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Advancing AI adoption in EU public administrations: Future directions and opportunities under the Apply AI Strategy

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Abstract

This report examines future pathways for advancing the adoption of artificial intelligence (AI) in public administrations, building on the policy direction outlined in the European Commission's Apply AI Strategy (COM(2025) 723), adopted on 8 October 2025, with the aim of accelerating AI adoption across Europe.

Public administrations play, and will continue to play, a strategic role in the European Union's efforts to foster AI adoption across the EU. The Apply AI Strategy recognises the public sector as a key domain for the effective adoption of AI. In this context, public administrations are encouraged to introduce AI strategically into their operations, while carefully assessing its benefits and associated risks.

The report contextualises and offers advice on implementing the directives set out in the Apply AI Strategy, presenting an AI adoption framework structured around three core activities: **anchoring** AI adoption in EU policies, regulations and principles; **adapting** the capabilities of public administrations; and **applying** AI in high-impact domains where it creates public value, supported by a prior assessment of real-world needs and continuous monitoring of impact and risks. Furthermore, the report provides insights and recommendations for EU Member States and public administrations, outlining a structured and forward-looking approach to leveraging AI for efficient, trustworthy and people-centric public administration.

Foreword

Artificial intelligence (AI) presents unprecedented opportunities for the public sector, which is uniquely positioned to lead the safe and trustworthy adoption of AI. By integrating AI into public services, public administrations can enhance policymaking, optimise resource management and boost citizen engagement, fostering more efficient, inclusive and responsive governance frameworks.

Recognising this potential, the European Commission's Apply AI Strategy identifies the public sector as a strategic sector for AI adoption, contributing to Europe's innovation capacity, competitiveness and digital sovereignty. The ambition extends beyond technological deployment. The aim is to transform public administrations into proactive service providers that leverage AI-driven insights to anticipate challenges, support decision making and deliver high-quality services to citizens and businesses.

The public sector must lead the way in adopting AI across the European Union, thus influencing the EU private market and driving AI innovation across industries and the economy. This role is integral to the pursuit of enhanced EU digital sovereignty, characterised by interoperable services and seamless data exchange between EU Member States.

To realise this ambition, policy and research must work in synergy, complementing and informing each other. We welcome this report as a valuable resource for policymakers and public sector administrators seeking to implement AI in line with the policy direction outlined in the Apply AI Strategy. It provides an evidence-based foundation for policymaking, offering practical guidance to help public administrations and Member States leverage AI for public benefit, ensuring technology serves the greater good.

With the launch of the Apply AI Strategy, Europe has made a decisive step towards strengthening its global leadership in AI, with the public sector at the core of this transformation. Through targeted, evidence-informed policy actions, the Commission is paving the way for a future where AI is seamlessly integrated into public sector operations.

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Disclaimer

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Executive summary

Aim of the report

On 8 October 2025, the European Commission published the Apply AI Strategy (COM(2025) 723), hereinafter referred to as 'the Strategy', to advance the adoption of artificial intelligence (AI) across the European Union. The Strategy outlines key sectors where AI adoption can significantly drive innovation and productivity and strengthen competitiveness and digital sovereignty, aligning with the directives set out in the Competitiveness Compass (COM(2025) 30) and the AI Continent Action Plan (COM(2025) 165). Among these, the public sector stands out as a strategic sector, due to its dual role both as a user of AI to enhance internal operations and public service delivery and as a major procurer of AI, with a corresponding responsibility to contribute to the growth and development of the EU market.

This report presents research findings, insights and recommendations for EU Member States and public administrations to assist them on their AI adoption journey. It proposes an **AI adoption framework for EU public administrations**, adhering to the guidelines set forth in the Strategy. The report aims to serve as a practical resource for policymakers and public managers, offering guidance on implementing the Strategy and leveraging AI to create public value.

