AI Readiness through Implementation of the EU AI Act in Slovenian Public Administration

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Abstract: The EU Artificial Intelligence Act of 2024 introduces a harmonised, risk-based regulatory framework to govern the use of AI in all Member States. While it has direct legal force, its implementation at national level is complicated by the combination of normative legal obligations and broader governance objectives. This paper analyses how Slovenian administrative authorities understand and respond to the requirements of the AI Act. In doing so, the paper draws on an analysis of legal doctrine and empirical data from surveys and focus groups with institutional and frontline stakeholders. The results show different interpretations. While ministries largely recognise the binding nature of the Act, many implementing authorities see it more as a strategic guideline. This discrepancy contributes to fragmented oversight and delayed implementation. The analysis emphasises the need for systemic coordination, targeted capacity building and clear operational guidelines. The Slovenian case provides insights into broader EU-wide issues, in particular the tension between regulatory ambition and practical implementation in AI governance in public administration.

Points for Practitioners: This study provides practitioners with actionable insights into the multi-layered requirements of the AI Act, along with practical strategies to harmonise AI readiness and legal compliance in public administration. Both ministries as policymakers and operational administrative authorities should evaluate their current AI readiness and identify opportunities for improvement, such as promoting cross-sectoral cooperation or implementing targeted training programmes. Practitioners in other EU countries can capitalise on these findings, as the results are applicable to comparable administrative frameworks.

Keywords: artificial intelligence, AI Act, EU regulation, public administration, national implementation, Slovenia

1. Introduction

Artificial intelligence (AI) is rapidly transforming both the private and public sectors, enabling systems that can perceive, reason and act autonomously or semi-autonomously. According to the OECD (2024), AI refers to "machine-based systems that, for explicit or implicit objectives, infer from the input they receive how to generate outputs such as predictions, recommendations, or decisions that can influence physical or virtual environments." The European Union (EU) Artificial Intelligence Act (AI Act)[4], adopted in 2024 reflects this technological shift by establishing a comprehensive risk-based regulatory framework to ensure that AI is developed and deployed in a safe and transparent manner and is in line with fundamental rights (Fernández-Llorca et al., 2024). The AI Act, which comprises 180 points in the preamble, 113 articles and 13 annexes, is legally binding for all Member States (MS) and introduces a multi-level regulatory approach that distinguishes between prohibited, high-risk, limited-risk and minimal-risk AI systems (Quintais, 2025; Wischmeyer & Rademacher, 2020). However, its implementation depends heavily on national administrative structures and the designation of authorities responsible for supervision and compliance. Although formally a directly applicable EU regulation, the AI Act also functions as a policy directive that promotes normative goals such as human-centredness, accountability and democratic oversight. This hybrid character, combining binding legislation with broader values-based governance principles, makes the interpretation and implementation of the Act at national level a particular challenge, as emphasised by Gstrein et al. (2024).

Efforts are already underway in Slovenia to operationalise the AI Act. In March 2025, the Ministry of Digital Transformation published a draft Act on the implementation of the Regulation (EU) laying down harmonised rules on artificial intelligence (AI) (the Implementation Act) (Ministry of Digital Transformation, 2025), which is currently available for public consultation via the eUprava (eGovernemnet) platform. While the AI Act itself is directly applicable across the EU, the Slovenian law defines the competent authorities responsible for market

surveillance, enforcement and stakeholder support. These include the Agency for Communication Networks and Services of the RS, the Information Commissioner, the Central Bank of Slovenia and others, as well as a central contact point and mechanisms for regulatory sandboxes. The Implementation Act also provides for awareness-raising campaigns targeting SMEs, start-ups and local government authorities to facilitate compliance and understanding.

Against this background, the implementation of the AI Act in Slovenia raises critical legal and institutional questions. Although the regulation is legally binding, its full application depends on the readiness of national administrative structures to enforce and interpret the provisions in accordance with EU principles. The dual legal-policy character of the Act requires that Slovenian authorities not only fulfil the technical and procedural requirements but also embrace the normative objectives of the legislation to ensure trustworthy, fair and human-centred AI use. However, it remains unclear to what extent the stakeholders responsible for implementation in Slovenia fully understand the legal character and broader implications of the AI Act. This is particularly pressing in a system where responsibilities are divided between policy-making ministries and authorities at the implementation level. The resulting research gap is that there is a lack of empirical and doctrinal evidence on how the AI Act is interpreted at different levels of government and whether existing institutional structures are prepared to effectively manage the enforcement of the Act. The aim of this study is therefore to answer the following three research questions:

> Q1: How do key stakeholders among AI providers and users within the Slovenian public administration understand the legal character of the AI Act?

