) the identification of the interest groups' positions, arguments, and frames; and (4) the measurement of interest group success and influence" (Eising, 2017, p. 293). This study addresses point two (exploring access patterns and venue shopping) and further focuses on the inside lobbying strategies of interest groups. Therefore, methods used in similar research will be discussed.

In order to distinguish further between research approaches within this scope, the choice of data and methods is reviewed. Quite often data is collected through conducted interviews or surveys or appearances in the media (Albareda, 2020; A. S. Binderkrantz et al., 2015, 2017; De Bruycker, 2016; Dür & Mateo, 2013; Pakull et al., 2020). For example, Dür and Mateo carried out surveys among 2,161 national associations from five European countries to answer if the type of an interest organisation is a factor in explaining the used strategy to lobby on the EU level. However, most studies use mixed data sources and combine e.g. interviews with online accessible documents that give information about memberships in committees, meetings or agencies. This approach for example was used by Binderkrantz et al. (2017), Pakull et al. (2020) and Albareda (2020), especially the last two used the web-based INTEREURO Interest Group Survey (Beyers et al., 2014) and in combination with either another survey or data from the Transparency Register. In the case of Albareda (2020) the database of 'Transparency International EU – Integrity Watch', which is based on data from the Transparency Register was used, as it contains information about the access to public officials.

In the specific case of measuring access to the EP and the EC, the literature mostly uses meetings to assess or measure the extent of access that interest groups have to these

institutions or their staff. In the case of the EP, Binderkrantz et al. (2017) argued, that based on the aim of lobbying a parliament the members of the parliament (MPs) are the most important and therefore the measurement should be done through meetings between the interest organisations and the MPs. Simultaneously they argue, that MPs are not that open regarding the sharing of information in these meetings. To measure the access to the EC the difficulties are the same and therefore e.g. Alves (Alves, 2020) and Albareda (2020) use among other things the Transparency Register.

Finally, as already mentioned, Baroni et al. (2014) stated, that literature in the study of interest groups and the typology of these is mostly done based on their group type and their background characteristics such as the financial and informational resources. These approaches to grouping stakeholders do not take into account other variables, such as the degree of access or influence, and are not represented as such in the typology. However, despite the formulation of future research, there are no approaches in the literature that have taken the clustering of interest groups as a basis. Also Baroni et al. (2014) states that for some interest organisation types, the differences within a type can be quite large. This again discloses the need for new approaches for lobby group clustering.

## 6.2    Research Design

To be able to analyse how interest groups' access to the EP and EC is influenced through interest group resources, type and the policy venue, and if interest groups can be clustered based on their access to the EC and EP. Therefore data of meetings between interest groups and MEPs or EC officials and data of interest groups is analysed quantitatively with the programming language and environment for statistical computing and graphics R (R Core Team, 2022). The analysed data will provide information on the extent, to which the given variables can explain the access of interest groups to the EP and EC and further if based on the access frequency of these interest group clusters can be discovered.

Based on the literature reviewed in previous chapters, this thesis aims to use a different approach to enrich existing literature in the field of lobby research. To achieve this, firstly another source of data is used which is also due to the more recent topic of research and the older data that is provided for example in survey projects such as INTEREURO (Beyers et al., 2014). A second reason why the Transparency Register can be used - despite previous concerns of being an option for EU institutions to register meetings -, is an official decision that obliges

all EC and EP members to record their meetings with interest groups (Alves, 2020; Dialer & Richter, 2019; Fyhr, 2021).

In this context, the datasets provided by 'Transparency International EU – Integrity Watch' are a possibly fitting data source. Due to the background of the research question, the analysis is limited to the AIA as proposed by the EC on the 21st of April 2021. However, this date is not the starting point for using data from the EU Integrity Watch, as the first official ideas of regulation for AI are dated back to March 2018 and have been mentioned in communications about artificial intelligence (European Commission, 2023a). Based on this timeframe the starting point is set differently for each institution by considering their periods. In terms of the EC data, they are considered from the 1st of December 2019 onwards, which marks the official start of the commission's cabinet work. The EP data are considered from the 2nd of July 2019, as this marks the first session of the parliament. Due to the ongoing legislative process of the AIA, data is produced continuously without a specific termination (Future of Life Institute, n.d.). In this research, the 31st of July is chosen as an endpoint due to the limited time frame of this thesis. Secondly, the rather new bottom-up approach to cluster interest groups lobbying the EP or the EC based on regard to the frequency of their access to these institutions creates a novelty in the research field of interest organisations. These two specifications help to answer the research question and its sub-questions. This can be summarised to find out the extent to which resources and political venues play a role in interest groups' access to the EC and EP, and finally, the hypotheses presented here once again.:


*H1:*        IGs with more financial and human resources have more access to the EP and EC

*H1.1:*       IGs with more financial resources have more access to the EP

*H1.2:*       IGs with more human resources have more access to the EP

*H1.3:*       IGs with more financial resources have more access to the EC

*H1.4:*       IGs with more human resources have more access to the EC

*H2:*         Business interest groups have more access to the EC than NGOs

*H3:*         NGOs have more access to the EP than business interest groups

*H4*          Interest groups have more access to the EC than the EP

## 6.3 Data

To be able to answer the research question properly and test the given hypotheses, the Transparency Register, in detail the provided datasets of Transparency International of the initiative 'EU Integrity Watch', are used. In general, the initiative of Transparency International helps to download the data from the Transparency Register and use it to research the lobby groups in the EU (Greenwood, 2019). The idea of EU Integrity Watch, started in 2014, is to create a "[…] hub for online tools that allow citizens, journalists and civil society to monitor the integrity of decisions made by politicians in the EU." (Transparency International, 2023). As normally the data is not easily accessible and not collected in one place, the initiative enables easier access and manipulation of the data. All in all the EU Integrity Watch data for the EU consists of four different datasets: (1) data on the MEPs, their activities and incomes, (2) data from the EC composed of lobby meetings of officials with information from the Transparency Register, (3) the registered interest organisations and finally (4) data from the meetings with MEPs. However, there is no data on the Council. According to this, the EU Integrity Watch Datasets provide more information than the official register alone but still from the official websites of the EU institutions. This improves the possibilities for and the quality of the analysis in general.

As for the analysis, only characteristics of the interest groups and the meetings with the MEPs and EC officials are relevant, the following datasets are used: Firstly, the dataset of the MEP meetings consisting of the MEP-ID, the MEP name, country, party group, MEP role, committees, dossier, interest organisations, location of the meeting, title of the meeting, and date of the meeting. Secondly, the dataset of the EC meetings including data points such as the date of the meeting, host(s), interest organisation, interest group ID, subject of the meeting, another numerical variation of the date, two categories of the lobby group, portfolio of the interest group, and the acronym and name for the department of the EC. Finally, the dataset of the registered organisations containing the data of 12.324 lobby groups, which sum the ID, date of registration, two categories of the lobby group, name, country, number of the transparency registered staff, full-time equivalent (FTE), number of accreditations, fields of interest, estimated annual costs attributable to activities covered by the Register, annual budget, another estimate for the budget and the number of reported meetings. Due to the fact, that not all registered interest organisations that are mentioned in the reported meetings are present in the dataset, these interest groups are added manually with the help of the Transparency Register to retrieve the official data.

