1. Introduction to *Research Handbook on the Enforcement of EU Law*

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1. INTRODUCTION

It seems that the European Union (EU) has established the foundations for integration and the time is ripe to ensure laws and policies are implemented and adhered to, as the trend of enforcement by going to Brussels is on the rise (Scholten 2017). The EU body of law counts more than 100,000 pieces of legislation and some argue that the legislative activity of the EU has been declining (Toshkov 2014). This trend is based on both an increasing number of EU laws influencing matters of national enforcement and the proliferation of enforcement networks, both formal and informal, and EU agencies with relevant supervisory and enforcement powers (Scholten and Luchtman 2017). The extent to which law can be adopted by the organs of the EU depends greatly on the specific sector of law and the objectives specific to that sector that the EU Member States have agreed to collectively pursue by virtue of the EU. Many of these sectors have a rich history of focused scholarly discussion. One quality shared by all sectors of EU law is that they are, in some shape or form, enforceable.

There is a difference between the adoption of law and its enforcement. Enforcement takes place after law has taken effect and can be applied by relevant actors. Such actors can, for instance, include public officials, public agencies or private organizations and individuals. Given the difference in legal objectives and the competences conferred in pursuit of these objectives vis-à-vis different sectors of EU law, different enforcement mechanisms are in place for different sectors. This also depends in part on how much power has been delegated to the EU in specific sectors. One of the challenges of studying EU law is the fact that it addresses a vast range of different policy areas – both those explicitly delegated in Articles 3, 4 and 6 of the Treaty on the Functioning of the European Union (TFEU), as well as those covered by the flexibility clause (Article 352 of the TFEU), enhanced cooperation (Article 20 of the Treaty on European Union and Title III of the TFEU) or other special competences, such as under international law. Each legal instrument in these policy areas is subject to some form of enforcement mechanism at the EU level, at the national level, at the private actor's level or at a combination of any of these levels. History shows that the lack of explicit constitutional competence does not prevent EU legislators from promoting various (institutional) innovations, including in the field of enforcement (see Scholten and Cacciatore 2019), for instance within the Open Method of Coordination (Hatzopoulos 2007), which is a form of intergovernmental cooperation resulting in regulation via soft laws. At the same time, there is growing realization that enforcement should be taken into account when regulation is being made to make it effective (Baldwin 1990, OECD 2021).

Enforcement of EU law and policies is on the rise, yet we – academics, policy-makers, practitioners, stakeholders and citizens – lack comprehensive knowledge on this subject matter. What kinds of enforcement competences, mechanisms and institutions exist in

which sectors via the treaties and/or secondary/case/soft law instruments? What conceptual approaches underpin enforcement and how are they realized in practice and applicable to the EU multi-jurisdictional legal order? What are the valuable legislative and actual practices that seem to promote enforcement? Upon which conditions (sector-specific conditions? competence-based conditions? any other conditions?) does enforcement take its shape and work better? How to go about cultural differences in enforcement of centralized/harmonized rules or to achieve consistent implementation? How does technological revolution affect enforcement and could it be better seen as a threat or solution to the already challenging enforcement of EU law? The aim of this Research Handbook, which is the first of this kind, is therefore to provide a comprehensive overview of the enforcement issues, designs, actors, mechanisms and (to the extent possible) practices in place in all relevant sectors of EU law, thus connecting pertinent streams of academic discussion on sectoral EU law and EU governance. This focus on enforcement is particularly important – it connects the concept of enforcement itself with types of enforcement mechanisms and the general trend of the Europeanization of laws across the EU. The goal behind making this complete overview is to enhance understanding of successful enforcement and better enforcement of EU law and policy in practice.

The remainder of this chapter will outline what is understood to comprise 'enforcement' and 'Europeanization' of it, and what factors of successful enforcement are intended to be addressed by this project in the upcoming chapters (section 2). Section 3 will discuss the methodological considerations which in part explain the structure of the book, outlined in section 4.

2. TOWARDS SUCCESSFUL ENFORCEMENT OF EU LAW

2.1 Defining Enforcement

The enforcement of law is arguably an under-researched aspect of the law of the EU (Scholten 2017). Most legal research into the 'enforcement' of European law will focus on the enforcement of EU law by EU institutions vis-à-vis Member States, for example via Articles 258–260 of the TFEU infringement mechanism (Cremona 2012). From a political science perspective, enforcement can further be seen as a step of policy implementation, oftentimes focusing on transposition of directives (Hupe 2011; Thomann and Sager 2017). Such analysis of EU policy implementation has, for instance, identified concrete problems in policy arrangements (Knill and Liefferink 2007). In a broader sense, enforcement can simply denote the bringing into effect of something. Focusing on the corpus of EU law, this research will continue with an understanding of the bringing into effect of law vis-à-vis legal actors not necessarily involved in policy design.

