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Interoperability in the EU

Paving the Way for Digital Public Services

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Chapter 9 Interoperability in the EU: Paving the Way for Digital Public

Services

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Abstract

This Chapter explores the concept of interoperability within public services of the European Union (EU) and its Member States, focusing on the seamless exchange of information and services across borders and sectors. Recognising the significance of effective data sharing and resource utilisation, the EU has embarked on a multifaceted journey to establish an interoperability policy that fosters collaboration among Member States and transcends national boundaries. The Chapter begins by introducing the core principles and objectives underlying the EU's interoperability policy, emphasising its transformative potential for diverse sectors and industries. It highlights the need for a coordinated and harmonised approach to interoperability, considering the complexities arising from varying national frameworks and diverging practices. Next, the Chapter delves into the historical evolution of the EU's interoperability policy, tracing its roots back to the developments of the 1980s and 1990s. It explores critical milestones that have shaped the interoperability landscape, culminating in establishing a comprehensive European interoperability policy. The significance of the European Interoperability Frameworks and the Tallinn Declaration of 2017, which emphasised digital transformation and interoperability in the Digital Single Market, are also discussed. The Chapter then examines the European Commission's Interoperable Europe Act Regulation Proposal. It explores the proposal's origins, ambitions, and the driving forces behind its formulation. The proposal's impact on cross-border interoperability and public-sector cooperation in the EU is under analysis. The Chapter also discusses the framework for future interoperability cooperation and the mechanisms to guide this collaborative

endeavour. Lastly, the Chapter evaluates the progress towards achieving effective and efficient interoperability within the EU, considering challenges and opportunities related to technological advancements, governance structures, and legal frameworks. It concludes by emphasising the significance of interoperability within the European Union and presenting prospects and recommendations for realising a genuinely interoperable Europe.

Keywords: Interoperability, Law and Technology, eGovernance, Digital Public Services

JEL Classifications: O20, O10, O19, O38, K29, I18, I30, G38

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1. Introduction

Interoperability is a principle that has gained increasing importance in the context of the European Union's (EU) efforts to harmonise digital services and foster the Digital Single Market.[1] The EU's fundamental freedoms, namely the free movement of goods, services, capital, and people, form the core link to interoperability. Developing digital services that enable a seamless exchange of information and services between public service providers (PSP) across different Member States is essential to realising these freedoms. Enhancing interoperability also supports the principle of good administration under Article 41 of the EU Charter. The EU and its Member States can foster a more efficient and less cumbersome regulatory environment by avoiding the unnecessary burden of repeatedly gathering and supplying information.

In recent years, the European Union has placed a central focus on interoperability, undertaking numerous initiatives since the 1980s to address this critical aspect. However, the recent emergence of planned large-scale adoption of interoperability holds significant implications. This development bears the potential to propel innovation forward while fostering heightened efficiency and effectiveness within public services. As a result, policymakers, researchers, and practitioners alike have turned their attention towards this crucial area of interest.

The Chapter begins by introducing the core principles and objectives underlying the EU's interoperability policy, emphasising its transformative potential for diverse sectors and

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[1] Commission, '2030 Digital Compass: the European way for the Digital Decade' COM(2021) 118 final, Sections 3.4 and 5.2

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industries. It highlights the need for a coordinated and harmonised approach to interoperability, considering the complexities arising from varying national frameworks and diverging practices. Next, the Chapter delves into the historical evolution of the EU's interoperability policy, tracing its roots back to the developments of the 1980s and 1990s. It explores critical milestones that have shaped the interoperability landscape, culminating in establishing a comprehensive European interoperability policy. The significance of the European Interoperability Frameworks and the Tallinn Declaration of 2017, which emphasised digital transformation and interoperability in the Digital Single Market, are also discussed. The Chapter then examines the European Commission's Interoperable Europe Act Regulation Proposal. It explores the proposal's origins, ambitions, and the driving forces behind its formulation. The proposal's impact on cross-border interoperability and public-sector cooperation in the EU is under analysis. The Chapter also discusses the framework for future interoperability cooperation and the mechanisms to guide this collaborative endeavour. Lastly, the Chapter evaluates the progress towards achieving effective and efficient interoperability within the EU, considering challenges and opportunities related to technological advancements, governance structures, and legal frameworks. It concludes by emphasising the significance of interoperability within the European Union and presenting prospects and recommendations for realising a genuinely interoperable Europe.

2. The European Union Interoperability Policy

The EU Interoperability Policy has emerged as a dynamic and rapidly evolving policy field within the European Union. Initially rooted in sectoral European and national initiatives, it has swiftly become one of the EU's most pressing and significant policy priorities. This Section offers a comprehensive and critical examination of the origins and future trajectory of the

European Union Interoperability Policy. It aims to shed light on this policy domain's multifaceted nature and evolving landscape by delving into its historical development and exploring its potential future directions.

2.1. Early Developments in the 1980s and 1990s

Early developments of a European Union Interoperability Policy emerged during the 1980s and 1990s. One notable initiative during this period was the programme for using telematics in Community information systems, the CADDIA (Cooperation in the Automation of Data and Documentation for Imports-Exports and Agriculture) programme, specifically focusing on imports-exports and the management and control of agricultural market organisations.[2] A study conducted as part of the CADDIA programme recommended adopting a ten-year development programme to be implemented by the European Commission and the competent national authorities.[3] The objective was to analyse telematics' feasibility, costs, and benefits for processing data and documentation in the mentioned areas. CADDIA included the development of coordinated and computerised administrative procedures,[4] and was also

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[2] It was initially created for two years by Council Decision (EEC) 85/214 of 26 March 1985 concerning the coordination of the activities of the Member States and the Commission related to the implementation of a long-term programme for the use of telematics for Community information systems concerned with imports/ exports and the management and financial control of agricultural market organizations [1985] OJ L 96/35 and renewed for another five years by Council Decision (EEC) 87/288 of 1 June 1987 concerning the extension of the period of validity of Decision 85/214/EEC and 86/23/EEC [1987] OJ L 145/86. Eurofi Plc, *1992-Planning for the Information Technology Industries* (Butterworths and Eurofi Plc 1989) 108.

[3] Commission, 'Long-term programme (EEC) for the use of telematics for Community information systems concerned with imports-exports and the management and control of agricultural market organizations (CADDIA) - Preparatory activities, 1982-1983' [1982] OJ L 247 - 1982-08-23. Johannes Frerich and Gernot Müller, *Politisch-ökonomische Rahmenbedingungen, Verkehrsinfrastrukturpolitik* (De Gruyter 2010) 527.

[4] Council Decision (EEC) 86/23 of 4 February 1986 relating to the coordinated development of computerized administrative procedures (CD project) [1986] OJ L 33/28. Eurofi Plc (n 2) 109.

closely linked to the INSIS (Community Inter-Institutional Information System) programme[5]

and the TEDIS (Trade Electronic Data Interchange) programme.[6]

To prepare for the implementation of the CADDIA programme, the European Commission

collaborated with a User Advisory Committee and engaged in preparatory activities with the

Member States.[7] Within a year, the Commission presented a report to the Council and the

European Parliament, accompanied by proposals for adopting a long-term development

programme to be implemented jointly with relevant stakeholders.[8] This development marked

an essential step in the early development of a European Interoperability Policy. Nonetheless,

the scope of CADDIA was relatively narrow as it only concerned the customs, agricultural, and

statistical sectors.[9]

The 1994 White Paper of the outgoing Delors administration addressed the need to expand

interoperability further.[10] The White Paper emphasised the importance of achieving

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[5] Proposal for a Council Decision on the coordination of the activities of the Member States and Community institutions with a view to setting up a Community inter-institutional information system (INSIS) COM(84) 380 final [1986] OJ C 247/3, adopted by the Council on 22 December 1986 (session 1136). For a comment on the policy background, see, e.g., Hans R. Hansen, *GI/OCG/ÖGI-Jahrestagung 1985* (Springer Publishing 1985) 276.