However, as not every available data point is needed for the analysis the datasets are trimmed down. In the first step the datasets of the EC -, precisely the column of the meeting subject, and EP-meetings, precisely the column of the meeting title are filtered based on the search terms "AI" and "Artificial Intelligence". To maximise the detection rate for the term "AI" and to guarantee the excluding of other words that include the same combination of letters it was searched in three variations: " AI", " AI." and " AI,". Due to missing IDs, no standardised names for the interest groups in the EP meeting dataset and duplicate entries per meeting the IDs for these lobby groups were researched manually. However, due to partly inaccurate documentation of these meetings and the fact that some of the interest groups were not registered in the Transparency Register, four meetings could not be considered as the organisation was not assignable, 23 meetings could not be considered as the mentioned organisations were not registered in the Transparency Register and one organisation was disbanded. This reduced the dataset of MEP meetings from 124 to 96 considered for the analysis.

Finally, the used data results in two cross-sectional datasets including only the interest groups that had a meeting either with an official of the EC or MEPs and contain the following data points: the name and ID of the interest group, the FTE, the amount of the registered staff in the Transparency Register and the frequency of access to both institutions, the EP and EC. This results in a dataset of 116 interest organisations out of the 12,324 organisations registered in the Transparency Register.

With regards to the data for the first part of the analysis, the dependent variable is the access to both institutions, namely the EP and EC. The operationalisation is done through the number of meetings each lobby group had with senior officials of the EC, such as commissioners, members of the commissioner's cabinet, or director-general or MEPs of the EP. The time frame for this starts with the beginning of the period for both institutions till the 31$^{st}$ of July 2023. The independent variables are the FTE of the individual interest groups and the number of registered staff at the EU Transparency Register. Both independent variables are numeric continuous variables, whereby the variable for the staff consists of integers and the variable for the FTE consists of decimal numbers with two decimal places.

The second part of the analysis, the clustering of the lobby groups, is done by using the following two measurement variables: the frequency of access to the EP and the EC. These variables are used to find clusters within the interest groups.

## 6.4     Analysis

The quantitative cross-sectional analysis consists of four parts due to the different hypotheses. In the first part the analysis of the interest group resources and how far they can explain the access of these lobby groups to the EC and EP in the AIA legislative process is done (H1 to H1.4). This is done in two steps. In the first step, the dependent variable is the frequency of access to both institutions at a time to test the general ability of the financial and human resources to predict access to both institutions (H1). In the second step, the similarity is tested for each institution and resource separately to assess the influence of each resource (H1.1 to H1.4). Based on the characteristics of the dependent variable as a count variable, discrete and non-negative standard approaches such as the Least Squares Regression Method will lead to errors in the estimation and are not suited for this data (Alves, 2020; Winkelmann, 2003). To overcome this problem count models can be used, as they fit well to the characteristics of this dependent variable. Especially in the case of measuring access to certain political decision-makers based on different independent variables the Poisson Regression is used by various other researchers (Alves, 2020; Klüver, 2012; Marshall, 2015).

There are no missing values detected for the dependent variable "general access to the EC and EP" and for the explanatory variables "financial and human resources, so no data has to be deleted or imputed (Klüver, 2012). Due to the different dependent variables for testing, the data have to be separated for the analysis, as $n$ of the datasets varies according to the dependent variables. Dataset 1 ($n = 125$), which is used for testing H1, consists of three measured variables: the dependent variable of "general access to both institutions" and the two independent variables "staff size", representing the human resources, and "FTE", representing the financial resources. Therefore a Poisson regression is considered. For the two Poisson Regressions considered to analyse the impact of both resources individually on the access of interest groups to the EP and the EC, datasets 2 and 3 are used. Dataset 2 for the EP access ($n = 75$) and dataset 3 for the EC access ($n = 65$) each contain the independent variables "FTE" and "staff size", and either the dependent variable "access frequency" to the EP or the EC. As the two Poisson regression models which are based on these datasets have different dependent variables, for each variable a dispersion test is done to check if the negative binomial regression is suitable for the data. Additionally, as for datasets 2 and 3 only the interest groups are considered that have access to the selected institution and too many zeros would imply the use of a zero-inflated Poisson regression, each dataset has a smaller $n$ than dataset 1.

Based on the characteristics of the Poisson regression special attention has to be drawn to the dispersion of the data, one of the basic assumptions is an equidispersion (Cameron & Trivedi, 2012; Huang & Cornell, 2012). To test for over- or underdispersion the package *DHARMa* (Hartig, 2022) is used, as it provides a dispersion parameter for the fitted Poisson regression and a *p*-value. The default *testDispersion* function of the DHARMa package is a non-parametric test that compares the variance of the simulated residuals to the observed residuals. For equidispersion, the dispersion parameter should approach 1. In the case of over- or underdispersion, the parameter varies from 1. This test is done for all three variations of the dependent variable and the resulting different regression models which are based on three different datasets.

In the next step, the extent, to which the interest group type, business interest groups or NGOs can explain the frequency of access to both institutions individually is significantly bigger than the other. Therefore, dataset 1 is used which leads to two separate negative binomial regressions that focus on the access frequency to both institutions, separately. In the Transparency Register, there are six different categories for interest groups. Due to the filtering of the datasets based on the meetings with the EP and EC, fewer interest groups are represented in dataset 1 and because of that, the category of "Organisations representing churches and religious communities" is not represented. As the test based on the interest group type is done only between business interest groups and NGOs, only the categories "II" and "III" are considered (Table 1). To test for significant differences between these two group types a t-test is used to test the hypotheses 2 and 3. To ensure the usage of the right t-test variation, it is first checked, if the data is normally distributed. This is done with the Shapiro-Wilk-Test (Lantz, 2013; Walther, 2023). This test only needs the dependent variable and tests this one for normal distribution. The null hypothesis of this test is equivalent to a normal distribution. So if the p-value is under the alpha level 0.05 the null hypothesis gets rejected and the data is not distributed normally. The alpha level of 0.05 is valid for all other analyses.

To test H4 and therefore to which institution interest groups have more access, again a variation of the t-test is done (Eising, 2007b). Before applying the t-test, it is checked with the Shapiro-Wilk-normality-Test, if the data is distributed normally.

The final step analyses how the variable of access to the EP and EC can help to identify clusters among interest groups. For this, a bottom-up approach is chosen, which looks for possible interest group dependencies on the pattern of access to the EP and EC. Therefore, a clustering

method, either the k-means or PAM method, is used. Both cluster methods are unsupervised machine-learning algorithms for partitioning data sets into groups, (Kaufmann & Rousseeuw, 1990; Reynolds et al., 2006). In the k-means clustering method data points are chosen as the centres of clusters and in difference to the k-means clustering, another approach for clustering data, the PAM method tries to reduce the dissimilarities between data points within a cluster and to the cluster centre to a minimum (Kaufmann & Rousseeuw, 1990; Reynolds et al., 2006). Firstly, the Hopkins statistics assure that the data is clustered at all (Hopkins & Skellam, 1954). This is done with the R package *hopkins* (Wright, 2022). Secondly, to find the ideal number of clusters, two indices (Hubert & Arabie, 1985; Lebart et al., 1995) are compared and the fitting method will be found through the comparison of the two clusters' silhouettes (Kryńska, 2018). This should lead to an interest group categorisation based on the pattern of the two factors' access to the EP and EC in the AIA legislative process.

