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Tracing an Unfinished Arc: Gaps, Challenges and Digital Transformations in the EU Administration

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Abstract: This study examines the development of the European Administrative Space through cooperation understood both as a constitutional principle and as a system of everyday inter-authority relations. It argues that EU law is implemented through a multi-level, networked administrative structure combining direct and indirect forms of public administration, in which composite administrative procedures play a central role. Using a theoretical and doctrinal methodology, the article analyses the structural features of these procedures and identifies persistent gaps in legal remedies that pose risks to the rule of law. Particular attention is paid to the impact of digitalisation, showing how interoperability and automation simultaneously enhance administrative efficiency while introducing new forms of procedural uncertainty. The study presents European administrative cooperation as an evolving but still incomplete legal and institutional framework.

Keywords: loyal cooperation, European Administrative Space, composite procedure, judicial review, digitalisation

1. Introduction

For more than half a century, European integration has been a defining force in shaping the legal systems of European states and, in an unprecedented manner, transforming their public administrations into a multi-level structure of cooperation. This transformation has occurred despite the absence of an explicit mandate for the full harmonisation of administrative or procedural law, and even though the European Union (EU), as a *sui generis* entity, lacks a uniform, codified legal framework governing these fields. Yet, developments over recent decades have produced a complex, multi-layered administrative system in which it is no longer merely possible, but both justified and necessary, to

speak of European administrative and procedural law as autonomous constructs with their own specific content and characteristics.

A central driving force behind the everyday functioning of integration is cooperation as a fundamental constitutional and organisational principle. The principle of loyal cooperation not only structures the relationship between EU institutions and the Member States, but also permeates administrative practice at multiple levels. The exchange of information between national authorities and EU bodies, mutual assistance, joint controls, and cross-border administration have become routine features of governance. Despite their ordinary appearance, these practices are essential to the realisation of the objectives of integration. It is through such practical, day-to-day cooperation that the effective enforcement of EU law is rendered tangible and that the contours of a distinct European administrative space gradually emerge.

Just as the EU itself is a unique and evolving construct, EU law follows a distinctive, and still unfinished path of development. This study seeks to trace that development as an open-ended trajectory rather than a completed system, from its constitutional foundations through the institutional and judicial forms of composite procedures to the coordination challenges and accountability risks of the digital age, focusing on joint procedures with international elements and cooperation between Member State authorities and EU institutions, features inherent in a borderless European area. While digitalisation has enhanced data sharing and coordination, it has also introduced opaque layers into an already multi-level system. Increasingly, decision-making is mediated by digital infrastructures, such as interoperable databases and automated systems, which not only support but also structure administrative action by shaping how information is produced and validated. These infrastructures can thus function as *de facto* normative frameworks influencing outcomes beyond formal legal rules (Hildebrandt, 2015, pp. 135–150; Hofmann, 2024, pp. 4–5; Smuha, 2025, pp. 2–3). Composite procedures should therefore be understood as interactions not only between authorities, but also between legal norms and informational architectures, making digitalisation a constitutive element of the European administrative space. Against this background, the article asks to what extent composite procedures ensure effective judicial protection, and how digitalisation reshapes the structural conditions of administrative legality. Methodologically, it combines doctrinal analysis with a conceptual examination of administrative cooperation and digitalisation, supported by selected Court of Justice of the European Union (CJEU) case law and examples from different policy areas.

2. Cooperation as a constitutional principle of the European Administrative Space

The European Administrative Space may be understood as an increasingly integrated and coordinated system of public administration operating across both EU and national levels. It reflects a process of partial de-territorialisation of administrative power and the emergence of a networked governance model, characterised not only by institutional interdependence but also by shared principles of good administration, including legality,

transparency, accountability, and effectiveness (OECD, 2023). In the history of European integration, issues of administrative law were not on the agenda for a long time. The institutional system of integration was examined within a general public law framework, and the implementation of the *acquis* was regarded as a matter of the internal affairs of the Member States, in line with the practice of international organisations. The only difference lay in the method of implementation, which was shaped by the role of judicial decisions in sanctioning specific cases and, more broadly, in interpreting the law. This approach changed with the challenges of the Eastern enlargement, owing to the need for administrative convergence (OECD, 2023, pp. 6–9). The programmes developed at that time are still in operation today (Soós, 2011, p. 152). At the same time, this process led to the emergence of the concepts of the European Administrative Space and European administrative law, and to their entry into public consciousness (Hofmann, 2008, p. 663). In essence, however, the underlying public law construct has remained unchanged.

The EU administration has always been fundamentally divided, with a clear distinction in terms of composition, tasks, and powers between direct administration, carried out by EU institutions and bodies, and indirect administration, exercised by the authorities of the Member States. Although the indirect level is the designated executor of EU law, examples of direct EU administration can be found in areas such as competition law enforcement (where the European Commission adopts binding decisions on antitrust and merger control), state aid control, and the management of certain EU funding programmes, where EU bodies directly interact with beneficiaries and adopt administrative acts with legal effect (Craig, 2018, pp. 25–35; Schmidt-Aßmann, 2019, para. 8).

These two levels have operated in parallel from the outset, but with the deepening of integration and the expansion of EU policies, they have become increasingly interconnected within a two level, yet integrated, system of implementation (Ibáñez, 1999; Torma, 2011, pp. 196–197; Boros, 2018, [1]–[2]; Balázs, 2015, p. 22; Balázs, 2020, p. 80; Harlow & Rawlings, 2014, p. 5). Neither level can replace the other, but both are obliged to cooperate. Primary responsibility for the implementation of EU law, therefore, lies with the public administrations of the Member States. EU administrative procedure, understood as a legally regulated process, is relatively easy to define; however, its content is as diverse as the organisational systems of the EU and the Member States themselves. Both levels possess their own procedural law, with internal and external dimensions, but a comprehensive, codified procedural framework exists only in legal scholarship (Craig et al., 2017).

At the same time, European public administration includes a specific connecting layer: the sphere of horizontal and vertical cooperation between authorities, which blurs the boundary between the direct and indirect levels of administration (Hofmann & Türk, 2007, p. 270). This layer is increasingly supported by IT systems, including shared databases, continuous information exchange, and network-based cooperation channels. It typically operates outside national jurisdiction, and the diversity of EU law applicable in this field reflects the differing integration histories and jurisdictional relationships of individual policy areas. At the level of direct EU administration, regulatory powers have so far been relatively limited (Craig et al., 2017; Deviatnikovaitė, 2018, p. 30). However,

digitalisation may lead to a reversal of the existing balance between the two administrative levels concerning certain administrative tasks (Csatlós, 2024a, pp. 329–331).

The principle of cooperation is as old as integration itself (Negruț & Zorzoană, 2023, p. 431).¹ According to classical Westphalian logic, implementation has always been the primary responsibility of the Member States, but this has been accompanied by a mutual obligation to cooperate. Member States and EU institutions are required to assist one another in the performance of their Treaty-based tasks, with mutual respect. Loyal cooperation is now a constitutional principle, which requires Member States and EU institutions to assist each other in fulfilling their obligations under the Treaties in a spirit of mutual respect.² The cooperation mechanism is therefore not merely a matter of formal coordination, but one of the cornerstones of effective integration.

Under the loyalty clause, Member States must take all appropriate measures to fulfil their obligations under EU law, including both active cooperation and the duty to refrain from actions that could jeopardise Union objectives. This responsibility extends not only to administrative authorities but also to national courts, which ensure the effective enforcement of EU law within a framework often described as functional procedural autonomy. While substantive rights may derive directly from EU law, procedural rules generally remain governed by national law in the absence of EU provisions (Gombos, 2019, p. 37). That autonomy is nevertheless limited by EU law requirements such as primacy, equivalence and effectiveness, rendering it ultimately functional in nature (Galetta, 2010, p. 123; Halberstam, 2021, p. 147).

The principle of cooperation thus operates not merely as a legal rule but as a constitutional principle structuring the relationships between the EU and its Member States, as well as among EU institutions, and ensuring the performance of common tasks within an increasingly interdependent system. At the same time, despite procedural autonomy, EU law directly shapes administrative procedures in several fields, notably customs and taxation, as well as agricultural and environmental policy, where detailed EU frameworks significantly influence national administrative processes.

3. From ‘close cooperation’ to administrative networks

Due to the borderless nature of Europe and the cross-border character of many policy areas, effective governance increasingly depends on close, day-to-day cooperation between administrative authorities. In this context, new forms of administrative cooperation have emerged, particularly within the Area of Freedom, Security and Justice (AFSJ), including joint operational “teams” composed of representatives from Member States and EU bodies. These operate in areas such as cross-border criminal investigations, migration management and border control, for example through joint investigation teams coordinated by Eurojust and Europol, as well as operational deployments

¹ It can be traced back to Article 5 of the former Treaty of Rome, see *Traité instituant la Communauté économique européenne*, Rome, 25 mars 1957.

