Technology and Regulation

The EU AI Act: Law of Unintended Consequences?

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Abstract

After long deliberations, the highly anticipated AI Act has entered into force in August 2024. Although it is yet to be seen what the effects of this landmark regulation are going to be with a transitory period of two years, it is important to already prepare for what can be expected and to identify possible dynamics regarding competencies, implementation, and enforcement. Hence, this article provides a novel perspective of the AI Act by answering the question of what regulatory dynamics can be expected with the AI Act entering the "regulatory space" of AI? The assumption here is that the AI Act is entering a "regulatory space" that is already somewhat occupied by various public and private actors which have different relevant regulatory resources, both legal competencies, such as enforcement or investigative powers, and extra-legal capacities, like expertise or legitimacy. The aim of this article is therefore a more expansive mapping of actors and their resources, where power and influence are both contingent upon legal competencies and extra-legal capacities, by combining regulation of technology literature with the regulatory space framework.

1. Introduction

With the EU AI Act (AIA),[1] the EU has formulated another response to the ever-changing digital developments by targeting AI systems directly. Although not the first AI regulation worldwide,[2] the AI Act is expected to set the tone for how regulators respond to the ever-increasing reliance on AI by laying down 'harmonized rules on artificial intelligence'. On the one hand, this regulation will enter into an already dense and complex environment of legislative instruments, such as *inter alia* the General Data Protection Regulation (GDPR), the Digital Services Act, national legislation, fundamental rights, etc. On the other hand, prior to the AI Act, AI system developers were able to play by their own rules by setting up their own business practices, codes of conduct, and ethical frameworks in relation to AI systems.[3] Thus, it is worth exploring how the AIA will fit into this mix of related regulatory frameworks and established business practices.

As such, it becomes clear that the AIA is entering a "regulatory space" already occupied by various public and private actors with different resources to impact regulation, including legal competencies, expertise, and money. Consequently, the primary research question to be addressed is the following: What are the regulatory dynamics we can expect with the AI Act entering the regulatory space of AI?

In order to provide a map that depicts a glance of possible regulatory dynamics and actors involved, the methodology adopted for this inquiry combines insights from regulation of technology literature with regulatory space literature to form a novel theoretical framework. Concretely, the regulatory space lens – although not yet applied to new forms of technology regulation – adds a new layer to the analysis of how the AIA will interact with the already existing regulatory environment.[4] The key benefit of this lens is that it offers a clearer, more nuanced view of regulatory fragmentation by highlighting how different players, each with distinct regulatory resources, shape regulatory dynamics. Whereas law may be generally perceived as the ultimate source of regulatory power, in reality, power dynamics within regulatory environments are exercised through various channels by formal and informal arrangements as well as public and private actors alike.[5]

The attempt of this article to map out the regulatory space requires investigating the diverse spectrum of actors under the AIA and identifying relevant regulatory resources beyond those laid down under the AI Act. This will be done by complementing the theoretical framework with a legal analysis of the AIA. Specifically, the legal analysis incorporates actor-based, doctrinal research in which relevant actors are identified to subsequently trace their competencies via a thorough reading of the AI Act. Consequently, the article will culminate in a unique contribution that depicts the regulatory context of the AI Act more realistically through its expansive analysis of diverse regulatory resources in the form of legal competencies and extra-legal capacities, which both translate into forms of power.

What follows next in section two is an introduction of the regulatory space concept as the theoretical framework, after which insights from regulation of technology literature will be provided as a form of

1. Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 2024 (EU 2024/1689) (*Artificial Intelligence Act*) [2024] OJ L 2024/1689, art 144.
2. In fact, China already adopted regulatory instruments in 2023 and the Council of Europe adopted its Framework Convention on AI in May 2024; See: Huw Roberts and Emmie Hine, 'The Future of AI Policy in China' (*East Asia Forum*, 27 September 2023) https://eastasiaforum.org/2023/09/27/the-future-of-ai-policy-in-china/ accessed 5 February 2024; Council of Europe, 'Council of Europe Adopts First International Treaty on Artificial Intelligence' (*Council of Europe*, 17 May 2024) https://www.coe.int/en/web/portal/-/council-of-europe-adopts-first-international-treaty-on-artificial-intelligence accessed 9 September 2024.
3. IBM AI Ethics Board, 'Balancing Innovation and Trust: Four AI Ethics Board Members Reflect on Implementing Responsible AI Principles at IBM' (IBM Think Blog, 11 November 2024) https://www.ibm.com/think/insights/balancing-innovation-and-trust accessed 2 March 2025; Google, 'AI Principles 1-Year Progress Update' (Report, 2019) https://ai.google/static/documents/ai-principles-2019-progress-update.pdf accessed 2 March 2025.
4. Colin Scott, 'Analysing Regulatory Space: Fragmented Resources and Institutional Design' (2001) *Public Law* 329; Jeovan Da Silva and Tomás Guimarães, 'Regulatory Agencies and Courts: Interactions between Administration and Justice' (2020) 18 *Cadernos EBAPE BR* 512, 515; Leigh Hancher and Michael Moran, 'Organizing Regulatory Space' in Leigh Hancher and Michael Moran (eds), *Capitalism, Culture, and Economic Regulation* (Oxford University Press 1989) 271.
5. Da Silva and Guimarães (n 4) 515; Hancher and Moran (n 4) 274, 276.

contextualization in section three. This in turn will inform the legal analysis in section four with special focus on the actors under the AI Act and their relative competencies. In section five, the analysis will be embedded in the theoretical framework to extend our understanding of regulation in terms of rule-making and rule-enforcement by gaining a better awareness of the actors' legal and extra-legal resources playing a key role in the regulatory space.

2. Theoretical Framework: Regulatory Space

The notion of the regulatory space was originally devised by Hancher and Moran in the 1980s. It separates itself from other theoretical models of governance by moving beyond solely considering state action or market forces in understanding regulation. This broadness in analysis is not only reflected in the multitude of actors considered within regulatory activity but also in illuminating the spectrum of dynamic interactions and interdependencies which may influence the regulatory environment.[6] According to Scott, "[t]he concept of regulatory space 'decentres the state as a source of regulation and points to the role that can be played by a whole host of regulatory schemes'. It suggests alternative ways to shape regulatory regimes with the potential to affect outcomes indirectly, both through the sensitive deployment of oversight regulation, and through the use of other mechanisms which regulate without the classic public institutional focus."[7] As a result, any regulatory environment is fragmented in the sense that key resources, and hence power, are divided among various actors that hold different interests, norms, and goals.[8]

When analyzing regulatory dynamics, the regulatory space framework does not limit itself to solely concentrating on the legal competencies conferred to specific actors by a particular piece of regulation in question. Instead, it rests on the assumption that key resources necessary to participate in the regulatory process are fragmented as they are possessed by various actors. More specifically, it highlights the notion that regulatory processes are of plural nature – regulatory norms which influence the mechanisms and results of regulation are produced and negotiated in various sites by different actors using their specific resources. Regulation thus encompasses a multitude of relations between large actors ranging from government bodies, such as departments, ministries, and agencies, to large companies, trade unions, NGOs, and interest groups.[9] All of these actors hold regulatory resources which enable them to have influence in the process of regulation. These resources can either have a legal nature ('competencies'), derived from legislative acts, or an extra-legal nature ('capacities'), encompassing a broad range of capacities such as expertise, money, legitimacy, and more. Thus, regulatory resources can take diverse forms and originate from various sources, yet they all grant access to and influence over the regulatory space.

Another essential element of the regulatory space lens is the emphasis on linkages which may replace, or emerge parallel to, more traditional relationships among actors based on their legal competencies. Instead of merely focusing on these legal competencies, the regulatory space framework looks at other attributes that may generate influence and connections among different actors. In one way or another, these linkages can create new dynamics between actors and decision-making mechanisms showing that legislative instruments should not be considered static but are intrinsically processual in nature.

It is important to appreciate that the space to be regulated is most likely already occupied by actors who have different capacities at their disposal that will allow them to influence rule-making or -enforcement.[10] Whereas the regulatory space metaphor hence contributes to a better understanding of the actual or potential effects of regulatory initiatives by drawing a wider scope of analysis, this has so far not been done in the context of regulating technology. As a result, this theoretical lens not only helps in identifying unexpected regulatory dynamics potentially creating tensions, but at the same time, also points at new opportunities which may

6. Hancher and Moran (n 4) 292.
7. Scott (n 4) 19.
8. Da Silva and Guimarães (n 4) 515.
9. Scott (n 4) 5, 10; Hancher and Moran (n 4) 272.
10. Scott (n 4) 12–13, 16–17.

arise in the regulation of technology. This is because it simultaneously helps in exposing critical actors and their resources that can be utilized to improve the pursuit of regulatory objectives. Hence, it is important to first outline some important elements of the regulatory environment prior to the entry into force of the AIA as an indication of critical actors, their resources, and regulatory tendencies.