This project does not seek to prejudice these discussions; by pursuing a scholarly legal approach to this topic, the scope of this project can be understood to be more focused than that of political science, while the understanding of enforcement applied here goes beyond that of infringement procedures. To be concrete, the definition of 'enforcement' as legal phenomenon is understood to comprise the bringing into actual effect or operation of a final measure of EU law, which draws upon the definition stemming from the discussion of EU administrative law by Hofmann (2009a) and Jans et al. (2015), and stages defined by Vervaele as monitoring, investigating and sanctioning (1999b). So, enforcement can be understood as part of a policy

cycle – an essential part to ensure that regulation (making and adoption of laws, including transposition and application for EU laws) attains its purposes. Its aim was originally twofold: to prevent violations and respond to (non-) compliance via monitoring the application of EU rules, investigating alleged breaches of laws and sanctioning confirmed infringements. In light of the proliferating research in the field of compliance, enforcement's aim seems to expand to include enhancing compliance with laws (van Rooij and Fine 2021). In this light, the 'sanctioning' stage of enforcement, which used to have predominantly negative connotation (imposition of fines, annulment of decisions, and so on), seems to be developing towards a 'consequences' stage, which can take place also after the monitoring/supervisory stage of the three stages listed above, as it may include reward for compliance.

2.2 The Factors Contributing to (the Study of) Successful Enforcement of EU Laws and Policies

Successful enforcement depends on a number of pre-existing and emerging factors; the research on enforcement does not seem to have derived a specific formula or model of how to measure it across sectors (see OECD 2018 for best practices). Enforcement success is taken as the real fulfilment of enforcement objectives in a legitimate way, which is understood broadly: respecting relevant principles, such as proportionality, fair procedure, procedural guarantees and respect for fundamental rights, in its set up and operation, and preferably via preventing violation rather than via sanctioning (Scholten 2021). This is also cost-efficient. The factors include the scope and (clarity of) sources of legislative aims, mandates and powers of relevant enforcement authorities, appropriateness of relevant styles, cultural dimensions and technological, human and financial capacities. Academically speaking, the disciplinary perspectives at play in the theory and practice of enforcement may also influence the analysis and evaluation of the success of enforcement. It follows that by tracing these factors as they apply to enforcement objectives, tools and success, these factors can be used to identify and evaluate opportunities and barriers to improving enforcement generally.

Within the context of EU law enforcement, the following outlines six concrete factors that need to be taken into account when discussing enforcement and its success, namely: multi-disciplinary lenses one may take to design and assess enforcement (section 2.2.1); degree of 'Europeanization' in specific policy areas (section 2.2.2); possible enforcement approaches and styles (section 2.2.3); enforcers (section 2.2.4); the role of cultural influences (section 2.2.5); and the role of digital technologies (section 2.2.6).

2.2.1 Enforcement and multidisciplinary perspectives

As outlined above, enforcement as a concept is understood differently within the contexts of political science and of legal scholarship. It is beneficial to bring these lenses together, however, not only for the sake of analysing to what extent they deal and discuss different things (or not) and why, but also to consider how they go about designing and assessing the success of an enforcement regime.

Whereas political science traditionally perceives enforcement as an element of policy implementation or even opposing management approaches to implementation (Tallberg 2002), law enforcement is generally seen as the raison d'être of EU procedural law (Lenaerts et al. 2014). Further still, public management and governance studies are relatively inattentive to the function of law enforcement in the EU (Milward et al. 2016). However, recent research

suggests that public enforcement benefits from the perspective of management strategies in the overall achievement of enforcement goals (Huizinga and de Bree 2021).

A further particularly important discipline that addresses the concept of enforcement is economics. Many of the regulatory approaches underpinning styles of enforcement have their origin in economic rational choice theory, the economic theories of market failure and, most recently, behavioural economics (Huizinga and de Bree 2021). Importantly, putting enforcement, as a concept, in the terms of social welfare – that is, the social benefits of an act less the social costs of the act and costs of enforcement, where enforcement costs include the costs of identifying relevant parties, the cost of applying the law and the cost of imposing sanctions (Shavell 1993) – allows the establishment of this as an optimal structure of enforcement based on cost–benefit analysis. Literature from law and economics has in particular focused on analysing the extent to which law should be enforced (Shavell 1993; Garoupa 1997; Polinsky 2018). As well as discussing, for instance, optimal fining practices (Faure and Visser 2004), contributions have addressed optimal monitoring and investigating practices in the process of enforcement (Rousseau 2010). In legal literature, enforcement is approached in various sectors of law. Inspired by the typology of Börzel, the following emphasizes the role of 'actor constellations' – the mechanism specifying actors' 'access to decision-making and implementation arenas' (Börzel 2010; Joosen and Brandsma 2017).