² Article 4(3) of the Consolidated version of the Treaty on European Union (TEU). OJ C 326, 26.10.2012, pp. 1–46.

coordinated by Frontex (Korontzis, 2024, pp. 258–269; Gandhi, 2024, pp. 2–4; Inshakova et al., 2020).

These hybrid structures, situated at the interface between EU and national competences, exemplify the increasing operationalisation of the European administrative space, while also raising challenges relating to fundamental rights protection, liability, procedural guarantees, and judicial review in a multi-level setting. More broadly, such hybrid administrative models have developed across EU policy areas, combining direct and indirect elements to varying degrees. The extent of Europeanisation varies depending on the Union's competences, the role of subsidiarity, and the historical development of each policy field (Lenschow, 2006, pp. 67–68). At the same time, there has been no intention to unify national administrative systems in a way that would override their historical traditions and institutional specificities.

As a general rule, the application of EU law falls within the responsibility of the authorities of the Member States. Where these authorities act within the framework of administrative procedures under domestic law, their legal acts are subject to review by national courts, which may refer questions to the Court of Justice of the European Union (CJEU) for a preliminary ruling. In a limited number of areas, generally those falling within the exclusive competence of the EU, EU law is applied directly through administrative action and implemented by EU institutions, bodies or agencies, which conduct their proceedings under the supervision of the General Court and the Court of Justice. However, as integration has deepened, there has been a growing number of cases in which EU law is applied through proceedings involving both EU and Member State institutions, bodies or agencies (Campos Sánchez-Bordona, 2018, paras. 57–58).

The practical implementation of the four freedoms, therefore, typically gives rise to cases with an international element, resulting in complex (composite) procedures. In this context, cooperation means that the decision of the competent authority of one Member State is based on data or procedural acts carried out by another Member State. Decisions resulting from composite procedures are thus produced through the collaboration of authorities operating under different jurisdictions. Cooperation involving procedural acts spanning multiple jurisdictions requires clearly defined powers and responsibilities in order to ensure transparency, accountability, and compliance with guarantees of fair procedure. As actors have become increasingly interdependent in the implementation of EU policies, cooperation functions as a bridge between the preservation of national legal traditions and the need for the uniform application of EU law, thereby contributing to the creation of a relatively coherent European area of freedom, security and justice.

Cooperation is, therefore, not merely political but also operational in nature: it functions at the level of everyday administrative practice (della Cananea, 2004, p. 197), with the courts of the Member States contributing through their legal protection function (Benvenisti & Downs, 2014, p. 86). As a consequence of the *sui generis* EU legal order, the responsible Member State authorities are effectively organised into networks in pursuit of EU objectives.

Administrative cooperation has existed since the earliest stages of integration, and virtually every legal act contains some form of authorisation for cooperation aimed at achieving the four freedoms (Lafarge, 2024, p. 145). Cooperation is not only desirable

but also a requirement arising from the institutional structure of the EU. Nevertheless, the establishment of the EU marked a turning point in the institutionalisation of cooperation. Until the 1990s, cooperation between administrative and judicial authorities took place on an intergovernmental basis, using instruments outside the framework of integration, and was limited to a narrow range of areas, primarily criminal matters (Monar, 2012, pp. 718–721).

The Maastricht Treaty opened a new chapter by bringing cooperation in judicial and home affairs within a formal EU framework, although it retained an intergovernmental character (Monar, 2014, p. 150). The Amsterdam Treaty and the Tampere Programme constituted a further milestone by launching the concept of a European area based on freedom, security and justice (Kostakopoulou, 2020, p. 24), thereby paving the way for a form of cooperation for which the Treaty of Lisbon later provided a firm legal basis, particularly through the establishment of the principles of mutual trust and mutual recognition (Chevallier-Govers, 2021, pp. 1352–1358).

Since the 2000s, a distinct system of administrative networking has emerged, displaying common features across policy areas. It has developed in response to concrete needs, operates in line with the degree of Europeanisation of the policy concerned, and pursues a shared objective: implementation in accordance with EU law. This system is fundamentally based on information sharing (Lafarge, 2024, pp. 154–155). A pioneering development in this regard was the creation of trans-European networks enabling electronic data exchange (IDA) between administrative systems (Oller Rubert & García Macho, 2021, p. 1421).

The Internal Market Information System (IMI), in operation since 2008, has also played a central role. IMI facilitates information exchange and cooperation between Member States through a central communication platform, thereby supporting the application of EU law in internal market cases with an international dimension.³ It does so by means of pre-translated language templates and machine translation (Lottini, 2014, p. 111). IMI provides a platform for mechanisms supporting day-to-day cooperation between authorities in an expanding range of legal fields, including the verification of the authenticity of commonly used public documents, the operation of the internal market problem-solving network, and procedures for the recognition of professional qualifications. By 2023, it had facilitated 95 types of administrative cooperation and enabled approximately 585,000 exchanges of information (European Commission, 2023).

The culmination of this expanding framework of cooperation is the composite procedure, which represents the most complex form of interconnection between the EU

³ Decision No 1719/1999/EC of the European Parliament and of the Council of 12 July 1999 on guidelines for trans-European networks for electronic data interchange between public administrations (IDA), including the identification of projects of common interest. OJ L 203, 3.8.1999, pp. 1–8 (no longer in force); Regulation (EU) No 1024/2012; 2008/49/EC: Commission Decision of 12 December 2007 concerning the implementation of the Internal Market Information System (IMI) as regards the protection of personal data. OJ L 13, 16.1.2008, pp. 18–23 (no longer in force); Regulation (EU) No 1024/2012 of the European Parliament and of the Council of 25 October 2012 on administrative cooperation through the Internal Market Information System and repealing Commission Decision 2008/49/EC ('the IMI Regulation') OJ L 316, pp. 1–11.

and national administrative levels. Therefore, one of the central issues of judicial control is the determination of jurisdiction. The traditional model of administrative law is based on the premise that the legality of a given administrative act is reviewed by the courts of the state whose authority issued the act. In composite procedures, however, decision-making is functionally divided across multiple jurisdictions, while the legal effects are often realised in a single final act of an authority. This results in a separation between the review of legality and the actual locus of decision-making.

4. The structural deepening of EU administrative cooperation and the genesis of composite procedures

The implementation of EU policies, therefore, relies on the administrative bodies of the Member States, a reliance that necessarily entails continuous, day-to-day cooperation between them. As integration has progressed, these relationships have become increasingly organised, formalised and structured: spontaneous cooperation between authorities has gradually become institutionalised, giving rise to so-called administrative networks. These are multi-centred cooperation structures in which EU and national authorities, as well as authorities across Member States, implement legislation in a coordinated manner, share data, and align their decisions, thereby forming a network-like system.

The objective of these networks is to enhance the efficiency and professional quality of policy implementation and to ensure continuous communication and information flows between different national administrative systems. In a broad sense, such arrangements give rise to complex procedures in which the acting authority adopts a decision that incorporates elements originating from an authority in another Member State. EU law does not regulate this phenomenon in general terms (Campos Sánchez-Bordona, 2018, para. 58), although it has been widely examined in legal scholarship (Wilbrandt-Gotowicz, 2023, p. 296).

4.1. Structural interdependence of network enforcement

Although the EU legislator still lacks direct competence to regulate or harmonise the public administrations of the Member States, this does not mean that national public administrations remain unaffected by EU requirements. The Treaty of Lisbon codified the long-recognised fact that the effective implementation of EU law at Member State level is indispensable to the proper functioning of the EU,⁴ thereby conferring a competence to promote coordination and cooperation, including through support for information exchange.

⁴ Article 197 of Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union. OJ C 202, 7.6.2016, pp. 47–388.

Administrative networks play a central role in this system: in many policy areas, EU authorities have established joint databases for the collection and exchange of information (Galetta, 2019). The forms of cooperation are highly diverse, ranging from the exchange of best practices and *ad hoc* information sharing to requests for legal assistance, systematic data exchange, and even transnational administrative decisions (Lafarge, 2024, pp. 148–152; Csatlós, 2016, pp. 20–22). These networks facilitate the allocation of cases, support coordination between jurisdictions, and often rely on secure IT systems to protect sensitive data. Moreover, they perform not only operational but also political and coordinative functions: through soft law instruments and good practices, they embed the principle of loyal cooperation in everyday administrative activity and informally fill gaps in legislation.