# 7.    Results

The analysis of the given data of the data hub of the initiative Integrity Watch EU is, as mentioned above, done in four steps consisting of negative binomial regressions, two variations of t-tests and a clustering based on the PAM or k-means method. But in advance of these steps, a descriptive analysis gives away insights into the lobby groups that are involved in the legislative process of the AIA. As the central component of the analysis, the interest groups lobbying the EP or the EC are described in more detail below. Given the large number of different interest groups registered in the EU Transparency Register, at first, the different interest group types lobbying the EU are shown in combination with their resources. Table 1 shows that not all types of interest groups lobby the EC or the EP for the AIA and therefore the category of organisations representing churches and religious communities is not part of the analysis. Additionally, it can be seen that not every interest group type is represented in equal proportions. The largest interest group type having access to the EP and the EC regarding the AIA are in-house lobbyists and trade/business/professional associations with a number of $n = 88$. At the same time, this means that this group of interest organisations constitutes the largest share with 70,4% of all groups lobbying the EP and the EC. The two second biggest groups are NGOs on the one side and think tanks, research and academic institutions on the other side. The two groups that are represented the less are professional consultancies/law firms/self-employed consultants and organisations that represent local, regional and municipal authorities, and other public or mixed entities. Finally, the total number of interest groups that had meetings with the EC or EP is represented with $N = 125$, only a small share of the over 12,000 registered interest groups in the Transparency Register (Transparency International, 2023).

**Table 1**

*Categories of interest groups that have access to the EP and/or to the EC*

| Interest group category | Appearances |
| --- | :---: |
| I - Professional consultancies/law firms/self-employed consultants | 5 |
| II - In-house lobbyists and trade/business/professional associations | 88 |
| III - Non-governmental organisations | 18 |
| IV - Think tanks, research and academic institutions | 12 |
| VI - Organisations representing local, regional and municipal authorities, other public or mixed entities, etc. | 2 |
| Total | 125 |

Results

With a more detailed view of the interest groups, which includes their resources, staff size and the FTE, and the frequency of meetings with either MEPs, EC officials or both of them more precise statements can be made for the dataset. Table 3 shows an overview of all variables and both the standard deviation (SD) and the mean. This is done for all interest groups and additionally, separated based on the access to the EP or EC and on the interest group type.

For example, the SD of the FTE and the staff size across all levels is very high which means that the data is more spread and the FTE and the staff size vary a lot across all different separations. The interest group type of professional consultancies/law firms/self-employed consultants show the highest mean for both resources, FTE and staff size. However, it should be mentioned that this group only consists of five interest groups. Further, the mean of the frequency of meetings with the EP (*Mean*= 1.280) or the EC (*Mean*= 1.215) does not differ a lot, which means, in combination with the SD of the EP (*SD*= 0.815) and the EC (*SD*= 0.625) that whether the EP or the EC do not differ that much in the number of meetings they have with individual interest groups. Finally, the differences regarding the means and SD of meetings with the EP or EC based on the interest group category do not vary a lot. The only thing that remains to be mentioned here is, that for the interest groups of type I only had meetings with the EC. In addition to the review of the SD and the means, the correlation matrix in Appendix I shows that there is a statistically significant ($p < 0.01$) high positive correlation between the FTE and the staff size with a correlation coefficient of $r$=.90. Besides that the independent variables of People and FTE and the dependent variables EC and EP access do positively correlate with the general access to both institutions, which is statistically significant as well with $p < 0.05$ for the independent variables and $p < 0.001$ for both dependent variables.

**Table 2**

*Overview of Means and Standard Deviation*

| | N | FTE | | Staff | | EC Meetings | | EP-Meetings | | Meetings summed | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | SD | M | SD | M | SD | M | SD | M | SD |
| All Interest Groups | 125 | 5.184 | 7.038 | 8.520 | 9.543 | 0.632 | 0.757 | 0.768 | 0.902 | 1.400 | 1.070 |
| Institutional differences | | | | | | | | | | | |
| EP | 75 | 4.922 | 5.537 | 8.107 | 7.947 | - | - | 1.280 | 0.815 | 1.640 | 1.322 |
| EC | 65 | 5.683 | 8.282 | 9.631 | 11.532 | 1.215 | 0.625 | - | - | 1.554 | 1.335 |
| Interest Group types | | | | | | | | | | | |
| I - Professional consultancies/law firms/self-employed consultants | 5 | 23.700 | 18.191 | 30.600 | 21.067 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 |
| II - In-house lobbyists and trade/business/professional associations | 88 | 4.256 | 4.431 | 7.386 | 6.834 | 0.625 | 0.763 | 0.795 | 0.833 | 1.420 | 0.919 |
| III - Non-governmental organisations | 18 | 4.803 | 5.858 | 8.222 | 10.812 | 0.722 | 0.895 | 0.944 | 1.349 | 1.667 | 1.940 |
| IV - Think tanks, research and academic institutions | 12 | 4.625 | 8.106 | 7.167 | 8.321 | 0.417 | 0.669 | 0.667 | 0.492 | 1.093 | 0.289 |
| VI - Organisations representing local, regional and municipal authorities, other public or mixed entities, etc. | 2 | 6.500 | 2.121 | 14.000 | 8.485 | 0.500 | 0.500 | 0.500 | 0.707 | 1.000 | 0.000 |

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In advance, to test the different hypotheses that are based on datasets 1, 2 and 3 it is assumed that the data follows the ideal of a equidispersion with the non-parametric test of the DHARMa package. For all three datasets for the Poisson regression models the test shows that the data is underdispersed (Table 2) with $p < 0.01$ and therefore the Poisson regression is not suitable for this data. Hence, a generalisation of the Poisson regression, the negative binomial regression is used, as it is more suitable (Marshall, 2015). The negative binomial regression is similar to the Poisson regression as it uses a Poisson-like distribution but can be done without special corrective procedures (Cameron & Trivedi, 2012; Huang & Cornell, 2012). Finally, three negative binomial regressions are calculated to estimate the ability of the resources to explain the access to the EP and/or EC.

**Table 3**

*Testing for over- or underdispersion*

| Dependent variable | *Dispersion* value | p-value |
|---|---|---|
| Summed access to both Institutions | 0.66 | > 0.01 |
| Access to the EP | 0.24 | > 0.01 |
| Access to the EC | 0.30 | > 0.01 |

*Note:* The default *testDispersion* function of the DHARMa package compares the variance of the simulated residuals to the observed residuals.

For the first negative binomial regression the null hypothesis of the dispersion test, namely normally distributed data, can be rejected. The first Hypothesis H1, that *IGs with more financial and human resources have more access to the EP and EC* is tested through the first negative binomial regression model with the predictors of staff size and FTE. The variable FTE has a slightly positive coefficient of 0.007, which is not statistically significant with $p > 0.05$. The variable staff size also has a slightly positive coefficient of 0.011 and is also not statistically significant with $p > 0.05$. This means that interest groups with a higher FTE and bigger staff size are not likely to have more access to the EC and the EP together. This rejects H1.

**Table 4**

*Negative binomial regression model: FTE and Staff Size as Predictors for Access to the EP and EC*

| Predictor Variable | B | SE | CI | p |
|---|---|---|---|---|
| FTE | 0.007 | 0.021 | [-0.033, 0.048] | 0.718 |
| Staff size | 0.011 | 0.016 | [-0.022, 0.041] | 0.4876 |

*Note:* CI = confidence interval,

*p < .05. ** < .01. ***p < .001.