Overarchingly, there are three types of enforcement mechanism that will be considered by this project. These are administrative law enforcement, criminal law enforcement – both of which comprises public law enforcement – and private law enforcement. These categories of enforcement mechanism are accessible within the context of the above definition of 'enforcement'. Fundamentally, public law enforcement is a type of legal intervention initiated by the state, whereas private law enforcement is initiated by a party acting in a private capacity (Shavell 2003; Blanc and Faure 2020; Blanc 2018).

Private law enforcement is a mode of enforcement wherein an actor adopts the position of a private party. Private parties are responsible for their respective monitoring and investigation. The private party requires standing and generally brings a case before a court. A natural person, legal person or public actor may be granted standing by the court. Private parties incur their respective litigation fees. From a law and economics perspective, this is a valuable type of enforcement for when the harm is more connected to individuals, who have an incentive (quest for satisfaction, compensation or punishment) to engage it. For the State, it is a less costly mechanism; for example, it does not involve the establishment of any administrative agencies or ensuring of (prosecutive) investigations. However, in the EU context it is more difficult to rely on this mechanism due to the differences between and lack of harmonization of national private laws (Cherednychenko 2015; Della Negra 2019). To what extent are we still missing harmonization of relevant national laws and procedures, and to what extent is it really necessary to have successful enforcement? These are among the pertinent questions on which we would like to shed light in this Handbook.

Administrative law enforcement seems more valuable when the harm is larger, for private enforcement is unlikely to be an effective deterrent mechanism. It is understood as a mode of enforcement wherein a public body monitors and investigates compliance and/or violation of the law. This public body may take a decision or refer cases to a court in applying the law. The public body initiates proceedings, and generally imposes/requestions sanctions. The public body generally incurs its own costs for the execution of its tasks. In the EU context, administrative law seems to be on the rise also at the EU level, but faces challenges of mis-

alignment between procedures, institutions and standards used by administrative agencies (Widdershoven 2019; Scholten and Brenninkmeijer 2020). The rise of a mixed administration is one of the challenges that we want to analyse in this Handbook.

Criminal law enforcement is understood as a mode of enforcement wherein a public prosecutor has investigative powers, which are undertaken by a police force. Compliance and/or violation of the law is generally monitored by the police force. The public prosecutor brings cases before a court in applying the law, and the seized court takes a decision. The court also imposes the decided sanctions, which might include compensation. Criminal enforcement is characterized by high procedural and substantive standards (Hofmann et al. 2011). Like administrative law enforcement, public bodies (prosecutor and police force) generally incur the costs for the execution of their tasks and there is a need for high consideration of the protection of fundamental rights and safeguards. Criminal law enforcement could be used for its deterrent effect, as the costs of violating it are quite high. In the EU context, criminal law enforcement faces various challenges, though Europeanization increasingly affects criminal law enforcement, including through the establishment of the European Public Prosecutor's Office (EPPO) (Luchtman 2020; Vervaele and Luchtman 2015).

All in all, the success of enforcement of EU law seems to be dependent on how well the EU institutions can appreciate the type of harm and prescribe relevant enforcement requirements in its laws. Furthermore, this success will depend on how the EU enforcement structures will be able to operate within the set and legitimate boundaries, and how well national enforcement, which may differ in scale in line with the private or public type, could embed and operationalize relevant EU requirements within its system.

2.2.2 Europeanization of law enforcement and the challenges it brings

Mention of the creation of such supranational authorities as the EPPO and harmonization of national private, administrative and criminal laws leads us to address the so-called Europeanization of law. This development has not only touched upon the law independent from EU law in some fashion, but is also where areas of the law intended to be reserved for non-EU entities are subject to some form of increased EU influence. For these purposes, a broad denotation of 'Europeanization' is adopted here, namely a process by which greater influence is exerted by Europe on the set-up and structure of enforcement (Ottow 2012; Vervaele 1999a; Jans et al. 2015). In order to understand how this can be manifested in the context of EU law enforcement, it is important to realize that the enforcement of EU law may take place at different levels and in different jurisdictions of the EU polity.