3. Regulatory Context: Multi-layered Regulation of Technology

The regulation of technology is unique in the way that new innovative, and possibly disruptive, technologies create significant challenges and pressures when it comes to a timely, regulatory response. This often leads to one of two outcomes: either regulators act rapidly running the risk of not being fully informed of the regulatory subject in question, or they wait way too long which can create legal uncertainty and lack of necessary protections.[11] In the case of regulating AI, one could observe the conundrum that the EU legislator had to deal with when abrupt technological leaps occurred in generative and foundation models – suddenly the regulatory proposal had to be reworked to accommodate new technological developments.[12]

When considering the EU level in particular, it is evident that the EU has produced a number of regulations geared towards governing digital technologies as part of its digital strategy in an attempt to harmonize internal market conditions. Arguably, the GDPR initiated this regulatory push in which internal market rationale was combined with the goal of protecting fundamental rights (i.e. data protection and the right to privacy).[13] This marked a regime change in the sense that the EU was trying to secure its geopolitical position by standing up against tech giants and protecting EU consumers, thereby establishing itself as defending the free market and fundamental rights simultaneously.[14] According to Papakonstantinou and de Hert, this trend trickled down to new regulatory initiatives targeting the digital sector, such as the Data Governance Act, the Cybersecurity Act, the DSA, the DMA, and also the AIA. What is distinctive with these new regulations, as argued by the authors, is that they mimic the unique architecture of the GDPR to various degrees. These elements include the introduction of new definitions that help in creating a specific new legal ecosystem which is then combined with new monitoring and enforcement mechanisms.[15] While it is reasonable to respond to technological developments globally under the EU umbrella instead of nationally, the consequence of introducing all these different frameworks is twofold. On the one hand, it means that Member States (MSs) will have to adapt their administrative systems to accommodate EU frameworks and their mechanisms creating more complexity, and counterintuitively, more divergence among MSs.[16] On the other hand, this new approach to regulating technology marginalizes traditional law by supplying the regulatory space with new regulatory mechanisms and hybrid digital policies which conflate internal market aspects with fundamental rights.[17]

Interestingly, this regulatory evolution within the EU is not restricted to the regulation of technology, but is part of a broader movement towards New Public Management (NPM) approaches.[18] Topical issues are increasingly testing the competence of more traditional branches of government as they require specialized knowledge and expertise to grasp these complexities sufficiently. Regulatory procedures relying on

11. E.L Sidorenko and P. von Arx, 'Transformation of Law in the Context of Digitalization: Defining the Correct Priorities' (2020) 1 *Digital Law Journal* 24, 26; Mark Fenwick, Wulf A Kaal and Erik PM Vermeulen, 'Regulation Tomorrow: What Happens When Technology Is Faster than the Law?' (2017) 6 *American University Business Law Review* 561, 568.
12. Luca Bertuzzi, 'AI Act: EU Commission Attempts to Revive Tiered Approach Shifting to General Purpose AI' (*Euractiv*, 20 November 2023) https://www.euractiv.com/section/artificial-intelligence/news/ai-act-eu-commission-attempts-to-revive-tiered-approach-shifting-to-general-purpose-ai/ accessed 1 May 2024.
13. Aina Turillazzi and others, 'The Digital Services Act: An Analysis of Its Ethical, Legal, and Social Implications' (2023) 15 *Law, Innovation and Technology* 83, 83–85; Vagelis Papakonstantinou and Paul De Hert, 'The Regulation of Digital Technologies in the EU: The Law-Making Phenomena of "Act-Ification", "GDPR Mimesis" and "EU Law Brutality"' (2022) 2022 *Technology and Regulation* 48, 52, 55.
14. Dennis Broeders, Fabio Cristiano and Monica Kaminska, 'In Search of Digital Sovereignty and Strategic Autonomy: Normative Power Europe to the Test of Its Geopolitical Ambitions' (2023) 61 *Journal of Common Market Studies* 1261.
15. Papakonstantinou and de Hert (n 13) 49, 53, 55.
16. Broeders, Cristiano and Kaminska (n 14) 1274; Papakonstantinou and Hert (n 13) 56–58.
17. Sidorenko and von Arx (n 11) 35; Broeders, Cristiano and Kaminska (n 14) 1272.
18. Roger Brownsword, *Law 3.0: Rules, Regulation, and Technology* (1st edn, Routledge 2020) 55.

independent agencies are a response to these challenges, providing both an inexpensive solution and being more capable of mobilizing various stakeholders that together supply the necessary knowledge.[19] Hence, formal regulation which limits rule-making and enforcement primarily to governmental bodies is in many domains replaced by self-regulation or co-regulation[20], particularly within economic regulation.[21]

This is in line with a somewhat related phenomenon observed within EU legislative processes regarding a shift of opting for "soft modes of governance"[22] instead of hard law obligations.[23] While offering more flexibility for rule-making and implementation, soft law also opens the stage for different actors. This means that the ways in which norms are formalized into rules can greatly vary. In that sense, it is useful to think of rules and norms as falling on a spectrum, whereby the degree of obligation arising from and enforcement of a specific rule greatly depends on the form that a rule takes as well as the competencies of the actor setting or enforcing the rule.[24] In some cases, private entities such as interest groups or professional bodies are vested with certain rule-making or -enforcement powers.[25] In contrast to the creation of hard laws and rules, the norm-setting for soft laws involves a variety of stakeholders like companies, NGOs, or civil society which makes the whole procedure open to a wider selection of actors.[26] This is important to keep in mind, as Terpan rightly argues that "[i]f we only consider those norms that can with no doubt be taken as hard law, we miss the opportunity to analyse the whole spectrum of legal normativity and push the governance issue out of the legal research agenda."[27]

As such, regulation of technology literature points to two essential drivers: First, in the specific context of the EU, new legal frameworks and mechanisms are employed which complicate the overall regulatory architecture. Second, there is a general shift in which public tasks are delegated to private bodies which is not unique to regulation of technology, yet strongly pronounced in the field due to the challenges that technology brings to traditional branches of government.The turn in EU governance towards privatization, agencification, and a general fragmentation of the institutional landscape has been particularly prevalent in the age of digitalization. This is partly due to the fact that digital infrastructures are largely owned by private sector actors, leaving public bodies incapacitated when it comes to effective regulation. Hence, while traditional institutions such as national governments or transnational bodies like the Commission still retain some form of regulatory power, new actors with different resources have entered the regulatory arena.[28]

This trend is specifically pronounced in the EU's reliance on standards, a movement that was paved by the so-called "New Approach" in 1985 where it was decided that Directives would not have to include detailed technical rules and instead only basic requirements. It would then be up to European standardization bodies

19. Frank Vibert, *The New Regulatory Space: Reframing Democratic Governance* (Edward Elgar Publishing 2014) 3–4; Scott (n 4) 2; John Hudson, Juraij Nemec and Marta Orviská, 'Standardization and the European Standards Organisations' (2013) 7 *Central European Journal of Public Policy* 36, 55; Jan Beyers and Sarah Arras, 'Who Feeds Information to Regulators? Stakeholder Diversity in European Union Regulatory Agency Consultations' (2020) 40 *Journal of Public Policy* 573, 573–574.
20. Multi-stakeholder co-regulation therefore has a rich history that can be observed in many domains ranging from privacy law to telecoms, the energy sector and much more. Although this article specifically focuses on the AI Act, it should be noted that it is embedded in wider regulatory developments. *See e.g.* Charles F. Sabel and Jonathan Zeitlin, 'Learning from Difference: The New Architecture of Experimentalist Governance in the EU' (2008) 14 *European Law Journal* 271; Scott (n 4) 11–12.
21. Linda Senden, 'The Constitutional Fit of European Standardization Put to the Test' (2017) 44 *Legal Issues of Economic Integration* 337 https://kluwerlawonline.com/api/Product/CitationPDFURL?file=Journals\LEIE\LEIE2017018.pdf accessed 31 July 2024.
22. Fabien Terpan, 'Soft Law in the European Union—The Changing Nature of EU Law' (2015) 21 *European Law Journal* 68, 88.
23. Hudson, Nemec and Orviská (n 19) 48.
24. Terpan (n 22) 69, 77, 85, 87.
25. Terpan (n 22) 89; Panagiotis Delimatsis, '"Thou Shall Not... (Dis)Trust": Codes of Conduct and Harmonization of Professional Standards in the EU' (2010) 47 *Common Market Law Review* 1049, 1052.
26. Terpan (n 22) 88; Sylvia I. Karlsson-Vinkhuyzen, 'Global Regulation through a Diversity of Norms: Comparing Hard and Soft Law', *Handbook on the Politics of Regulation* (Edward Elgar Publishing 2011) 607 https://www.elgaronline.com/display/9781848440050.00063.xml accessed 12 April 2024.
27. Terpan (n 22) 75.
28. David Levi-Faur, 'Regulatory Networks and Regulatory Agencification: Towards a Single European Regulatory Space' (2011) 18 *Journal of European Public Policy* 810, 810–813; Robertus Hoppe, *The Governance of Problems: Puzzling, Powering and Participation* (Policy Press 2010) 2 https://research.utwente.nl/en/publications/the-governance-of-problems-puzzling-powering-and-participation accessed 21 March 2024.