> Q2: How aware and ready are selected Slovenian authorities for the implementation of the AI Act on both a systemic and operational level?

> Q3: What institutional gaps or uncertainties exist in the Slovenian administrative system that could hinder effective enforcement and governance under the AI Act?

To answer these questions, the study utilises a combination of normative and comparative legal analysis, which places the AI Act within both the Slovenian and EU legal frameworks. This is complemented by an empirical component based on online surveys and focus group discussions with key stakeholders, as suggested by Morgan (2019), including representatives of ministries and administrative authorities involved in digital transformation and the use of AI. By examining both the formal and perceived readiness of the Slovenian public administration, this paper not only contributes to understanding at the national level but also provides a reference point for other EU MS with similar administrative structures.

The article is structured as follows. The introduction, which provides an insight into the topic under consideration, is followed by a chapter describing the methodological approaches and data collection. This is followed by a normative and comparative legal analysis of the AIA. The results are then presented in the next section, which is followed by a discussion to answer the research questions. Finally, the most important results, limitations and suggestions for future research are summarised in the conclusion.

2. Methodology and data collection

To assess the extent to which the Slovenian public administration is prepared for the implementation of the AI Act, this study applied a multi-layered methodology that combines legal analysis with empirical research. With this approach, the AI Act is recognised not only as a binding legal regulation, but also as a hybrid governance instrument that combines legal, technological and socio-administrative areas (Gstrein et al., 2024; Madan & Ashok, 2024). In the first phase, the structure, definitions and objectives of the law were analysed both within the EU legal framework and within the national legal framework, drawing comparative insights from related instruments such as the GDPR due to the common foundations of fundamental rights protection. Instead of a strictly dogmatic view, a constructive legal approach was chosen that integrates normative and systemic perspectives in order to understand the dual nature of AI law as regulation and policy (Korcová & Borská, 2019). In the second phase, a mixed-methods design was used, combining an online expert survey with a structured focus group. This enabled a triangulation of the views of both institutional and operational stakeholders and provided a cross-sectional analysis of how the AI Act is interpreted and implemented in Slovenia.

The survey instrument was divided into two core thematic blocks. The first focussed on knowledge and understanding of the legal character of the AI Act, regulatory classifications (e.g., high-risk systems), definitional elements (such as the definition of an AI system in Article 3(1)) and the relationship between the AI Act and other legal or policy instruments (European Commission, 2021). The second section explored

respondents' familiarity with institutional responsibilities at national and EU level and explored their understanding of designated competent authorities, implementation mandates and expected compliance obligations. The focus group served as a qualitative enrichment of the survey results. Participants were guided through six interconnected areas of discussion: (1) general awareness of the AI Act; (2) interpretation of its legal and policy relevance; (3) perceived institutional readiness; (4) clarity of mandates and responsibilities; (5) operational and inter-institutional challenges; and (6) potential for inter-authority collaboration and long-term capacity building.

This triangular methodology enabled a comprehensive assessment of both vertical (institutional vs. operational) and horizontal (cross-sectoral) differences in understanding and readiness for AI governance. In choosing the design, particular care was taken to capture discrepancies between formal legal expectations and practical governance capacities, an important research gap identified in the literature (e.g., Oriol Mir, 2024; Quintais, 2025). The empirical component of the study targeted Slovenian public authorities directly or indirectly involved in digital governance, AI adoption or the management of services where AI technologies are already in use. Respondents were selected using a purposive sampling strategy based on their institutional function, sectoral relevance and practical experience with digital governance tools.

The study, which was conducted in the winter of 2024/2025, distinguishes between two key layers of government:

- *Policymakers*: senior officials and legal experts from ministries responsible for AI strategy, digital transformation and sectoral oversight, including the Ministry of Digital Transformation (MDT), the Ministry of Public Administration (MPA) and the Ministry of Labour, Family, Social Affairs and Equal Opportunities (MLFSA)[5].

- *Operational authorities*: frontline administrative authorities that implement AI-enabled procedures and interact directly with the end users of administrative services, namely the Financial Administration of the Republic of Slovenia (FARS) and the Centre for Social Work Ljubljana (CSW).

These entities were selected because they are involved in extensive administrative procedures in which AI is already applied. FARS, for example, oversees the national eDavki (eTaxes) system, while CSW operates the eSociala (eWelfare) information infrastructure for the allocation of social assistance. Despite the difference in size – FARS employs over 3,000 people and CSW around 400 – their procedural footprint is significant and representative of the broader dynamics in Slovenian public administration (Aristovnik et al., 2024). This selection offers two important analytical advantages. First, it provides comparative insights into different policy areas (fiscal and social), both of which are crucial for public trust and state legitimacy. Second, it enables an assessment of AI readiness across different administrative hierarchies, reflecting the dual implementation model of AI Act, which requires not only regulatory oversight but also practical application at the operational level. Importantly, all participating authorities are either currently using AI-enabled tools or actively planning to integrate them, ensuring that the empirical data is based on practical experience rather than speculative or aspirational responses. This makes the results particularly valuable for extrapolating policy-relevant conclusions, not only for Slovenia, but potentially also for other small EU MS with similar legal and administrative infrastructures.

3. Normative and comparative legal analysis of the AI Act

The AI Act represents the culmination of a multi-year process of regulatory consultation within the EU, based on both legal mandates and strategic policy instruments. It is anchored in the European Commission's political agenda for the period 2019–2024 and was influenced in particular by the White Paper on Artificial Intelligence: A European approach to excellence and trust (COM(2020) 65 final of 19 February 2020), which sets out the basic principles for responsible AI governance. In legal terms, the AI Act derives its powers from the main provisions of the EU Charter of Fundamental Rights (2012/C 326/02) and the Treaty on the Functioning of the EU (TFEU, OJ C 326 of 26 October 2012). The path of the AI Act led through several milestones: the Commission's proposal in April 2021 (European Commission, 2021), the European Parliament's approval in June 2023, formal adoption on 13 June 2024 and publication in the Official Journal on 12 July 2024. The Regulation entered into force on 1 August 2024, with its provisions being applied in stages until August 2027.

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[5] Despite several requests, the MLFSA did not participate in the survey or the focus group. Therefore, its role in the implementation of the AI Act was analysed from the perspective of the CSW as a subordinate authority and other ministries within the government system.

For example, the obligations for general purpose AI systems will only apply from 2 August 2025, while the requirements for high-risk systems in accordance with Annex II will enter into force on 2 August 2027. This staggered implementation reflects both the technical complexity and the systemic implications of the regulation (Misuraca et al., 2020).

The legal architecture of the AI Act is hybrid in nature and mixes elements of product safety law and the protection of fundamental rights (Gstrein et al., 2024). It establishes a top-down, risk-based framework, in contrast to the bottom-up model of the GDPR (De Gregorio & Dunn, 2022). Although they differ in structure, both regulations complement each other: the GDPR provides basic protection for personal data, while the AI Act introduces sector-specific risk classification and compliance obligations for AI systems. Importantly, the rights guaranteed in the GDPR, such as the right to information (Article 15), safeguards for automated decision-making (Article 22) and the protection of privacy by design and by default (Article 25), remain relevant for AI governance (Rudolf & Kovač, 2024). In addition, the AI Act is embedded in the EU's "new legislative framework" for digital governance presented in Table 1. As outlined in point (1) of the AI Act, this ecosystem includes several legal instruments regulating data, digital platforms and online services. These laws have an overlapping territorial scope and address similar actors, albeit with different terminology (e.g. "providers" and "users" in the AI Act versus "controllers" and "processors" in the GDPR). To understand the AI Act, it is therefore necessary to situate it within this broader regulatory landscape, where normative coherence, functional alignment and legal interoperability are key (see Table 1 below).

Table 1: New EU legislative framework for digital governance

Legal instrument	Adoption date	Entry into force	Key legal focus
General Data Protection Regulation (GDPR)	April 27, 2016	May 25, 2018	Personal data protection
European Data Governance Act	May 30, 2022	September 24, 2023	Data sharing and governance
Digital Markets Act	September 14, 2022	May 2, 2023	Fair competition in digital markets
Digital Services Act	October 19, 2022	February 17, 2024	Accountability and transparency of digital services
Data Act	December 23, 2023	September 12, 2025	Fair access to and use of data
e-Privacy Directive	July 12, 2002	Transposed via national laws	Privacy in electronic communications
Artificial Intelligence Act (AI Act)	June 13, 2024	August 1, 2024 (phased until August 2, 2027)	Risk-based regulation of AI systems, fundamental rights protection, market harmonisation

Source: Own.

The relationship between EU law and the legal systems of the MS is another crucial dimension. Despite the direct applicability of AI Act, national measures, such as the Slovenian draft Implementation Act, are often required to designate competent authorities, establish procedural rules and ensure enforcement. This dynamic raises questions of legal hierarchy, subsidiarity and multi-level governance (Benjamin, 2023; Benz, 2015). While EU regulations take precedence, MS retain their procedural autonomy, particularly in administrative law. The case law of the Court of Justice of the EU (CJEU) confirms that the MS' margin of discretion depends on compliance with the EU principles of equivalence, effectiveness and rights of defence (see Galetta & Hofmann, 2023). The diversity of national administrative traditions means that the implementation of EU digital law is inconsistent, especially in areas such as social policy or direct taxation, which are only partially harmonised. In contrast, customs law is fully harmonised. This asymmetry emphasises the importance of context-specific approaches to the implementation of EU law and the need for institutional coordination across vertical and horizontal governance levels.

The distinction between the institutional level (ministries, legislative authorities) and the instrumental level (agencies, institutions and other administrative authorities) is particularly important to understand how AI-related obligations should be implemented. Authorities such as the Slovenian FARS or the CSW are not only executive authorities; through procedural discretion, interpretative judgements and operational feedback, they also shape how legal norms are implemented in practise (Godec, 1993; May & Winchester, 2018). The standard-setting function of AI law, combined with its dependence on national authorities for application, positions the public administration as a normative co-producer and not just an enforcer of regulations. Consequently, legal acts such as the AI Act are not only prescriptive but also reflexive, evolving through institutional interaction,

administrative implementation and judicial review. The integration of legal norms and administrative practise closes the loop and uncovers systemic undesirable developments, which in turn form the basis for future improvements to the regulations. Understanding these dynamics is key to assessing the real effectiveness of AI Act in the EU MS.

4. Results of the Slovenian empirical case study analysis

Participants were first asked to reflect on their understanding of the key legal components of the AI Act, including the definition of AI systems, the framework for risk levels and the extent to which the Act is considered binding. Institutional stakeholders (MDT and MPA) and FARS showed a strong understanding of the direct applicability of the regulation, the legal basis in the TEFU and the normative objectives, while CSW took a more limited view and interpreted the AI Act as a policy guideline rather than a binding regulation for operational authorities. These different interpretations reveal a structural gap between policy-level understanding and frontline implementation capacity, which is in line with previous literature on regulatory discrepancies in EU digital law (Koivisto et al., 2024). Perceptions of the wider objectives of the AI Act also varied, as shown in Table 2. While all respondents recognised the importance of protecting fundamental rights such as non-discrimination, privacy and human dignity, institutional stakeholders placed more emphasis on legal certainty, innovation and the creation of a uniform EU-wide legal framework. Operational stakeholders focussed more on practical aspects such as the reliability of the system.

Table 2: The importance of AIA objectives according to respondents

	Unified legal framework for the entire EU	Reliability	Legal certainty in the market	Innovation	Protection of fundamental rights (non-discrimination, freedom of expression, privacy, dignity)	Excellence
MDT	***	**	***	**	***	**
MPA	***	***	***	***	***	**
FARS	***	***	***	*	**	*
CSW	**	***	**	**	***	**

Note: * moderately important, ** important, *** very important
Source: Own analysis.

Respondents were then asked questions to assess their familiarity with the main EU digital regulations related to the AI Act (see Table 1). All authorities showed a good knowledge of the General Data Protection Regulation (GDPR) and correctly recognised its close legal and functional link to the AI Act, particularly in relation to automated decision-making and data protection. Familiarity with other instruments varied. While the ePrivacy Directive and the Digital Services Act (DSA) were generally known, their relevance to day-to-day operations was unclear for some, especially at an operational level. The Digital Markets Act (DMA) and the Data Governance Act (DGA) were better understood by central ministries, while operational authorities, particularly the CSW, showed limited awareness of their purpose and legal force. The Data Act was least understood across all institutions, and only FARS and MDT showed a partial understanding of its implications for data access and sharing. Overall, ministries showed a broader awareness of how these laws interact with the AI Act, while implementing authorities viewed them more from a compliance perspective. This reflects a gap between the strategic and operational understanding of the digital regulatory environment.

Respondents generally recognised the binding character of the core provisions of the AI Act, in particular the 113 articles and 13 annexes, but there were different interpretations regarding the legal force of the preamble. Only MDT considered the preamble to be legally binding, while MPA and CSW characterised it as ambiguous and less clear than preambles in other EU regulations. In contrast, FARS found the entire structure, including annexes and sanction provisions, to be consistent with EU legal standards, indicating a more advanced understanding of regulatory drafting. While MDT and FARS correctly identified the AI Act as a directly applicable EU regulation, MPA misunderstood it as binding only in signatory states, and CSW mistakenly believed that it required national implementation. These misunderstandings suggest that further clarification of the legal hierarchy and application of EU regulations is needed.

Another area of analysis concerned the distribution of responsibilities at EU and national level. All authorities named the European AI Office as the central supervisory authority at EU level and recognised the Ministry for Digital Transformation as the lead national body. However, there were different views on how the policy and operational tasks should be divided between the ministries. MDT and FARS were in favour of a centralised governance model and emphasised the need for a coordinating authority. In contrast, MPA and CSW were in

favour of a decentralised model in which the individual ministries coordinate the implementation of AI in their respective areas (e.g. finance, social affairs).

The self-assessments of the Slovenian administrative authorities reveal considerable differences in terms of awareness and readiness to implement the AI Act, particularly with regard to its normative and procedural components. Ministries such as MDT and MPA reported a moderate level of awareness and mostly improved readiness. In contrast, operational authorities such as FARS and SWC indicated that both awareness and readiness were still very low, with CSW being the least prepared. These differences reflect general administrative asymmetries and emphasise the importance of targeted capacity building measures. To address these gaps, authorities were asked to rate the importance and implementation status of various support measures. The responses show a clear gap between the ministries and the operational authorities:

- *Additional financial, personnel and organisational resources* were already implemented by MDT and MPA by 2024/8, while FARS and CSW had no concrete plans yet.

- *Defined procedures and protocols* were planned by all three more committed authorities (MDT, MPA, FARS), mostly beyond 2025. The CSW did not report any initiatives in this area.

- *Concrete impact assessments, both ex-ante and ex-post*, are planned for 2025 by MDT, MPA and FARS. There were also no such plans at CSW.

- *Better coordination between national ministries and operational service providers* is planned by MDT and MPA for 2025 but was not addressed at all by FARS and CSW.

- *Increased cooperation with external service providers* was to be developed by MDT and MPA by 2025 but was not included in the plans of the operational authorities.

- *Cross-border information exchange within the EU at the same authority level* was considered important by MDT and MPA and included in their future plans. Neither FARS nor CSW had plans for such co-operation.

- *Increased co-operation between the Slovenian authorities using AI* was already implemented or underway by MDT and was planned by MPA, while FARS and CSW reported no such activities.

- *Training of staff* was underway or completed by MDT and MPA. EARS had plans to begin, but CSW had not yet addressed this need.

- *Sharing or providing more information to the public* was only planned by MDT and MPA, and only after 2025. FARS and CSW had no initiatives in this area.

While the ministries have started to integrate some of these measures into their strategies, the operational authorities, especially CSW, are lagging well behind. This is particularly evident in areas that require inter-authority coordination, public communication and capacity building.

Finally, the participants reflected on the general position of Slovenia in the EU regarding the implementation of the AI Act. The consensus, supported by the findings of the focus group, was that Slovenia is at or slightly below the EU average. While the use of e-government tools is relatively advanced, the introduction of AI-based administrative systems remains limited. In the area of social protection, this is attributed to insufficient technological infrastructure and a lack of awareness; in taxation, concerns about data protection and compliance remain. These findings suggest that Slovenia's implementation path will depend on targeted policy measures, increased legal harmonisation and improved administrative capacity.

5. Discussion

The results of this study shed light on how Slovenian administrative authorities perceive and approach the EU AI Act, with a particular focus on its legal status and the challenges of its application in a multi-level governance framework. Viewed through the lens of administrative law, the Act represents a remarkable shift in the design of EU legislation, as it combines binding legal provisions with strategic, value-driven objectives. This hybrid character poses a challenge for interpretation and practise, especially in legal systems where clarity of doctrine and formalism are highly valued, as is typical in Central Europe (Galetta & Hofmann, 2023). The Slovenian context reflects these tensions and shows how differently the legal scope and enforceability of the law are understood by public authorities.

The first research question focussed on the interpretation of the legal nature of the AI Act. Although formally the regulation is clearly considered directly applicable EU law under Article 288 TFEU (European Commission,

2021), the study found that this is perceived inconsistently in practise. Authorities such as the MDT and the FARS recognised the law as legally binding at all levels of governance. In contrast, the SWC viewed the law as a policy-oriented document rather than a binding legal norm, highlighting a discrepancy between formal legal authority and perceived administrative obligation. Similar discrepancies were found in the literature, which emphasises the dual function of the AI Act as a regulatory and governance instrument (De Gregorio & Dunn, 2022; Koivisto et al., 2024). While the combination of legal mandates and normative goals can be seen as an innovative approach to regulating AI, it also complicates implementation, especially in jurisdictions accustomed to rigid legal hierarchies. When the line between enforceable law and soft governance becomes blurred, the implementation risks become more apparent (Galetta & Hofmann, 2023; Madan & Ashok, 2024). This challenge was clearly reflected in the different institutional interpretations observed in the Slovenian case. Furthermore, misinterpretations of the legal status of various components of the AI Act, such as the preamble or the annexes, illustrate the nomotechnical complexity of the regulation. For example, the MDT incorrectly treated the preamble as legally binding, while the CSW found several sections, including the sanction provisions and annexes, to be unclear or too complex. This suggests that not only the content but also the structure of the AI Act needs simplification or clearer guidance, especially for implementers who do not have legal training.

According to the second research question, the study focussed on the readiness of Slovenian authorities to implement the AI Act at both systemic and operational levels. The results indicate a discrepancy between formal awareness and practical readiness. While most respondents recognised the importance of the regulation and expressed support for its underlying values, especially in relation to transparency, reliability and the protection of fundamental rights, concrete implementation measures remain underdeveloped. Institutional actors (MDT, MPA) reported a moderate level of readiness and improvement in recent years, mainly due to their involvement in the drafting of the Slovenian Implementation Act (Ministry of Digital Transformation, 2025). In contrast, operational actors such as the CSW and to a lesser extent the FARS indicated that internal procedures, training programmes and cooperation mechanisms are either lacking or not sufficiently formalised. This confirms that compliance is not only a legal matter, but also an organisational one that requires investment in staff training, procedural protocols and technical infrastructure (Rudolf & Kovač, 2024). This implementation gap is particularly critical given the risk-based structure of the AI Act, as most administrative services, especially in the tax and social sectors, fall into the high-risk category. According to Beck and Burri (2024), these require specific compliance steps, including compliance assessments, record-keeping and risk mitigation measures. If implementing authorities do not clearly understand their role as "providers" or "users" of AI systems (Koivisto et al., 2024), the risk of non-compliance increases significantly. Although the importance of measures such as impact assessments, inter-authority collaboration and staff training is recognised, few respondents reported that these had been implemented in practise. In fact, many key activities are either delayed or not yet planned, despite being categorised as high priority. This discrepancy between perceived importance and implementation timelines reflects broader governance challenges, namely the lack of centralised coordination and the fragmentation of responsibilities between ministries and operational authorities.

In addition, the third research question analysed the institutional barriers to effective AI governance. The results show that the Slovenian administrative structure suffers from both vertical and horizontal misguided developments. Vertically, the division of competences between the policy-making ministries and the implementing authorities is unclear. Horizontally, co-operation between the sectors remains limited despite common challenges and overlapping responsibilities. Interviewees held conflicting views on the most appropriate governance model for the implementation of the AI Act. While MDT and FARS favoured a centralised model with a single coordinating authority, MPA and CSW favoured sector-specific governance. This disagreement reflects deeper structural problems, such as inconsistent delegation of powers and insufficient policy coherence, problems that have already been observed in other areas of digital transformation in Slovenia ,as emphasised also by Aristovnik et al. (2024).

Furthermore, some of the respondents still believe that the AI Act only applies to central ministries and not to operational actors, a view that contradicts the intention and legal effect of the regulation. This not only limits the effective implementation of the law but also undermines the principle of effectiveness of EU law, which is a cornerstone of the EU legal order (Lind, 2023). A particularly worrying finding is the dependence of operational authorities on ministries for guidance and infrastructure, leading to delays in implementation and enforcement. Whilst the AI Act allows for some national flexibility in procedural requirements, the lack of proactive engagement from central authorities could result in key elements of the regulation becoming ineffective. In practise, this risks the AI Act becoming an inadequately implemented policy framework rather than an enforceable regulatory standard.

While the Slovenian case highlights a number of specific challenges, it also provides valuable lessons for other EU MS, particularly smaller countries with centralised but fragmented administrative systems. The study confirms that the direct applicability of EU regulations is not sufficient to ensure uniform implementation. Rather, the success of legal instruments such as the AI Act depends on their integration into existing administrative, procedural and organisational frameworks (Benz, 2015; May & Winchester, 2018). From a normative perspective, the AI Act pursues important objectives, in particular by introducing a tiered risk model, promoting accountability and strengthening the protection of fundamental rights. However, these ambitious goals run the risk of being diluted by the complexity of the regulations, legal ambiguities and institutional inertia. The present results show that even in an EU MS with an active digital agenda such as Slovenia, it cannot be assumed that the law will be applied effectively. Finally, this study confirms the need for coordinated support at EU level, including guidance documents, exchange of best practises and tools to monitor implementation. Such mechanisms are especially important in the initial phase of enforcement to ensure consistency between MS. Without them, the "Brussels effect" expected from the AI Act could remain a pipe dream (Almada & Radu, 2024; Pagallo, 2023).

6. Conclusion

The AI Act is an important step in the EU's efforts to regulate emerging technologies, as it enshrines a human-centred, rights-based and risk-aware approach to artificial intelligence in all MS. As a regulation, it is directly applicable in national legal systems. However, its effectiveness depends not only on its legal form, but also on its substantive integration into national administrative practise, where interpretation, institutional capacity and political will overlap. This paper examines the Slovenian public administration's understanding and readiness to implement the AI Act through a dual legal-empirical lens. The results reveal a multi-layered picture of the reception of the legislation. While institutional actors generally recognise the legal force of the law and the overarching policy objectives, operational authorities, particularly those managing high-risk administrative procedures, often lack clarity, resources or guidance to effectively implement the provisions of the AI Act. These divergences illustrate the practical implications of the hybrid legal character of the Act, which is both a binding norm and a strategic governance tool. The main implementation barriers identified in Slovenia include: the lack of internal procedures or guidelines tailored to the risk-based framework of the AI Act; insufficient training and awareness-raising of staff at the operational level; and institutional ambiguity regarding the division of responsibilities between ministries and subordinate authorities. The results also show that while the Slovenian authorities support the normative objectives of the AI Act, such as transparency, fairness and the protection of fundamental rights, concrete measures are often delayed, inconsistent or absent.

These findings contribute to answering the three guiding research questions. First, they confirm that the understanding of the legal character of AI Act varies, especially between institutional and operational actors. Second, the study shows that readiness is improving but uneven, as many authorities are not yet fully equipped to implement AI governance requirements. Third, the study points to persistent institutional gaps, particularly in coordination and compliance structures, which hinder effective enforcement and monitoring.

This study is not without limitations. The empirical component focussed on a limited sample of Slovenian authorities, primarily in the tax and social services sectors. While these sectors are relevant due to their high exposure to AI and regulatory requirements, the sample may not reflect the full diversity of public administration. Although the study included both policy makers and implementers, it did not include stakeholders from the judiciary, private sector or civil society, which are also crucial for a holistic AI governance ecosystem. Furthermore, the analysis focussed on the early phase of implementation, which took place only a few months after the AI Act was passed. Many institutional responses are therefore still evolving, and follow-up research will be necessary to assess long-term developments, compliance efforts and changes in administrative behaviour.

Future research should examine comparative case studies in several EU MS to assess how different legal and administrative systems implement the AI Act. Particular attention should be paid to small and medium-sized states, where administrative capacity and policy coherence may be more prone to regulatory overload. In addition, further research could deepen the focus on sectoral AI applications, especially in areas such as healthcare, education and public safety, where ethical and legal considerations are particularly acute.

References:

1. Almada, M., & Radu, A. (2024). The Brussels side-effect: how the AI act can reduce the global reach of EU policy. *German Law Journal*, *25*(4), 646-663. https://doi.org/10.1017/glj.2023.108

2. Aristovnik, A., Kovač P., & Jukić, T. (2024). *Digitalna preobrazba javne uprave v teoriji in praksi = Digital transformation of public administration in theory and practice*. Faculty of Public Administration. http://beletrinadigital.si/e-knjiga/digitalna-preobrazba-javne-uprave-v-teoriji-in-praksi

3. Beck, J., & Burri, T. (2024). From "human control" in international law to "human oversight" in the new EU act on artificial intelligence. In *Research Handbook on Meaningful Human Control of Artificial Intelligence Systems* (pp. 104-130). Edward Elgar Publishing. https://doi.org/10.4337/9781802204131.00014

4. 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. https://doi.org/10.7590/187479823X16878510945034

5. Benz, A. (2015). European public administration as a multilevel administration: A conceptual framework. In *The Palgrave handbook of the European administrative system* (pp. 31-47). London: Palgrave Macmillan UK.

6. De Gregorio, G., & Dunn, P. (2022). The European risk-based approaches: Connecting constitutional dots in the digital age. *Common Market Law Review*, *59*(2). https://dx.doi.org/10.2139/ssrn.4071437

7. European Commission (2021) Proposal for a Regulation of the EP and of the Council Laying Down Harmonised Rules on AI (AIA) and Amending Certain EU Legislative Acts, Explanatory Memorandum, COM(2021) 206 final, 2021/01016(COD). European Commission, Brussels. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0206 (accessed March 23, 2025).

8. Fernández-Llorca, D., Gómez, E., Sánchez, I., & Mazzini, G. (2024). An interdisciplinary account of the terminological choices by EU policymakers ahead of the final agreement on the AI Act: AI system, general purpose AI system, foundation model, and generative AI. *Artificial Intelligence and Law*, 1-14. http://dx.doi.org/10.1007/s10506-024-09412-y

9. Galetta, D. U., & Hofmann, H. C. (2023). Evolving AI-based automation–the continuing relevance of good administration. *European Law Review*, *2023*(6), 617-635.

10. Godec, R. (1993) Upravni zbornik/Administrative Compendium. Faculty of Law, Ljubljana.

11. Gstrein, O. J., Haleem, N., & Zwitter, A. (2024). General-purpose AI regulation and the European Union AI Act. *Internet Policy Review*, *13*(3), 1-26. http://dx.doi.org/10.14763/2024.3.1790

12. Koivisto, I., Koulu, R., & Larsson, S. (2024). User accounts: How technological concepts permeate public law through the EU's AI Act. *Maastricht Journal of European and Comparative Law*, *31*(3), 412-432. https://doi.org/10.1177/1023263X241248469

13. Korcová, R., & Borská, J. (2019). Position of seniors in rural areas in relation to the Czech Republic. *Kontakt*, *21*(4), 416-23. http://dx.doi.org/10.32725/kont.2019.049

14. Lind, A. S. (2023). Legislating AI: A Matter of High-Risk Administration? In *The Rule of Law and Automated Decision-Making: Exploring Fundamentals of Algorithmic Governance* (pp. 179-194). Cham: Springer International Publishing. http://dx.doi.org/10.1007/978-3-031-30142-1_8

15. Madan, R., & Ashok, M. (2024). Organisational and Technological AI Readiness: Evidence from Canadian Public Administration. In: *ICIS 2024 proceedings. International Conference on Information Systems*, https://aisel.aisnet.org/icis2024/it_implement/it_implement/10/

16. May, C., & Winchester, A. (Eds) (2018). *Handbook on the Rule of Law*. Cheltenham, Northampton: Elgar.

17. Ministry of Digital Transformation (2025). *Javna obravnava osnutka Zakona o izvajanju Uredbe (EU) o določitvi harmoniziranih pravil o umetni inteligenci (UI) [Public consultation on the draft Act on the implementation of the Regulation (EU) laying down harmonised rules on artificial intelligence (AI)]*, https://www.gov.si/novice/2025-03-14-javna-obravnava-osnutka-zakona-o-izvajanju-uredbe-eu-o-dolocitvi-harmoniziranih-pravil-o-ui/ (accessed March 23, 2025).

18. Morgan, D. L. (2018). *Basic and advanced focus groups*. Sage Publications. https://doi.org/10.4135/9781071814307

19. OECD, Organisation for Economic Co-operation and Development (2024) Explanatory memorandum on the updated OECD definition of an AI system. OECD Artificial Intelligence Papers, No. 8, OECD Publishing, Paris. https://doi.org/10.1787/623da898-en

20. Mir, O. (2024). The AI Act from the Perspective of Administrative Law: Much Ado About Nothing? *European Journal of Risk Regulation*, 1-13. https://doi.org/10.1017/err.2024.54

21. Misuraca, G., Barcevičius, E., & Cristiano, C. (Eds) (2020). *Exploring digital government transformation in the EU: Understanding public sector innovation in a data-driven society*. Luxembourg: Publications Office of the EU.

22. Pagallo, U. (2023). Dismantling Four Myths in AI & EU Law Through Legal Information 'About'Reality. In *Multidisciplinary Perspectives on Artificial Intelligence and the Law* (pp. 251-261). Cham: Springer International Publishing. http://dx.doi.org/10.1007/978-3-031-41264-6_13

23. Quintais, J. P. (2025). Generative AI, copyright and the AI Act. *Computer Law & Security Review*, *56*, 106107. https://doi.org/10.1016/j.clsr.2025.106107

24. Rudolf, G., & Kovač, P. (2024). The Role of Automated Decision-Making in Modern Administrative Law: Challenges and Data Protection Implications. *Cent. Eur. Pub. Admin. Rev.*, *22*, 83. https://doi.org/10.17573/cepar.2024.2.04

25. Wischmeyer, T., & Rademacher, T. (Eds) (2020). *Regulating Artificial Intelligence*. Springer. https://doi.org/10.1007/978-3-030-32361-5