Key conclusions

The launch of a dedicated Strategy to accelerate AI adoption in the EU represents a significant milestone for the public sector. The Strategy explicitly recognises the public sector as a key enabler and beneficiary of AI investment, acknowledging its crucial role in Europe's social and economic landscape. The Strategy places a clear responsibility on the European Commission and Member States to prioritise AI adoption in public administrations. This elevates AI adoption in the public sector to a central position on the political agenda, making it essential to allocate the necessary resources for the effective, safe and trustworthy adoption of AI.

With AI solutions becoming increasingly mature and accessible, public administrations need to act swiftly to scale up from pilot projects to operational and systemic use, by investing in the effective adoption of AI. This is where the Strategy offers solutions, by creating EU-level guidelines on governance of AI and outlining specific actions that should be invested in to support AI adoption in the public sector.

The Strategy must not be viewed in isolation. It needs to be read and implemented alongside the broader set of policies, legislation and scientific knowledge developed in recent years, starting with the AI Act (Regulation (EU) 2024/1689) and the AI Continent Action Plan.

Furthermore, the approach to AI adoption, and thus the implementation of the Strategy, must follow a clear trajectory – an area where this report aims to provide support. First, public administrations must **anchor** AI adoption in the EU policies, regulations and principles established over the past decade, which prioritise people and promote the use of AI in ways that generate societal value while mitigating associated risks. Second, they should **adapt** their organisational, technological and governance capacity and capabilities, to ensure that they are adequately prepared and equipped with the necessary infrastructure, skills, governance arrangements and funding to create a robust foundation for AI adoption. Finally, public administrations should **apply** AI as a priority in domains where it can have the most significant impact, aligning with their needs. Together, these activities are the core of the proposed AI adoption framework, which supports the effective and trustworthy adoption

of AI in the public sector. These activities should be embedded in a continuous process that begins with the identification of real-world needs and is accompanied by systematic monitoring of impact and risks.

Reflecting on the milestones on the road towards AI adoption, this report contextualises and offers advice on operationalising the intentions outlined in the Strategy for AI adoption in EU public administrations. Additionally, it offers a series of insights and recommendations designed to assist Member States and national and local administrations in charting the way forward, by adopting AI in ways that strengthen public value creation and keep people at the centre of public services.

Main contributions

The report makes three main contributions to support the adoption of AI and the implementation of the Strategy in EU public administrations.

First, it raises awareness of and elaborates on the pivotal role of the public sector in Europe's AI landscape. It examines the importance attributed to the public sector in the Strategy, highlighting the actions the Commission plans to pursue in the coming years.

Second, it proposes an AI adoption framework for EU public administrations, organised around three core activities: anchoring AI in EU regulations and priorities, adapting organisational and technological capacity and capabilities and applying AI in high-impact domains. This framework provides a clear pathway for effective, safe and trustworthy AI adoption.

Finally, it offers targeted recommendations for Member States and public administrations to help them prioritise actions, strengthen capacity and coordinate efforts across levels of government.

Related and future work of the Joint Research Centre

This report is published as part of the innovation of public services and digital transformation of governance (Innpulse) project [1] at the Joint Research Centre. For several years, the Innpulse project has been studying the adoption of AI in the public sector, and it has released a series of reports offering evidence-based insights and reflections. Since 2024, the project has served as the scientific partner to Public Sector Tech Watch (PSTW) [2], which monitors the adoption of AI and emerging technologies in the EU public sector. In this context, the Joint Research Centre continues its research on AI adoption in the public sector while also supporting the design, implementation and monitoring of related EU policies.