Over time, however, the interpretation of fundamental rights, including procedural guarantees, has also evolved. With the EU Charter of Fundamental Rights acquiring the status of primary law, rights that were previously rooted primarily in national legal orders have gained a common EU interpretation.

The principle of good administration must now be understood at the EU level, with tangible effects on the functioning of Member State administrations, particularly within the context of network cooperation. The right of access to documents, the effectiveness of procedural remedies, and the independence of authorities are concepts which, as interpreted by the CJEU, are increasingly incorporated into Member State law as shared EU standards (Halberstam, 2021, pp. 143, 156–157).

In this respect, EU law operates as a meta-norm (Roeben, 2020, p. 30), shaping national public administrations in areas where the EU lacks explicit legislative competence, and thereby producing a form of implicit administrative harmonisation. At the same time, this development exposes the fact that administrative networks often operate without a clear and predictable normative framework capable of providing unambiguous procedural rules at the intersection of different legal systems.

Within the EU legal order, there is an increasing number of administrative mechanisms in which several levels, EU and national, and the administrative bodies of several states act as part of a single procedural chain. These mechanisms are referred to in the literature as composite administrative procedures (Türk, 2025, pp. 3–4). This phenomenon is not codified in either primary or secondary EU law but has emerged from practical developments, in particular from the progressively closer coordination of EU policy implementation.

Composite procedures are intended to render the implementation of EU rules more efficient, faster, and more professionally sound. At the same time, however, they involve multiple legal systems and layers of supervision, posing serious challenges in terms of procedural guarantees and judicial protection. Complex or composite administrative procedures thus reveal significant shortcomings concerning three core rule-of-law requirements: effective judicial protection of individuals, judicial review of national public authorities, and the principle of administrative legality (Brito Bastos, 2020, p. 65).

Even well-functioning networks cannot entirely overcome differences in administrative capacity, divergent national procedural rules, or institutional asymmetries. The cooperation phase of complex procedures is particularly sensitive. Where it is based

on soft law instruments, their non-binding nature may generate legal uncertainty, restrict the possibilities of judicial review, and jeopardise transparency, accountability, legal certainty, and the effective enforcement of individual procedural rights.

The intermediate stages of cooperative procedures, during which authorities consult and exchange information, are often decisive for the outcome, especially from the perspective of those concerned. The legality of the procedure and the protection of procedural rights form the foundation of the right to be heard and to defend oneself, a consideration of particular importance in cross-border cases where different legal systems and legal cultures intersect. These structural weaknesses have repeatedly given rise to calls for the codification of European administrative procedural law. Academic initiatives, including those of the ReNEUAL network, have developed detailed proposals in this regard (Craig et al., 2017; Balogh-Békési et al., 2017, p. 23), with a particular focus on the regulation of information exchange and the recurring problems associated with composite procedures.

Both the academic literature and the case law of the CJEU distinguish between three basic types of composite administrative procedures, depending on which authority adopts the final decision and on the relationship between the participating bodies. In vertical composite procedures, a national authority prepares and examines the case, while the final decision is taken by an EU institution; decision-making power thus lies at the EU level.

This model can be observed, for example, in certain drug authorisation procedures (Röttger-Wirtz & Eliantonio, 2019, pp. 397–402) and in procedures relating to the prudential supervision of credit institutions (Budinska, 2019, pp. 176–178). In horizontal composite procedures, cooperation takes place between authorities of different Member States, while the final decision is adopted by a national body; decision-making power therefore remains at the national level. The authority vested with final decision-making power in a composite administrative procedure also determines the applicable rules of judicial review.

As a general, though not exclusive, rule, national courts review the legality of administrative acts adopted by national authorities where those authorities take the final decision, whereas the CJEU reviews administrative acts adopted by EU institutions that conclude composite procedures (Campos Sánchez-Bordona, 2018, para. 60). A mixed (or hybrid) composite procedure is one in which both the preparatory phase and the final decision-making take place at multiple levels, with successive acts building upon one another. Such procedures are characterised by shared competences and complex systems of legal remedies, which depend on where final decision-making authority lies and on the role played by the other bodies involved (Eliantonio, 2014, pp. 74–77).

4.2. Systemic risks in composite procedures

Composite procedures are designed to ensure the effective and professionally sound implementation of EU policies. At the same time, however, they raise significant rule-of-law concerns, in particular with regard to the judicial protection of individuals and the reviewability of administrative decisions (Röttger-Wirtz & Eliantonio, 2019, p. 394).

While close cooperation within the integrated administrative system is steadily deepening, the corresponding mechanisms of judicial control have not developed at the same pace (Mazzotti & Eliantonio, 2020, p. 42), falling short of the requirements of subjective and objective legal protection inherent in the rule of law (Siket, 2017, pp. 33–36), and of the standards that the EU itself demands (Rozsnyai, 2013, pp. 123–124).

The requirement of effective legal protection in the EU legal order extends beyond the mere possibility of remedying an individual rights infringement. It encompasses a set of structural guarantees designed to ensure that the legal entity concerned has access to a substantive, timely, and practically enforceable remedy. According to the case law of the CJEU, effective legal protection entails not only the enforceability of procedural rights and transparency in decision-making, but also the ability of the reviewing forum to fully assess the legality of the contested administrative act (Gerencsér, 2023, pp. 84–85).⁵

Accordingly, the requirement applies not only to the existence of a procedure, but also to its quality and efficiency, a concern that is particularly salient in the context of multi-level, collaborative administrative decision-making. In composite administrative procedures, the individual decision-making elements often do not constitute final acts with direct legal effect; yet collectively, they determine the legal position of the affected entity. This fragmented structure functions as a ‘stress test’ for legal protection, highlighting points where traditional redress mechanisms, relying on the clear identification of both the decision and the decision-maker, may fail. The CJEU has addressed these shortcomings in individual cases, but only on an ad hoc basis, without providing a coherent systemic solution.

According to settled case law, in vertical composite procedures where the final decision is adopted by an EU institution exercising direct administrative authority, the entire procedure, including preparatory or data-collection acts carried out by national authorities, falls within the exclusive jurisdiction of the CJEU. This principle was established in the *Borelli* and *Fininvest* cases.

In *Borelli* (1992), a company applied for financial support under the common agricultural policy. The application was examined within a composite procedure in which the competent Italian authority issued a negative preliminary opinion that bound the Commission and led to the rejection of the application. The applicant challenged the Commission’s decision before the CJEU, arguing that the national preparatory act was unlawful and that the EU decision based upon it should therefore also be annulled. The CJEU has held that, in composite (or complex) procedures where a national authority adopts a preparatory act that is binding on an EU institution and leaves it no margin of discretion, EU courts cannot review the final EU decision on the ground that it is based on an unlawful national measure.

This limitation highlights broader concerns related to accountability in multi-level administration and suggests that the data life cycle within such procedures requires closer scrutiny (Kaufmann & Leese, 2021, pp. 75–81). Since EU courts lack jurisdiction to review national acts, they cannot declare the EU decision invalid on that basis either. To

⁵ Judgment of 15 May 1986, *Johnston v. Chief Constable of the Royal Ulster Constabulary*, C-222/84, EU:C:1986:206, paras. 2 and 6; Judgment of 13 March 2007, *Unibet (London) Ltd and Unibet (International) Ltd v. Justitiekanslern*, C-432/05, EU:C:2007:163, paras. 79–80.

prevent a denial of effective judicial protection, however, the CJEU held that national courts must be able to review binding national preparatory acts under the same conditions as they would review a final act adopted by the national authority concerned.⁶

This approach has largely remained unchanged. In the context of the prudential supervision of credit institutions, notifications of qualifying holdings must be submitted to the national competent authority, which assesses the proposed acquisition and issues a recommendation to the European Central Bank (ECB). The ECB then decides whether to oppose the acquisition on the basis of the assessment criteria laid down in EU law.

In *Fininvest*, the Italian Central Bank submitted a negative recommendation to the ECB concerning Berlusconi's application, on the grounds that he did not satisfy the requirement of good repute owing to his disqualification from managing a company. The ECB followed the recommendation and rejected the application. Although the decision was challenged before an Italian court, the CJEU ruled, in preliminary ruling proceedings, that since the final decision was attributable to the ECB, exclusive jurisdiction to review it lay with the EU courts under Article 263 TFEU. In order to safeguard the effectiveness of EU law and the principle of sincere cooperation, the CJEU further held that acts adopted by national authorities in procedures such as those in *Fininvest* cannot be reviewed by national courts. Instead, EU courts may, where necessary, declare the ECB's decision indirectly unlawful if its illegality can be traced back to the unlawfulness of national preparatory acts.⁷

This solution may offer pragmatic advantages in terms of legal harmonisation at the EU level and the uniformity of decision-making (Lonardo, 2022; Eckes & D'Ambrosio, 2020, pp. 43–44). At the same time, it entails serious drawbacks. Where a violation of law occurs at the national level, it may escape substantive judicial scrutiny, since EU courts cannot examine compliance with national law (Brito Bastos, 2020, p. 64).