For the two other binomial regression models, the dispersion test is done as well. The *p*-value for the access frequency to the EP with $p < 0.01$ and for the EC with $p < 0.01$ means, that the data is not distributed normally. So the negative binomial regression is a better option than the Poisson Regression. For H1.1, *IGs with more financial resources have more access to the EP*, and for H1.2, *IGs with more human resources have more access to the EP*, the binomial regression model provides the following results: The coefficient B for FTE is slightly positive with $B = 0.052$ but is not statistically significant with $p > 0.1$. The coefficient B for the predictor variable staff size is negative with $B = -0.007$ and is not statistically significant with $p > 0.1$. This means both hypotheses H1.1 and H1.2 are rejected with H1.2 even pointing in the opposite direction.

**Table 5**

*Negative binomial regression model: FTE and Staff Size as Predictors for Access to the EP*

| Predictor Variable | B | SE | CI | p |
|---|---|---|---|---|
| FTE | 0.052 | 0.030 | [-0.006, 0.113] | 0.086 |
| Staff size | -0.007 | 0.024 | [-0.058, 0.035] | 0.764 |

*Note:* CI = confidence interval,

*p < .05. ** < .01. ***p < .001.

Finally, the binomial regression model for H1.3 - *IGs with more financial resources have more access to the EC* - and H1.4 - *IGs with more human resources have more access to the EC* – provides the following results: The coefficient for FTE as predictor variable is slightly negative with $B$ = -0.005 but is statistically not significant with $p > 0.1$. The coefficient for the predictor variable staff size is slightly positive with $B$ = 0.010 but also not statistically significant with $p > 0.1$. This leads to the rejection of both hypotheses H1.3 and H1.4.

**Table 6**

*Negative binomial regression model: FTE and Staff Size as Predictors for Access to the EP*

| Predictor Variable | B | SE | CI | p |
|---|---|---|---|---|
| FTE | -0.005 | 0.030 | [-0.065, 0.409] | 0.870 |
| Staff size | 0.010 | 0.213 | [-0.034, 0.049] | 0.646 |

*Note:* CI = confidence interval,

*p < .05. ** < .01. ***p < .001.

For H2, which argues, that *Business interest groups have more access to the EC than NGOs*, and H3, which argues, that *NGOs have more access to the EP than business interest groups*, a t-test is done as described above. As mentioned above the Shapiro-Wilk-normality-Test checks, whether the data is distributed normally or not. In the case of both independent variables, the p-value with $p < 0.05$ confirms that the data is not distributed normally. Additionally, as both interest groups are independent from each other the Wilcoxon test is used to test both hypotheses (Cuzick, 1985). At first, the boxplot of both independent variables based on the dependent variables shows that in both cases there are outliers that deviate from each median. For the interest group type II (*In-house lobbyists and trad/business/professional associations (II)*) there is an extreme outlier for each institution. For the interest group type III (*Non-governmental organisations*) there is also an extreme outlier for each institution.
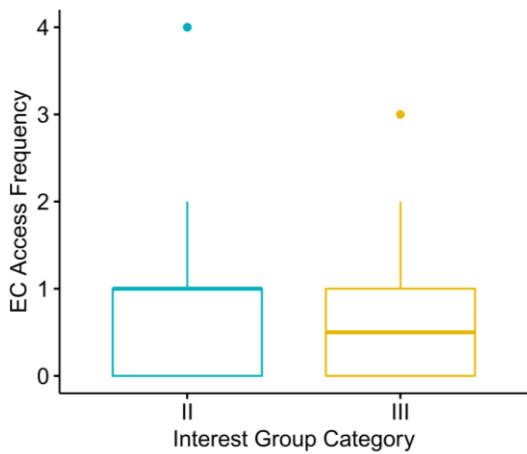
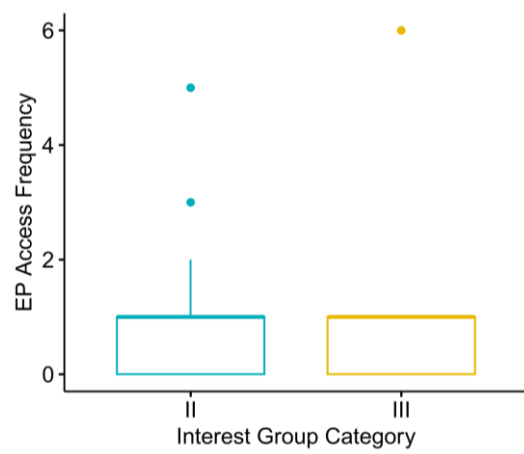**Figure 1, Boxplot EC Access**          **Figure 2, Boxplot EP Access**

Both figures show the access of the two interest group categories *In-house lobbyists and trad/business/professional associations (II)* and *Non-governmental organisations (III)*. Additionally, the median and outlier are visible.

Following the first view of the data with the boxplot the Wilcox-Test now compares the means of the two independent samples. The result for the access to the EC with a p-value of $p > 0.05$ rejects H2, which means that business interest groups do not have significantly more access to the EC than NGOs. Thereby, H2 can be rejected. For the access to the EP based on the interest group type the t-test shows with the p-value $p > 0.05$ that NGOs do not have significantly more access to the EP than business interest groups. Due to that result, H3 is rejected.

Finally, to test H4 (*Interest groups have more access to the EC than the* EP), another t-test is done. To test how the data is distributed, a Shapiro-Wilk-Normality-Test is done again. As the p-value of the Shapiro-Wilk-normality-Test is $p < 0.05$ the data varies significantly from being normally distributed. However, as this time the samples are paired, the non-parametric paired samples Wilcoxon test is done to test H4. For this analysis the data is paired, as this dataset contains every interest group that has access to either the EP or the EC two times, once for the EP access and once for the EC access. In the boxplot, it is visible, that there are extreme outliers for both institutions, two for the EP and one for the EC. In both cases, the median lies on the top edge of the boxes.
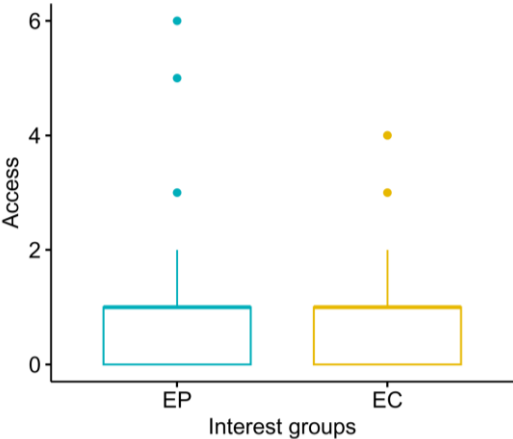
Results



**Figure 3, Boxplot access to the EP and EC**

This boxplot shows how access to both institutions varies for all interest groups. Additionally, the median and outliers can be seen