to accompany legislation with technical standards to make basic requirements more concrete.[29] Although there has been much criticism as regards to the lack of democratic legitimacy or the constitutionality of outsourcing law-making to these private organizations, this has not prevented standards from being an important instrument particularly in the fast-pace tech sector due to the relatively quick procedures for standard creation as compared to legislative processes.[30]

Specifically in the context of AI, resources are fragmented and various actors hold different positions from which they can influence regulatory processes. Regulatory resources do not solely originate from legal authority but may come from a wide array of attributes, ranging from the positionality within AI supply chains, certification schemes, to standard-setting bodies, consumer and fundamental rights protection, and already existing regulatory bodies in the field of AI and algorithms. [31] As such, the general fragmentation of the institutional landscape constitutes an important consideration in the context of the AIA. This also holds true for the shift to soft modes of governance. This can be deduced from the fact that the AI Act incorporates legal rules and obligations next to a wide array of soft law instruments intended to establish various other norms, including codes of conduct, codes of practice, opinions, recommendations, guidelines, and standards. Due to this spectral nature of the rules set under the AIA, the analysis warrants more nuance. Thus, considering these other norms additionally implies being aware of (other) dynamics and power structures that accompany those processes of adopting soft law.

As such, the benefit in using the regulatory space lens next to insights from regulation of technology is that it "focuses attention not only on who the actors involved in regulation are, but on structural factors which facilitate the emergence and development of networks and which contribute to the institutionalization of linkages."[32] In other words, whereas regulation of technology mainly focuses on the actors and legal competencies recognized by a specific regulation, the regulatory space framework takes a wider approach by considering actors not explicitly considered in regulation who mobilize extra-legal capacities relevant for the regulatory chain of rule-making and -enforcement. The following analysis will therefore use the AIA as a starting point to gauge what the new dynamics will be with its entry into force and its interaction with the already existing regulatory space. Figure 2 aims at illustrating how this analysis is set up.

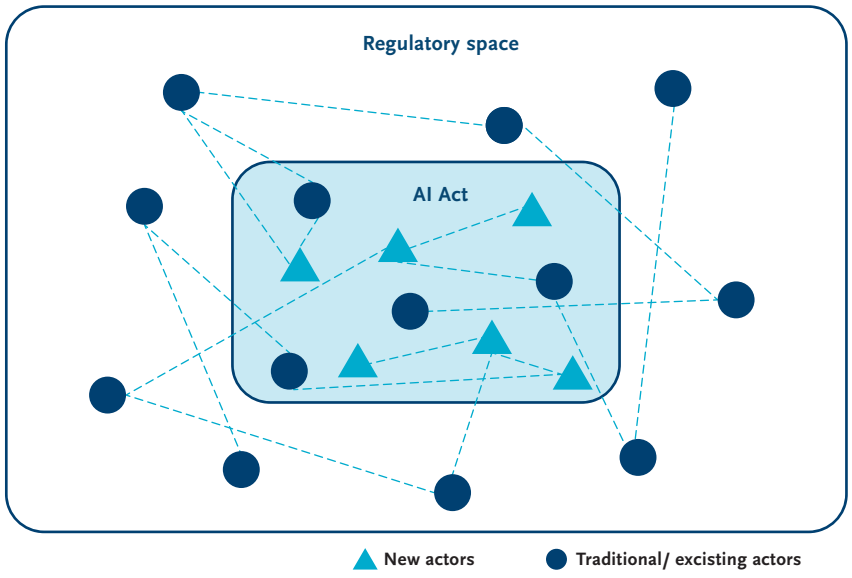

Figure 1. Analytical Framework

29. Rob van Gestel and Hans-W Micklitz, 'European Integration through Standardization: How Judicial Review Is Breaking down the Club House of Private Standardization Bodies' (2013) 50 *Common Market Law Review* 145, 156; Hudson, Nemec and Orviská (n 19) 44.
30. Gestel and Micklitz (n 29) 151–152; Hudson, Nemec and Orviská (n 19) 49, 52.
31. Jennifer Cobbe, Michael Veale and Jatinder Singh, 'Understanding Accountability in Algorithmic Supply Chains', *2023 ACM Conference on Fairness, Accountability, and Transparency* (2023) 189–193 http://arxiv.org/abs/2304.14749 accessed 20 March 2024.
32. Hancher and Moran (n 4) 292.

4. Legal Analysis

The AI Act, adopted by the European Parliament and the Council of the EU under the ordinary legislative procedure, establishes harmonized rules on AI. As a Regulation, it is fully binding on all MSs. Its dual legal basis – Arts. 16 TFEU and 114 TFEU – combine fundamental rights protections (data protection) with internal market objectives.

The Act opts for a risk-based structure, assigning obligations and requirements based on an AI system's risk level. There are prohibited practices[33] and high-risk systems[34] facing stringent requirements, including risk management systems,[35] technical documentation,[36] and compliance mechanisms via standardization. Providers and deployers must also meet specific obligations. Limited risk AI systems are subject to transparency obligations,[37] whereas minimal or no risk systems have no obligations.[38] In other words, the AIA sets the most stringent requirements and obligations for high-risk AI systems, whereas the majority of AI systems falls under the limited or no risk category involving no obligations.[39] Importantly, the AIA also includes a governance chapter introducing new actors to the regulatory ecosystem.[40]

In line with the regulatory space approach, this doctrinal analysis begins by introducing the actors involved under the Regulation (rather than the different risk categories), as the AIA generates a complex network of actors responsible for the adoption, enforcement, implementation, and oversight. Before proceeding, it is critical to briefly explain the method, as key choices were made regarding actor classification due to the article's limited scope and the AI Act's complexity.

The analysis focuses on high-risk AI systems, which are subject to most obligations and standards, while general-purpose AI and regulatory sandboxes are excluded. Furthermore, it should be highlighted that the distinction between traditional and new actors is not always as clear-cut, as some existing actors may take on roles of newly-established bodies under the AIA. However, as MSs have yet to delegate certain roles, these bodies are still considered new in theory.

This doctrinal research systematically examines the entire Regulation to identify all actors mentioned within the pre-defined scope – both established and new actors. It then analyzes the regulatory resources these actors hold under the AIA. Again, it is important to elucidate how these resources were identified and classified. Initially, emphasis was put on legal competencies due to the AIA's legislative nature, but as the Act also considers the securing of extra-legal capacities, such as funding or organizational capacities, they were included in the analysis and supplemented with relevant literature.

33. AI Act, art 5.
34. AI Act, art 6 in conj. with Annex III.
35. AI Act, art 9.
36. AI Act, art 11.
37. AI Act, art 50.
38. European Commission, 'AI Act | Shaping Europe's Digital Future' (*European Commission*, 20 March 2024) https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai accessed 2 April 2024.
39. European Commission (n 38); AI Act, arts 6(1)(b), 6(2).
40. AI Act, Chapter VII.