This problem is illustrated by the *Rimšēvičs* judgment, which concerned issues characteristic of vertical composite procedures. In that case, Latvian authorities temporarily suspended the President of the Latvian Central Bank, Rimšēvičs, in the context of a corruption investigation, thereby also depriving him of his seat on the Governing Council of the ECB.

Both Rimšēvičs and the ECB challenged the suspension before the CJEU, relying on the Statute of the European System of Central Banks and of the ECB, which provides that governors of national central banks may be removed from office only if they no longer fulfil the conditions required for the performance of their duties or have been guilty of serious misconduct. The CJEU annulled the suspension decision, finding that it was not sufficiently substantiated by evidence of serious misconduct. However, its assessment was based solely on the national documents submitted to it, which failed to demonstrate such

⁶ Judgment of 3 December 1992, *Oleificio Borelli SpA v. Commission of the European Communities*, C-97/91, EU:C:1992:491, paras. 1–4.

⁷ Judgment of 19 December 2018 *Silvio Berlusconi and Finanziaria d'investimento Fininvest SpA (Fininvest) v. Banca d'Italia and IVASS*, C-219/17, EU:C:2018:1023, paras. 53–59.

a breach of duty. The CJEU did not examine the legality of the national proceedings or the legal basis of the documents themselves.⁸

This case illustrates how legal remedies relating to national acts may fall outside the unity of the procedure, thereby undermining the effective protection of rights.⁹ Legal scholarship has accordingly warned that certain administrative acts may remain entirely outside judicial review, calling into question the legitimacy of the EU administrative space (Brito Bastos, 2020).

These tensions are further illustrated by horizontal composite procedures, notably in the *Berlioz* case. There, the tax authority of one Member State imposed an administrative financial penalty on a taxpayer for failing to comply with a cooperation obligation arising from a decision requiring the provision of information requested by another Member State. The CJEU interpreted the right to an effective remedy as requiring that a court hearing an action against such a penalty must be able to review the legality of the underlying decision requiring the provision of information. However, in light of the composite nature of the procedure and the objectives of EU cooperation rules, the review was limited. The national court was required only to verify, based on a summary examination, whether the request for information established a sufficient link between the information sought, the person concerned, any third parties involved, and the tax objective pursued. Unlawfulness could be established only where the discrepancy between the request and the objective of cooperation was manifest.¹⁰

The effectiveness of judicial protection under Article 47 of the Charter further requires that the requesting authority provide sufficient reasoning to enable the national court to assess the legality of the request for information.¹¹ While this marked the emergence of a first structured framework for transnational judicial review (Mazzotti & Eliantonio, 2020, p. 47), it also made clear that such review remains limited to assessing manifest irrelevance, rather than examining the full legality of the earlier national stage.

In *Berlioz*, the CJEU thus departed from the earlier doctrine that foreign national preparatory acts were entirely immune from national judicial review. Yet only a year later, in *Donnellan*, it ruled that where an authority of one Member State requests another Member State to recover a fine of which the person concerned had been unaware, the requested authority may lawfully refuse assistance.¹² In this way, the requested State effectively exercises a form of review over the proceedings of the requesting State.

Overall, the deepening of EU administrative integration and the expanding role of EU institutions significantly reshape the conditions under which fair, transparent and lawful procedures, as well as effective judicial protection, can be ensured. In this context,

⁸ Judgment of 26 February 2019, *Ilmārs Rimšēvičs v. Republic of Latvia*; *European Central Bank v. Republic of Latvia*, C-202/18 and C-238/18, EU:C:2019:139, para. 96.

⁹ Article 47 of Charter of Fundamental Rights of the European Union (Charter of Fundamental Rights). OJ C 202, 7.6.2016, pp. 389–405.

¹⁰ Judgment of 16 May 2017, *Berlioz Investment Fund SA v. Directeur de l'administration des contributions directes*, C-682/15, EU:C:2017:373, paras. 77–78.

¹¹ Judgment of *Berlioz*, para. 84; Judgment of 4 June 2013, *ZZ v. Secretary of State for the Home Department*, C-300/11, EU:C:2013:363, para. 53; Judgment of 23 October 2014, *Unitrading Ltd v. Staatssecretaris van Financiën*, C-437/13, EU:C:2014:2318, para. 20.

¹² Judgment of 26 April 2018, *Eamonn Donnellan v. The Revenue Commissioners*, C-34/17, EU:C:2018:16, para. 61.

composite procedures, if not accompanied by effective and substantive judicial review, risk undermining legal certainty and normative stability. The case law of the CJEU, particularly in *Borelli*, *Berlioz*, *Fininvest*, *Rimšēvičs* and *Donnellan*, has progressively outlined the contours of judicial review in such procedures. However, these rulings tend to provide case-specific solutions rather than a coherent and general doctrine for the review of multi-level administrative decision-making, which remains a major challenge for the contemporary EU administrative system.

Composite administrative procedures are therefore not merely technical tools of cooperation but raise structural questions for the classical model of jurisdiction and judicial control. Their multi-level nature often separates the source of illegality, the place of decision-making, and the forum of judicial review across different legal orders. This fragmentation calls into question the traditional state-centred logic of administrative jurisdiction, particularly in light of the EU requirement of effective judicial protection. In this sense, composite procedures function as a stress test for the European administrative space: they reveal the extent to which legality and judicial protection can be maintained within a system of multi-level governance. Their presence across diverse policy areas, including financial supervision, migration, taxation, environmental regulation and internal market governance, confirms that composite administration is not exceptional, but a general structural feature of EU governance.

5. Digital paradox: Standardisation and fragmentation in the European Administrative Space

5.1. From e-procedures to structuring digitalisation

The development of composite administrative procedures has been closely linked to the use of information technologies from an early stage. Data exchange between authorities, the transmission of information and the coordination of administrative cooperation have typically taken place through electronic channels. These early e-procedures, however, primarily reflected an instrumental form of digitalisation, aimed at accelerating information flows, reducing administrative burdens and providing technical support for network-based cooperation. At that stage, the fundamental logic of decision-making, the allocation of responsibilities and the procedural structure largely remained unchanged (Wall, 2016, pp. 11–12).

A prominent example of this development is the Single Digital Gateway established by Regulation (EU) 2018/1724, which provides a common EU “one-stop-shop” portal enabling citizens and businesses to access information, complete administrative procedures, and obtain assistance services across Member States in an integrated digital environment (Bhattarai et al., 2019, pp. 160–161; Graux, 2021, pp. 88–89, 102). By contrast, the current wave of digitalisation represents a qualitative shift.

Legal interoperability, understood as facilitating interaction between administrative authorities operating under different jurisdictions in the performance of administrative tasks, is now complemented by organisational, technical and semantic interoperability (Pflücke, 2024, p. 270; Inshakova et al., 2020, pp. 447–450). Digitalisation thus no longer merely serves as a carrier of administrative action but has become a structuring factor of decision-making itself.

Interoperable databases, automated workflows, algorithmic pre-screening and AI-based decision support systems are increasingly embedded in the internal functioning of composite procedures. As a result, certain procedural stages are not only accelerated but reorganised, and often rendered invisible to the individuals concerned. This transformation also affects the *locus* of normative authority in administrative governance. While administrative legality has traditionally been grounded in formal legal norms (Hofmann, 2024, p. 4), contemporary decision-making increasingly depends on infrastructures of identification, data exchange, and algorithmic processing that define the operational conditions of administrative action. Where interoperable systems or automated decision support tools determine which data are considered relevant, how they are processed, and which outcomes are prioritised, the normative environment of governance is partially relocated from legal texts to data architectures (Nouws & Dobbe, 2024, p. 190). This shift raises fundamental questions concerning accountability, transparency and legality, as the rules embedded in digital systems may remain opaque, difficult to contest, and only indirectly subject to judicial review.

Data processing and decision support mechanisms operating within digital systems further reinforce those structural characteristics that have already made legality review difficult: the fragmentation of decision-making chains, the informal nature of preparatory acts and the blurring of responsibility. Where a final administrative decision is based on algorithmically generated assessments or on data automatically retrieved from the digital system of another Member State, the source of a potential infringement becomes even harder to identify, and the object of judicial review increasingly difficult to delineate.