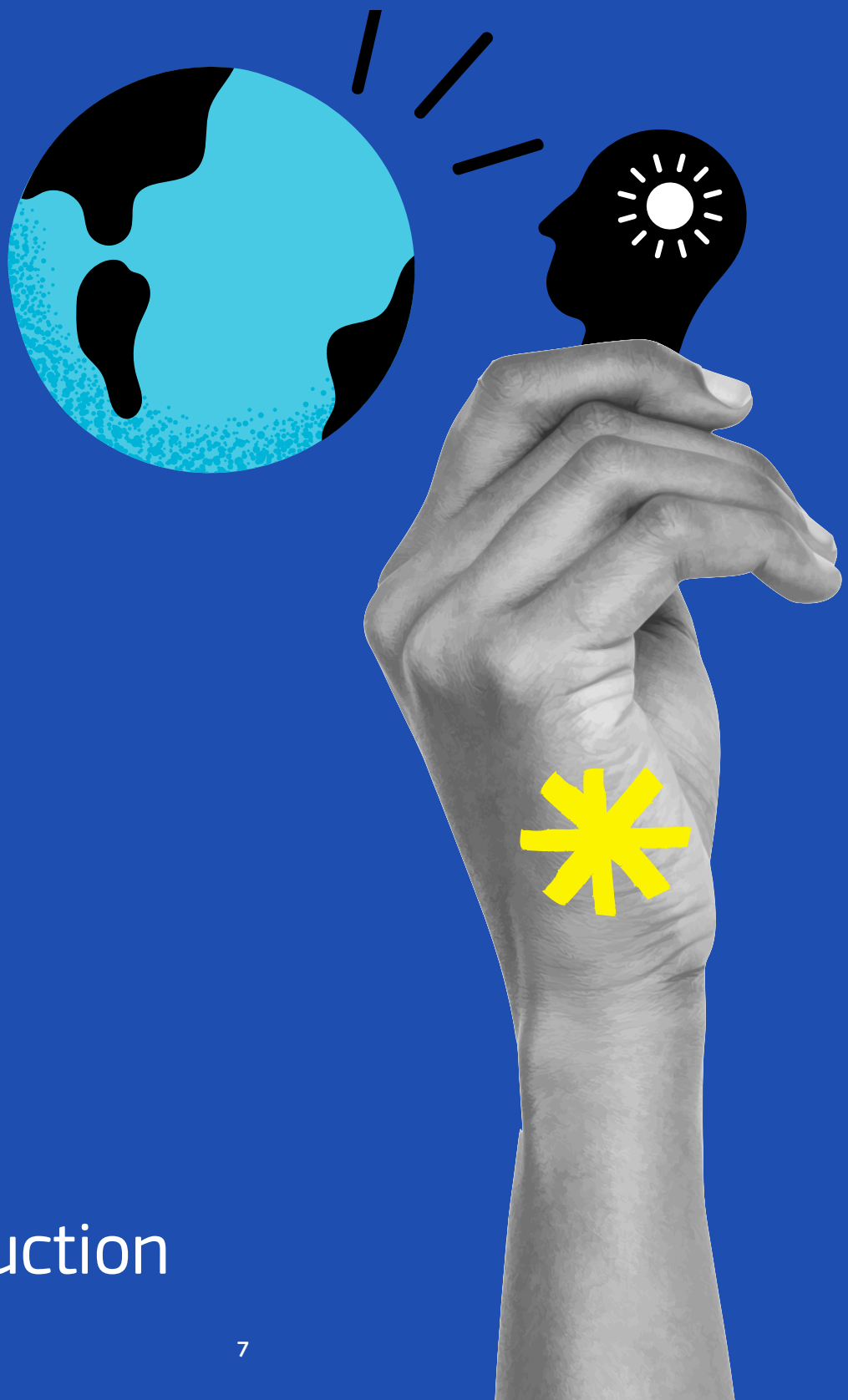
The report was developed in collaboration with the Directorate-General for Communications Networks, Content and Technology, responsible for the Apply AI Strategy, and endorsed by the Directorate-General for Digital Services, which will oversee most of the public sector-related actions set out in the Strategy. This multi-directorate collaboration reflects the Commission's efforts to strengthen the alignment between research and policy development.