The paired samples Wilcoxon test shows with a p-value of $p > 0.05$ that the interest groups do not have significantly more access to the EC than to the EP which leads to the rejection of H4.
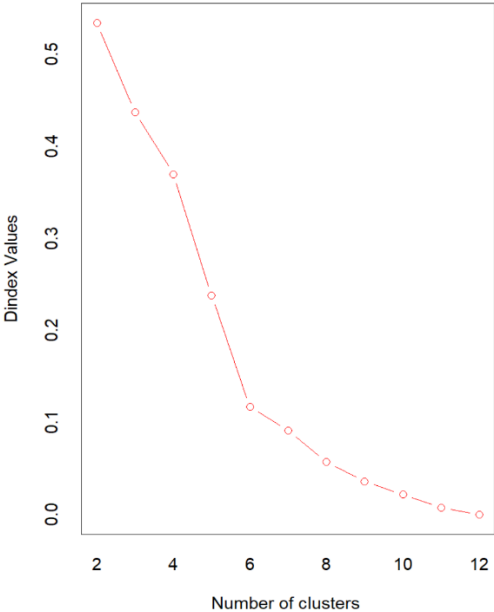


Figure 4, D index plotted with the number of clusters

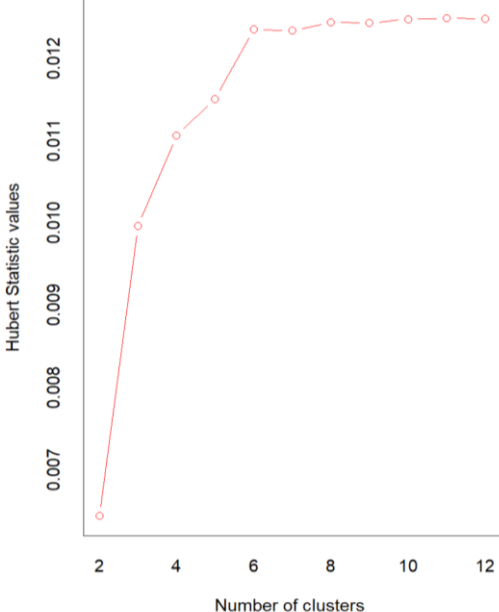This plot shows the D index plotted against the number of clusters selected.



**Figure 5, Hubert index plotted with the number of clusters**

This plot shows the Hubert index plotted against the number of clusters selected.

The final step of the analysis is the clustering of the interest groups based on the access patterns to the two institutions. At first, the Hopkins statistics of the data are analysed. The Hopkins function of the *hopkins* R package provides a value that indicates if the data is regularly spaced, random, or clustered. Clustered data approaches $H = 1$. With a value of $H = 0.95899$, the data is highly clustered. Following that, the two indices, Huber (Hubert & Arabie, 1985) and D index (Lebart et al., 1995) are reviewed to find the ideal number of clusters. The data is tested with a number of clusters between 2 and 10. Both indices show a significant knee at $N = 6$, which leads to the assumption that 6 is the ideal number of clusters for the given data (Figures 4 & 5). Based on that the PAM method and the K-means method are reviewed to see which method fits the data better. This is done with plots of silhouettes for both methods and the average silhouette width of the cluster will indicate which method fits the data better (Appendix II). Based on the higher average cluster silhouette of the PAM method with (0.88) in comparison with the K-means cluster method (0.78), the PAM method is chosen as the final method to cluster the interest groups based on their access pattern.
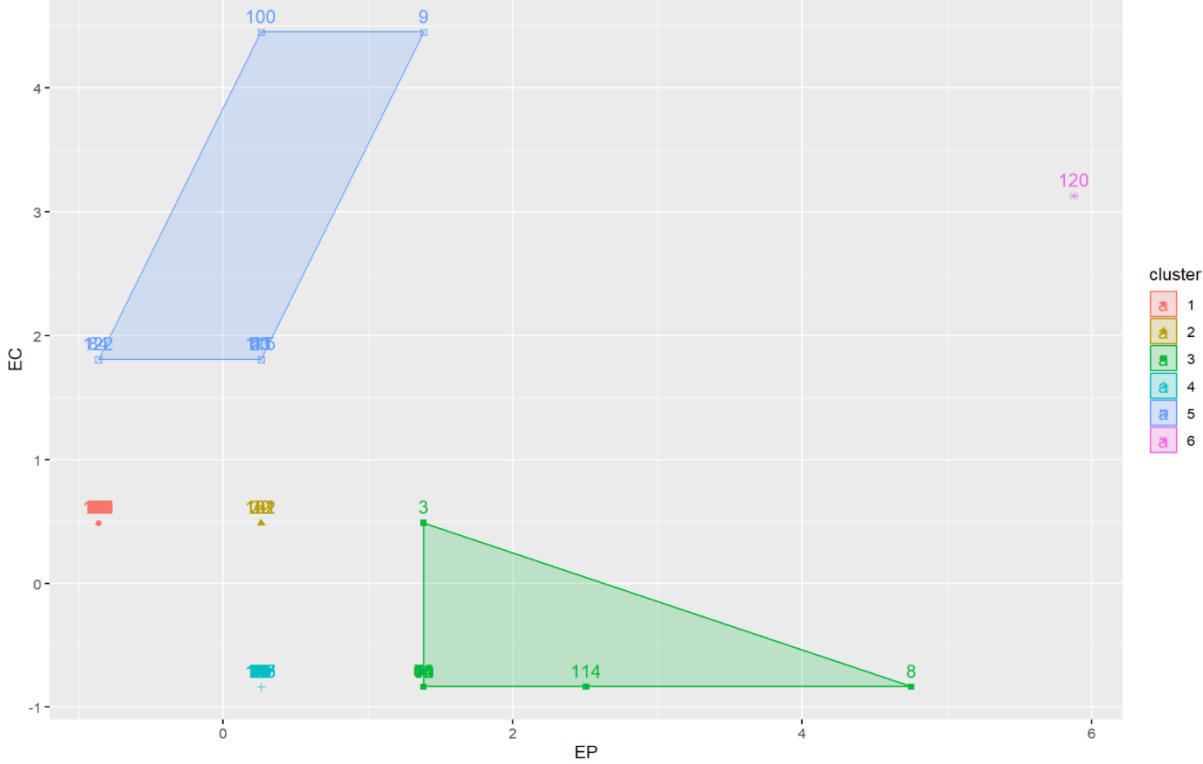


**Figure 6, Interest groups clustered based on their access pattern**

In this figure, the interest groups are clustered based on their access pattern into six clusters. This is done with the PAM method.

The final cluster of the interest groups based on their access pattern to the EC and the EP shows two clusters with a bigger surface, clusters three and five, that consist of groups that

either had more than one meeting with MEPs or EC officials and less with the other institution. The clusters one, two and four are smaller in their surface, as all interest groups within these clusters have the same access frequency to the EP and the EC. They either have a low access frequency to one of the two institutions and no access to the other institution or have a low access frequency to both institutions, the EP and EC. The last cluster, cluster number six consists of only one interest group that has a high access frequency to both institutions.

# 8.    Discussion

This thesis aimed to answer the following research question: To what extent can interest group resources and policy venue mechanisms explain the access of interest groups to the EU Commission and the EU Parliament in the AIA legislation process? Three major theoretical approaches were chosen to answer this question. The first approach is based on human and financial resources, the second approach focuses on the different types of interest groups and the third approach tries to explain different access patterns based on the policy venues. Finally, a bottom-up approach clusters interest groups based on their access pattern to the EP and the EC, which represents a novel approach in the field of interest group research. However, the results indicate that the chosen existing theories in general interest group research cannot explain the access of interest groups to the two EU institutions in the legislative process of the AIA. In detail, every tested hypothesis that was based on different theoretical approaches, could not be confirmed.