Digitalisation also creates an asymmetrical informational relationship between authorities and affected individuals. While digital cooperation functions as a tool of integration and efficiency for administrative networks, it often results, from the individual's perspective, in an opaque, "black box" procedural environment, which is particularly problematic in light of the rights to a fair procedure and to effective judicial protection (Brožek et al., 2024, pp. 434–435).

The 2020s mark the decade of a human-centred digital transition, to which the EU's policy objectives have also been recalibrated. As part of this strategy, the full online availability of public services by 2030 has been set as a target,¹³ alongside the establishment of faster, more transparent, data-driven and interoperable administrative functioning (Vörös, 2025, p. 40; Patyi et al., 2025a, p. 7). This shift renders cross-border cooperation a natural process and necessarily reshapes the operation of European public administration.

¹³ COM/2021/118 final. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2030 Digital Compass: the European way for the Digital Decade; Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030. OJ L 323, 19 December 2022, pp. 4–26.

In this sense, the digital transition is not merely a matter of technical modernisation but entails a structural and conceptual transformation. Cooperation between national administrative authorities is no longer exclusively a legal issue but increasingly a technological and data-strategic one, shaped by the interplay of interoperability, automation and data transfer.

Digitalisation, therefore, appears in composite procedures not as an isolated development but as a new quality of cooperation, one that also amplifies previously identified structural uncertainties. Its tangible foundations are already evident in EU digital strategies, the Digital Services Act (DSA), the eIDAS Regulation, the AI Act, the e-Justice Communication System (e-CODEX), and the activities of eu-LISA, which operates large-scale IT systems in the area of freedom, security and justice (Csatlós, 2025, pp. 137–147; Onțanu, 2023, pp. 96–105). These developments increasingly portray public administration as an interconnected ecosystem in which continuous data flows and service integration constitute the core operational principle.

5.2. Anticipated challenges to judicial protection and normative tensions in digitalised composite procedures

In the digital era, European administrative procedural law enters a new dimension: procedures become faster yet more complex; cooperation more efficient yet more vulnerable; and legal certainty and the protection of individual rights require new forms of safeguards, among which data protection regulation plays a particularly prominent role (Patyi et al., 2025b, pp. 7–13; Váradi, 2024). At first glance, digitalisation appears to offer solutions to precisely those coordination difficulties arising from the multi-level nature of composite procedures (Benjamin, 2023, pp. 11–12); at the same time, however, it generates new rule of law challenges.

Automated data processing and pre-screening often take the form of technical operations that do not formally qualify as administrative decisions, yet have a decisive impact on the outcome of the procedure. This form of “invisible decision-making” significantly complicates the exercise of legal remedies, as it is unclear to the affected individual which act, which authority and at which level may be subject to judicial review. The problem is particularly acute where preparatory national acts are influenced by AI-based processes (Kastanas & Pavlidis, 2025, pp. 68–69), as foreshadowed, for example, by potential future litigation relating to the ETIAS system (Csatlós, 2024b, pp. 391–397; Musco Eklund, 2023, p. 272).

Digitalisation also puts procedural guarantees to the test. The duty to give reasons may become especially difficult to fulfil where decisions are based on automated risk analysis or algorithmic pre-classification, thereby jeopardising compliance with Articles 41 and 47 of the Charter. In data-driven systems, erroneous or outdated information may rapidly propagate throughout the entire procedural chain, while judicial review remains fragmented, further reinforcing the jurisdictional gap (Jančová & Fernandes, 2022, pp. 7–8). The greater the significance of a decision for an individual’s life, the greater the importance of understandable justification in the event of an adverse outcome; yet

the opposite tendency can be observed where authorities process mass cases governed by automation and algorithms, resulting in generic and schematic reasoning (Daly et al., 2023, pp. 261–262).

Technical rules embedded in digital systems, such as data quality criteria, automated deadlines and risk categories, acquire a form of implicit normative force, raising new questions of democratic legitimacy and accountability. Digitalisation, therefore, does not alleviate but, in many cases, further deepens the judicial protection problems already identified in composite procedures (Wachter et al., 2018, pp. 860–879; Lazarotto, 2025, pp. 50–51). The digital era thus represents not merely a new quality of cooperation but the next stage in the rule of law dilemmas inherent in composite administrative procedures, dilemmas that cannot be addressed through technological modernisation alone, as they require normative responses grounded in the rule of law.

This is not necessarily because normative frameworks are currently absent, but rather because the normative background itself remains fragmented, dispersed across different sources of law, thereby hindering coherent interpretation and application. Accordingly, several directions appear justified to strengthen judicial protection. EU and national authorities should be obliged to provide affected individuals with accessible and comprehensible information on the functioning of digital systems used in composite procedures, particularly concerning data sources, automated assessment steps and decision-support mechanisms (a duty of digital transparency).

At a normative level, it should be explicitly recognised that automated or digitally mediated preparatory acts, where they substantively influence the final decision, form part of legality review and cannot be entirely excluded from judicial control. This objective is further served by clearly establishing responsibility chains, first at the normative level and subsequently in individual decisions. In the digital environment of composite procedures, clear rules are required to determine which authority bears responsibility for data quality, algorithmic processing and the lawfulness of the final decision. Without such clarification, judicial protection risks becoming illusory, particularly where courts are not granted access to the functioning of digital systems, including the reviewability of algorithmic decision-support. In such cases, the legality review would become merely formalistic.

The use of digital systems in composite administrative procedures is not only a matter of efficiency, but also raises new challenges from the perspective of the rule of law and effective judicial protection. To address this, it would be necessary to establish an explicit normative obligation of digital transparency.

Within this framework, both EU and Member State authorities should be required to provide those concerned with accessible and comprehensible information about the functioning of the digital systems used in composite procedures. Such information cannot be limited to merely indicating the existence of the system, but must extend at least to the types of data sources used, the nature of automated evaluation or ranking steps, and the manner in which digital tools contribute to the preparation of the final decision. The purpose of this information is not the full disclosure of algorithms, but rather to ensure that those concerned can understand the role digital tools play in shaping the decision taken in their case.

In this context, it would also be necessary to clearly state at the normative level that automated or digitally mediated preparatory acts, where they materially influence the final decision, fall within the scope of legality review. In current practice, such steps are often classified as merely technical in nature, with the result that judicial control is essentially limited to the final decision. However, in the case of digital decision support systems, automated evaluation mechanisms applied at the preparatory stage may in fact determine the range of decision-making alternatives or their ranking. If these steps fall entirely outside the scope of legality review, judicial review may become substantively hollow (Cobbe & Singh, 2020, pp. 1–2; Kazim & Tomlinson, 2023, pp. 12–16).

From the perspective of practical applicability, particular importance must also be attached to the clear definition of the chain of responsibility. In the digital environment of composite procedures, clear normative rules are needed to determine which authority bears responsibility for specific functions at different stages of the procedure. This includes, in particular, responsibility for data quality (for example, the accuracy and timeliness of databases), responsibility for algorithmic processing (for example, the design and operation of automated evaluation criteria), and responsibility for the legality of the final decision. If these responsibility relationships are not clearly defined, there is a risk that those concerned will be unable to identify the authority against whose decision or procedural act they may seek legal remedy (Abdel Hamid, 2025, pp. 386–387; Bicskei, 2023, pp. 103–113).

In addition, in order to ensure effective judicial protection, it is necessary to guarantee that courts can actually access and understand the relevant elements of how digital systems operate. This may include, for example, the examinability of the operational logic of decision support algorithms, the categories of data used, or the automated evaluation steps. This does not necessarily require full public disclosure of algorithms, but rather institutional solutions, such as expert assessments or restricted judicial access, that enable courts to verify whether the functioning of the digital system complies with applicable legal requirements. In the absence of such mechanisms, legal review may become merely formal, as courts would be unable to assess the technological mechanisms that actually shape the decision meaningfully.

Overall, digitalisation in composite administrative procedures does not simply accelerate cooperation but reshapes its normative structure. If this transformation is not accompanied by a conscious rethinking of judicial protection mechanisms, the price of effective administration may be the erosion of rule of law guarantees. Digitalisation can therefore be regarded as legitimate within EU administration only insofar as it strengthens the reviewability of legality and effective judicial protection. At the same time, the EU's increasingly assertive regulatory approach in the digital domain, illustrated by instruments such as the AI Act¹⁴ and the Digital Services Act,¹⁵ has been criticised as imposing

¹⁴ 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 (Artificial Intelligence Act). OJ L, 2024/1689, 12.7.2024.