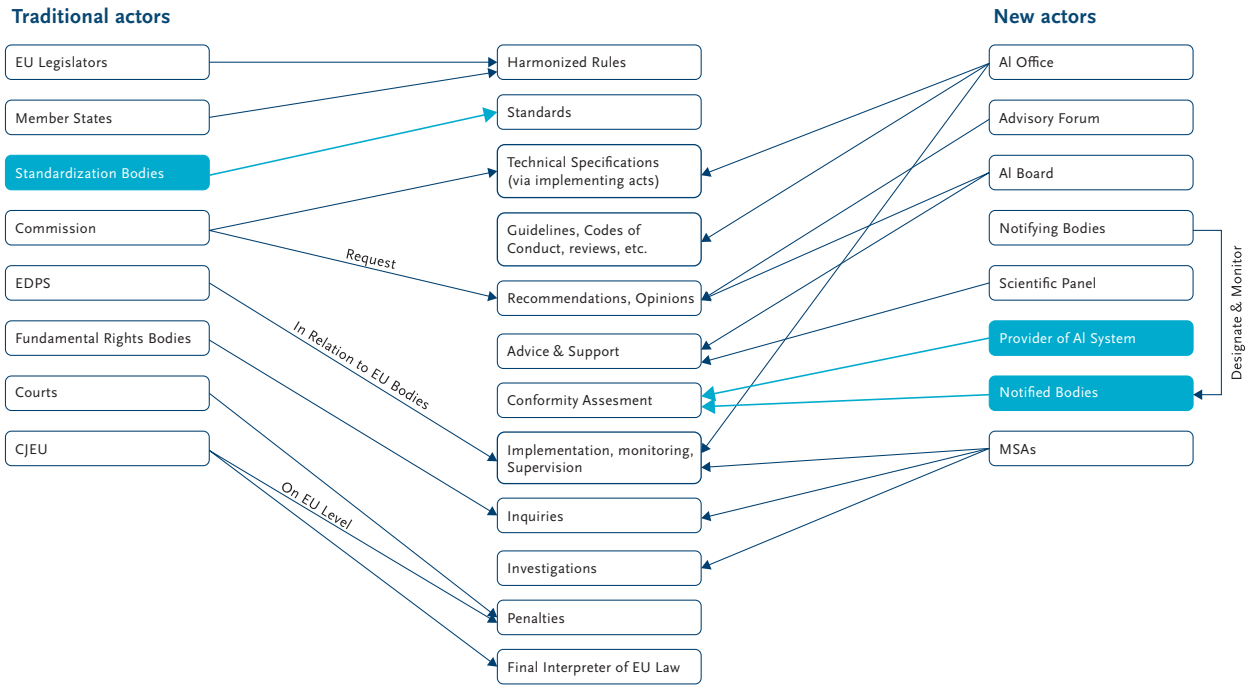

Figure 2. Mapping Actors and Their Competencies (Dark blue: public bodies; Light blue: private bodies)

4.1 Actors

In this section, the initial actor mapping based on the doctrinal analysis of the AIA will be conducted to deduce critical actors with legal competencies. For a clearer overview, actors are classified under traditional and new.

4.1.1 Traditional Actors

Within the classification of traditional actors, three groups can be deduced which offer a helpful scheme for categorization. First, there are traditional EU institutions established by primary EU law which will always be encountered in any regulatory space within the EU. There are the Council of the EU and the EU Parliament as co-legislators who can be considered the ultimate rule-maker that defines (and is competent to redefine) the legal boundaries within which other acts can operate in the regulatory space. Unsurprisingly, the Commission is still retaining a powerful position. Apart from its exclusive position of proposing new EU legislation, it also plays a vital role in the implementation of the AIA by securing both direct and indirect competencies under the AIA when it comes to high-risk AI systems (which will be discussed later). Last but not least, the Court of Justice (CJEU) occupies the role of the final interpreter of EU law, and hence, the AIA.

Alongside actors established by EU primary law, MSs and nationally established entities, such as courts, play key roles. Adoption of EU legislation to further establish the internal market impacts MSs in two ways: it limits their rule-making power through the adoption of harmonized rules on AI, and also requires them to transpose the Regulation into national law. This includes establishing new enforcement bodies like market surveillance authorities (MSAs) and laying down the rules regarding penalties and enforcement actions for AIA infringements.[41] Although national courts are only once mentioned in the AIA (in relation to penalties), they retain their adjudicative role, enforcing and interpreting the Regulation. Depending on jurisdiction, they may impose administrative fines for violations.[42] Additionally, national courts exercise judicial review under the competencies conferred upon them by the TFEU and national constitutions, reviewing administrative decisions regardless of whether AI was involved.[43] Judicial review, therefore, operates independently of the AIA and follows national legal requirements.

41. AI Act, art 99.
42. AI Act, art 99(9).
43. As acknowledged by the AI Act, art 85; Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) 39 *Legal Studies* 636, 642.

Finally, it is important to consider already existing EU actors established by secondary EU law who are not native to the context of AI but will nevertheless enter its regulatory space. From the area of data protection, the European Data Protection Supervisor (EDPS), established under the GDPR, is considered. Albeit not occupying a central position, the EDPS will be a designated observer of the AI Board, one of the new actors in the regulatory space.[44] Additionally, the EDPS will also function as the appointed Market Surveillance Authority (MSA) for EU institutions, agencies, and bodies falling under the scope of the AIA.[45] In that sense, the EDPS will be reinforced in their role of guaranteeing compliance with data protection within the rule-making mechanisms of the AIA as well as in their role of overseeing EU institutions.[46] Furthermore, in some cases, Data Protection Authorities (DPAs), also established under the GDPR, will be recurring actors. This will be so in situations concerning matters related to data protection, such as the use of real-time biometric identification systems by law enforcement.[47] Moreover, it is possible that some MSs will designate their DPAs as MSAs, newly introduced actors under the AIA, as they are free to choose how to establish their MSAs. As a result of using Art. 114 TFEU as a legal basis, European standardization organizations will take on a prominent role from a product safety angle. Under the AIA, they are vested with issuing standards for high-risk AI systems at the request of the Commission.[48] Lastly, while it might seem somewhat unconventional to allot powers to fundamental rights bodies in the context of product safety, the AIA recognizes the risks associated with use of high-risk AI when it comes to data protection, discrimination and biases.[49] For this reason, the AIA is based on a double legal basis which conjuncts with Art. 16 TFEU. Therefore, in order for human rights bodies to effectively safeguard fundamental rights, the Regulation explicitly refers to them and sets compliance mechanisms targeted at public bodies using high-risk AI systems.

4.1.2 New Actors

Next to already existing actors, the Regulation introduces a new ecosystem under Chapter VII which establishes novel actors that will enter the regulatory space of AI. At Union level, the AIA establishes four new actors. Falling under that category, one major player who will be claiming a central position is the AI Board, established under Art. 65 AIA, and consisted of one representative per MS. The Board's tasks are manifold and primarily relate to advising and assisting both the Commission and MSs to safeguard "the consistent and effective application of this Regulation."[50] This can take on many forms, including strengthening the cooperation with various stakeholders[51], "provid[ing] advice on the implementation"[52], issuing recommendations and written opinions regarding implementation and consistent, effective application[53], and facilitating relevant regulatory bodies in fostering the necessary technical and organizational expertise[54].

The second new player on EU level is the AI Office as a central player within the AI regulatory space, established under the Commission as an additional unit within the administrative structure of the Directorate-General for Communication Networks, Content and Technology.[55] The centrality of its position is already declared very early on in the Regulation. Art. 3(47) states that "'AI Office' means the Commission's function of contributing to the implementation, monitoring, and supervision of AI systems and general-purpose AI models, and AI governance". This includes involvement in the development of standardization tools; producing evaluations, reviews, and reports; or facilitating the formulation of Codes of Conduct.[56]

44. AI Act, art 65(2).
45. AI Act, Recital 156.
46. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC *(General Data Protection Regulation)* [2016] OJ L 119/1, arts 57–58.
47. AI Act, art 5(4), Recital 36.
48. AI Act, art 40.
49. AI Act, art 77.
50. AI Act, art 66.
51. AI Act, art 66(h).
52. AI Act, art 66(c).
53. AI Act, art 66(e).
54. AI Act, art 66(j).
55. Commission Decision of 24 January 2024 establishing the European Artificial Intelligence Office (C/2024/1459) [2024] OJ C 1459/1, art 1.
56. Commission Decision establishing the EU AI Office, arts 3(2)(c), 3(2)(d), 3(2)(f), 3(2)(i).

The Advisory Forum, another new body on EU level, is established to gather necessary technical expertise via its members to advise and support the Board and Commission in their tasks under the AIA.[57] Next to some permanent members, including for example the European Committee for Standardization (CEN) and the Fundamental Rights Agency, the Forum shall comprise a diverse array of members representing both commercial and non-commercial interests ranging from academia to civil society and industry as well as SMEs and start-ups. Non-permanent members are appointed by the Commission. Part of the advising and supporting tasks of the Advisory Forum is also the formulation of opinions, recommendations, and written contributions if requested by the Board or Commission.[58]

The fourth actor, presenting somewhat of a counterpart to the Advisory Forum, is the Scientific Panel of independent experts. The Panel is another supporting enforcement body for the AI Office as well as MSs and MSAs upon request.[59] Again, it is the Commission's role to select experts. Regarding the selection, emphasis is put on independence, objectivity, and "fair gender and geographical representation"[60].