[6] Council Decision (EEC) 87/499 of 5 October 1987 introducing a communications network Community programme on trade electronic data interchange systems (TEDIS) [1987] OJ L 285/35. Eurofi Plc (n 2) 109.

[7] Commission, 'Long-term programme (EEC) for the use of telematics for Community information systems concerned with imports-exports and the management and control of agricultural market organizations (CADDIA) - Preparatory activities, 1982-1983' [1982] OJ L 247 - 1982-08-23, para 4.

[8] ibid.

[9] As highlighted in Eurofi Plc (n 2) 108.

[10] Commission, 'Growth, competitiveness, employment – The challenges and ways forward into the 21st century: White paper' (European Commission Publications Office, 1994) <https://op.europa.eu/en/publication-detail/-/publication/0d563bc1-f17e-48ab-bb2a-9dd9a31d5004#> accessed 20 March 2023. The role of Europe in the global information society was highlighted in the Bangemann report:, see Commission, 'Bangemann report: Europe and the global information society' (European Commission Publications Office, 1994) <https://cordis.europa.eu/article/id/2730-bangemann-report-europe-and-the-global-information-society> accessed 20 March 2023.

interconnection and interoperability to promote economic cooperation, growth, and international competitiveness.[11] It acknowledged that complete interoperability had yet to be achieved, particularly in sectors such as electronic images and mail and traffic management systems.[12] The report highlighted the need for additional efforts to achieve seamless interoperability 'to provide greater access to a wide range of interactive services and create a common information area'.[13]

As a result of the Delors White Paper, the Interchange of Data between Administrations (IDA) programme was adopted.[14] The IDA programme aimed to enhance interoperability and facilitated cooperation across European administrations from 1995-1999. The Standards Directive was also established, further advancing technical standards and regulations.[15]

The 1980s and 1990s witnessed significant progress in developing a sectoral European Union Interoperability Policy. The CADDIA programme and subsequent initiatives like the IDA programme and the Standards Directive laid the groundwork for future advancements in interoperability within the European Union. These initiatives set the tone for further integration in the following decade. Nonetheless, the European Union promoted interoperability only in a few sectors, which, as depicted below, changed in the following decades.

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[11] ibid 90-94.

[12] ibid 25, 30.

[13] ibid 25.

[14] Council Decision (EC) (95/468 of 6 November 1995 on a Community contribution for telematic interchange of data between administrations in the Community (IDA) [1995] OJ L 269 /23.

[15] Directive (EC) 98/34 of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations [1998] OJ L 204/37.

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2.2. Towards a More Comprehensive European Interoperability Policy

Between 1999 and 2004, the European Interoperability Policy advanced by implementing the follow-on programme called IDA II, aiming to increase the efficiency of online public services.[16] The Stockholm European Council in 2001[17] and the eGovernment conference in Como in 2003[18] provided platforms for further expanding the EU Interoperability Policy. It led to the adoption of the IDABC programme,[19] which operated from 2005 to 2009 and took the evaluations from IDA II into account.[20]

IDA II and IDABC paved the way for establishing ISA[21] and ISA².[22] ISA, a targeted action programme, aimed to facilitate the development of efficient electronic cross-border public services, ensuring interoperability for citizens and businesses. It provided a comprehensive approach for European public administrations to collaborate and establish interoperable electronic services across borders. ISA², the successor to ISA, continued the efforts from 2010 to 2015, focusing on coordinating interoperability activities at the EU level, developing

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[16] Decision (EC) 1719/1999 of the European Parliament and of the Council of 12 July 1999 on a series of guidelines, including the identification of projects of common interest, for trans-European networks for the electronic interchange of data between administrations (IDA) [1999] OJ L 203/1; Decision (EC) 1720/1999 of the European Parliament and of the Council of 12 July 1999 adopting a series of actions and measures in order to ensure interoperability of and access to trans-European networks for the electronic interchange of data between administrations (IDA) [1999] OJ L 203/9.

[17] Commission, 'Network and Information Security: Proposal for A European Policy Approach' COM (2001) 298 final, 2-4.

[18] Commission, 'The Role of eGovernment for Europe's Future' COM (2003) 567 Section 4.2.6.

[19] Decision (EC) 2004/387 of 21 April 2004 on the interoperable delivery of pan-European eGovernment services to public administrations, businesses and citizens (IDABC) [2004] OJ L 144/62.

[20] Commission, 'Report on the Evaluation of the IDA II programme' COM (2005) 493 final.

[21] Decision (EC) 922/2009 of 16 September 2009 on interoperability solutions for European public administrations (ISA) [2009] OJ L 260/20.

[22] Decision (EU) 2015/2240 of 25 November 2015 establishing a programme on interoperability solutions and common frameworks for European public administrations, businesses and citizens (ISA2 programme) as a means for modernising the public sector [2015] OJ L 318/1.

solutions aligned with the needs of businesses and citizens, and introducing key instruments such as the revised EIF,[23] the European Interoperability Strategy (EIS),[24] the European Interoperability Reference Architecture (EIRA),[25] and the European Interoperability Cartography (EIC)[26] to boost interoperability both at the EU and national levels.

2.3. The European Interoperability Frameworks

The European Interoperability Frameworks (EIF) contain recommendations to promote interoperability solutions across the EU public services, which have evolved through different versions and updates over the years. The initial versions include EIF Version 1 in 2004, under the IDABC programme,[27] and EIF Version 2 in 2010, under the ISA programme.[28] However, the most recent significant development in the EIF is the release of the New EIF in light of ISA[2] in 2017.[29] This version introduces 47 recommendations – the previous version only contained 25 – aimed at promoting interoperability within the European Union's and Member States' digital public services. Notably, the EIF operates voluntarily, meaning that its recommendations are optional but serve as guidance for achieving interoperability.

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[23] Commission, 'European Interoperability Framework - Implementation Strategy' COM (2017) 134 final.

[24] Commission, 'Towards interoperability for European public services' COM(2010) 744 final.

[25] Decision (EU) 2015/2240 (n 22).

[26] Decision (EU) 2015/2240 (n 22).

[27] Commission, 'European Interoperability Framework for Pan-European eGovernment Services Version 1.0' (Commission, 2004) <https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/2021-11/EIF%20V1.0.pdf> accessed 12 May 2023.

[28] Commission, 'Towards interoperability for European public services' COM(2010) 744 final, Annex 2.

[29] Commission, 'European Interoperability Framework – Implementation Strategy' COM(2017) 134 final, including Annex 1 and 2 (New EIF).

The EIF plays a crucial role in establishing a framework for interoperability between EU information systems, encompassing various fields such as borders and visas, police and judicial cooperation, asylum and migration. It addresses three main areas: administration to administration, administration to business, and administration to citizens.[30] It covers public service governance and interoperability's legal, organisational, semantic, and technical aspects.[31]

Legal interoperability ensures that public administrations operating under different legal frameworks can work together to provide European public services, requiring the identification of interoperability barriers, evaluation of legislation coherence, consideration of ICT impact, and maintenance of legal value and data protection across borders through additional agreements if necessary.[32] Organisational interoperability involves aligning business processes and establishing clear relationships between different administrative entities to achieve commonly agreed goals, ensuring services are user-focused and accessible, and formalising mutual assistance and joint actions.[33] Semantic interoperability ensures the accurate preservation and shared understanding of data and information through the development of vocabularies, schemas, and information management strategies while facing challenges due to linguistic, cultural, legal, and administrative differences among Member States.[34] Technical interoperability within the European Interoperability Framework involves linking systems and services through interface specifications, interconnection services, data

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[30] Section 1.3.1 of Annex 2 of the New EIF.

[31] Section 3 of Annex 2 of the New EIF.

[32] Section 3.3 of Annex 2 of the New EIF and Recommendation 27.

[33] Section 3.4 of Annex 2 of the New EIF and Recommendations 28 and 29.

[34] Section 3.5 of Annex 2 of the New EIF and Recommendations 30-32.

integration, presentation, exchange, and secure communication protocols, addressing challenges posed by legacy systems and emphasising the use of formal technical specifications to promote interoperability.[35]

The future of interoperability lies in continuous improvement and adaptation. Regular assessments and updates ensure that the EIF remains relevant and effective. By promoting interoperability, the EIF contributes to developing digital public services and facilitates the efficient delivery of European public services. As shown below, the EIF will be crucial in the proposed Interoperable Europe Action Regulation.

2.4. The Tallinn Declaration and the Road to Full Public Sector Interoperability

The Tallinn Declaration of 2017 marked a crucial turning point in advancing interoperability in the EU.[36] This ministerial declaration on eGovernment introduced the principle of interoperability by default and called for greater national-level initiatives to promote interoperability.[37] Member State ministers articulated their expectations for EU institutions and outlined actions to be taken. The declaration was built upon earlier initiatives, such as the Malmö Declaration of 2009 which loosely advocated for increased interoperability.[38]

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[35] Section 3.3 of Annex 2 of the New EIF and Recommendation 33.

[36] Commission, 'Tallinn Declaration on eGovernment at the ministerial meeting during Estonian Presidency of the Council of the EU on 6 October 2017' (Commission, 6 October 2017) <https://ec.europa.eu/newsroom/document.cfm?doc_id=47559> accessed 15 May 2023.

[37] ibid Section 5.

[38] se2009.eu, 'Ministerial Declaration on eGovernment approved unanimously in Malmö, Sweden, on 18 November 2009' (se2009.eu, 18 November 2009) <https://www.aoc.cat/wp-content/uploads/2014/09/declaracio-malmo-1.pdf> accessed 15 May 2023.

At the national level, the Tallinn Declaration outlined three essential actions.[39] Firstly, Member States committed to improving the reuse and implementation of joint solutions under programs like the Connecting Europe Facility. The stakeholders will make an effort to prevent duplicate service infrastructures and encourage collaboration across sectors. Secondly, Member States promised to increasingly adopt open-source solutions and open standards, mitigating vendor lock-in and fostering interoperability. European Union programs for interoperability and standardisation, such as ISA[2], played a supportive role in this regard. Thirdly, Member States aimed to make ICT solutions developed for or owned by public administrations more accessible for reuse in the private sector and civil society, promoting innovation and collaboration.

In addition to national-level actions, the Member States called upon EU institutions and the European Commission to take four steps.[40] Firstly, the Commission urged institutions to implement the European Interoperability Framework and the Interoperability Action Plan, encompassing all Commission services and emphasising cross-border services within the Single Market.[41] Secondly, the Commission was requested to engage in discussions and pursue agreements on cross-border interoperability principles with global partners, particularly focusing on the eIDAS framework for mutual recognition of electronic identities and trust services. Thirdly, the Commission must propose effective integration of digital considerations into the EU's external development policy support instruments with EU frameworks and standards.

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[39] Section 5 of the Tallinn Declaration 2017.

[40] ibid.

[41] The Commission set the implementation target for the end of 2021.

While early interoperability efforts were sector-specific, the expanding competence of the European Union and the need for seamless collaboration across the entire public sector propelled the concept of full public sector interoperability. [42] Recognising the challenges posed by fragmented public administrations and cross-border interactions, the EU sought to establish a comprehensive framework for interoperability, leading to the proposal of the Interoperable Europe Act Regulation.[43]

As depicted above, interoperability efforts were concentrated within specific sectors, targeting improvements in efficiency and service delivery. These early initiatives laid the groundwork for the development of broader interoperability frameworks. However, as the importance of seamless cooperation across the entire public sector became evident, the EU recognised the need for a comprehensive interoperability framework. The European Commission proposed the Interoperable Europe Act to strengthen cross-border interoperability and cooperation within the public sector in response to this need. The Act envisions a network of interconnected digital public administrations facilitating seamless data exchange and collaboration across borders, sectors, and organisational boundaries. Leveraging open-source software, guidelines, frameworks, and IT tools, the Act aimed to enhance the effectiveness and efficiency of public services.

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[42] Further examples of interoperability are discussed in Francesco Contini and Giovan Francesco Lanzara (eds), The Circulation of Agency in E-Justice: Interoperability and Infrastructures for European Transborder Judicial Proceedings (Springer 2013)

[43] Proposal of 18 November 2022 for a Regulation laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act) COM (2022) 720 final.

The path to achieving full public sector interoperability takes time and effort. Fragmentation, diverse legal and technical frameworks, and varying levels of digital maturity across Member States present hurdles. However, these challenges also offer innovation, collaboration, and knowledge-sharing opportunities. The Interoperable Europe Act seeks to bridge these gaps through structured EU cooperation, mandatory assessments of IT system changes, and the sharing and reuse of solutions via an interoperability portal. The Act also emphasises the importance of public sector innovation and public-private collaboration through GovTech projects and regulatory sandboxes.

The Tallinn Declaration and the subsequent Interoperable Europe Act have played critical roles in advancing interoperability in the European Union. They have driven the transition from sector-specific initiatives to the pursuit of full public sector interoperability. By promoting seamless collaboration and data exchange, these milestones have laid the foundation for an interconnected European public sector. The Interoperable Europe Act, in particular, represents a significant step towards establishing a comprehensive framework that addresses challenges and unlocks the potential benefits of interoperable public services.

3. The European Commission's Interoperable Europe Act Regulation Proposal

The European Commission presented the Interoperable Europe Act Regulation Proposal in November 2022, marking a significant milestone in pursuing a more connected and cooperative European Union.[44] Accompanied by an explanatory memorandum, this Proposal seeks to foster increased cross-border interoperability and enhance public sector cooperation

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[44] Proposal of 18 November 2022 for a Regulation laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act) COM (2022) 720 final (hereafter Proposal).

within the EU. This part of the Chapter delves into the origins and aspirations of the Interoperable Europe Act Regulation Proposal, shedding light on its contents and exploring the transformative effects it aims to bring about. By delving into the intricacies of this ground-breaking Proposal, the Chapter provides a comprehensive understanding of the path towards a more digital, interconnected, and cohesive Europe.

3.1. Origin and Ambitions of the Proposal

The Commission justifies the Proposal because achieving the 2030 Digital Targets[45] is necessary as it saves time and costs for citizens and businesses.[46] For instance, interoperability on the EU level currently exists in the form of the EU Digital COVID-19 Certificate[47] and the voluntary European Interoperability Framework.[48] The EU Digital COVID-19 Certificate quickly gained recognition and became mandatory across the European Union, serving as a vital digital document to facilitate safe and secure travel amidst the COVID-19 pandemic. The European Interoperability Framework, on the other hand, operates as a voluntary framework, offering Member States the opportunity to enhance their communication and collaboration efforts within the European Union.

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[45] Commission, '2030 Digital Compass: the European way for the Digital Decade' COM(2021) 118 final, Sections 3.4 and 5.2.

[46] Commission, 'Press Release: New Interoperable Europe Act to deliver more efficient public services through improved cooperation between national administrations on data exchanges and IT solutions' (Commission, 21 November 2022) <https://ec.europa.eu/commission/presscorner/detail/%20en/ip_22_6907> accessed 20 February 2023.

[47] Regulation (EU) 2021/953 of 14 June 2021 on a framework for the issuance, verification and acceptance of interoperable COVID-19 vaccination, test and recovery certificates (EU Digital COVID Certificate) to facilitate free movement during the COVID-19 pandemic [2021] OJ L211/1.

[48] Commission, 'European Interoperability Framework in detail' (Commission, 2023) <https://joinup.ec.europa.eu/collection/nifo-national-interoperability-framework-observatory/european-interoperability-framework-detail> accessed 28 April 2023.

The European Commission proposed adopting a Regulation on Interoperability following Article 172 of the Treaty on the Functioning of the European Union,[49] which provides a legal basis for 'the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures.'[50] The nature of the instrument, a regulation, will ensure complete harmonisation in the EU Member States.[51] This choice is supported by Article 172 of the TFEU and by the ex-post evaluations, impact assessments, and stakeholder consultations accompanying the Proposal for the Interoperable Europe Act Regulation.[52] The ex-post evaluations drew on the fitness check of the voluntary European Interoperability Framework, revealing that cross-border interoperability is more efficient and effective on the EU than the national level,[53] also supported by the impact assessments.[54] The stakeholder consultations further revealed a need for consistent alignment with other EU policy areas.[55] Compliance with fundamental rights, particularly Articles 8, the right to protection of personal data, and 22, the right to linguistic diversity, is also ensured, according to the Commission.[56]

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[49] Consolidated version of the Treaty on the Functioning of the European Union (TFEU) [2012] OJ C 326.

[50] Article 170 (1) of the Treaty on the Functioning of the European Union.

[51] Article 288 of the Treaty on the Functioning of the European Union.

[52] Section 2 of the Proposal. The complete account is provided in Commission, 'Impact Assessment Report Accompanying the Document: Proposal for a Regulation of the European Parliament and of the Council laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act)' (2022) SWD 721 final.

[53] Section 3 ('Ex-post evaluations/fitness checks of existing legislation') of the Proposal.

[54] Section 3 ('Impact Assessment') of the Proposal.

[55] Section 3 ('Stakeholder consultations') of the Proposal.

[56] Section 3 ('Fundamental Rights') of the Proposal.

3.2. Contents and Effects of the Proposal

As pointed out in the previous Section, this proposed Regulation aims to establish a robust European network that promotes cross-border interoperability, ensuring seamless information exchange and collaboration among public sector bodies (PSBs) across Member States and European Union institutions. The proposed Regulation consists of 22 provisions divided into six chapters that address various aspects of interoperability and support the implementation of interoperable solutions within the public sector.

3.2.1. General Provisions

Chapter 1 focuses on the obligation of public sector bodies to perform interoperability assessments and support the sharing of interoperability solutions. PSBs must evaluate their current systems and processes through interoperability assessments[57] and actively facilitate sharing and reusing interoperability solutions.[58] This obligation applies to PSBs of Member States and institutions, bodies, and agencies of the EU involved in network or information system provision or management.[59] Article 2 of Chapter 1 provides essential definitions, thus establishing a standard across the European Union.[60] Being a Regulation, this instrument guarantees a consistent understanding and interpretation of these terms across the European Union, ensuring coherence and clarity in their application. The approach of complete harmonisation is appreciated considering the need for standardised practices across Europe.

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[57] Article 3 of the Proposal.

[58] Article 4 of the Proposal.

[59] Article 1 of the Proposal.

[60] Article 2 of the Proposal defines the following terms: 'cross-border interoperability' (1), 'network and information system' (2), 'interoperability solution' (3), 'public sector body' (4), 'data' (5), 'machine-readable format' (6), 'GovTech' (7), 'standard' (8), and 'highest level of management' (9).

3.2.2. Interoperability Solutions

Chapter 2 emphasises establishing interoperability solutions and adopting recommendations provided by the Interoperable Europe Board based on the European Interoperability Framework. Although non-mandatory, PSBs are encouraged to implement these solutions to enable seamless information exchange and collaboration across borders, especially when Member States adopt national interoperability frameworks and other domestic policies.[61] Article 5 states that the European Commission will publish Interoperable Europe solutions and the European Interoperability Framework in open, machine-readable formats on the Interoperable Europe portal. Furthermore, the Interoperable Europe Board is responsible for monitoring the coherence of the developed solutions and proposing measures to ensure compatibility with other interoperability solutions.[62]

Article 6 introduces the European Interoperability Framework, which provides legal, organisational, semantic, and technical interoperability recommendations, as discussed above. The Interoperable Europe Board may also develop specialised interoperability frameworks targeting specific sectors or administrative levels based on the EIF.[63] Article 7 empowers the Interoperable Europe Board to recommend interoperability solutions for cross-border network and information systems that provide or manage public services. The Interoperable Europe portal will publish recommended solutions.

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[61] Article 6(4) of the Proposal.

[62] Article 5(2) of the Proposal.

[63] Article 6(3) of the Proposal.

The Interoperable Europe portal, as described in Article 8 of the Proposal, serves as a central access point for information related to cross-border interoperability. It provides access to Interoperable Europe solutions,[64] other interoperability solutions,[65] ICT technical specifications,[66] and information on data processing in regulatory sandboxes.[67] The portal also facilitates knowledge exchange,[68] stakeholder feedback,[69] and interoperability-related monitoring data access.[70] In addition, the Interoperable Europe Board can propose publishing additional interoperability solutions on the portal, subject to certain conditions such as alignment with Interoperable Europe solutions and open-source licensing.[71] Public sector bodies or institutions with similar portals must ensure interoperability with the Interoperable Europe portal.[72] The European Commission has the authority to issue guidelines on interoperability for other portals with similar functions, ensuring a Europe-wide approach.[73]

3.2.3. Interoperable Europe Support Measures

The third Chapter of the proposed Regulation details the support measures for Interoperable Europe. It introduces policy implementation support projects, which aim to assist public sector bodies in digitally implementing European Union 'policies ensuring the cross-border

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[64] Article 8(1)(a) of the Proposal.

[65] Article 8(1)(b) of the Proposal.

[66] Article 8(1)(c) of the Proposal.

[67] Article 8(1)(d) of the Proposal.

[68] Article 8(1)(e) of the Proposal.

[69] Article 8(1)(g) of the Proposal.

[70] Article 8(1)(f) of the Proposal.

[71] Article 8(2) of the Proposal.

[72] Article 8(3) of the Proposal.

[73] Article 8(4) of the Proposal.

interoperability of network and information systems which are used to provide or manage public services to be delivered or managed electronically.'[74] These projects outline the necessary Interoperable Europe solutions for meeting policy requirements.[75] They identify any missing interoperability solutions that need development and recommend additional support measures, like 'trainings or peer-reviews'.[76] After consulting the Interoperable Europe Board, the European Commission specifies 'the scope, the timeline, the needed involvement of sectors and administrative levels and the working methods of the support project.'[77] When creating the support project, it must consider the outcome of any previously conducted and published interoperability assessment.[78] These checks and balances are necessary and welcomed.

Another noteworthy feature is that the Interoperable Europe Board may propose the establishment of a regulatory sandbox to reinforce the policy implementation support project.[79] The outcome of a policy implementation support project, including any developed interoperability solutions, must be open access and published on the Interoperable Europe Portal.[80] Article 10 then focuses on innovation measures to support developing and adopting innovative interoperability solutions within the EU. The Interoperable Europe Board can propose these measures, which contribute to developing existing or new Interoperable

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[74] Article 9 of the Proposal. Referred to as 'policy implementation support projects'.

[75] Article 9(2) of the Proposal.

[76] Article 9(2)(c) of the Proposal.

[77] Article 9(3) of the Proposal.

[78] ibid.

[79] Article 9(4) of the Proposal.

[80] Article 9(5) of the Proposal.

Europe solutions,[81] involving GovTech actors.[82] To support the development of innovation measures, the Interoperable Europe Board may propose the establishment of a regulatory sandbox.[83] The European Commission is responsible for making the results of the innovation measures openly available on the Interoperable Europe portal to foster information exchange and constructive dialogue.[84]

Article 11 provides details about the establishment of regulatory sandboxes. These sandboxes create controlled environments 'for the development, testing and validation of innovative interoperability solutions supporting the cross-border interoperability of network and information systems.'[85] Regulatory sandboxes are operated by participating public sector bodies.[86] Relevant national authorities or the European Data Protection Supervisor supervise the processing of personal data by European Union institutions, bodies, and agencies.[87] Establishing a regulatory sandbox aims to foster innovation, facilitate cross-border cooperation, develop an open European GovTech ecosystem, enhance understanding of cross-border interoperability opportunities or barriers, and contribute to creating or updating Interoperable Europe solutions.[88] Cooperation with authorities in the regulatory sandbox is necessary to improve legal certainty and ensure compliance with the Regulation and other

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[81] Article 10(1) of the Proposal.

[82] Article 10(2)(b) of the Proposal.

[83] Article 10(3) of the Proposal.

[84] Article 10(4) of the Proposal.

[85] Article 11(1) of the Proposal.

[86] Article 11(2) of the Proposal.

[87] ibid.

[88] Article 11(3) of the Proposal.

European Union and Member States' legislation.[89] The Commission, after consulting the

Interoperable Europe Board and, if personal data processing is involved, the European Data

Protection Supervisor, authorises the establishment of a regulatory sandbox upon joint

request from at least three participating public sector bodies. The sandbox supports

interoperability solutions that enable European Union institutions, bodies, or agencies to use

network and information systems across borders, with or without the participation of public

sector bodies.[90]

Article 12 outlines participation in the regulatory sandboxes. Participating public sector bodies

must ensure the involvement of national data protection authorities and other national

authorities responsible for supervising access to data if the innovative interoperability

solution involves personal data processing or falls under their supervisory remit.[91]

Participation in the regulatory sandbox is time-limited, depending on the complexity and scale

of the project.[92]

Despite the involvement of the European Data Protection Supervisor regarding data

protection and data quality, crucial aspects need to be thoroughly addressed within the

interoperability framework. The potential consequences of data linkage (Article 5 of the

GDPR), context removal, and the degradation of data quality over time are pertinent issues

that could impact the credibility and integrity of shared data.

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[89] Article 11(4) of the Proposal.

[90] Article 11(5) of the Proposal.

[91] Article 12(1) of the Proposal. For an overview on interoperability in the GDPR framework, especially data portability, see, e.g., Paul De Hert and others, 'The Right to Data Portability in GDPR: Towards User-Centric Interoperability of Digital Services' (2018) 34(2) Computer Law & Security Review 193.

[92] Article 12(2) of the Proposal.

3.2.4. Governance of Cross-Border Interoperability

Chapter 4 of the Regulation focuses on the governance of cross-border interoperability, outlining the role and responsibilities of the Interoperable Europe Board, the Interoperable Europe Community, national competent authorities, and interoperability coordinators for institutions, bodies, and agencies of the Union.

Article 15 establishes the Interoperable Europe Board, a platform for strategic cooperation and information sharing on cross-border interoperability. The Board comprises representatives from each Member State, the Commission, the Committee of the Regions, and the European Economic and Social Committee.[93] The Commission chairs the Board and may grant observer status to countries in the European Economic Area and candidate countries.[94] The Board is responsible for adopting decisions by consensus or, if necessary, by a simple majority vote.[95] It has various tasks, including supporting the implementation of national interoperability frameworks, adopting guidelines on interoperability assessments, proposing measures to foster the sharing and reuse of interoperable solutions, monitoring overall coherence, and proposing Interoperable Europe solutions.[96]

Article 16 establishes the Interoperable Europe Community, which contributes expertise and advice to the Interoperable Europe Board. Stakeholders from public and private entities in the Member States can register as members of the Community through the Interoperable Europe

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[93] Article 15(2) of the Proposal.

[94] Article 15(3) of the Proposal.

[95] ibid.

[96] Article 15(4) of the Proposal.

portal.[97] Community members can contribute to the portal's content, participate in working groups, and engage in peer reviews.[98]

Article 17 focuses on national competent authorities responsible for implementing the Regulation within each Member State. Each Member State designates the competent authorities and has various tasks, including appointing a member to the Interoperable Europe Board, coordinating national questions related to the Regulation, supporting interoperability assessments, fostering the sharing and reuse of interoperable solutions, and facilitating cooperation with other Member States.[99] To ensure effective task completion, competent authorities in Member States must have the necessary competencies and resources,[100] as well as establish cooperation structures with other national authorities involved in implementation.[101]

Article 18 mandates the designation of interoperability coordinators within institutions, bodies, and agencies of the Union that provide or manage network and information systems for delivering or managing public services electronically. The interoperability coordinators, overseen by the highest management level, are responsible for supporting departments in implementing interoperability assessments and ensuring compliance with the proposed Regulation.

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[97] Article 16(2)of the Proposal.

[98] Article 16(4) of the Proposal.

[99] Article 17(2) of the Proposal.

[100] Article 17(3) of the Proposal.

[101] Article 17(4) of the Proposal.

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3.2.5. Interoperable Europe Planning and Monitoring

Chapter 5 of the Regulation highlights the significance of aligning EU funding programs to maximise synergies in digitalisation efforts. It underscores the importance of planning, coordinating, monitoring, and evaluating interoperability initiatives within the public sector while emphasising the need for effective monitoring and evaluation mechanisms to assess the impact and progress of interoperability measures.

Article 19 outlines the Interoperable Europe Agenda, developed annually by the Interoperable Europe Board, after a public consultation. The agenda aims to plan and coordinate priorities for cross-border interoperability of network and information systems to deliver or manage public services electronically, considering long-term digitalisation strategies, existing EU funding programs, and ongoing policy implementation.[102] The Interoperable Europe Agenda includes the identification of needs for interoperability solutions, continuing and planned support measures, proposed actions for innovation measures, and synergies with other relevant EU and national programs.[103] The Commission publishes the agenda on the Interoperable Europe portal but does not impose financial obligations.[104]

Article 20 focuses on monitoring and evaluation. The Commission is responsible for monitoring the progress of cross-border interoperable public services within the Union.[105] Specific monitoring areas include the implementation of the European Interoperability

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[102] Article 19(1) of the Proposal.

[103] Article 19(2) of the Proposal.

[104] Article 19(3) of the Proposal.

[105] Article 20(1) of the Proposal. According to Article 20(3), the Interoperable Europe portal publishes monitoring results; whenever feasible, they are available in a machine-readable format.

Framework by Member States, the uptake of interoperability solutions across sectors and at different levels, and the development of open-source solutions, public sector innovation, and cooperation with GovTech actors in cross-border public services.[106] Additionally, the Commission is required to present a report on the application of the proposed Regulation to the European Parliament and the Council.[107] This constant supervision will ensure continuous improvement of how the Regulation is applied.

3.2.6. Progress and Controversies in the Legislative Progress

The proposed Regulation is currently undergoing legislative discussions in the Council and soon the European Parliament,[108] and various institutions have provided their opinions on the existing draft. The European Data Protection Supervisor (EDPS), the European Economic and Social Committee (EESC), and the Committee of the Regions have all responded to consultations initiated by the European Commission regarding the Regulation, highlighting some of the shortcomings of the current draft.

The European Data Protection Supervisor acknowledges the potential benefits of increased interoperability and emphasises the importance of upholding data protection principles, particularly the principle of purpose limitation when addressing technical barriers to information exchange.[109] The EDPS positively welcomes the provision in the Proposal that

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[106] Article 20(2) of the Proposal.

[107] Article 20(4) of the Proposal.

[108] EUR-Lex, 'Procedure 2022/0379/COD' (EUR-Lex, 2023) <https://eur-lex.europa.eu/legal-content/EN/HIS/?uri=CELEX:52022PC0720#OPCOR_OPI_byCOR1> accessed 13 June 2023.

[109] The European Data Protection Supervisor, 'Opinion 1/2023 on the Proposal for an Interoperable Europe Act' (The European Data Protection Supervisor, 13 January 2023) <https://edps.europa.eu/system/files/2023-01/2022-1196_d0089_opinion_en.pdf> accessed 30 May 2023. The European Data Protection Supervisor has already commented on the debate in 2018, see The European Data Protection Supervisor, 'EDPS calls for wider debate on the future of information sharing in the EU' (The European Data Protection Supervisor, 18 April 2018)

requires consultation with the EDPS before authorising the establishment of regulatory sandboxes.[110] However, they propose a change in the wording of this provision.[111] The focus of the opinion revolves around the provisions related to processing personal data in regulatory sandboxes, and the EDPS offers five targeted and actionable recommendations. Firstly, they recommend evaluating the necessity of use cases for regulatory sandboxes and suggest removing the legal basis for personal data processing if they cannot identify suitable use cases.[112] Secondly, the EDPS suggests further defining the respective objectives of public interest within the proposed Regulation and further specifying it concerning restrictions in pursuance of public authorities' interests under Article 23(1) of the GDPR and Article 25(1) of the EUDPR.[113] Thirdly, the EDPS proposes amending Article 12(6)(f) of the proposed Regulation, recommending that sandbox participants be required to establish effective technical and organisational arrangements to fulfil data subjects' rights.[114] Fourthly, the EDPS advises modifying Article 12(6) to prohibit any subsequent change of purpose to ensure that test data used in the sandboxes do not become part of the production environment.[115] Finally, the EDPS suggests amending another provision on regulatory sandboxes, namely Article 11(5),

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<https://edps.europa.eu/press-publications/press-news/press-releases/2018/edps-calls-wider-debate-future-information-sharing_en> accessed 30 May 2023.

[110] Articles 11(2) and (5) and 12(3) and (6) of the proposed Interoperability Europe Act Regulation (2022). Section 4 of the European Data Protection Supervisor Opinion 1/2023.

[111] Section 6 of the European Data Protection Supervisor Opinion 1/2023.

[112] Section 6(1) of the European Data Protection Supervisor Opinion 1/2023.

[113] Section 6(2) of the European Data Protection Supervisor Opinion 1/2023. Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC [2016] OJ L 119/1 (General Data Protection Regulation, short GDPR); Regulation (EU) 2018/1725 of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC [2018] OJ L 295/39 (EUDPR).

[114] Section 6(3) of the European Data Protection Supervisor Opinion 1/2023.

[115] Section 6(4) of the European Data Protection Supervisor Opinion 1/2023.

dealing with the role of the EDPS and data protection rules.[116] This includes clearly 'defining the purpose of the processing, the actors involved, their roles, the categories of data concerned, their source(s) and the envisaged retention period.'[117] The EDPS also recommends that a data protection impact assessment be in progress or completed. The proposed changes put forth by the EDPS appear to have a common objective of enhancing transparency, accountability, and data protection measures within the proposed Interoperability Regulation.

The European Economic and Social Committee (EESC) shares the Commission's view that achieving interoperability among public services is a fundamental requirement for establishing digital public services.[118] However, the EESC emphasises that this objective should not come at the expense of in-person services or neglecting vulnerable population groups.[119] Contrary to the notion of reducing personnel with digitalisation, the EESC asserts that developing and operating digital services will initially create a demand for additional personnel, highlighting that adequate staffing is essential for a successful digital transformation of public services.[120] Regarding governance, the EESC welcomes the proposed model, comprising the Interoperable Europe Board and the Interoperable Europe Community, as leading bodies to oversee and facilitate this policy.[121] Furthermore, the EESC expresses

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[116] Section 6(5) of the European Data Protection Supervisor Opinion 1/2023.

[117] ibid.

[118] Opinion of the European Economic and Social Committee of 25 May 2023 on the 'Proposal for a Regulation of the European Parliament and of the Council laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act)' [2022] OJ C 60/17.

[119] Section 1.2 and 3.3 of the European Economic and Social Committee Opinion 60/17.

[120] Section 1.3 of the European Economic and Social Committee Opinion 60/17.

[121] Section 1.5 of the European Economic and Social Committee Opinion 60/17.

appreciation for the provision in the proposed Regulation that enables the development of experimental solutions through collaborations between the public sector, innovative technology companies, and start-ups.[122] Regarding funding programs, the EESC suggests that future funding for interoperability projects should be contingent upon adopting the principles and structures advocated by the European Interoperability Framework.[123] This approach promotes consistency and coherence in public service digitalisation initiatives. Amid the process of digitalisation, the EESC acknowledges concerns about specific technological solutions being highly energy-intensive.[124] Therefore, balancing digital progress and environmental impact requires careful consideration. The EESC opinion also addresses data protection concerns, stressing that data protection should not hinder the development of interoperable solutions for public services or impede access to data for individuals, businesses, or other public services.[125] It also proposes implementing different authorisation levels for data access to ensure confidentiality and limit disclosure to strictly necessary information.[126] In summary, the European Economic and Social Committee underscores the importance of a comprehensive but balanced approach to digital transformation, encompassing in-person services and the protection of vulnerable population groups while fostering collaboration, upholding data protection principles, and prioritising sustainability in the creation of interoperable solutions for public services.

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[122] Section 1.6 of the European Economic and Social Committee Opinion 60/17.

[123] Section 1.7 of the European Economic and Social Committee Opinion 60/17.

[124] Section 1.8 of the European Economic and Social Committee Opinion 60/17.

[125] Section 1.8.1 of the European Economic and Social Committee Opinion 60/17.

[126] Section 1.8.2 of the European Economic and Social Committee Opinion 60/17.

The Committee of the Region also issued their opinion on the proposed Regulation.[127] The Committee of the Regions acknowledges that certain aspects of the Proposal must be strengthened and refined, especially concerning the new responsibilities assigned to sub-national authorities. It emphasises the importance of providing these authorities with adequate resources to swiftly and effectively implement interoperability solutions. Additionally, the Committee stresses the need for a balanced governance structure that upholds the principle of subsidiarity and respects the diverse governance models within the Member States. It also emphasises the importance of granting local and regional authorities a voice in determining the implementation pace and extent of interoperability solutions. The Committee recognises that developing and implementing common interoperability solutions will involve significant financial and staffing costs for local and regional authorities. It highlights the need for funding sources, such as the Digital Europe programme, to assist these authorities in covering the associated expenses. This includes investing in new interoperable solutions or transforming existing systems. The Committee calls on the Interoperable Europe Board to provide specific information on the timing of mandatory interoperability assessments and the factors that may trigger such reviews, particularly about public procurement. It stresses that the evaluations should only be compulsory once the Interoperable Europe Board has adopted the relevant guidelines. Furthermore, the Committee reiterates the critical importance of interoperability for the digital resilience and strategic independence of the European Union. It stresses that ensuring interconnected

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[127] The Committee of the Region, 'Opinion Factsheet CDR 152/2023: Interoperable Europe Act' (The Committee of the Region, 24 May 2023) <https://cor.europa.eu/en/our-work/Pages/OpinionTimeline.aspx?opId=CDR-152-2023> accessed 29 June 2023.

services and systems is essential to prevent potential digital pandemics from major cyber-attacks on vulnerable network points.[128]

In conclusion, various institutions have responded to and are currently debating the progress and controversies surrounding the legislative process of the proposed Regulation in the Council and European Parliament. The European Data Protection Supervisor highlights the need for upholding data protection principles and offers targeted recommendations to enhance transparency and accountability in the Regulation. On the other hand, the European Economic and Social Committee stresses the importance of a balanced approach to digital transformation, considering in-person services and the needs of vulnerable population groups while advocating for adequate staffing, collaborative partnerships, and funding programs aligned with the European Interoperability Framework. The Committee of the Regions echoes some of the remarks of the EDPS and EESC. The Committee emphasises the need for strengthened sub-national authorities' responsibilities, sufficient resources, and a governance structure that respects subsidiarity and allows local and regional authorities to influence interoperability implementation. In light of the critical role interoperability plays in the EU's digital resilience and strategic independence, the Committee of the Regions calls for mandatory interoperability assessments and highlights the benefits of open-source solutions. These opinions collectively aim to enhance transparency, protect data, and promote consistency in public service digitalisation efforts, and they will likely also shape the legislative debate.

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[128] The issues of data protection and cybersecurity is critical regarding interoperable regulatory technologies that operate in real-time. See, Herwig C. H. Hofmann, Dirk A. Zetzsche, and Felix Pflücke, 'The Changing Nature of "Regulation by Information": Towards Real-time Regulation?' (2023) 28(4-6) European Law Journal 172.

3.3. Steering the Future Interoperability Cooperation Framework

The interoperability cooperation framework established by this proposed Regulation draws on lessons from previous initiatives. It will play a crucial role in shaping the future of interoperability within the European public sector. Recognising the necessity for mandatory cooperation at the EU level,[129] the Interoperable Europe Board will oversee the framework, an essential entity responsible for strategic coordination, decision-making, and information sharing about cross-border interoperability.

As highlighted in the previous Section, the Interoperable Europe Board comprises representatives from each Member State, the Commission, the Committee of the Regions, and the European Economic and Social Committee.[130] Chaired by the Commission, the Board operates based on consensus or, if necessary, a simple majority vote.[131] Several essential tasks have been entrusted to it, which contribute to advancing interoperability across borders.

Firstly, the Interoperable Europe Board will support and guide the implementation of national interoperability frameworks.[132] These frameworks serve as roadmaps for Member States to enhance their interoperability capabilities and align their practices with European standards. The Board's expertise and coordination will ensure the coherence and effectiveness of these frameworks, promoting a harmonised approach to interoperability across the Union.

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[129] Section 1.4.3 ('Lessons learned from similar experiences in the past') of the Annex to the Proposal.

[130] Article 15(2) and (3) of the Proposal.

[131] Article 15(3) of the Proposal.

[132] Article 15(4)(a) of the Proposal.

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Moreover, the Board will adopt guidelines on interoperability assessments, offering clear instructions and best practices for public sector bodies to evaluate their systems and processes.[133] These assessments will play a crucial role in identifying strengths, weaknesses, and areas for improvement regarding public service interoperability. The Board will help ensure a consistent and comprehensive approach by monitoring interoperability across Member States.[134]

Another vital responsibility of the Interoperable Europe Board is to propose measures that foster the sharing and reuse of interoperable solutions.[135] The Board will identify areas where interoperability solutions can be developed, harmonised, and shared across borders by leveraging the European Interoperability Framework as a foundation.[136] These proposed solutions, known as 'Interoperable Europe solutions', will be published on the Interoperable Europe portal, serving as valuable resources for public sector bodies seeking interoperable solutions endorsed and recommended at the European level.[137]

In addition to its coordination role, the Interoperable Europe Board will collaborate with other relevant bodies and stakeholders, ensuring alignment and synergy in interoperability initiatives. It will work closely with the European Data Innovation Board to address data-related challenges and opportunities, fostering a comprehensive approach to interoperability

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[133] Article 15(4)(b) of the Proposal.

[134] Article 15(4)(d) of the Proposal.

[135] Article 15(4)(c) of the Proposal.

[136] Article 15(4)(f) and (g) of the Proposal.

[137] Article 15(4)(h) and (i) of the Proposal.

that encompasses both technical and data aspects.[138] By engaging in strategic partnerships and collaboration, the Board will maximise the impact and effectiveness of its initiatives.

Furthermore, the Interoperable Europe Board will actively engage with the Interoperable Europe Community, which comprises registered members from public and private entities in the Member States.[139] This community provides a platform for knowledge exchange, peer reviews, and collaboration. By fostering active participation and involving stakeholders from various sectors, the Board will tap into a wealth of expertise and diverse perspectives, further enhancing the development and implementation of interoperability solutions.

Through its collective efforts and expertise, the Interoperable Europe Board will drive the future of interoperability within the European public sector. By setting strategic priorities, providing guidance, fostering collaboration, and proposing interoperable solutions, the Board will enable seamless information exchange, enhance public services, and contribute to a more digitally connected and efficient European Union.

4. Towards Effective and Efficient Interoperability?

The European public sector's journey towards effective and efficient interoperability is undoubtedly underway, fueled by the proposed Interoperability Europe Act Regulation and the comprehensive interoperability cooperation framework it establishes. The Proposal outlines regulatory measures that aim to drive substantial progress in achieving

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[138] Article 15(4)(q) of the Proposal.

[139] Article 15(4)(r) of the Proposal.

interoperability goals by promoting cross-border collaboration, enabling seamless information exchange, and adopting interoperable solutions.

One of the fundamental aspects contributing to interoperability's effectiveness and efficiency is the obligation imposed on public sector bodies to perform interoperability assessments.[140] These assessments systematically evaluate current systems and processes, enabling PSBs to identify areas that require improvement and take necessary measures to enhance interoperability.[141] By actively facilitating the sharing and reusing of interoperability solutions, PSBs can leverage existing best practices, reducing duplication of efforts and promoting efficiency in deploying interoperable solutions.[142]

Furthermore, establishing the Interoperable Europe Board as the steering body for the interoperability cooperation framework is a significant step towards achieving effective and efficient interoperability. The Board, composed of representatives from Member States, the Commission, the Committee of the Regions, and the European Economic and Social Committee,[143] fosters strategic coordination, decision-making, and information sharing.[144] With its guidance and expertise, the Board ensures a harmonised and efficient approach to interoperability across the European Union.

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[140] Article 3 of the Proposal.

[141] Article 3(1) and (2) of the Proposal.

[142] Article 4 of the Proposal.

[143] Article 15(2) and (3) of the Proposal.

[144] Article 15(1) of the Proposal.

The proposed Regulation also emphasises the importance of interoperability solutions and the adoption of recommendations provided by the Interoperable Europe Board, based on the European Interoperability Framework.[145] While these recommendations to the European Commission are not mandatory,[146] they provide valuable guidance for PSBs to enable seamless information exchange and collaboration across borders. By promoting the implementation of interoperability solutions and adopting the EIF,[147] the Regulation encourages a harmonised approach to interoperability, fostering efficiency and effectiveness in delivering public services.

Additionally, the support measures outlined in the Regulation, such as policy implementation support projects and innovation measures, contribute to advancing interoperability. These measures provide targeted assistance to PSBs, helping them implement Union policies, develop innovative interoperability solutions, and address specific interoperability challenges. By providing tailored support and facilitating collaboration among stakeholders, these measures enhance the effectiveness and efficiency of interoperability efforts.

Moreover, the emphasis on monitoring, evaluation, and reporting outlined in the proposed Regulation is pivotal in ensuring continuous improvement and progress towards effective and efficient interoperability.[148] The European Commission's responsibility for monitoring progress, assessing the implementation of the EIF by the Member States, and publishing monitoring results on the Interoperable Europe portal fosters transparency and

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[145] Articles 6(2) and 15(4) of the Proposal.

[146] Section 5 ('Other Elements') of the Proposal.

[147] Article 15(4)(f) and (g) of the Proposal.

[148] Article 20 of the Proposal.

accountability.[149] The periodic reporting to the European Parliament and the Council also enables comprehensive evaluation and identification of areas that require further attention and improvement.[150]

As pointed out in Section 3.2 of this Chapter, various institutions, including the European Data Protection Supervisor, the European Economic and Social Committee, and the Committee of the Regions, have provided responses and recommendations regarding the proposed Regulation on data protection and digital transformation, focusing on transparency, data protection, and accountability. These opinions will shape the legislative debate and aim to enhance consistency and accountability in public service digitalisation efforts.

While the proposed Regulation and the interoperability cooperation framework provide a solid foundation for effective and efficient interoperability, the journey towards its realisation is ongoing. Continuous collaboration, knowledge exchange, and stakeholder engagement will address emerging challenges, foster innovation, and drive further improvements. The system is strengthened through constant monitoring, evaluations, sandboxes, and peer reviews, ensuring its robustness. By remaining committed to the principles and objectives outlined in the proposed Regulation, the European public sector can progress towards a future where interoperability becomes a seamless reality, enabling effective and efficient delivery of digital public services across borders.

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[149] Article 20(3) of the Proposal.

[150] Article 20(4) of the Proposal.

5. Conclusion

The European Interoperability Policy has evolved into a comprehensive framework for seamless integration and collaboration within the European Union. Various programs and initiatives, such as IDA, IDABC, ISA, and ISA², have significantly enhanced interoperability. The European Interoperability Framework has played a crucial role in guiding member states and promoting interoperability, providing recommendations and guidance for achieving interoperability goals.

The Tallinn Declaration of 2017 marked a significant milestone in the policy's development, introducing the principle of 'Interoperability by default' and calling for actions at both national and EU levels. The Member States are committed to improving the reuse of joint solutions, adopting open source solutions and open standards, and facilitating the accessibility of ICT solutions developed by public administrations for reuse in the private sector and civil society. The EU institutions were urged to implement the EIF and the Interoperability Action Plan, engage in discussions for cross-border interoperability principles, and integrate digital considerations into EU development policy.

The European Interoperability Policy has emerged as a dynamic and ever-evolving field. From national initiatives, it has become a top priority within the EU. The policy has progressed towards achieving seamless interoperability across various sectors, shaping the future landscape of collaboration and integration. As technology advances and new challenges arise, the policy will continue to adapt and address emerging needs.

The Interoperable Europe Act Regulation Proposal further advances interoperability and public sector cooperation within the EU. With a focus on achieving the 2030 Digital Targets and reducing time and costs for citizens and businesses, the Proposal builds upon existing initiatives and the voluntary EIF. It establishes obligations, provides guidance, and offers support to foster collaboration and enhance the digital transformation of the public sector.

The Proposal outlines the legal basis, evaluations, impact assessments, and stakeholder consultations that support its implementation. It covers various aspects of interoperability and support measures within the public sector, including the obligation to perform interoperability assessments, sharing interoperability solutions, and the role of the Interoperable Europe Board in providing recommendations and monitoring coherence. The Proposal also emphasises support measures, policy implementation projects, innovation measures, regulatory sandboxes, and effective planning, coordinating, monitoring, and evaluating interoperability initiatives.

The European public sector is making significant strides towards achieving effective and efficient interoperability, driven by the proposed Interoperability Europe Act Regulation and the comprehensive interoperability cooperation framework. The regulatory measures outlined in the Proposal, such as interoperability assessments and sharing solutions, are expected to lead to substantial progress in cross-border collaboration and seamless information exchange. Establishing the Interoperable Europe Board as the steering body ensures strategic coordination and a harmonised approach to interoperability across Member States. The emphasis on adopting recommendations and the European Interoperability

Framework further promotes a unified approach. Support measures, monitoring, and evaluations contribute to continuous improvement and accountability.

In conclusion, the Interoperable Europe Act Regulation Proposal is a significant step towards achieving effective and efficient interoperability within the European Union. By establishing obligations, providing guidance, and offering support, the Proposal aims to foster collaboration, facilitate seamless information exchange, and enhance the efficiency and effectiveness of public services. The Proposal and the comprehensive interoperability cooperation framework provide a solid foundation for the continued progress towards a future where interoperability becomes a seamless reality, enabling effective and efficient delivery of public services across borders.