¹⁵ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act). OJ L 277, 27.10.2022, pp. 1–102.

significant compliance burdens (Graux et al., 2025, pp. 78–81; Eckardt, 2025, pp. 199–202; Hartmann et al., 2025, pp. 3629–3632; Finch & Butt, 2025, pp. 19–20).

Beyond the simple diagnosis, these structural challenges call for more explicit normative and institutional responses. First, clearer allocation of responsibility within composite procedures is required, particularly in relation to digitally mediated preparatory acts. Second, enhanced transparency obligations should be developed for digital administrative systems, ensuring that affected individuals and reviewing courts can understand the role of data and algorithms in decision-making processes. And third, the progressive development of shared procedural standards at the EU level, whether through codification initiatives or sector-specific harmonisation, could mitigate fragmentation and strengthen the effectiveness of judicial protection. These responses suggest that addressing the challenges of composite procedures in the digital age cannot rely solely on doctrinal refinement but requires a reconfiguration of the relationship between legal norms, administrative structures and technological infrastructures.

Conclusion

This study has traced the development of the European Administrative Space through the constitutional and practical significance of administrative cooperation. Its central premise has been that, despite the absence of a uniform and codified body of EU administrative procedural law, the everyday interaction of authorities has nevertheless given rise to an increasingly dense, multi-level and technologically interconnected system of administration.

The analysis has demonstrated how the principle of loyal cooperation has evolved into a structural cornerstone of EU law implementation, and how administrative networks have gradually transformed earlier forms of intergovernmental coordination into indispensable frameworks for continuous information exchange and data-driven governance. These networks no longer merely complement national administrative action, but increasingly shape the very conditions under which EU policies are applied in practice.

By examining composite procedures in detail, the study has highlighted persistent gaps in judicial protection that may jeopardise the guarantees enshrined in Articles 41 and 47 of the Charter of Fundamental Rights. The analysis of the *Borelli*, *Fininvest* and *Berlioz* cases illustrates that multi-level decision-making processes are frequently not subject to comprehensive judicial review, leaving certain procedural stages and administrative acts insufficiently scrutinised. In this respect, the study draws attention to the ambivalent role of digitalisation.

While interoperable data platforms and automated information exchange significantly enhance administrative efficiency, they also generate new risks related to transparency, data quality, accountability and access to effective legal remedies. The growing reliance on digital infrastructures and automated decision support systems within composite procedures may therefore further intensify legal uncertainty rather than resolve it.

From a practical perspective, the findings of this study suggest that strengthening judicial protection in composite procedures requires not only doctrinal clarification but

also institutional and technological adjustments. These include clearer allocation of responsibilities, enhanced transparency of digital systems, and the development of shared procedural standards at the EU level. Future research could further explore the empirical operation of composite procedures across policy fields and examine how digital infrastructures reshape accountability mechanisms in practice. Ultimately, ensuring the rule of law in the European administrative space will depend on the ability to align legal norms with the evolving realities of data-driven governance.

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References

- Abdel Hamid, A. M. (2025): Administrative Liability for Damages Caused by Artificial Intelligence Systems in Public Services: An Analytical Study in Light of the Principles of Legality and Transparency. *Humanities and Social Sciences*, 13(4), 382–388. Online: <https://doi.org/10.11648/j.hss.20251304.21>
- Balázs, I. (2015). Az európai közigazgatási jog és közigazgatás értelmezéséről [On the Interpretation of European Administrative Law and Public Administration] (pp. 13–29). In B. Gerencsér, L. Berkes & Zs. A. Varga (Eds.), *A hazai és az uniós közigazgatási eljárásjog aktuális kérdései* [Current Issues in Domestic and EU Administrative Procedural Law] (pp. 13–29). Pázmány Press. Online: <http://real.mtak.hu/id/eprint/31808>
- Balázs, I. (2020). Az Európai Közigazgatási Tér és az európai közigazgatási jog [The European Administrative Space and European Administrative Law]. In A. Lapsánszky (Ed.), *Közigazgatási jog. Szakigazgatásaink elmélete és működése* [Administrative Law. Theory and Practice of Sectoral Administration] (pp. 70–90). Wolters Kluwer. Online: <http://real.mtak.hu/id/eprint/118787>
- Balogh-Békési, N., Balázs, I. & Boros, A. (2017). I. könyv: Általános rendelkezések [Book I: General Provisions]. *Pro Publico Bono – Magyar Közigazgatás*, 5(Special Issue 2), 20–67. Online: <http://real.mtak.hu/id/eprint/92364>
- Benjamin, J. (2023). Safeguarding the Right to an Effective Remedy in Algorithmic Multi-Governance Systems: An Inquiry in Artificial Intelligence-Powered Informational Cooperation in the EU Administrative Space. *Review of European Administrative Law*, 16(2), 9–36. Online: <https://doi.org/10.7590/187479823X16878510945034>
- Benvenisti, E. & Downs, G. W. (2014). The Premises, Assumptions, and Implications of *Van Gend en Loos*: Viewed from the Perspectives of Democracy and Legitimacy of International Institutions. *European Journal of International Law*, 25(1), 85–102. Online: <https://doi.org/10.1093/ejil/cht084>
- Bhattarai, R., Pappel, I., Vainsalu, H., Ben Yahia, S. & Draheim, D. (2019). The Impact of the Single Digital Gateway Regulation from the Citizens' Perspective. *Procedia Computer Science*, 164, 159–167. Online: <https://doi.org/10.1016/j.procs.2019.12.168>
- Bicskei, T. (2023). A mesterséges intelligencia közigazgatásban való felhasználásával okozott kár. *KözigazgatásTudomány*, 3(1), 99–114. Online: <https://doi.org/10.54200/kt.v3i1.51>
- Boros, A. (2018). A közigazgatási eljárás az Európai Unióban [Administrative Procedure in the European Union]. In A. Jakab & B. Fekete (Eds.), *Internetes Jogtudományi Enciklopédia* [Online Encyclopedia of Jurisprudence]. Online: <https://ijoten.hu/szocikk/a-kozigazgatasi-eljarasjog-az-europai-unioban>

- Brito Bastos, F. (2020). An Administrative Crack in the EU's Rule of Law: Composite Decision-Making and Nonjusticiable National Law. *European Constitutional Law Review*, 16(1), 63–90. Online: <https://doi.org/10.1017/S1574019620000073>
- Brożek, B., Furman, M., Jakubiec, M. & Kucharzyk, B. (2024). The Black Box Problem Revisited. Real and Imaginary Challenges for Automated Legal Decision-making. *Artificial Intelligence and Law*, 32(2), 427–440. Online: <https://doi.org/10.1007/s10506-023-09356-9>
- Budinska, B. (2019). Judicial Review of Revocation Decisions in the Context of European Banking Supervision. *Review of European Administrative Law*, 12(1), 175–193. Online: <https://doi.org/10.7590/187479819x15656877527241>
- Campos Sánchez-Bordona, M. (2018). *Opinion of Advocate General Campos Sánchez-Bordona in Silvio Berlusconi and Fininvest SpA v Banca d'Italia and IVASS (Case C-219/17), ECLI:EU:C:2018:502*. Online: <https://tinyurl.com/bdfpktj2>
- Chevallier-Govers, C. (2021). Article 67 [Establishing the AFSJ]. In H.-J. Blanke & S. Mangiameli (Eds.), *Treaty on the Functioning of the European Union – A Commentary* (pp. 1329–1376). Springer. Online: https://doi.org/10.1007/978-3-030-43511-0_68
- Cobbe, J. & Singh, J. (2020). Reviewable Automated Decision-Making. *Computer Law & Security Review*, 39. Online: <https://doi.org/10.1016/j.clsr.2020.105475>
- Craig, P. (2018). *EU Administrative Law*. Oxford University Press. Online: <https://doi.org/10.1093/oso/9780198831655.001.0001>
- Craig, P., Hofmann, H., Schneider, J.-P. & Ziller, J. (Eds.) (2017). *ReNEUAL Model Rules on EU Administrative Procedure*. Oxford University Press.
- Csatlós, E. (2016). Az európai közigazgatási eljárási jog kodifikációja és a hatóságok együttműködése [The Codification of European Administrative Procedural Law and Cooperation between Authorities]. *Eljárásjogi Szemle*, 1(2), 14–23. Online: <http://real.mtak.hu/id/eprint/168125>
- Csatlós, E. (2024a). Blending Digitalisation and Enhanced Security: Exploring the Role of ETIAS in Migration Control and its Administrative Structure. *Hungarian Journal of Legal Studies*, 65(3), 323–346. Online: <https://doi.org/10.1556/2052.2024.00508>
- Csatlós, E. (2024b). Jog vs. technológia: az ETIAS és a migráció szűrése [Law vs. Technology: ETIAS and Migration Screening]. *Scientia et Securitas*, 5(4), 389–400. Online: <https://doi.org/10.1556/112.2025.00244>
- Csatlós, E. (2025). *European Administration: The Basic Principles Governing the Administration of the European Union*. Iurisperitus. Online: <https://eta.bibl.u-szeged.hu/id/eprint/6064>
- Daly, P., Raso, J. & Tomlinson, J. (2023). Administrative Law in the Digital World. In C. Harlow (Ed.), *A Research Agenda for Administrative Law* (pp. 255–279). Edward Elgar. Online: <https://doi.org/10.4337/9781800883765.00017>
- Della Cananea, G. (2004). The European Union's Mixed Administrative Proceedings. *Law and Contemporary Problems*, 68(1), 197–217. Online: <https://scholarship.law.duke.edu/lcp/vol68/iss1/10>
- Deviatnikovaité, I. (2018). EU Administrative Law: What Are EU-Level Public Administrators? *Hungarian Journal of Legal Studies*, 59(1), 19–39. Online: <https://doi.org/10.1556/2052.2018.59.1.2>
- Eckardt, M. (2025). EU Digital Law and the Digital Platform Economy – An Inquiry into the Co-evolution of Law and Technology. *Review of Evolutionary Political Economy*, 6(1), 183–213. Online: <https://doi.org/10.1007/s43253-024-00135-z>
- Eckes, C. & D'Ambrosio, R. (2020). Composite Administrative Procedures in the European Union. *European Central Bank Legal Working Paper Series*, (20). Online: <https://doi.org/10.2866/08772>
- Eliantonio, M. (2014). Judicial Review in an Integrated Administration: The Case of 'Composite Procedures'. *Review of European Administrative Law*, 7(2), 65–102. Online: <https://doi.org/10.7590/187479814X14186465138022>
- European Commission (2023). *The Internal Market Information (IMI) System. 15 Years of Connecting Public Administrations across the EU*. European Commission. Online: <https://tinyurl.com/fzyzu7ya>