On a national level, the AIA requires the assignment of two national competent authorities by MSs, namely notifying authorities and Market Surveillance Authorities (MSAs).[61] MSAs operate as a single point of contact to, for example, lodge a complaint to, seek guidance and advice for the implementation of the AIA, or to report a serious incident regarding a high-risk AI system.[62] Any public authority may take on the role of the MSA based on what the individual MS considers to be most beneficial, except for AI systems used in the public sector.[63]

The notifying bodies serve as a node between the Commission, MSs, and notified bodies. Whereas notified bodies refer to private actors who are authorized to carry out the conformity assessments of high-risk systems, notifying authorities are public, national bodies tasked with assessing, designating, and notifying private actors to become notified bodies. Specifically, private companies who wish to take on the role of a notified body will have to submit an application for notification to the notifying body. Importantly, the AIA only entrusts actors with specific assessment capacities and expertise to take on the role of assessing compliance of high-risk AI systems. These capacities include "organisational, quality management, resources and process requirements [...] as well as suitable cybersecurity requirements."[64] Additionally, notifying bodies will monitor the notified bodies' activities and inform the Commission of all these bodies.[65]

4.2 Thematic Discussion of Actors under the AIA

With a better understanding of the actors considered under the AIA, and thus, also of who is occupying or entering the regulatory space within the confines of the Regulation, it is now useful to analyze their roles in light of three issues that are highly relevant to the regulatory chain: defining the scope of the AIA, compliance with the AIA, and enforcement of the AIA. While those actors involved in defining the scope set important boundaries for the regulatory space, at least for the role of the AIA within the regulatory space of AI, those engaging in compliance are integral in promoting accountability and preventing violations. Enforcement of the AIA will then discuss those actors playing an important role once rules and requirements are not complied with. These insights will help in the analysis to understand the legal competencies at play and to perhaps already get a glimpse of some of the linkages that might occur.

4.2.1 Scope

An important factor in assessing the AI Act's scope is its definition of AI systems. Art. 3(1) includes conditions like "varying levels of autonomy", "adaptiveness", and inferring output from received input. Due to this broad definition, its practical application remains unclear, and the Commission is instructed under

57. AI Act, art 67(1).
58. AI Act, arts 67(2), 67(3), 67(5), 67(8).
59. AI Act, arts 68(3), 68(3)(b), 69(1).
60. AI Act, art 68(2).
61. AI Act, art 70.
62. AI Act, arts 73(1), 74, 85.
63. AI Act, Recital 77.
64. AI Act, arts 29, 30, 31.
65. AI Act, arts 31, 32.

Art. 96(1)(f) to develop implementation guidelines on the definition of AI systems. At the same time, the CJEU, as the final interpreter of EU law, may also shape this definition. Nevertheless, the definition suggests that basic algorithms "based on the rules defined solely by natural persons to automatically execute operations"[66] are excluded from AIA, making the scope of the regulation dependent on the necessary degree of autonomy, inference, and adaptiveness of the system in question. This may leave many algorithms outside the AI Act's scope, subject instead to Art. 22 GDPR (provided personal data is involved and the automated decision produces legal or similarly significant effects) or national legislation. Ultimately, how this definition is applied will shape MSs' discretion in regulating other algorithms and less advanced AI systems within the regulatory space of AI.

Under Art. 2 AIA, the scope is further delineated by emphasizing that AI systems for military defense or national security are excluded from its applicability and that MS competencies with regard to national security prevail.[67] Moreover, the article states that the AIA does not override the DSA, GDPR, LED or any EU legislation on consumer protection and product safety. It further maintains that MSs are free to lay down more stringent laws protecting workers' rights which would fall under the competence of the national legislator.[68] This means that, on the one hand, there are critical areas such as national security or public health where discretion is secured in favor of MSs, indicating limitations in scope of the AIA. On the other hand, there is also the understanding that the AIA must attune to the existing EU (secondary) law ecosystem.

4.2.2 Compliance

When it comes to the compliance mechanisms enshrined under the AI Act, it is mostly private bodies entrusted with ensuring compliance of high-risk systems. Non-compliance results from a failure of high-risk systems to meet their requirements, or shortcomings in harmonized standards or common specifications which are primarily developed by the two EU standardization organizations: CEN and CENELEC.[69] In general, requirements under the AIA are translated into harmonized standards, allowing providers to use standards to ensure their compliance. Importantly, the status of standards provides us with valuable insights into the dynamics of rule-making: In essence, non-compliance not only follows from the violation of hard rules ('requirements') set by the EU legislators under the AIA but also from non-compliance of harmonized standards. This follows from the presumption of conformity which is granted to providers in case of compliance with harmonized standards.[70] The issuance of harmonized standards is limited to CEN and CENELEC based on the standardization request issued by the Commission which positions them as key players within the regulatory space.[71] Although, strictly speaking, standards cannot be regarded as more than soft laws for their voluntary nature, here they are treated as quasi-laws, positioning both CEN and CENELEC as quasi-rule-makers.[72]

Interestingly, it is primarily up to the developer to classify their AI system as falling under the high-risk category or not.[73] On the base level, compliance with the requirements set under the AIA will be ensured through conformity assessments delegated to either the provider of the system itself (internal control), or notified authorities, also referred to as third-party conformity assessment. This includes *inter alia* the testing of the AI system, certification and inspection.[74] For providers of high-risk systems, the requirements that their systems should comply with entail the setting-up of quality management systems which includes

66. AI Act, Recital 12.
67. AI Act, art 2(3).
68. AI Act, arts 5(5), 5(7), 5(9), 5(11).
69. AI Act, art 79(6)(c).
70. AI Act, art 53(4).
71. Commission Implementing Decision of 22.5.2023 on a standardisation request to the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation in support of Union policy on artificial intelligence [2023] C(2023) 3215 final, 7.
72. Although outside the scope of this paper, it is also important to consider the potential horizontal effect of fundamental rights obligations (in this case Art. 16 TFEU) binding these private bodies in their role as quasi-rule-makers, especially where legislation introduces a presumption of compliance. *See* Case C-171/11 Fra.bo SpA v Deutsche Vereinigung des Gas- und Wasserfaches eV (DVGW) (CJEU, 12 July 2012) ECLI:EU:C:2012:453 on product standardisation; Hudson, Nemec and Orviská (n 19) 49.
73. AI Act, art 6(4).
74. AI Act, arts 3(19), 3(21), Recital 125.

among various other things the documentation of conformity assessment procedures, quality control and assurance, technical specifications, data management, or risk management.[75]

Hence, compliance with the requirements imposed on high-risk AI systems is very much dependent on co- and self-regulation between various private bodies such as standardization organizations or notified bodies.[76] Furthermore, the status of standards as being an essential measure to both concretize requirements under the AIA as well as to assess compliance makes those bodies which generate them powerful. At the same time, it is up to the developers and third-party conformity assessment bodies to ensure overall compliance with the AIA.

4.2.3 Enforcement

The enforcement of the Regulation is in most parts left to the MSAs, as they fulfil a strong enforcement component which encompasses investigations and detection of non-compliance. To fulfill their mandate, MSAs are entitled to unique access to documentation, source code, auditing procedures and the like.[77] In cases where potential violations with the obligations and requirements under the AIA are determined, MSAs can require the operator to take appropriate corrective measures, or in serious cases, withdraw the system from the market. If non-compliance extends outside the MS's territory, all other MSAs will have to be notified and can raise objections within three months.[78]

It should be emphasized that on national level MSAs are in the position to determine whether an AI system may present a risk to health, safety, or fundamental rights in conjunction with the risk definition under Regulation (EU) 2019/1020 on market surveillance and compliance of products. This is notwithstanding whether the system is already classified as high-risk under the AIA.[79] The ability of MSAs to somewhat override the AIA's classification arguably comes from the notion of risk, as it can also relate to issues of public health, public safety, and other fundamental rights obligations of MSs – competences which are not conferred upon the EU. This is different from areas such as internal market or product safety, both of which fall under shared competences.[80]

Next to the power of investigating potential violations, MSAs also serve as a point of contact for complaints of natural or legal persons who suspect an infringement under the AIA.[81] Due to the strong presence and legal authority vested with MSAs under the Regulation, much of the enforcement will hence be assigned to them. It therefore appears that much of the rule-enforcement capacities and powers will be shifted towards executive bodies.[82]

At the same time, national legislators and courts still occupy an important role in enforcing EU law on a national level. In the case of the national legislators, Art. 99 AIA leaves the design of the enforcement regime at the MS's discretion. Although primarily procedural in nature, this power can have a significant effect on the stringency of enforcement. While it is telling with regard to national courts that they are only referred to once in the whole Act, they will maintain rule-enforcement powers concerning the imposition of penalties depending on the legal system of the MSs.[83] This will run parallel to the complaint mechanisms

75. AI Act, art 17.
76. Commission Implementing Decision of 22.5.2023 on a standardisation request to the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation in support of Union policy on artificial intelligence (n 71); Senden (n 21) 340.
77. AI Act, art 74(11)-74(13); the competencies are in addition to those conferred upon by Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011 [2019] OJ L 169/1 1.
78. AI Act, art 79.
79. AI Act, art 65(1)(2) in conj. with Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011 [2019] OJ L 169/1 1, art 3(19).
80. Consolidated version of the Treaty on the Functioning of the European Union [2007] OJ C326/01, arts 3-4, 6.
81. AI Act, art 85.
82. Hannah Ruschemeier, 'AI as a Challenge for Legal Regulation – the Scope of Application of the Artificial Intelligence Act Proposal' (2023) 23 *ERA Forum* 361, 372.
83. AI Act, art 99(9).

set up via the MSAs. Moreover, even if they are not directly involved with imposing fines, courts will in any case be tasked with the judicial review and the safeguarding of effective judicial remedies and due process.[84] This may for example be the case when citizens may be subject to discrimination or bias by a high-risk AI system in a work-related context.[85]

However, it remains to be seen if enforcement will rely more on the activities of the MSAs, or if actors will take recourse to judicial proceedings. This will arguably also depend on the level of trust that citizens have in either institution and to what extent MSAs may be proactive in their role. If they are perceived as a valid alternative and effective way to file complaints, it may very well be that MSAs will play a pivotal role in regard to enforcement as compared to national courts.