Despite all hypotheses being rejected, this does not mean, that every null hypothesis is accepted or confirmed. Due to the non-significant results less attention is paid to the coefficients and preferably the confidence intervals are used to interpret the results. For H1 the rejection means that analysed data could not confirm that the financial and human resources can explain the frequency of access of interest groups to the EP or EU in the AIA legislative process. But at the same time, it is not confirmed, that these resources do not have an impact on the access frequency of interest groups. Additionally, the correlation between these two kinds of resources complicates the evaluation with a negative binomial regression model. Finally, the result either indicates a too-small sample size or a too-large random variation. This is confirmed by the rather wide confidence intervals of both resources (FTE [-0.033, 0.044] and staff size [-0.022, 0.048], Figure 4) which indicates a high margin of error.  To some extent, this is interesting as there is a statistically significant positive correlation between each resource variable and the general access frequency to both EU institutions together. Hypotheses H1.1 and H1.2 tested the impact of the two varieties of resources on access to the EC in the AIA legislation and could not be confirmed due to a p-value higher than the alpha level of 0.05. Here again, the width of the two confidence intervals (FTE [-0.006, 0.113] and staff size [-0.058, 0.035], Figure 5) suggest a high margin of error, even if the interval for the FTE indicates, that the population parameter mostly resides in the positive range. Similar to H1 the result, the non-significant result can be interpreted as a consequence of a too small sample size or a too large random variation. The last two hypotheses (H1.3 and H1.4) that tested the effect of human and

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financial resources, this time on the access to the EP, are rejected as well. The hypotheses argued, that interest groups with more resources have more access to the parliament. The small p-value led to the rejection of both hypotheses, which at the same time did not confirm the null hypotheses. The confidence intervals (FTE [-0.065, 0.409] and staff size [-0.034, 0.049] do again lead to the same assumptions of too-small sample size and too-large margin error. Similar to the results for H1.1 and H1.2 the confidence intervals of the interval for the FTE variable indicate that the population parameter is mostly estimated positive. Despite this similarity in the confidence intervals of the FTE variable, the coefficient is slightly negative and thus differs from the coefficient for the EC. Also similar is the more narrow confidence interval for the staff size in comparison to the FTE confidence interval, which is identifiable for both, the EC and EP. Another interesting point to mention is that the different coefficients for the EC and EP have different signs. The sign for the FTE is positive and the sign for the staff size is negative at the EP and vice versa for the EC. This somehow contradicts the correlations measured being statistically positive between the EC meetings and staff size and between the EP meetings and FTE.

The results for H2, which argued that business interest groups have more access to the EC than NGOs, and H3, which argued that NGOs have more access to the EP than business interest groups, led to the rejection of both hypotheses due to a too high p-value. Similar to the previous hypotheses the small sample size may be a reason for non-significant results. For H4, which argued that interest groups have more access to the EC than to the EP, the same conclusions apply: The hypothesis is rejected due to the p-value being higher than the alpha level, which is presumably partly due to the small sample size.

Finally, the clustering of the interest groups based on their access pattern leads to the following insights: Firstly, due to the metric scaled data the possibilities to cluster the interest groups is rather small. For example, the values for interest group access to the EP vary between zero to six and for interest group access to the EC, they only vary between zero and four. This leads to limited possibilities of access patterns. Due to that, there is a high chance that the different interest groups overlap in the PAM cluster model (Figure 6). Simultaneously, this basically, leads to a separation into four different groups: Group 1 consisting of clusters one, two and four has a low access frequency to either one of the institutions and no access at all to the other one or a low access frequency to both institutions. Group 2 is represented only by one cluster, cluster 3, and consists of interest groups that had on average more than one meeting with MEPs but a maximum of one meeting with EC officials. One might argue either these are

interest groups that prefer to lobby at the EP or the EP prefers these interest groups to provide information. Similar to group 2 there is group 3 that forms the counterpart for group 2. This group is represented by cluster 5 and consists of interest groups that have a high access frequency to the EC, on average more than one, and a low access frequency to the EP, on average not more than one. This implies the assumption that certain interest groups can provide information that is preferred by the EC over other interest groups. Finally, there is group 4 which consists of only one cluster and one interest group. This group has a high access frequency to both institutions, the EP and the EC. To put these assumptions from the results into context, in the following part, these are matched with existing theoretical explanations in the research field of interest groups in general.

Besides the research on how interest group characteristics, policy venue mechanism or the interest group type influence the way of lobbying political decision-makers different approaches try to answer the question of who has access and why. These theories focus on the following aspects: issue-related mechanisms, the impact of coalition or network building and the interplay between interest groups and the public. To some extent, these approaches can help to answer why specific interest groups might have more access to the EP and EC. As these theoretical approaches came up short in the thesis and especially in the analysis they are now partially taken up as a supplement to the explanation of the results. Firstly, mechanisms that focus on the impact of the specific policy issue are considered. These mechanisms could not be tested, as no comparison was possible among different groups. Several factors are policy-related, which are namely the "[...] complexity, policy type, the status quo, salience, degree of conflict, and the size and composition of lobbying coalitions." (Klüver et al., 2015, p. 450). In the case of the AIA, these factors could play a role in which interest groups get much access to the EP or EC. For example, as the AIA is a very technical regulation that influences many other areas the expertise of experts in this area is necessary for the EU institutions, as their limited personal resources make it difficult to deal with the subject matter appropriately (Greenwood, 2003; Klüver et al., 2015; Smith, 2000). This makes companies or organisations that are experts in the field of artificial intelligence indispensable for legal regulation. In the context of access, this might explain that solely human and financial resources, interest group types or policy venues lack of ability to explain the degree of interest group access. In addition, the policy type might be influential as well for the AIA. Given the extraterritorial approach of the regulation and their implementation at the national level, one might assume that a fair share of the lobbyism for the AIA already takes place at the national level which is not taken into account

Discussion

in this analysis. Another important factor that might give additional explanations to the results is the impact of the policy cycle on lobbying the AIA, as considered by Coen et al. (2021). They suggest that based on the time in the legislative process the mobilisation of businesses can differ and different points of access are chosen by interest groups. Given that perspective, it can be argued, that due to the not completed legislative process, the lobbying of the AIA in its entirety is not depicted and access points such as the trilogues between the Council, EP and EC are missing. However, as the trilouges are more informal and lack transparency it is difficult to measure the access and impact of interest groups in this step of the policy cycle. (Coen et al., 2021). All in all, the issue-related mechanisms are difficult to measure within this analysis as there is no comparison to other policy issues.

Secondly, besides the factors, that are based on the policy issues, some factors build up on the coalition or network building of interest groups. These theoretical assumptions may also give additional explanations for the access frequency of the different interest groups. Given the analysis of Hanegraaff and Pritoni (2019) the elite pluralist setting of the EU leads to more coalition building, as access is granted only to a selection of interest groups and interest groups with no access form coalitions with lobby groups that have access. Following that assumption, this means that in the case of the AIA legislation in general there might be more interest groups that are interested in shaping the AIA, however, due to the limited access coalitions are formed. Based on this assumption, it would be interesting to analyse what alliances exist and how they are composed. Another aspect to add is the one, that was mentioned by Hanegraaff and Pritoni (2019) and Klüver et al. (2015), which argues that larger coalitions are more successful in shaping policy-making. But as was already mentioned in section three of the AIA some interest groups make use of dishonest methods to form coalitions to lend out their activities (Deutsch, 2022; Goujard, 2022; Schyns, 2023). This may lead to a picture in which resource-rich interest groups hide behind coalitions or associations that only have limited resources and thus counteract the assumptions of this analysis.