Quick guide

Following an introduction (Chapter 1), the report first offers a concise overview of the Apply AI Strategy, with a focus on the implications for the public sector (Chapter 2). Second, it proposes a framework for AI adoption, supported by quantitative insights drawn from two public consultations (Chapter 3). Third, it outlines recommendations addressing the implications of the Strategy for public administrators (Chapter 4). The report concludes with final reflections (Chapter 5).

1. See the JRC web page 'Innovations in public governance'.

2. See the Public Sector Tech Watch area of the European Commission's Interoperable Europe portal.



1. Introduction

The Apply AI Strategy (COM(2025) 723), hereinafter referred to as 'the 'Strategy', is a policy document developed by the European Commission to encourage the adoption of artificial intelligence (AI) across key sectors in the European Union. The Strategy employs a bottom-up, sector-specific approach to align EU policies with the operational needs of strategic industries. Among these, the public sector stands out as a key area on which attention is to be focused, with the clear goal of positioning it a catalyst for AI adoption across the EU.

This report contextualises and offers advice on operationalising the intentions outlined in the Strategy for AI adoption in EU public administrations. It offers research findings, insights and recommendations for EU Member States and public administrations to support them on their AI adoption journey.

The report has two specific objectives. First, it aims to offer guidance on the approach to AI adoption to the public sector in the EU by proposing an **AI adoption framework for EU public administrations**. The framework builds on existing evidence and offers a clear and actionable approach to support the strategic adoption of AI for a more effective public sector. It also reinforces and supports the direction and priorities set out in the Strategy.

Second, it strives to support policymakers and public administrators in their journey towards AI adoption. To accomplish this, the report **provides reflections, ideas and recommendations** on how best to adopt AI in public settings, building on the intentions and policy actions set out in the Strategy.

2. The Apply AI Strategy and its implications for the public sector

In October 2025, the Commission published the Apply AI Strategy ([3]), further shaping the EU's policy approach to adopting AI across key sectors. This section provides the necessary context to understand its broader implications and its relevance to the public sector. For a detailed presentation of the Strategy, readers are invited to consult the text of the Strategy itself and the related *Science for Policy* brief analysing the European policy approach to AI (Rodriguez Müller et al., 2026).

2.1 What the Strategy is about

The Strategy outlines a comprehensive vision for AI applications in Europe. It begins by advocating for an **AI-first policy**, describing it as a new approach to problem-solving. Specifically, it highlights that organisations 'are encouraged to integrate AI building on European solutions' (COM(2025) 723, p. 1), urging them to reflect on their core business operations while considering the possibilities and demands of AI. Thus, the Strategy reflects both the broad potential of AI and the practical challenges of introducing it into current sectoral frameworks. It posits that realising the full benefits of AI hinges on partially redesigning production processes to align with AI's logic. Essentially, the AI-first policy fosters a proactive stance whereby organisations systematically assess the potential impacts – both opportunities and risks – of AI when making strategic or policy decisions. This might involve modifications to workplace organisation or industry practices.

Furthermore, the Strategy is structured around three main sections.

The first section focuses on **sectoral flagships**, identifying key sectors where AI is perceived to have significant transformative potential. For each of these sectors, the Strategy outlines targeted policy actions aimed at addressing existing challenges, boosting AI adoption and, ultimately, enhancing competitiveness and sovereignty.

The key sectors are healthcare, including pharmaceuticals; robotics; manufacturing, engineering and construction; defence, security and space; mobility, transport and automotives; electronic communications; energy; climate and environment; agri-food; cultural and creative sectors and the media; and the public sector. By including the public sector among these, the Strategy highlights the public sector's potential role as a powerful force in Europe's digital and societal transformation.

The second section is about **cross-cutting challenges**. It identifies policy actions to address challenges that extend across sectors. These key challenges are identified as enhancing opportunities for European small and medium-sized enterprises (SMEs), enabling an AI-ready workforce across sectors, supporting AI as a production factor and ensuring trust in the European market.