Important to point out is also the role of fundamental rights bodies in their capacity as rule-enforcers of fundamental rights under EU law. The fact that they are vested with "the power to request and access any documentation created or maintained under this Regulation"[86] means that they will occupy an important part of the enforcement process relating to the prevention of discrimination and the protection of related fundamental rights. This will happen in concert with the relevant MSAs as they will have to be informed of any such request which could imply that this could create collaborative practices between these two bodies.

5. Discussion

After a thorough legal analysis in which important actors under the AIA were demarcated as well as their legal competencies on some selected topics, it is now time to embed these findings into the overall notion of the regulatory space. The prior legal analysis has already given an indication of the wide spectrum of rules with various degrees of enforcement capacity the AIA relies on. Section 5.1 first solely discusses the distribution of legal competencies and contextualizes the previous analysis in the regulatory space framework. Section 5.2 follows by outlining relevant extra-legal capacities which allow actors to influence the regulatory space of AI. Finally, these insights will culminate into an analysis of linkages between regulatory actors.

5.1 Legal Competencies in the Broader Context of the AI Regulatory Space

It should be clarified from the outset that the legal competencies under the AIA are quite restricted when considering the scope of the Regulation. For once, it is still unclear as to how to understand the definition of AI systems under this Act. This carries the risk that many developers might design their systems in a way that they do not meet the threshold requirements of the definition of AI. In that way, they would not be subjected to the obligations and requirements of the Regulation. At the same time, a large majority of AI systems will not fall under the high-risk category, the same category which sets most of the rules and obligations.[87] This means that at least those legal competencies vested by the AIA are already somewhat limited, as they only apply to the relatively small group of high-risk AI systems on the market, and therefore only form a small part of the overall legal competencies existing in the whole regulatory space. Nevertheless, both the AI Office and MSs are to facilitate the generation of codes of conduct which may be implemented on a voluntary basis by AI systems not considered high-risk.[88] The influence of such soft law instruments remains to be seen however.

Nevertheless, with regard to the rule-making under the AIA, the Commission holds much of the power. This is for various reasons: On the one hand, it is the Commission which will further clarify the definition of AI systems, thus, retaining leeway when it comes to the systems covered by the Regulation. On the other hand, the Commission maintains a strong hold on creating soft rules, which constitute authoritative sources and often transition into strict obligations. This competence materializes in various ways. First,

84. AI Act, art 99(10).
85. Aude Cefaliello and Miriam Kullmann, 'Offering False Security: How the Draft Artificial Intelligence Act Undermines Fundamental Workers Rights' (2022) 13 *European Labour Law Journal* 542, 558.
86. AI Act, art 77(1).
87. Bertin Martens, 'The European Union AI Act: Premature or Precocious Regulation?' (*Bruegel | The Brussels-based economic think tank*, 8 April 2024) https://www.bruegel.org/analysis/european-union-ai-act-premature-or-precocious-regulation accessed 9 May 2024.
88. AI Act, art 95(1).

the AI Office will be involved in the development of standardization tools, evaluations, reviews, and reports while also facilitating the creation of codes of conduct. Second, the Commission may also request opinions, recommendations, and contributions from the Advisory Forum. Although independent on paper, the Commission selects the members of this Forum, thus exerting indirect influence on the outcome of these documents. Similarly, the Commission is also vested with the power of appointing members of the Scientific Panel of independent experts which supports the rule-enforcement activities under the AI Act. Importantly, these agencies play key roles in implementing the Regulation by way of specifying definitions, obligations, and requirements through various implementing rules.[89] Thus, their activities should not be underestimated when it comes both to subsequent rule-making and rule-enforcement. Lastly, the Commission retains the power to amend different Annexes to the AIA, another factor playing into its rule-making position.[90]

At the same time, European Standardization Bodies will play a crucial role in the quasi law-making by setting the standards which presume compliance. Here, parallels can be drawn with the general trend of EU law-making which delegates much of its powers and accountability mechanisms on agencies and private bodies.[91] In cases where there are no standards in place, the Commission is free to lay down technical specifications, including standards, via implementing acts which will also serve as a presumption of conformity.[92]

When it comes to rule-compliance, this responsibility is shared between the MSAs and private actors, namely notified bodies and the developers themselves. As already mentioned, on the base level, the Regulation depends on self-regulation and co-regulation whereby either developers or third-party conformity assessment bodies determine to what extent the AIA is applicable to their systems based on the assessment of risk. This refers to the compliance mechanisms discussed in the legal analysis section. It is then up to the MSAs to ensure that these actors in fact comply with the rules and standards by way of conducting investigations, inquiries and the like. Whereas other Union law on fundamental rights, data protection, or product safety may apply, depending on the sector, MSs will also have discretion to set up laws within their national contexts that go beyond the AIA to, for example, implement stronger safeguards for fundamental rights. This attention to fundamental rights is well aligned with the EU's move towards digital constitutionalism.[93]

Within the Regulation, MSs not only establish national enforcement bodies, such as the notifying authority or MSA, but also prescribe "the rules on penalties and other enforcement measures"[94] with due regard to the guidelines issued by the Commission under Art. 96. While the AIA sets the maximum amount for fines, it is up to the MSs to decide how they are applied and whether they are enforced by national courts or other bodies.

Overall, this adaptive set up of the AIA seems to heed the call for more tentative governance approaches to address the uncertainties of emerging technologies such as AI.[95] The iterative rule-making, provisional norms, and involvement of multiple actors in the AIA is especially characteristic of experimentalist governance, where binding obligations are combined with flexible, evolving standards.[96]

89. Beyers and Arras (n 19) 578.
90. AI Act, arts 7(1), 11(3), 43(5), 52(4), 53(6).
91. Marta Cantero Gamito, 'The Role of ETSI in the EU's Regulation and Governance of Artificial Intelligence' (2024) 37(5) *Innovation: The European Journal of Social Science Research* 1, 1–2.
92. AI Act, art 17(e), Recital 121.
93. Giovanni De Gregorio, 'The Rise of Digital Constitutionalism in the European Union' (2021) 19 *International Journal of Constitutional Law* 41, 42–43, 53.
94. AI Act, art 71(1).
95. Stefan Kuhlmann, Peter Stegmaier and Kornelia Konrad, 'The Tentative Governance of Emerging Science and Technology—A Conceptual Introduction' (2019) 48 *Research Policy* 1091, 1091–1093.
96. See generally Charles F. Sabel and Jonathan Zeitlin, 'Experimentalist Governance' in David Levi-Faur (ed), *The Oxford Handbook of Governance* (Oxford University Press, 2012) 169–170 https://doi.org/10.1093/oxfordhb/9780199560530.013.0012 accessed 28 February 2025; Sabel and Zeitlin (n 20).

5.2 Extra-legal Capacities

The consideration of extra-legal capacities will provide a more accurate and nuanced picture of the regulatory space of AI which moves beyond the confines of the AIA. Considering the limited scope of this inquiry, this section can only provide an overview of some capacities which give access to the rule-making and rule-enforcement mechanisms within the AI regulatory space. It is therefore not an exhaustive examination of all extra-legal capacities that could be relevant in the regulatory space but instead focus will be put on three particular resources: expertise, organizational capacities, and financial capacities.

Starting with expertise and information, there are various players who will gain exclusive access to the regulatory space due to their knowledge. On the forefront are AI providers themselves. Especially the big AI providers who have consolidated supply chains in a way that gatekeepers outsiders and puts them in the lead when it comes to technological innovation have unprecedented knowledge and insight into the technological aspects of AI. According to Cobbe et al., "[a]s a result, major providers are systemically important for the political economy, governance, and accountability of AI."[97] This power asymmetry which results from the lack of expertise as well as remotely comparable technical capacities on the side of governments means that big tech is left with considerable leverage when it comes to negotiation, providing policy advice, internal controls in relation to conformity assessments, and representation in standardization bodies.