- Finch, W. W. & Butt, M. (2025). Gaps in AI-Compliant Complementary Governance Frameworks' Suitability (for Low-Capacity Actors), and Structural Asymmetries (in the Compliance Ecosystem) – A Systematic Review. *Journal of Cybersecurity and Privacy*, 5(4), 101. Online: <https://doi.org/10.3390/jcp5040101>
- Galetta, D.-U. (2010). *Procedural Autonomy of EU Member States: Paradise Lost? A Study on the 'Functionalised Procedural Competence' of EU Member States*. Springer. Online: <https://doi.org/10.1007/978-3-642-12547-8>
- Galetta, D.-U. (2019). Public Administration in the Era of Database and Information Exchange Networks: Empowering Administrative Power or Just Better Serving the Citizens? *European Public Law*, 25(2), 171–182. Online: <https://doi.org/10.54648/EURO2019012>
- Gandhi, S. (2024). Frontex as a Hub for Surveillance and Data Sharing: Challenges for Data Protection and Privacy Rights. *Computer Law & Security Review*, 53. Online: <https://doi.org/10.1016/j.clsr.2024.105963>
- Gerencsér, B. Sz. (2023). Principles for the Europeanisation of Public Administration. In Search of the European Procedural Administrative Principles. *Public Governance, Administration and Finances Law Review*, 8(1), 73–89. Online: <https://doi.org/10.53116/pgaf.6850>
- Gombos, K. (2019). Tagállami eljárási autonómia – az elv korlátokkal és kérdőjelekkel [Member State Procedural Autonomy – The Principle with Limitations and Question Marks]. *Európai Tükör*, 3(3), 35–50. Online: <https://doi.org/10.32559/et.2019.3.3>
- Graux, H. (2021). The Single Digital Gateway Regulation as an Enabler and Constraint of Once-Only in Europe. In R. Krimmer, A. Prentza & S. Mamrot (Eds.), *The Once-Only Principle. The TOOP Project* (pp. 83–103). Springer. Online: https://doi.org/10.1007/978-3-030-79851-2_5
- Graux, H., Garstka, K., Murali, N., Cave, J., Botterman, M. & Pellegrini, J. (2025). *Interplay between the AI Act and the EU Digital Legislative Framework*. European Parliament. Online: <https://tinyurl.com/2mzrre3d>
- Halberstam, D. (2021). Understanding National Remedies and the Principle of National Procedural Autonomy: A Constitutional Approach. *Cambridge Yearbook of European Legal Studies*, 23, 128–158. Online: <https://doi.org/10.1017/cel.2021.12>
- Harlow, C. & Rawlings, R. (2014). *Process and Procedure in EU Administration*. Hart Publishing. Online: <https://doi.org/10.5040/9781474201087>
- Hartmann, D., de Pereira, J. R. L., Streitbürger, C. & Berendt, B. (2025). Addressing the Regulatory Gap: Moving towards an EU AI Audit Ecosystem Beyond the AI Act by Including Civil Society. *AI and Ethics*, 5(4), 3617–3638. Online: <https://doi.org/10.1007/s43681-024-00595-3>
- Hildebrandt, M. (2015). *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology*. Edward Elgar. Online: <https://doi.org/10.4337/9781849808774>
- Hofmann, H. C. H. (2008). Mapping the European Administrative Space. *West European Politics*, 31(4), 662–676. Online: <https://doi.org/10.1080/01402380801905918>
- Hofmann, H. C. H. (2024). Automated Decision-Making (ADM) in EU Public Law. In H. C. H. Hofmann & F. Pflücke (Eds.), *Governance of Automated Decision-Making and EU Law* (pp. 1–31). Oxford University Press. Online: <https://doi.org/10.1093/9780198919575.003.0001>
- Hofmann, H. C. H. & Türk, A. (2007). The Development of Integrated Administration in the EU and its Consequences. *European Law Journal*, 13(2), 253–271. Online: <https://doi.org/10.1111/j.1468-0386.2007.00355.x>
- Ibáñez, A. (1999). *The Administrative Supervision and Enforcement of EC Law. Powers, Procedures and Limits*. Bloomsbury Academic.
- Inshakova, O. A., Inshakova, E. I. & Deryugina, T. V. (2020). Information Technologies for the Formation of the European Space of Freedom, Security and Justice. In E. G. Popkova & B. S. Sergi (Eds.), *Artificial Intelligence: Anthropogenic Nature vs. Social Origin* (pp. 444–453). Springer. Online: https://doi.org/10.1007/978-3-030-39319-9_51
- Jančová, L. & Fernandes, M. (2022). *Digitalisation and Administrative Law. European Added Value Assessment*. European Parliamentary Research Service. Online: <https://tinyurl.com/wcerxpwj>

- Kastanas I. & Pavlidis G. (2025) Algorithmic Administration and the EU AI Act: Legal Principles for Public Sector Use of AI. *Journal of Ethics and Legal Technologies*, 7(2), 59–79. Online: <https://doi.org/10.25430/pupj-JELT-2025-2-3>
- Kaufmann, M. & Leese, M. (2021). Information In-Formation: Algorithmic Policing and the Life of Data. In A. Završnik & V. Badalič (Eds.), *Automating Crime Prevention, Surveillance, and Military Operations* (pp. 69–83). Springer. Online: https://doi.org/10.1007/978-3-030-73276-9_4
- Kazim, T. & Tomlinson, J. (2023). Automation Bias and the Principles of Judicial Review. *Judicial Review*, 28(1), 9–16. Online: <https://doi.org/10.1080/10854681.2023.2189405>
- Korontzis, T. (2024). The Contribution of Europol, Frontex, EPPO and Eurojust in the Area of Freedom, Security and Justice. *European Journal of Political Science Studies*, 7(2), 257–272. Online: <http://dx.doi.org/10.46827/ejps.v7i2.1874>
- Kostakopoulou, D. (2020). The Appeal to Tampere's Politics of Consciousness for the EU's AFSJ. In S. Carrera, D. Curtin & A. Geddes (Eds.), *20 Year Anniversary of the Tampere Programme. Europeanisation Dynamics of the EU Area of Freedom, Security and Justice* (pp. 19–26). European University Institute. Online: <https://doi.org/10.2870/66646>
- Lafarge, F. (2024). Is Administrative Cooperation Between EU Member States the “Dark Matter” of the European Administrative Space? A Legal Perspective on the Implementation of EU Free Circulation Policies. In D. Georgakakis (Ed.), *The Changing Topography of EU Administration. Organisations, Actors, and Policy Processes* (pp. 139–157). Palgrave. Online: https://doi.org/10.1007/978-3-031-64695-9_7
- Lazarotto, B. (2025). The Role of Technology in Citizens' Right to Good Administration: Examining the Impact of Smart Governments. In J. Goossens, E. Keymolen & A. Stanojević (Eds.), *Public Governance and Emerging Technologies. Values, Trust, and Regulatory Compliance* (pp. 43–59). Springer. Online: https://doi.org/10.1007/978-3-031-84748-6_3
- Lenschow, A. (2006). Europeanisation of Public Policy. In J. Richardson (Ed.), *European Union. Power and Policy-Making* (pp. 56–70). Psychology Press. Online: <https://doi.org/10.4324/9780203004449-9>
- Lonardo, L. (2022). The Authority of Administrative Law: Its Implications for EU Integration in the Enforcement of Composite Procedures. *Jean Monnet Network on EU Law Enforcement Working Paper Series*, (38). Online: <https://tinyurl.hu/7uxZ>
- Lottini, M. (2014). An Instrument of Intensified Informal Mutual Assistance: The Internal Market Information System (IMI) and the Protection of Personal Data. *European Public Law*, 20(1), 107–126. Online: <https://doi.org/10.54648/EURO2014009>
- Mazzotti, P. & Eliantonio, M. (2020). Transnational Judicial Review in Horizontal Composite Procedures: Berlioz, Donnellan, and the Constitutional Law of the Union. *European Papers*, 5(1), 41–70. Online: <https://doi.org/10.15166/2499-8249/373>
- Monar, J. (2012). Justice and Home Affairs: The Treaty of Maastricht as a Decisive Intergovernmental Gate Opener. *Journal of European Integration*, 34(7), 717–734. Online: <https://doi.org/10.1080/07036337.2012.726011>
- Monar, J. (2014). The EU's Growing External Role in the AFSJ Domain: Factors, Framework and Forms of Action. *Cambridge Review of International Affairs*, 27(1), 147–166. Online: <https://doi.org/10.1080/09557571.2012.710586>
- Musco Eklund, A. (2023). Rule of Law Challenges of ‘Algorithmic Discretion’ & Automation in EU Border Control. A Case Study of ETIAS Through the Lens of Legality. *European Journal of Migration and Law*, 25(3), 249–274. Online: <https://doi.org/10.1163/15718166-12340152>
- Negrut, V. & Zorzoană, I. A. (2023). Application of the Loyal Cooperation Principle in Public Administration. *Challenges of the Knowledge Society*, 16(1), 431–437. Online: <https://tinyurl.hu/2xpw>
- Nouws, S. & Dobbe, R. (2024). The Rule of Law for Artificial Intelligence in Public Administration: A System Safety Perspective. In K. Prifti, E. Demir, J. Krämer, K. Heine & E. Stamhuis (Eds.), *Digital Governance. Confronting the Challenges Posed by Artificial Intelligence* (pp. 183–208). Springer. Online: https://doi.org/10.1007/978-94-6265-639-0_9

- OECD (2023). *The Principles of Public Administration*. OECD Publishing. Online: <https://doi.org/10.1787/7f5ec453-en>
- Oller Rubert, M. & García Macho, R. (2021). Article 74 [Administrative Cooperation]. In H. J. Blanke & S. Mangiameli (Eds.), *Treaty on the Functioning of the European Union – A Commentary* (pp. 1417–1425). Springer. Online: https://doi.org/10.1007/978-3-030-43511-0_75
- Onțanu, E. A. (2023). The Digitalisation of European Union Procedures: A New Impetus Following a Time of Prolonged Crisis. *Law, Technology and Humans*, 5(1), 93–110. Online: <https://doi.org/10.5204/lthj.2706>
- Patyi, A., Pollák, K. & Fekete, O. (2025a). A mesterséges intelligencia alkalmazásának egyes adatvédelmi kihívásai a közigazgatási hatósági eljárásokban [Certain Data Protection Challenges of Applying Artificial Intelligence in Administrative Authority Procedures]. *Jog–Állam–Politika*, 17(1), 7–20. Online: <https://doi.org/10.58528/JAP.2025.17-2.7>
- Patyi, A., Pollák, K. & Fekete, O. (2025b). A mesterséges intelligencia alkalmazásának néhány alapkérdése a közigazgatási eljárásjog szemszögéből [Some Fundamental Issues of the Application of Artificial Intelligence from the Perspective of Administrative Procedural Law]. *Jog–Állam–Politika*, 17(2), 3–18. Online: <https://doi.org/10.58528/JAP.2025.17-1.3>
- Pflücke, F. (2024). Interoperability in the EU Paving the Way for Digital Public Services. In H. C. H. Hofmann & F. Pflücke (Eds.), *Governance of Automated Decision-Making and EU Law* (pp. 265–288). Oxford University Press. Online: <https://doi.org/10.1093/9780198919575.003.0010>
- Roeben, V. (2020). Judicial Protection as the Meta-norm in the EU Judicial Architecture. *Hague Journal on the Rule of Law*, 12(1), 29–62. Online: <https://doi.org/10.1007/s40803-019-00085-3>
- Röttger-Wirtz, S. & Eliantonio, M. (2019). From Integration to Exclusion: EU Composite Administration and Gaps in Judicial Accountability in the Authorisation of Pharmaceuticals. *European Journal of Risk Regulation*, 10(2), 393–411. Online: <https://doi.org/10.1017/err.2019.32>
- Rozsnyai, K. (2013). A hatékony jogvédelem biztosítása a közigazgatási bírászkodásban [Ensuring Effective Legal Protection in Administrative Justice]. *Acta Humana*, 1(1), 117–130. Online: <http://real.mtak.hu/id/eprint/122844>
- Schmidt-Aßmann, E. & Molnár-Gábor, F. (2019). European Administrative Law. *Max Planck Encyclopedia of Public International Law*. Online: <https://doi.org/10.1093/law:epil/9780199231690/e1819>
- Siket, J. (2017). Legal Protection Rules of New Administrative Procedure. In E. Csatlós (Ed.), *Recent Challenges of Public Administration: Papers presented at the conference of ‘Contemporary Issues of Public Administration’ on 26th April 2017* (pp. 33–44). Iurisperitus. Online: <http://acta.biblu-szeged.hu/id/eprint/69030>
- Smuha, N. A. (2025). *Algorithmic Rule by Law. How Algorithmic Regulation in the Public Sector Erodes the Rule of Law*. Cambridge University Press. Online: <https://doi.org/10.1017/9781009427500>
- Soós, E. (2011). A Vajdaság útja az európai integrációba a Vajdaság AT Statútumának tükrében [Vojvodina's Path to European Integration in Light of the Statute of Vojvodina]. *Közép-Európai Közlemények*, 4(3–4), 145–155. Online: <https://real-j.mtak.hu/29241>
- Torma, A. (2011). Az Európai Közigazgatási Térségről – magyar szemmel [The European Administrative Area – From a Hungarian perspective]. *Miskolci Jogi Szemle*, 6(Special Issue), 196–210. Online: <https://www.mjsz.uni-miskolc.hu/2011k>
- Türk, A. H. (2025). *Judicial Review in the European Union*. Edward Elgar Publishing. Online: <https://doi.org/10.4337/9781783478590>
- Várdai, Sz. (2024). *Adatvédelem a mesterséges intelligencia korában* [Data Protection in the Age of Artificial Intelligence]. Wolters Kluwer.
- Vörös, E. H. (2025). Hogyan hat a digitalizáció a közigazgatásra? Eltérő technológiai szintek áttekintése és lehetséges közigazgatás-fejlesztési irány a digitalizáció korában [How Does Digitalisation Affect Public Administration? An Overview of Different Levels of Technology and Possible Directions for Public Administration Development in the Age of Digitalisation]. *Közjogi Szemle*, 18(3), 40–49. Online: <https://doi.org/10.59851/KJSZ.2025.3.05>

- Wachter, S., Mittelstadt, B. & Russell, C. (2018). Counterfactual Explanations without Opening the Black Box: Automated Decisions and the GDPR. *Harvard Journal of Law & Technology*, 31(2), 841–887. Online: <https://tinyurl.hu/UU4t>
- Wall, G. (2016). Linked National Public Authorities – A Study on IMI. *Swedish Institute for European Policy Studies*, Report No. 11. Online: <https://tinyurl.com/mvmhuk9a>
- Wilbrandt-Gotowicz, M. (2023). Judicial Control in Integrated Composite Administrative Proceedings – Monism or Duality of Protection of Individual Rights? *Studia Iuridica Lublinensia*, 32(1), 293–319. Online: <https://doi.org/10.17951/sil.2023.32.1.293-319>