The third section focuses on the establishment of a **single governance mechanism**. It explains the overarching governance framework of the Strategy and the broader European mechanisms designed to support AI adoption. In particular, it establishes that there are three layers of governance: (1) the AI Observatory, a new initiative aiming to assess AI's impact in strategic sectors, monitor development and trends and support the organisation of sectoral discussions, (2) the Apply AI Alliance, envisioned as a coordination forum for stakeholders and policymakers and (3) the AI Board – already established under the AI Act (Regulation (EU) 2024/1689) – which will continue to serve as the main forum for discussion on AI adoption with Member States.

2.2 The Apply AI Strategy from a public sector perspective

The Strategy highlights the public sector as a key strategic sector to accelerate AI adoption in Europe. The section of the Strategy most critical to understanding the European Commission's approach and policy intentions is **Section 2**, specifically **subsection 2.11**, which focuses on the public sector.

3. Communication from the Commission to the European Parliament and the Council – Apply AI Strategy, COM(2025) 723 final of 8 October 2025, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0723.

The introductory paragraph highlights two key points. First, public administrations are urged to fully introduce AI into their processes, moving from treating AI as an 'isolated tool' to recognising it as a 'strategic asset integrated into institutions and services' (COM(2025) 723, p. 12). Second, they are encouraged to stimulate demand for European-made open-source AI solutions, with the aim of strengthening the European technological ecosystem and reinforcing EU digital sovereignty.

Following this introduction, the public sector subsection lists three flagship actions that the Commission will implement to boost AI adoption in public administrations, complemented by additional actions detailed in Annex 3 to the Strategy. The three flagship actions are as follows.

1. **Build an AI toolbox dedicated to public administrations.** This toolbox will include: (1) a repository of practical tools and solutions and (2) a practical pathway to guide public administrations on their AI adoption journey, referred to as the Public Sector AI and Interoperability Readiness Pathway (PAIR Pathway).

2. **Accelerate the adoption of European scalable and replicable generative AI (genAI) solutions in public administrations.** This will be implemented through a call for proposals as part of the GenAI4EU project [4] and will include the creation of a comprehensive technical and policy toolkit to support the adoption of generative and agentic AI solutions.

3. **Revise the European Interoperability Framework (EIF)** to incorporate guidance that supports the AI-first policy.

Beyond the flagship actions, the Strategy relies on an existing ecosystem of Commission initiatives that support monitoring, experimentation, funding and coordination for AI adoption in public administrations (see Box 1).

When reading the Strategy from a public sector perspective, it is important to consider this subsection together with the overall Strategy. Several objectives and actions outlined in other sections are closely interconnected with those specifically identified in subsection 2.11.

Sections 2 and 3 of the Strategy outline priorities that are directly relevant to the public sector. For instance, Section 2 addresses cross-cutting challenges, such as enhancing opportunities for European small and medium-sized enterprises (SMEs) and enabling an AI-ready workforce. The objective of strengthening European SMEs is linked to the public sector objectives because it also aims to stimulate the EU GovTech market, encouraging the adoption of innovative AI solutions developed within Europe by and for public institutions, while the priority of developing an AI-ready workforce and the related training initiatives required responds directly to the needs of the public sector, where AI competencies are still limited.

The final section of the Strategy, on the establishment of a single governance mechanism (**Section 3**), sets out a governance mechanism that encompasses the public sector. It consists of three layers: the Apply AI Alliance will gather stakeholders in sectoral workflows; the AI Observatory is expected to provide robust indicators to assess the impact of AI in all the listed sectors – therefore including the public sector – and monitor developments and trends; and, finally, the AI Board will 'continue to monitor national AI strategies and facilitate exchange of best practices among Member States, including for the public sector' (COM(2025) 723, p. 18).

Taken together, these elements show that the Strategy combines actions specifically targeting the public sector with broader enabling mechanisms across the EU AI policy framework.