This leverage is amplified by organizations representing industry in the lobbying and negotiation stage of the AIA which also enjoy an informational advantage due to their ties with the companies they are representing.[98] Not only is it highly likely that they have been influencing the rule-making process during the design of the AIA, but they will also be represented in the standardization process on national level which constitutes another access point for rule-making.[99] Industry at large, and those AI providers that control important supply chains in particular, are thus a considerable source of information and expertise. Especially when it comes to the representation in standardisation organizations, big tech's informational capacity stands in stark contrast to that of other representatives which puts industry at a considerable advantage in standardization procedures.[100]

Organizational capacities in the form of (technical) infrastructures, sufficient staffing, or strategic planning are also highly relevant in identifying important actors within the regulatory space. Here, it should be pointed out that the AIA exercises considerable gatekeeping when it comes to the question of who can be a notified body. Not only do the firms who apply to become notified bodies have to "satisfy the organisational, quality management, resources and process requirements that are necessary to fulfil their tasks"[101], among various other conditions, they are also required to show "the highest degree of professional integrity and the requisite competence in the specific field".[102] In practice, this means that only a small number of consultancy firms with considerable infrastructure and organizational capabilities will be able to apply as a notified body. While technically, these conformity assessment bodies can be classified as rule-enforcers, the level of discretionary powers within their activities will determine to what extent it may entail rule-making. Some authors have for example pointed out the tendency of auditors to focus on the quantitative, and more technical implementation of principles such as fairness which in turn sets and frames the way that such rules and norms are understood.[103]

97. Cobbe, Veale and Singh (n 31) 1192.
98. Beyers and Arras (n 19) 576.
99. AI Act, art 40(3).
100. Pierre Larouche and Justus Baron, 'The European Standardisation System at a Crossroads' (CERRE, 2023) 47–48 https://www.ssrn.com/abstract=4466316 accessed 22 July 2024.
101. AI Act, art 31(2).
102. AI Act, art 31(9).
103. P.M Krafft and others, 'An Action-Oriented AI Policy Toolkit for Technology Audits by Community Advocates and Activists', *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (Association for Computing Machinery 2021) https://dl.acm.org/doi/10.1145/3442188.3445938 accessed 20 March 2024; Sasha Costanza-Chock and others, 'Who Audits the Auditors? Recommendations from a Field Scan of the Algorithmic Auditing Ecosystem', *2022 ACM Conference on Fairness, Accountability, and Transparency* (2022) http://arxiv.org/abs/2310.02521 accessed 25 March 2024.

The importance of organizational capacity is also reflected in the decision to establish an AI Office within the organizational infrastructure of the Commission. Due to the complexity of the regulatory area in question and constant developments that need to be kept up with, it is reasonable that the Commission opted for having a separate unit responsible for the implementation of the AIA while still being under its control. In that way, the Commission was able to secure its organizational capacity in the regulatory space of AI and consequently further strengthen its position.

Likewise, the AIA binds MSs to provide effective organizational capacities to their MSAs. This includes "adequate technical, financial and human resources, and [...] infrastructure to fulfil their tasks effectively"[104] as well as "a sufficient number of personnel"[105] equipped with the necessary expertise in AI technologies, data protection, fundamental rights, etc. For some MSs, this may mean that they will opt for their national DPAs to also take on the role of MSAs under the AIA, as they may already possess considerable organizational capacities and expertise. Nevertheless, in the context of GDPR enforcement, the European Data Protection Board observed that "not all the national regulators have an equal commitment of resources to implementing the Regulation."[106] It remains to be seen whether this trend also continues with entry into force of the AI Act. In any case, these guaranteed organizational capacities will likely enhance their influence within the regulatory space, especially vis-à-vis national courts.

Of course, financial capacities also create significant advantages to their incumbents within the regulatory space. This applies to the advancement of other important capacities, such as information and expertise, or organizational capacities as these all require significant funding. At the same time, financial capital also offers access to political resources and lobbying. According to the Corporate Europe Observatory, a research and campaign organization that focuses on the lobbying activities in the EU regulatory environment, big tech as well as start-ups like Aleph Alpha or Mistral AI have exercised substantial influence on MSs to reach more favorable rules during the negotiations of the AIA. This not only affected the actual outcome of the final version of the Act, characterized by fewer obligations for AI developers, but there is a high likelihood that this influence will also penetrate subsequent procedures in rule-making, rule-enforcement, and overall implementation of the Regulation.[107] To some degree, this holds true in the context of standardization bodies where membership, representation, and voting power is often contingent on the contributions made to the organization's budget. In some cases, it is even possible for multinational companies to obtain multiple memberships, thus further boosting their influence via fiscal power.[108] However, somewhat surprisingly, the Commission excluded the European Telecommunications Standards Institute (ETSI), one of the three registered European standardization organizations, from its standardization request in support of the AIA. Considering that ETSI diverts in its voting and membership structure from both CEN and CENELEC in that companies and multinationals have more leeway in gaining more influence within ETSI through financial means[109], it might be the case that the Commission did in fact try to correct some of these imbalances. Though, it is not clear whether the decision was aimed at promoting more diverse stakeholder representation or at thwarting non-European industry members from securing increasing influence in EU standardization.[110] It should also be noted that CEN/CENELEC are constituted of national standards bodies whose membership schemes vary and often allow industry to become active members.[111]

104. AI Act, art 70(3).
105. AI Act, art 70(3).
106. Marta Cantero Gamito and Christopher T. Marsden, 'Artificial Intelligence Co-Regulation? The Role of Standards in the EU AI Act' (2024) 32 *International Journal of Law and Information Technology* 1, 17.
107. Corporate Europe Observatory, 'Don't Let Corporate Lobbying Further Water down the AI Act, Lobby Watchdogs Warn MEPs' (*Corporate Europe Observatory*, 12 March 2024) https://corporateeurope.org/en/2024/03/dont-let-corporate-lobbying-further-water-down-ai-act-lobby-watchdogs-warn-meps accessed 10 May 2024.
108. Larouche and Baron (n 100) 54–55.
109. Larouche and Baron (n 98) 44.
110. While this remains speculative, Gamito made a similar point, see Gamito (n 93) 7; for more general information on membership structure and the like ,see also Larouche and Baron (n 102) 54; Christoph Legat and Marvin Böll, 'Towards a Standardization Ecosystem for Industry 4.0' (Gesellschaft für Informatik eV 2023) 8–9 https://dl.gi.de/handle/20.500.12116/43133 accessed 22 July 2024.
111. For example, the German national standards body advertises its membership by guaranteeing *inter alia* "an active role in shaping German standardization policy" and voting rights; see DIN Deutsches Institut für Normung e. V., 'DIN Membership' (*DIN*, 2024) https://www.din.de/en/getting-involved/din-membership/din-membership-72238 accessed 12 August 2024.

5.3 Linkages

The regulatory space metaphor works under the assumption that the fragmentation of regulatory authority in the form of possessing different resources naturally means that interdependencies and linkages between various actors – both public and private – will arise.[112] These new linkages which may emerge under the AI Act can fill previously occupied or empty spaces; thus challenging, changing, or reinforcing old regulatory mechanisms and networks. In one way or another, this can create tensions. At the same time, by looking at these developments through this specific theoretical framework, new opportunities arise, as it helps in exposing critical actors and their resources that can be utilized to improve the pursuit of regulatory objectives.

For example, the formation of new linkages and dependencies has already been recognized in 2020 by the European Network of Equality Bodies (Equinet). In their report, it was emphasized that fundamental rights protection in the context of AI will require forging new alliances with actors not traditionally linked to equal rights enforcement. Especially with DPAs and MSAs taking a more central position in enforcement while simultaneously having important sectoral expertise, collaborations will be necessary to fill potential gaps and to maintain political influence.[113] This also holds true for the relationship between standardization bodies and public interest representatives. Due to the high reliance on standardization by the AIA, the quasi law-making power of European standardization bodies goes beyond merely formalizing technical aspects of requirements set out by the AIA by also extending the standardization request to the formalization of norms and fundamental rights. This has been highly criticized as it is questionable whether these private bodies are equipped and justified in specifying ethical considerations and fundamental rights into standards. Here, the question also arises whether standards are the appropriate solution for safeguarding public values and fundamental rights due to their lack of democratic legitimacy and the overall nature of standards as being presented as non-political and objective notwithstanding the fact that there are always ethical considerations to be made.[114] This raises the question whether digital constitutionalism will truly materialize, or whether the reliance on private standard setting will ultimately undermine its promise.