Thirdly, as the impact of resources plays a central element in explaining access to the EP and EC the work of Bruycker and Hanegraaff (2023) should not be disregarded, as they argue that interest groups that are rich in resources might profit less from them if they do not align with the public opinion. In addition to that they stated, that public congruence is only helpful for resource-rich interest groups as it works as an amplifier for their resources (de Bruycker & Hanegraaff, 2023). This supports the elitist view on lobbyism. For this analysis, this means that despite interest groups having more resources than others due to the lack of

public congruence they are not able to get more access to the EP or EC and therefore contradict the assumptions made.

The various theoretical approaches indicate, that the field of lobby research follows several factors to explain the access and even influence to policymakers. This already makes it difficult to allow a wholesome analysis of interest groups and their access to legislation processes. Additionally, the factors interact with each other and amplify or attenuate each other, which leads to a broad variety of variables that seem interesting for the analysis of interest groups. Based on the results of this analysis one might argue that the theoretical foundations of the hypotheses are proven wrong, which would ignore the interdependence with other factors. Additionally, the following points limit the significance of this work.

The assumptions and findings, however, are not generalisable due to the characteristics of this analysis in general, other theoretical aspects could not be considered due to the scope of this thesis and the data used. These characteristics are described in detail in this chapter. First of all, the analysis focuses on a specific issue, in this case, the AIA, and additionally only considers access to the EP and EC in a limited time frame. This limits the application of the results to the EU context and the given institutions. Simultaneously, as stated above, the importance of a policy issue for the characterisation of lobbyism makes clear, that assumptions made within one policy issue are not generalisable on every other policy issue. This means that the results of this analysis have to be seen and assessed in the context of the EU AIA or other technical regulations of the EU. Further, the impact of lobbyists on the Council and thereby in the member states of the EU remains unconsidered. Secondly, as already touched upon in parts the variety of theories in the field of lobbyism and this already in the context of the EU makes it difficult to picture all facets of interest representation within the AIA legislation. This means that mostly the findings are limited to the narrow scope of selected theories and only provide possible tendencies, which can be reviewed further in future research. In particular, because of the interdependencies between different factors, such as policy, issues, coalition building or public congruence, that influence the access of interest groups to political decision-makers, the findings should be interpreted carefully. Thirdly, the reliability of the data is impacted by different unavoidable reasons. Due to missing organisation IDs in the dataset downloaded by EU Integrity Watch and the subsequent incomplete manual matching of these IDs, a small number of interest groups are not included. This adds to the general question if the data represents an adequate image of ongoing lobbying in the AIA context. One might also argue that lobbying on AI, in general, might have taken place already in advance of the time frame

considered for the data and due to the broad area of application of AI also in other policy fields that are not represented in the used data. In detail, the correlation between the variables FTE and staff size reduces the applicability of the given hypotheses that test these variables. The data itself also has implications for the choice of methods. The small sample size between $n = 65$ and $n = 125$ limits the pool of usable methodology. Finally, the non-normal distribution of the data reduces the number of applicable methods additionally.

However, besides the limitations and the narrow scope of this thesis, the findings provide assumptions that should be reviewed in future research. This is also implied by the broad theory of lobbyism in general. Within this analysis, the lobby mechanisms based on human and financial resources, interest group type and policy issues were considered. But there are other factors, such as public congruence, network building and policy issues that should be tested on their impact on the AIA. Besides the need to test the different factors individually on their impact on the interest group access to the EU institutions in the context of the AIA legislative process, the theoretical mechanisms should be reviewed in their entirety and with their interdependence and how this affects the legislative process of the AIA. Further, to see how policy issue effects play a role for the AIA the scope can be extended to include other policy issues and compare characteristics of them in a cross-issue approach. Not only do the factors on the interest group side provide an interesting field of research, but also the differences within the institutions should be considered. This means that for example, the different roles of MEPs in the EP, such as rapporteurs, or their party and nationality might provide additional information on which interest groups get access to the legislative process of the AIA. Also, the role of the Council and the different national parliaments or governments can be considered to gain more explanation on interest group access to the EU legislative process. Due to the ongoing legislative process, similar research should be conducted when the AIA is adopted, to answer the question of which resources or even the interest group type can explain the access to the EP and EC better. Finally, the findings of the cluster analysis might open the way for a new approach to categorising interest groups based on their access to certain EU institutions and might lead to more research that focuses on the access patterns of interest groups as a new part of lobby research.

# 9. Conclusion

This thesis aimed to answer the question of to what extent interest group resources and policy venue mechanisms can explain the access of interest groups to the EU Commission and the EU Parliament in the AIA legislation process. This was guided by two sub-questions whether certain interest groups have more access to the EP or EC than others and can the access patterns of interest groups provide a new approach for the clustering of interest groups. These questions are answered through the use of data from the Transparency Register of the EU which consists of 125 registered interest groups. All of these groups took part in meetings with either MEPs EC officials, or both. The results of the analysis show clearly, that existing theories on interest group resources and policy venues alone can't explain why certain interest groups have more access to certain EU institutions. Further, the focus on the interest group type could not lead to additional explanation and didn't confirm the assumption that certain interest group types have more access to the EP or EC than others. Finally, the cluster analysis could show, that the interest groups can be clustered based on their access patterns to the EC and EP. In summary, this means that the formulated hypotheses derived from given theories are not applicable in the special case of the AIA legislation or demonstrate a development of lobbying in the EU. Further, the broad variety of different factors that influence interest group access complicate the verification of individual mechanisms. Despite the theoretical implications, the data of the Transparency Register limits the results of the analysis, as only registered contacts and meetings are present and other ways of access are not visible through this database. This means that with the open data available for the broad public it is difficult to picture lobbyism as a whole and legislation in the EU remains a closed process for insiders.

The theoretical approach is guided by the most prominent theories in this given field of research and considers recent literature to provide additional explanations. Regarding the choice of methods and overall approach, the scope of the thesis limited the suitable options. The circumstances like the special case of the AIA in the given time frame with the legislation being not completed yet definitely make it more difficult to gain insights. Additionally, due to the data not being dispersed normally, the choice of methods is restricted further. But besides these limitations, the chosen approach seems to be the only adequate approach to answer the research question and the sub-questions. To ensure the use of fitting statistical methods existing literature and tests, for example, the dispersion test, were done. However, the lobbyism of the EU AIA remains an interesting and open field for future research. The interplay of different factors and their effect on access frequency might add to the existing literature. Future research

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could lead to additional insights with a qualitative approach to see which characteristics interest groups with more access have, that can't be analysed with a quantitative approach. Finally, the first insights regarding the clustering of interest groups can be reviewed further and expanded to other policy issues and venues. This somehow shifts the focus away from the visible characteristics of interest groups and defines access as a new system in which interest groups can be clustered.