For the purposes of this project, three distinctions as to the levels of EU law enforcement will be considered. First is where the enforcement of EU law is the competence of the EU, or rather, carried out at the EU level. Second is where the enforcement of EU law is the competence of both the EU and a Member State, or where enforcement is carried out at either level. Third is where enforcement is the exclusive competence of the Member State or is carried out at that level. The level of enforcement may vary significantly within a sector, culminating in so-called composite arrangements of enforcement (Hofmann 2009b). Further, where Member States apply national (procedural) law in the enforcement of EU law, the application of national law takes place within the framework of EU law (Hofmann 2009b).

Within all three levels of EU law enforcement, certain trends are noticeable. In the first place, the EU has taken a stronger approach regarding its authority over national enforcement, with EU authorities believing that there are too many inconsistencies in national implementing

practice (Ottow 2012). An expansion of the qualities of enforcement can be demonstrated by development in prescribing the type of sanctions, which has gone from reparatory to administrative punitive to criminal sanctions (Case C-176/03 *Commission v Council*; Jans et al. 2007; Vervaele 2007). A second trend of Europeanization is the proliferation of enforcement networks or other means of coordinating enforcement across the EU at different enforcement levels. A third trend is the growing number of EU agencies with enforcement powers (Scholten and Luchtman 2017). These three trends all contribute to a greater influence of Europe on enforcement. There are official and academic explanations for this development (European Commission 2020a; Scholten and Scholten 2017). In turn, the emergence of these trends can be attributed to a number of factors. As Scholten and Scholten outline, these factors include the desire to ensure the implementation of EU policies, compliance with EU law, uniform application, the limits of the 'traditional tool' of indirect enforcement (de Moor-van Vugt and Widdershoven 2015) and a 'functional policy-making spillover' resulting from a failure of national enforcement (Scholten and Scholten 2017). Some of these attributions may be more pronounced in certain policy areas than in others, thus motivating further sectoral research.

In light of these developments and the types of enforcement discussed in the previous section, the success of enforcement of EU laws will be influenced by the possibilities and limits of applicable laws (treaty competences, relevant developments in hard (secondary, case) and soft laws in specific fields) and practicalities, such as availability of human and financial resources at the EU, national and private actor levels. Given the fact that the addressees of EU law could include national authorities, including obligations on implementing further measures vis-à-vis relevant groups of society, and private actors directly, the choice of such methods and the legal form (regulation and directive) would in turn affect enforcement possibilities and ultimately the success of enforcement. It seems that the EU lawmaker needs to thoroughly investigate which enforcement mechanisms could support achievement of an identified policy goal on which it is legislating and then thoroughly evaluate existing enforcement systems (private/public scale) at the national and EU levels to determine its enforcement requirements, including level, legal form, type and specificity.

2.2.3 Enforcement approaches and styles

Enforcement approaches and styles play a role in how successful enforcement of laws may be. Traditionally, regulation has stressed deterrence and compliance-based approaches (Howlet 2017; Baldwin et al. 2011), while risk-based and 'smart' approaches have developed over the past decades, also in the context of the EU (Blanc and Faure 2020). Most recently, approaches rooted in novel insights of behavioural economics have been adopted in regulatory regimes. In short, this relates a lot to how one formulates laws, rules and norms to ensure desired behaviour and outcome. Roughly speaking, it is about such classic questions as what could work better: 'fasten your seatbelt or you will have to pay a fine', or 'fasten your seatbelt to ensure the safety of yours and of those around you'.

The deterrence-based approach to enforcement fundamentally rests on the position that sanctions should be of such a type and magnitude that the expected costs are higher than the expected benefits to the perpetrator (Voermans 2014). As such, it is confrontational vis-à-vis enforced parties that are assumed to respond rationally to incentives, where unlawful actors are sufficiently frequently detected and punished with the overall goal of deterring potential future unlawful actors (Gunningham 2010). An enforcement style relying solely on deterrence

is the 'command-and-control' approach, wherein the State is strongly interventionist (Aalders and Wilthagen 1997).

Combining the logic of deterrence with an orientation towards greater encouragement of compliance, the compliance-based approaches to enforcement build largely on Ayres and Braithwaite's 'Responsive Regulation' (1992a). They find that the best deterrent to unlawful behaviour is the combination of (i) a tit-for-tat strategy; (ii) access to a hierarchical range of sanctions (the enforcement pyramid); and (iii) overall height of the pyramid (punitiveness of the highest sanction). Responsive regulation assumes a general willingness of regulatees (firms, citizens) to comply, with the challenge for regulators being in finding regulatory interventions that provide the best mix of intervention and self-regulation (van der Heijden 2020).

Intermediate approaches between deterrence and compliance approaches are found in tripartism, enforced self-regulation and partial industry regulation (van der Heijden 2020). Tripartism introduces third parties to the regulatory landscape, usually by empowering citizens or citizen organizations (Ayres and Braithwaite 1991). Enforced self-regulation entails that regulatees write their own rules, which are then enforced by a public institution (Hutter 2001). Partial industry regulation governs some regulatees in a sector, while other parts are either unregulated or disparately regulated (Ayres and Braithwaite 1992b).

The risk-based approach to enforcement is based on various approaches of 'risk regulation' (Fisher 2013). Risk regulation is generally understood as entailing some form of risk assessment, risk communication and risk management. In terms of enforcement, this entails that enforcement resources target the risks that a regulated person or firm poses to the regulator's objectives (Black and Baldwin 2010). In light of assessed risks, the risks that are most likely to materialize or those risks with the most serious implications may thus be targeted by an enforcer.

Deterrence, compliance and risk-based approaches are rooted in certain economic assumptions about the behaviour of those subject to rules (Howlett 2017). New insights from economic research into non-rational biases and heuristics that can be instrumentalized into 'nudges' by regulators have provided legislators and regulators with a new framework of tools (Loewenstein and Chater 2017). These nudges do not impose significant material incentives (Sunstein 2017), but have the potential to be more cost-effective than other interventions such as mandates, bans or incentives (Benartzi et al. 2017).

All in all, the success of enforcement would depend on the choice of the appropriate approach and style in specific circumstances and, where necessary, combining the mentioned deterrent, compliant, risk-based and 'smart' strategies.

2.2.4 Enforcers: the human factor of enforcement and institutions

In carrying out various enforcement strategies, the key role is played by the enforcer. Here, institutions and individual enforcers are involved. Institutions charged with enforcing the law are functioning within certain designs and (political) environments and are characterized by their leadership and street-level enforcers – the humans directly engaging with the process of enforcement, which also depends in part on the financial resources and political preferences.

As an *a priori*, the basis upon which individual enforcement actors carry out enforcement tasks is delineated by institutional organizations. First, enforcement actors may behave differently depending on whether the institution they serve has direct or indirect enforcement powers and to what extent the area is politically sensitive for an individual Member State and national authority. In the olive oil sector, for instance, EU law requires national enforcement agencies

to be established with duties and organization determined by the EU, which partly finances their operation (Jans et al. 2007). In the area of olive oil there is thus a strict system of indirect enforcement, with enforcement standards determined by the Commission vis-à-vis national authorities (Agra CEAS Consulting et al. 2020), limiting the remit of national enforcement actors. Second, it is important to consider the implications for enforcement agents of the extent to which EU law enforcement has been networked or 'agencified' (Levi-Faur 2011). This entails for instance that national administrations within the context of EU enforcement regimes are 'double-hatted' as EU agencies may circumvent relevant national ministries (Egeberg and Trondal 2017). Enforcement actors may have different incentives and thus behave differently where national enforcement is harmonized or direct enforcement is carried out by an agency. Third, the transnational character of enforcement under EU law also carries implications for the position of enforcement officials. For instance, criminal proceedings within a transnational context may have implications for the accountability of 'foreign' cooperating officials (Luchtman 2020), thus shifting the incentives they face, for example in terms of reputation (Busuioc 2016). These aspects of institutional organizations define the environment within which enforcement leadership, street-level agents and other enforcement actors apply EU law.

As noted above, the enforcement of EU law is increasingly influenced and carried out by EU institutions and agencies. As a corollary, institutional and political leadership are increasingly relevant considerations in the sphere of EU-level enforcement. Taking the United States competition enforcement agencies as case studies, Kovacic demonstrates that the nexus of politics, agency leadership and other agency staff can have a profound impact on the overall activity of the agency, and thus on the enforcement output (Kovacic 2019; Kovacic and Hyman 2016; Kovacic 2018). This perspective is especially salient in regard to the successful achievement of enforcement objectives both for EU-level actors and at the Member State level. In addition, the role of street-level enforcement in the implementation of policy objectives has garnered greater attention in recent years. Investigations into the dimensions of behaviour of public agents provide insights into the incentives of enforcers, for instance, highlighting the importance of aligning policy objectives and street-level biases by adopting bias mitigation strategies (Moseley and Thomann 2021).

Synthesizing these insights is crucial in understanding the process of enforcement from the inside. This is an important contributing factor to the success of enforcement beyond the general enforcement strategies employed as outlined in section 2.2.3 (Klijn et al. 2020; Keulemans and Groeneveld 2020).

2.2.5 Cultural influences of enforcement

The EU comprises 27 different countries, each with different identities, languages, cultures and legal systems. This diversity however has a variety of implications for EU law enforcement, from citizens' perception of the rule of law to the challenges for legal certainty posed by multilingualism. It is therefore important to consider elements of cultural diversity that have influence on the enforcement of EU law, and how these challenges could be addressed in the future.

The EU has 24 different official languages, a testament to its vast linguistic diversity. Language is thus one of the elements that influence European law and consequently its enforcement. The Court of Justice (CJEU) of the European Union (CJEU) has itself recognized this and stated in CILFIT that 'Community legislation is drafted in several languages and that the different language versions are all equally authentic' (Case 283/81 CILFIT, para 18,

confirmed in Case C-561/19 CIM, paras 42–44). This European multilingualism, however, can be a source of legal miscommunication and divergence in meaning (Kjær and Adamo 2011), affecting effective law enforcement. Comparative law and its use in the translation process has been identified by Künnecke as a vital mechanism for ensuring consensus within the CJEU (Künnecke 2013). Outside the CJEU and into legislation, Šarčević highlights the increasing effect of multilingualism on legal certainty within the Union (Šarčević 2013). A response to these difficulties, as well as a potential solution, is the emergence and growing influence of EU legal English as lingua franca (Robertson 2012; Felicci 2016). This, in combination with the Europeanization of law, Bajčić argues to be shaping a new EU legal culture (Bajčić 2018).

Beyond the languages used across the EU, the legal cultures of the Member States differ significantly. There is no exact meaning of the term 'legal culture', and Nelken has highlighted that its many uses reflect the vast sociology of law field dealing with such topics (Nelken 2016). Gibson and Caldeira (1996), focusing on values held concerning the law, showcase that Western European Member States' citizens differ in attitudes towards, for example the rule of law and individual liberty. National legal cultures and the attached values can influence States' compliance with EU law. Börzel et al. (2012) for example suggest that the lower the Member State's support for the rule of law, the slower they will settle infringement cases. Legal culture can also result in law enforcement differences, by affecting the willingness of actors to take action against rule breaches (Gelderman et al. 2010).

Finally, more general moral, ethical and cultural values can differ across the EU, and even within individual Member States. Differences in beliefs on morally and culturally contentious issues, such as abortion and drugs, pose a challenge to EU law and integration. As de Witte argues, balancing integration and the 'capacity of individual citizens to be in control of the moral and ethical environment in which they live' is a challenge (de Witte 2013). Differences in values can have a direct effect on compliance at the individual level as well. While traditionally falling outside of present EU competences, taxation provides a curious case, as several studies have demonstrated that cultural differences affect citizens' attitudes towards paying taxes and complying with tax law (Torgler and Schneider 2007; Andrighetto et al. 2016).

In this light, the success of enforcement also depends greatly on the language formulating rules and norms and the degree of agreement on values and issues of regulation, which in turn also depend on moral and cultural similarities and differences.

2.2.6 Enforcement in the digital age

The digital age has brought a change in the overall legal landscape, but also in the field of law enforcement. There are a few key implications of these changes that ought to be examined. First, technological progress can bring about significant challenges to EU law enforcement. Second, it can provide solutions to both existing and novel issues and enhance success, making many processes more effective than they are now.

Scientific progress in artificial intelligence (AI) and machine learning has already resulted in the technology's application in all areas of life – from social media and data processing to power grids and autonomous vehicles (Barfield and Pagallo 2018). These developments however also have a severe impact on various fields of the law and bring about challenges for regulation and supervision. For instance, the European Commission has underlined that ensuring an appropriate legal and ethical framework for AI is of fundamental importance (COM(2021) 206 final). Ensuring rights and obligations are effective in digital space has thus become a key policy objective (Collingwood 2017 for autonomous vehicles; Villaronga et

al. 2018 for privacy). This is an area which is characterized by a number of essential issues to be discussed for enforcement, which include difficulties ensuring compliance when there are abstract rules and it is not easy to foresee all possible outcomes and existing information asymmetries that render the monitoring of these rules problematic.

Aside from challenges, however, digital technologies can present opportunities for law enforcement by providing new tools for enforcers. For instance, Wirtz et al. identify a variety of uses for AI in the public sector in the literature, such as for the automation of processing systems, data analysis and fraud detection (Wirtz et al. 2019). Further, Sanchez-Graells (2019) and Deng (2017) outline the use of AI and machine learning for the screening of cartels in relation to competition and public procurement. Some enforcers at the EU level have taken note of this too, for example for bank supervision and compliance, both at the private and public levels (Wall 2018; Jagtiani et al. 2018), with the European Central Bank establishing a Supervisory Technology (SubTech) hub to work on potential applications (ECB 2019). Further, in its anti-fraud investigations, OLAF has developed expertise in the area of digital forensics (OLAF 2021). Finally, the multi-lingual legal order of the EU could certainly benefit from the additional communication channels that the technology offers and from developing automatic translation systems, such as the one created by the EU Commission.

Another technology of the digital era increasingly relevant for law and enforcement is distributed ledger technology (DLT), or blockchain. Anonymity, one of blockchain's main characteristics, can bring significant challenges for law enforcement. This can pose an issue particularly in enforcement proceedings in the financial sector, for instance for cases of money laundering, terrorism financing and tax evasion (Houben and Snyers 2018; Haffke et al. 2019). Outside the financial sector, blockchain also poses challenges for competition law enforcement, as it can help facilitate collusive agreements (Schrepel 2019). Blockchain can also provide solutions, however. It can for example be applied in financial system risk supervision (Kavassalis et al. 2018) and for tackling financial fraud in the public sector (Hyvärinen et al. 2017).

For example, evidence required by both national and European enforcers is increasingly of a digital and cross-border nature, which can pose challenges both for obtaining it and for cooperation between institutions (Tosza 2020). Levels of technological adoption and education can also lead to different levels of success between Member States in dealing with novel challenges. The Digital Economy and Society Index published by the EU Commission, for example, shows a varied picture between Member States when it comes technological adoption (European Commission 2020).

The digital age can also reshape the way we think about law enforcement. For example, in relation to hate speech and fake news, a new form of private enforcement by social media platforms can provide a solution to the difficulties experienced by traditional law enforcement mechanisms (Kaesling 2018). A similar sort of privatization could be an opportunity to enforce consumer protection laws online through the relevant e-commerce platforms, rather than on a case-by-case basis (Duivenvoorde 2021).

3. METHODOLOGICAL CONSIDERATIONS

In light of the above, the main guiding research question of this Handbook is: *How has enforcement been organized (and executed) in different sectors of EU law (decentralized, centralized, hybrid, and so on), and to what extent has it been/can it be successful?*

In addressing this main question, it is necessary to understand what enforcement mechanisms and actors exist in an European context more generally and what enforcement comprises in more individual cases, that is, in different sectors and legislatures. Thus, the book has been built upon investigation in three directions: (i) relevant enforcement concepts and mechanisms and the role of Europeanization there; (ii) enforcers; and (iii) individual policy areas and specific EU laws.

Part I is intended to shed light on the conceptual underpinnings of enforcement in the EU. It focuses on the development of the more legal concepts developed at the national level – private, administrative and criminal law enforcement – and the effects of Europeanization upon them. Then it offers the state of the art, in a multi-disciplinary context, on enforcement approaches and challenges. Part II aims to shed light on various aspects of enforcement institutions. The authors of the chapters in the first and second parts have been invited to discuss the relevant concept or institution and developments, outline the key achievements in academic research so far, and, to the extent possible, in practice (de jure/de facto), and discuss the legal contours (legal basis, treaty, hard, case and soft law developments), specifics and effects of Europeanization. Finally, they have been asked to outline possible questions and points for further attention for researchers and practitioners.

Part III focuses on enforcement in specific policy areas and specific laws, if necessary due to, for instance, a high number of legal texts. The division of the policy areas has been inspired by the sectoral discussion of EU law by Hofmann et al. (2018), whose identification and selection of individual sectors comprises a broad and tentative 'attempt' to group particular areas of EU law. As such, the attempt made by this project to group areas of the law into sectors is not to prejudice discussions of law enforcement at a more general or more specialized level of EU law. Rather, this attempt seeks to follow the categories stipulated by the treaties themselves – most notably the areas outlined in Articles 3, 4 and 6 of the TFEU. The topical selection of chapters has been made mainly upon consideration of the relevance of specific policy (sub)-areas to the discussion of enforcement, availability of experts to contribute to this book and the word limit established for this book by the publisher.

Each chapter is intended to reflect on the following guiding research questions, which correspond to the four sections of those chapters. After the first introduction section, the authors have been invited to define relevant legal frameworks, actors, procedures and developments in the selected field of research within the given policy sub-area. Then, they have been invited to reflect on the trends, successes and challenges of enforcement, given the factors discussed above in this chapter, and to outline areas for future research and policy attention. Finally, concluding remarks are offered.

This book was made possible by the contributions of experts from different academic and professional backgrounds in the very many areas of EU law enforcement generally, as well as by experts on sectoral EU law, via their chapters and prior to that discussions and cross-chapter peer-review. The initial ideas and drafts have been discussed at a meeting at the Utrecht Centre for Regulation and Enforcement in Europe (RENFORCE), Utrecht University, in a hybrid

setting, in May 2022. The final versions of the chapters have been submitted in the autumn of 2022.

4. STRUCTURE OF THE BOOK

After this introductory chapter, the book offers a further 31 chapters divided into three parts and a final concluding chapter outlining the major developments, successes and challenges, and areas for further investigation, based on the content of all preceding chapters (Chapter 33 by Miroslava Scholten). The three parts of this book aim to offer conceptual, institutional and sectoral perspectives on enforcement of EU law, respectively.

The five chapters in the first part of the book offer discussion on enforcement of EU law from various conceptual angles. We start with three chapters on the 'national level-based' legal concepts of private (Chapter 2 by Olha Cherednychenko), administrative (Chapter 3 by Rob Widdershoven and Ton Duijkersloot) and criminal (Chapter 4 by Frank Meyer and Dimitrios Tsilikis) enforcement, and the effects of Europeanization on these concepts. This part offers then an investigation of enforcement strategies (Chapter 5 by Jeroen van der Heijden and Olga Batura) and challenges to EU law enforcement (Chapter 6 by Asya Zhelyazkova) from a multi-disciplinary perspective.

The five chapters of the second part of the book focus on the enforcers of EU law. This part starts with discussion of the EU Commission in its enforcement capacity (Chapter 7 by Urszula Jaremba). It continues with Chapter 8 on the EU and national courts and judicial cooperation (by Frans van Dijk and Kees Sterk). Finally, a landscape of national and supranational enforcers is pictured by identifying relevant national institutions and networks (Chapter 9 by Eva Ruffing) and EU agencies with enforcement competences (Chapter 10 by Miroslava Scholten). Chapter 11 by Laurens van Kreij concludes this part by addressing the question of the extent to which differences among regulated industries have an effect on the choice between EU enforcement agencies and networks of national authorities. This chapter focuses on two policy areas of EU civil aviation airworthiness policy and incident investigation, on the one hand, and medical devices policy and pharmaceuticals policy, on the other hand, thus also offering a bridge to the third part of the book, which focuses on enforcement from a sectoral perspective. In light of this chapter, the transport and public health policy domains are not further discussed as separate sectoral chapters.

The third part of the book offers 21 chapters discussing enforcement in specific policy areas and/or areas of law. The policy domain of EU foreign relations is discussed in two chapters on the EU Common Commercial Policy and EU customs law (Chapter 12 by Thomas Verellen) and on the EU Common Foreign Security Policy (Chapter 13 by Graham Butler). Economic and financial law offers four chapters, addressing Economic and Monetary Union (Chapter 14 by Ton van den Brink and Luca Collazzo), EU Banking Union (Chapter 15 by Argyro Karagianni and Laura Wissink), anti-money laundering (Chapter 16 by Christy Ann Petit) and the European Securities and Markets Authority (Chapter 17 by Jonathan Foster). The Internal Market offers six chapters, namely on the internal market as such (Chapter 18 by Olivier Linden), on labour and social policy (Chapter 19 by Frans Pennings), on environmental law (Chapter 20 by Campbell Gemell, Paola Coletti, Carola Bertone and Florentin Blanc), on food law (Chapter 21 by Florentin Blanc and Luca Megale), on consumer protection (Chapter 22 by Christine Riefa and Mateusz Grochowski) and on energy law (Chapter 23 by Julius Rumpf

and Catherine Banet). Chapter 24 by Federica Cacciatore, Mariolina Eliantonio and Joseph McMahon is devoted to the topic of enforcement in the areas of the common fisheries and agriculture policies. The four chapters of the policy area on competitiveness include Chapter 25 on enforcement of EU competition law (by Maciej Bernatt and Laura Zoboli), Chapter 26 on enforcement in the field of public procurement (by Roberto Caranta and Vítězslava Fričová), Chapter 27 on enforcement of the State aid law (by Allard Knook) and Chapter 28 on enforcement of intellectual property law (by Peter Blok and Willemijn Kornelius). The four chapters of the policy area of 'citizens' finalize the third part of the book. These four chapters focus on data protection (Chapter 29 by Herwig C.H. Hofmann and Lisette Mustert), the area of freedom, security and justice (Chapter 30 by Stefano Montaldo), asylum and migration (Chapter 31 by Salvatore Nicolosi) and protection of the financial interests of the EU (Chapter 32 by Michele Simonato and Andon Tashukov).

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