Nevertheless, there have been small attempts to remedy this asymmetry and create linkages to boost equal representation in standardization processes. For one, Regulation 1025/2012 (Standardization Regulation) is *inter alia* aimed at improving stakeholder participation in European standardization by encouraging and facilitating participation of public interest groups and SMEs to create a level plane field.[115] Furthermore, the Commission's decision to exclude ETSI from its standardization request might also be a sign to remedy participatory disadvantages. In preparation of said request, CEN and CENELEC set up a task group focused on facilitating inclusiveness of stakeholders. One measure that was adopted was the creation of a periodic newsletter which is distributed among all interested groups to keep relevant stakeholders amply informed.[116] It remains to be seen to what extent these measures will actually strengthen linkages between these different actors, as some scholars have pointed out that Regulation 1025/12 uses somewhat soft language in regards to more inclusive participation, thus questioning whether it is in fact a strict legal requirement.[117] What is more, it has been pointed out that it is questionable if effective participation of such a big and disparate group of stakeholders can be safeguarded and might in fact lead to more uncertainties.[118] It seems that while the attempt made by the Commission to make standardization processes more inclusive will not counteract information asymmetry regarding insider or expert knowledge, it does at least make

112. Scott (n 4) 9.
113. Robin Allen QC and Dee Masters, 'Regulating for an Equal AI: A New Role for Equality Bodies' (Equinet, 2020) 11–12.
114. Charlotte Högberg, 'Stabilizing Translucencies: Governing AI Transparency by Standardization' (2024) 11 *Big Data & Society* 20539517241234298, 3, 11; Chiara Giovannini, 'The Role of Standards in Meeting Consumer Needs and Expectations of AI in the European Commission Proposal for an Artificial Intelligence Act' (ANEC, 2021) Position Paper 2; Hudson, Nemec and Orviská (n 19) 48; Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act — Analysing the Good, the Bad, and the Unclear Elements of the Proposed Approach' (2021) 22 *Computer Law Review International* 97, 105; Gamito and Marsden (n 106) 11–12.
115. Gestel and Micklitz (n 29) 152, 177, 179.
116. 'First Edition of the AI Standardization "Inclusiveness" Newsletter' (*CEN-CENELEC*, 1 February 2024) https://www.cencenelec.eu/news-and-events/news/2024/newsletter/ots-49-etuc/ accessed 23 July 2024; Gamito (n 91) 7.
117. Gestel and Micklitz (n 29) 179.
118. Hudson, Nemec and Orviská (n 19) 55; Högberg (n 114) 11.

information on standardization of AI more accessible. Nevertheless, it should also be noted that standards are not publicly available, but have to be paid for in order to gain full access which again requires financial resources.[119] Considering the central role of standards within the AIA architecture, this is a major form of gatekeeping which disadvantages not only SMEs but also consumers, as it makes it more difficult to gain access to the standards applicable for accountability purposes.[120]

Overall, the AIA may in fact contribute to the creation of new, valuable linkages. This is because it regulates interests and stakeholder participation in a way that bridges industry representatives together with civil society organizations, academia, SME's, and start-ups both within the set-up of the advisory forum as well as the development of standards to a certain degree.[121] This in turn reinforces the advantage that comes with the so-called "strength of weak ties." According to Beyers and Braun, linkages between more distant regulatory actors provide considerable informational value which may translate into better policy access.[122] Here, the AIA seems to consider the benefit of connecting a wide array of stakeholders who may usually not engage regularly in the composition of the Advisory Forum or Scientific Panel. This may create an advantage for actors such as consumer protection organizations, fundamental rights bodies, and civil society organizations, for whom it is often costlier to gain the necessary expertise to effectively engage in consultations and regulatory activities.[123] At the same time, the impact of their output is already called into question due to the indirect ways in which these two bodies can influence broader regulatory discussions.[124]

With potential for the strengthening of some important linkages, it becomes apparent that more effort is needed to balance the current power asymmetries. One suggestion would be to lower the barriers for civil society organizations and NGOs to apply as notified bodies by creating funding schemes nationally and/or EU-wide to fulfil the requirements under Art. 31 AIA more easily. Hartman et al. rightly point to various instances where third-party audits by researchers and civil society exposed severe and far-reaching socio-technical harms perpetrated by algorithmic decision-making systems.[125]Additionally, more pressure could be exercised on standardization bodies to enhance diversity and representation of stakeholder participation.[126] Responsibility also falls onto the Commission to ensure stronger cooperation between European Standardization Organizations and research facilities, as stipulated by the Standardization Regulation.[127] Hence, while theoretically preconditions are fulfilled for creating stronger, valuable linkages, more proactive measures need to be taken both nationally and on EU-level to create an ecosystem in which these ties can flourish.

6. Conclusion

The regulatory space lens in the specific context of the regulation of AI shows that the introduction of new legislation will not necessarily result in a change due to existing (non-legal) power structures. While the AI Act displays similar tendencies as shown in previous EU technology regulation in the form of providing new definitions and establishing a new regulatory ecosystem, this analysis has emphasized the importance

119. Senden (n 21) 352.
120. Hudson, Nemec and Orviská (n 19) 54.
121. AI Act, art 67(2), Recital 121.
122. Jan Beyers and Caelesta Braun, 'Ties That Count: Explaining Interest Group Access to Policymakers' (2014) 34 *Journal of Public Policy* 93, 98, 114–115.
123. Beyers and Arras (n 19) 576.
124. Claudio Novelli and others, 'A Robust Governance for the AI Act: AI Office, AI Board, Scientific Panel, and National Authorities' (2024) 15 *European Journal of Risk Regulation* 1, 16.
125. David Hartmann and others, 'Addressing the Regulatory Gap: Moving Towards an EU AI Audit Ecosystem Beyond the AI Act by Including Civil Society' (2024) *AI and Ethics* 1, 9.
126. ibid, 15.
127. Regulation (EU) 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (European Standardisation Regulation) [2012] OJ L 316/12, art 9.

of external regulatory actors and resources. Prior to the AIA, a large portion of the regulatory capacities was vested with big tech and this dominance is still reflected. Although the AIA makes an attempt at broad stakeholder involvement that incorporates civil society, academia, and fundamental rights bodies next to private industry actors and public bodies, it remains questionable whether these efforts will be effective in light of already existing actors who have accumulated regulatory capacities in the regulatory space of AI. This is because non-commercial actors still remain at a disadvantaged position due to the lack of significant resources in terms of financial capital, organizational capacities, and most importantly, expertise.

While some may perceive it as laudable that the AIA is trying to combine both product safety law with fundamental rights protection, in reality, it seems that it might actually constitute a large setback for the guarantee of fundamental rights. Whereas the Act mentions its goal of facilitating both innovation, a common market with harmonized rules, and the safeguarding of fundamental rights, the regulatory space angle highlights that these goals do not necessarily translate into reality due to existing linkages and prior acquisition of critical regulatory resources by some actors. While the Commission appointed a high-level expert group on AI in April 2018 with the aim of advising the EU's future strategy on AI, the notion of trustworthy AI and emphasis on ethics appear more watered down in the final AIA.[128] This is also partly due to the fact that societal interests and fundamental rights are difficult to reconcile with the strong reliance on standards under the AIA. Here, criticism relates mostly to the strong skepticism of whether public values and fundamental rights can effectively be translated into technical standards by private standardization organizations.[129] Furthermore, most AI applications remain unregulated under the AIA which means that much of the regulatory space is not subject to important safeguards.[130]

This is a critical point in time, since the AIA has just been adopted and regulatory actors still have some leverage in terms of positioning themselves in the regulatory space. As such, the regulatory space metaphor also shows possibilities for new linkages and capacity building which may strengthen the role of fundamental rights bodies and public regulatory bodies. It remains to be seen to what extent these bodies can coordinate together in order to represent a meaningful front vis-à-vis already dominant industry actors. Here, MSs are asked to use their discretion in a way that facilitates such practices. Funding and knowledge sharing can play an important role here in the sense that MSAs and fundamental rights bodies can effectively use their investigative powers. In combination with the legitimacy that is vested primarily with NGOs and fundamental rights actors, this could potentially counterbalance the risk of regulatory deadlock due to the strong reliance on self-regulation, and instead reorganize the regulatory space.

Especially when it comes to third-party conformity assessment, national notifying authorities could put mechanisms in place to support NGOs and research institutes in becoming notified bodies. Tailored application guidelines in combination with funding schemes may alleviate some of the burdens faced by civil society stakeholders. This further emphasizes the importance of diverse stakeholder representation in conformity assessment mechanisms. Furthermore, as previously mentioned, the Commission should be called for taking more initiative in improving stakeholder representation in standardization bodies, thus fulfilling their obligation under the Standardization Regulation. Likewise, national courts could also step up in their roles as rule-enforcers by upholding important standards and the guarantee of fundamental rights.

128. Mark Coeckelbergh, 'Artificial Intelligence: Some Ethical Issues and Regulatory Challenges' (2019) 2019 *Technology and Regulation* 31, 32.
129. Larouche and Baron (n 100) 46; Gamito (n 91) 9.
130. José van Dijck, Natali Helberger and Corien Prins, 'Opinie | Nederland moet doen wat de EU nalaat: burgers beschermen tegen AI' *NRC* (21 December 2023) https://www.nrc.nl/nieuws/2023/12/21/nederland-moet-doen-wat-de-eu-nalaat-burgers-beschermen-tegen-ai-a4185004 accessed 10 May 2024.

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