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# 10.    APPENDIX I

Correlation Matrix

|  | Interest group type | Staff size | FTE | EC-Meetings | EP-Meetings | Meetings summed |
|---|---|---|---|---|---|---|
| Interest group type | 1.00 | -0.13 | -0.16 | -0.09 | 0.03 | -0.03 |
| Staff size | -0.13 | 1.00 | 0.90*** | 0.18* | 0.14 | 0.24** |
| FTE | -0.16 | 0.90*** | 1.00 | 0.12 | 0.18* | 0.24** |
| EC-Meetings | -0.09 | 0.18* | 0.12 | 1.00 | -0.16 | 0.57*** |
| EP-Meetings | 0.03 | 0.14 | 0.18* | -0.16 | 1.00 | 0.72*** |
| Meetings summed | -0.03 | 0.24** | 0.24** | 0.57*** | 0.72*** | 1.00 |

*P< 0.05; ** P<0.01 *** P<0.001

## 11.    APPENDIX II
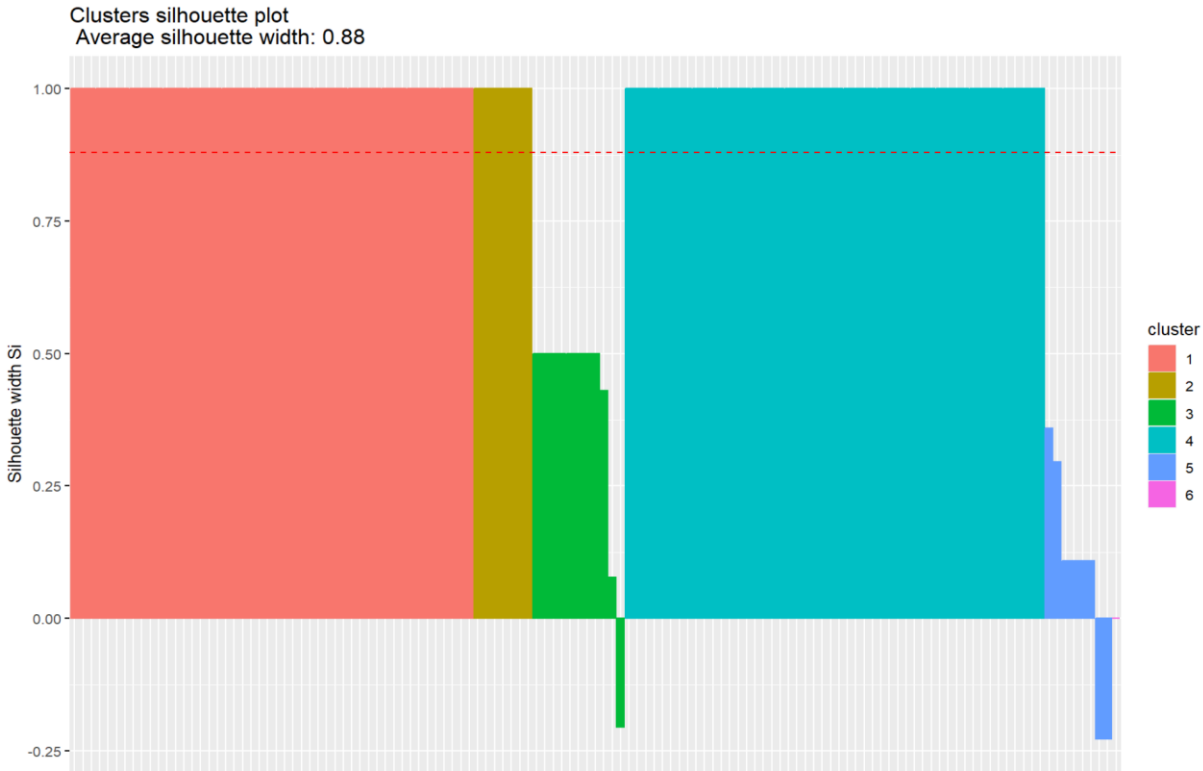


Silhouettes of the 6 clusters based on the PAM method with an average cluster silhouette of 0.88.
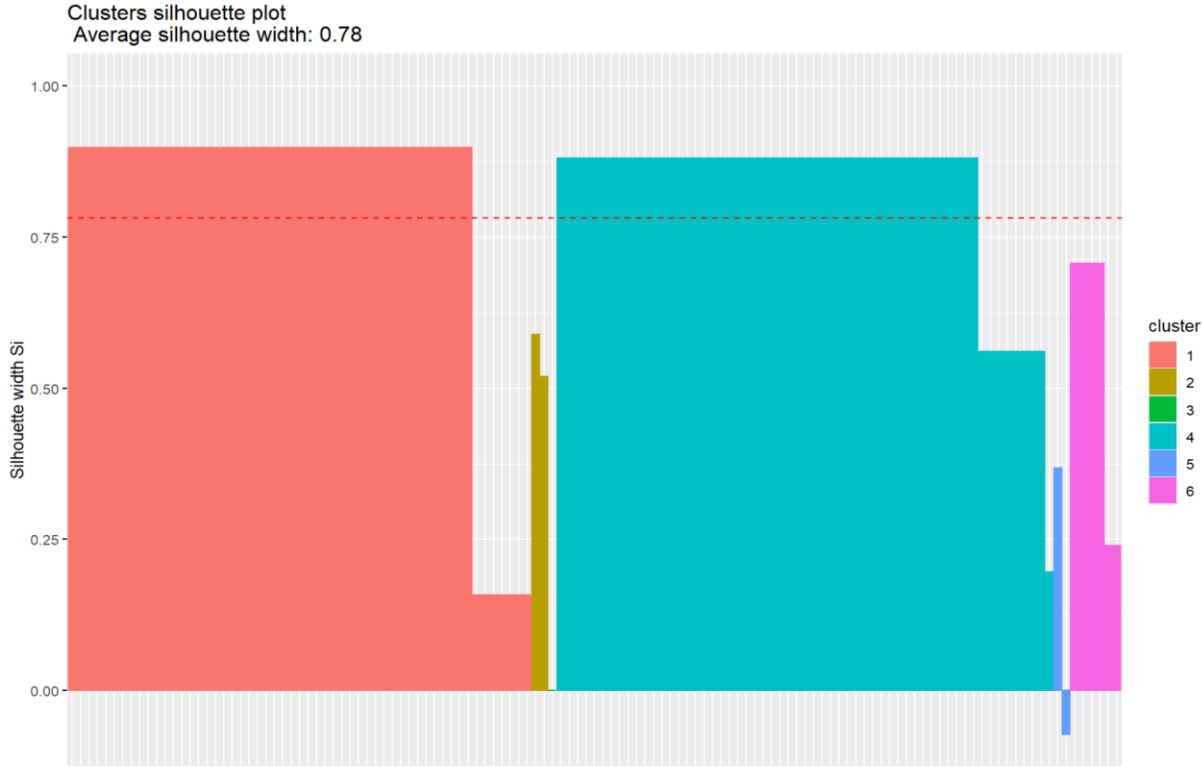


Silhouettes of the 6 clusters based on the K-means method with an average cluster silhouette of 0.78.

## 12.    Declaration of consent

I declare in lieu of an oath that I have written the following thesis independently and without outside help and that I have not used any aids other than those stated in the thesis. All passages that have been taken verbatim or in spirit from publications are marked as such.

Family name, given name: Kappert, Felix

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Unterschrift: