Forum of Federations
The Global Network on Federalism and Devolved Governance

November 2026

POLICY BRIEF SERIES

GOVERNING ARTIFICIAL INTELLIGENCE IN FEDERAL SYSTEMS

Artificial Intelligence as a Coordination Challenge: Institutional Mismatch and Intergovernmental Coordination in Spain

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Published By:
Forum of Federations

75 Albert Street, Suite 411
Ottawa, ON K1P 5E7
Canada

www.forumfed.org

Suggested citation:

Kölling, M. (2026). *Artificial Intelligence as a Coordination Challenge: Institutional Mismatch and Intergovernmental Coordination in Spain*. (Governing Artificial Intelligence in Federal Systems) [Forum of Federations Policy Brief] Forum of Federations.

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KEY TAKEAWAY

Although Spain has developed intergovernmental coordination capacity through previous digital transformation phases, the transversal nature of AI creates a mismatch between governance structures organised around sectoral policy domains and the coordination requirements of AI governance and implementation. While the EU AI Act and central government oversight mitigate the risk of regulatory fragmentation, decentralised AI implementation continues to generate challenges related to intergovernmental coordination, capacity asymmetries, and uneven implementation across autonomous communities.

> ***"Although Spain's intergovernmental system has been effective in supporting digital transformation, the governance of AI generates coordination demands that exceed the capacity of existing sectoral coordination structures."***

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This research examines the governance and implementation of artificial intelligence (AI) as a coordination problem within a multilevel government system rather than as a problem primarily related to regulation, technology or service delivery. AI governance encompasses the deployment of technological systems and decisions regarding data governance, accountability, ethical oversight, regulatory compliance, and organisational adaptation. This governance is shaped not only by technological capacity, but also by institutional coordination and multilevel dynamics.

In this regard **AI has a transversal nature which means that it cuts across traditional policy sectors, administrative boundaries, and levels of government**, rather than belonging to a single policy area. While the OECD recognises coordination as a prerequisite for AI implementation, little attention has been given to how such coordination is achieved in decentralised systems where responsibilities are distributed across various levels of government. Furthermore, as an issue that cuts across government, AI implementation affects multiple public policies and administrative functions simultaneously. This **requires alignment not only between levels of government, but also across policy sectors, administrative organisations and regulatory domains**. This makes it difficult to govern through sector-specific coordination mechanisms alone. AI creates governance demands that do not easily align with intergovernmental systems organised around sector-specific policy domains.

Spain is not starting from scratch regarding AI governance and implementation. The country already has interoperability frameworks, shared administrative platforms, and extensive digital public services. Spain also benefits from EU regulations and its first national strategic plans on AI, as well as monitoring institutions. AI applications are increasingly being implemented in public administrations at the central, regional, and local levels in areas such as healthcare, transportation, urban planning, energy efficiency, rural development, the environment, and climate. While some initiatives are successful, others remain in the pilot stage due to a shortage of specialized skills and uneven administrative capacities. These variations provide opportunities for innovation but also pose obstacles to achieving consistent AI deployment nationwide.

This study asks whether the existing intergovernmental institutions in Spain are capable of coordinating the implementation of AI across multiple policy sectors and levels of government. Although the country's intergovernmental system successfully supported previous phases of digital transformation through strong administrative cooperation and EU-supported coordination mechanisms, the transversal nature of AI generates coordination requirements that exceed the capacity of predominantly sectoral intergovernmental institutions, **creating an institutional mismatch between governance structures organised around sectoral policy domains and the transversal coordination requirements generated by AI implementation**.

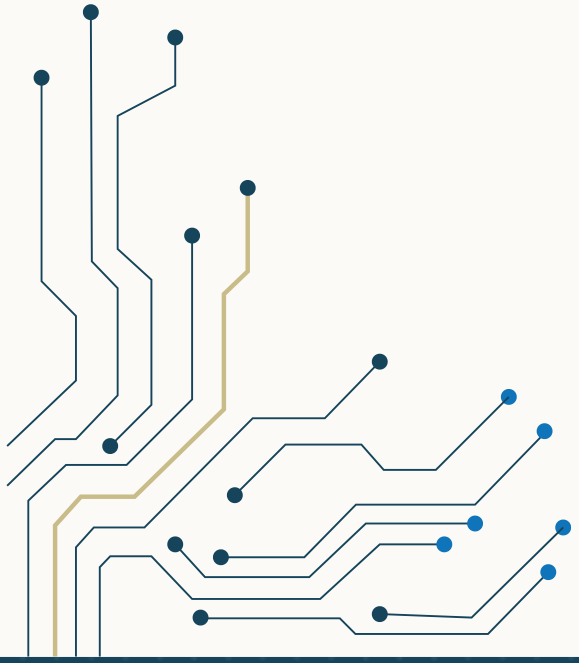
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Spain offers a valuable opportunity to examine this potential mismatch because it combines extensive territorial decentralisation, weak constitutional shared-rule mechanisms, dense administrative cooperation networks, and a highly advanced digital administration.

While the central government defines general principles, minimum standards, and regulatory frameworks, the autonomous communities hold substantial competences in policy areas heavily affected by AI, including healthcare, education, employment, social services, and justice administration. The Constitution does not establish an institutional framework that guarantees shared government, continuous political dialogue, legislative cooperation, or mechanisms for political conflict resolution among levels of government. Spain compensates for its weak constitutional shared-rule mechanisms by relying on dense administrative intergovernmental networks. Sectoral conferences have become the main platforms for negotiating common standards, allocating resources, coordinating policy responses and resolving conflicts between levels of government. However, the frequency of meetings and the extent of joint decision-making within the conferences vary considerably across policy areas, with substantially higher levels of activity in fields such as digitalisation and core curricula in education than in social services and housing.

The combination of high territorial autonomy, significant asymmetries in administrative and digital capacities, a fragmented division of powers, weak shared-rule mechanisms, and predominantly sectoral intergovernmental relations creates a governance architecture that may not align well with the transversal nature of AI governance.

This makes the research highly relevant for policymakers. The **successful adoption of AI depends not only on technological innovation, but also on institutional capacity, strategic governance, organisational coordination across sectors, and whole-of-government approaches**. Beyond Spain, the findings contribute to broader debates on how federal and regionalised systems can adapt their intergovernmental architectures to the governance demands of transversal digital technologies.



THE FINDINGS

For the empirical analysis, the study examined AI strategic planning documents at different levels of government, legal and regulatory frameworks and institutional arrangements. Particular attention was given to how intergovernmental coordination mechanisms operate in practice, and to the extent to which they generate coherent policy alignment or, alternatively, fragmentation and uneven implementation across territories and policy sectors. The analysis suggests the following:

Digitalisation Legacies and the Emergence of AI Governance

Firstly, for years Spain has been among the leading European countries in the digitalisation of public services. AI governance in Spain builds upon a successful digitalisation process that was largely incremental and not politically contentious. Digital transformation was supported by technical networks operating at the working level, frequent interaction among senior civil servants across administrations, and substantial EU funding conditional on achieving objectives such as interoperability and territorial cohesion in implementation. The Sectoral Conferences for Digital Transformation and Public Administration, established in 2021, provided an institutional framework for cooperation between the central administration, and ACs.

The Multilevel Governance Challenges of Artificial Intelligence

AI governance and implementation generate coordination demands that differ from previous digitalisation initiatives. AI differs from previous digitalisation initiatives due to its transversal nature, higher political salience, and stronger implications for policy formulation and decision-making. At the same time, the implementation of EU regulations, particularly the EU AI Act, introduces an additional supranational layer that further complicates coordination processes. The EU AI Act establishes a vertically integrated regulatory framework based on national competent authorities and EU-level coordination bodies. In **decentralised systems such as Spain, this generates the need for domestic coordination arrangements which include ACs**, that are not explicitly promoted by the regulation.

Centralised Rule-Making and Decentralised Execution

Spain presents a model of centralised regulation and decentralised implementation. While the EU AI Act establishes the overarching regulatory framework, the Spanish government translates these requirements into national legislation, such as the recently published draft Organic Act on the responsible use and governance of artificial intelligence, and supervisory arrangements, such as the Spanish Agency for the Supervision of Artificial Intelligence. While the relaunched National Artificial Intelligence Strategy in 2024 recognises the role of regional actors through initiatives such as Regional Networks for Technological Specialisation, it pays limited attention to intergovernmental governance arrangements, coordinating mainly from a functional and sectoral perspective. Similarly, the national digitalisation strategy, 'Spain Digital 2026', does not establish an explicit model of intergovernmental AI cooperation or a formal co-governance architecture between the

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central state and the autonomous communities.

Territorial Differentiation in AI Policy Development

Although regulatory authority remains largely centralised, ACs are increasingly becoming strategic actors in AI implementation through the development of regional strategies, administrative guidelines and experimentation initiatives. By the end of 2025, six Autonomous Communities had adopted dedicated AI strategies and a further seven had incorporated AI into broader digitalisation strategies. At the same time, institutional innovations are emerging across territories. Different levels of government within the public administration have developed guidelines and policies to promote best practices and provide clear guidance for civil servants in the use of AI. This territorial diversity **creates opportunities for policy innovation, experimentation and mutual learning**, but also **increases the risk of uneven implementation and capacity gaps.**

Intergovernmental Coordination and Its Limitations

While existing intergovernmental coordination mechanisms facilitate information exchange and implementation coordination, they are not designed to support the strategic, transversal governance of AI. Although sectoral conferences and technical working groups have been effective in promoting digital administration, their capacity to address the cross-sectoral implications of AI is limited. Existing intergovernmental structures have not been designed specifically to coordinate the implementation of AI across policy sectors and levels of government. The Sectoral Conference on Digital Transformation primarily focuses on the implementation of EU-funded programmes and meets relatively infrequently. Until recently, AI had not featured prominently on its agenda. It was not until 2024 that the central government provided information on the national AI Strategy for 2024, but no discussion was held on the implications for ACs. Furthermore, the Sectoral Working Group on Digitalisation and Artificial Intelligence primarily functions as a forum for the exchange of technical information and the coordination of digital policies rather than as a mechanism for comprehensive AI governance. At the national level, the establishment of the Spanish Agency for the Supervision of Artificial Intelligence, the State Secretariat for Digitalisation and Artificial Intelligence, and the General Directorate for Artificial Intelligence demonstrates a growing institutional commitment to AI governance. While their establishment reflects increasing governmental attention to AI, it does not automatically resolve the coordination challenges associated with implementation across multiple levels of government and public policies.

Institutional Mismatch in AI Governance

There is an institutional mismatch between the sectoral architecture of Spanish intergovernmental relations and the transversal governance requirements generated by AI. While this mismatch does not prevent AI implementation, it increases coordination costs and raises the possibility of fragmented implementation, uneven administrative capacity, and inconsistent policy development.

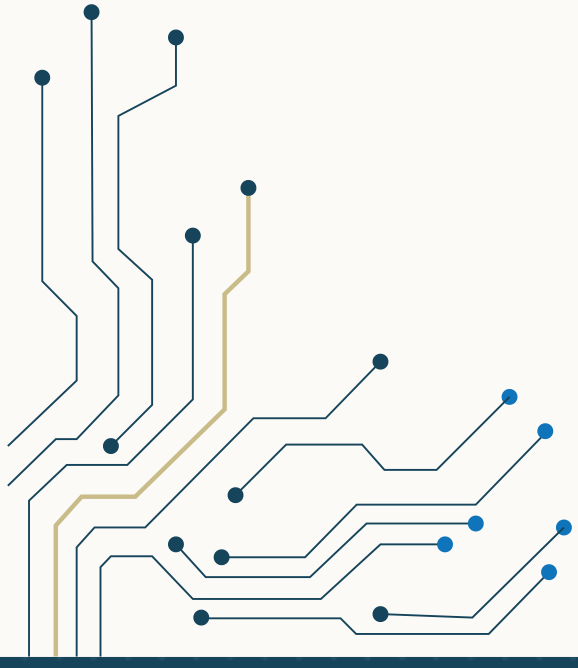
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The findings suggest that an understanding of Spain's federal dynamics is essential for understanding the outcomes of AI governance and implementation. Several characteristics of Spanish territorial governance are particularly relevant:

- Firstly, the high degree of political and administrative autonomy enjoyed by the autonomous communities enables them to develop their own AI strategies, which creates opportunities for policy innovation, but also risks fragmentation.
- Secondly, asymmetric capacity and financing mean that institutional capacities and policy priorities vary significantly between the ACs, creating uneven conditions for AI adoption.
- Thirdly, the division of powers across sectors such as health, education, social services, public employment and public administration implies that many policy areas in which AI is expected to have the greatest impact fall within shared or decentralised competencies.
- Fourthly, in Spain sector-specific intergovernmental institutions are predominant.

Overall, the evidence indicates that, although Spain's intergovernmental system has been effective in supporting digital transformation, the governance of AI generates coordination demands that exceed the capacity of existing sectoral coordination structures. The central challenge is therefore not the absence of coordination mechanisms, but their limited capacity to manage transversal technologies that cut across existing administrative and policy boundaries.

> ***"While existing intergovernmental coordination mechanisms facilitate information exchange and implementation coordination, they are not designed to support the strategic, transversal governance of AI."***



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The findings suggest that the introduction of AI applications in public administration depends not only on technological capabilities, but also **on the ability to coordinate across different levels of government and public policies**, as well as on **a consistent implementation** of AI **across different constituent units**.

Approach AI as a Transversal Policy Challenge

Firstly, AI governance should be viewed as a transversal policy challenge rather than a sector-specific digital policy. While intergovernmental mechanisms in Spain have been effective in coordinating digitalisation initiatives within individual policy areas, AI is having an impact on several policy areas simultaneously. Therefore, coordination mechanisms that take into account these transversal impacts are required, e.g. common standards, data governance, procurement, ethics and regulatory compliance.

Address Institutional Mismatch

A second lesson concerns institutional design. During the digital transformation, Spain has relied primarily on sectoral intergovernmental mechanisms and informal administrative networks. While these structures facilitate the exchange of information, they have limited capacity for the strategic coordination of AI measures. Existing intergovernmental institutions should therefore be adapted to reduce the institutional mismatch identified in this study, either through broader mandates, dedicated working groups or stronger horizontal coordination mechanisms.

Constituent Units are Key to the AI Ecosystem

A third lesson is that constituent units play a central role in creating the territorial ecosystems required for AI adoption, including infrastructure, skills, innovation networks and public-sector experimentation. Constituent units are responsible for many of the policy areas most affected by AI, including healthcare, transport, education, environmental management and public administration. Constituent units could also facilitate testing in smaller ecosystems tailored to local and regional needs.

Build Capacity in Constituent Units

A fourth conclusion concerns the 'AI gap' relating to territorial imbalances in implementation. Differences in administrative capacity and technical expertise could lead to uneven implementation of AI across constituent units. Therefore, AI governance strategies should include capacity-building measures, shared technical resources, common guidelines, and support mechanisms to enable smaller administrations and less digitally advanced regions to participate in AI implementation.

Recognise the Coordination Challenge of AI

A further lesson concerns the role of the European Union. The EU AI Act largely assumes that Member States possess the internal coordination capacities to ensure coherent implementation. However, the Spanish case shows that compliance with EU AI requirements depends not only on national authorities, but also on effective coordination

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across multiple levels of government. The EUshould therefore pay greater attention to multi-level governance in AI implementation, taking recommendations from the Committee of the Regions into account, for example. .

Build on Existing Cooperation Mechanisms for Better AI Coordination

Finally, despite weaknesses in formal shared-rule mechanisms, Spain benefits from strong administrative cooperation developed during previous phases of digital transformation. These networks provide an institutional foundation for the emergence of more integrated AI governance arrangements. Furthermore, the EU AI Act establishes a common legal framework, and the central government retains significant supervisory responsibilities, reducing the risk of regulatory fragmentation.

Conclusion

Spain's experience shows that successful digital transformation does not necessarily lead to effective AI governance. Although existing intergovernmental institutions offer significant coordination capabilities, they were primarily designed to support the implementation of sector-specific policies rather than the governance of transversal technologies. Consequently, the challenge lies not in regulatory fragmentation, but in adapting existing coordination mechanisms to the transversal requirements of AI implementation. The Spanish case therefore shows how emerging digital technologies can create pressure for institutional adaptation, even in systems with developed intergovernmental cooperation.

Multilevel Governance Architecture of AI Within the European Union	
EU level - EU AI Act	• regulating general-purpose AI models • defines prohibited AI practices • establish requirements for high-risk AI systems • create governance structures such as the European AI Office and the European AI Board
Member state level	• implementation and enforcement of EU AI Act • designate competent authorities • implement market surveillance mechanisms • define penalties and sanctions • develop national AI strategies and regulations • strengthen domestic coordination structures (ministries, agencies, and subnational actors)
Constituent units	• apply the EU AI Act and national legislation within policy areas falling under their competences, such as healthcare, education, social services, transport, or public administration • adopt complementary governance measures, e.g. transparency requirements, ethical guidelines, procurement rules, innovation programmes. • adopt training and capacity-building initiatives

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ACKNOWLEDGMENTS

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This publication was made possible through the financial contributions of the institutional partners of the Forum of Federations.

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