4. The relevant call (DIGITAL-2025-AI-08 – 'Apply AI: GenAI for the public administrations') can be found in 'Digital Europe Programme (DIGITAL) – Call for proposals', 22 July 2025.

Box 1. European Commission initiatives on AI in the public sector.

Public Sector Tech Watch (PSTW). This observatory is a central Commission initiative to support the adoption of AI in the public sector. The main asset of PSTW is a repository of over 2 000 use cases on the use of AI and emerging technologies in the public sector. It also makes available a series of studies on the topic, as well as stories and opinion pieces. As indicated in the Strategy, it will remain a reference point for analysing the adoption of AI and sharing information on practices and initiatives.

EU GovTech [5]. In partnership with PSTW, the EU GovTech initiative aims to foster the European GovTech market. The initiative's main asset is a dataset holding over 900 EU GovTech companies. Companies can submit their profile via a form to be included in the dataset.

European Digital Innovation Hub (EDIH) Network [6]. The EDIHs will remain key centres for innovation and experimentation; they have been further steered towards functioning as AI experience centres and their focus on the public sector will be reinforced. They promote the use of AI in the public sector and facilitate the dissemination of information on existing and new initiatives, results and best practices that can help public administrations adopting AI solutions. This network will complement the Public Sector AI and& Interoperability Readiness Pathway in supporting public administrations throughout the AI adoption process.

AI on Demand platform [7]. The platform has been relaunched as a hub for sharing data, tools and code, to support mutual learning processes involving public administrations and private actors. It will work closely with PSTW to ensure access to all the necessary information and data for all stakeholders. It will also promote the AI toolbox envisaged in the Strategy and help public administrations in transitioning from pilot projects to full-scale implementation.

GenAI4EU [8]. A subset of the GenAI4EU pilot projects is dedicated to developing European generative AI solutions and to boosting the use of generative AI in the public sector by supporting public administrations in integrating this technology responsibly and effectively.

2.3 Roadmap towards the Apply AI Strategy

Since 2018, with the publication of the first communication dedicated to AI ('Artificial intelligence for Europe', COM(2018) 237), the Commission has progressively shaped the European approach to AI policymaking. This approach has evolved through distinct phases, detailed in a dedicated *Science for Policy* brief (Rodriguez Müller et al., 2026).

In summary, Europe has undergone a sustained process to determine its approach to AI, which can be understood as consisting of three phases.

5. See the EU GovTech area of the European Commission's Interoperable Europe portal.
6. See the European Commission web page 'European Digital Innovation Hubs Network'.
7. See the AI on Demand website.
8. See the European Commission web page 'GenAI4EU: Funding opportunities to boost generative AI "made in Europe"'.

1. **Exploration.** This phase focused on establishing guiding principles, outlining the policy framework and setting expectations regarding Member States' role and responsibilities.

2. **Transition.** During this period, the EU institutions and the Member States deliberated on translating policy ambitions into concrete initiatives, preparing the groundwork for operationalising the European approach to AI.

3. **Maturation.** In this phase, earlier ideas, intentions and ambitions were crystallised into a more tangible and clearer approach, expressed in three key policy documents.

The Apply AI Strategy is – at the time of writing – the most recent relevant policy document adopted by the European Commission, and it can be seen as an important part of this maturation phase. It should be read alongside the two other key documents intended to shape the European approach to AI: the AI Act and the AI Continent Action Plan.

Within this framework, the AI Act serves as the regulatory cornerstone. It is in effect an item of product safety legislation, and it introduces harmonised rules governing how AI can be marketed, deployed and used within the EU. It applies across sectors and domains and includes specific provisions covering general-purpose AI models.

The AI Continent Action Plan sets out the EU's strategic ambitions to become an 'AI Continent', grounded in EU values, high-quality research, industrial expertise and open innovation. Specifically, it charts the Commission's priorities for the coming years, including investment in computing infrastructure, high-quality data, AI adoption, skills development and regulatory compliance.

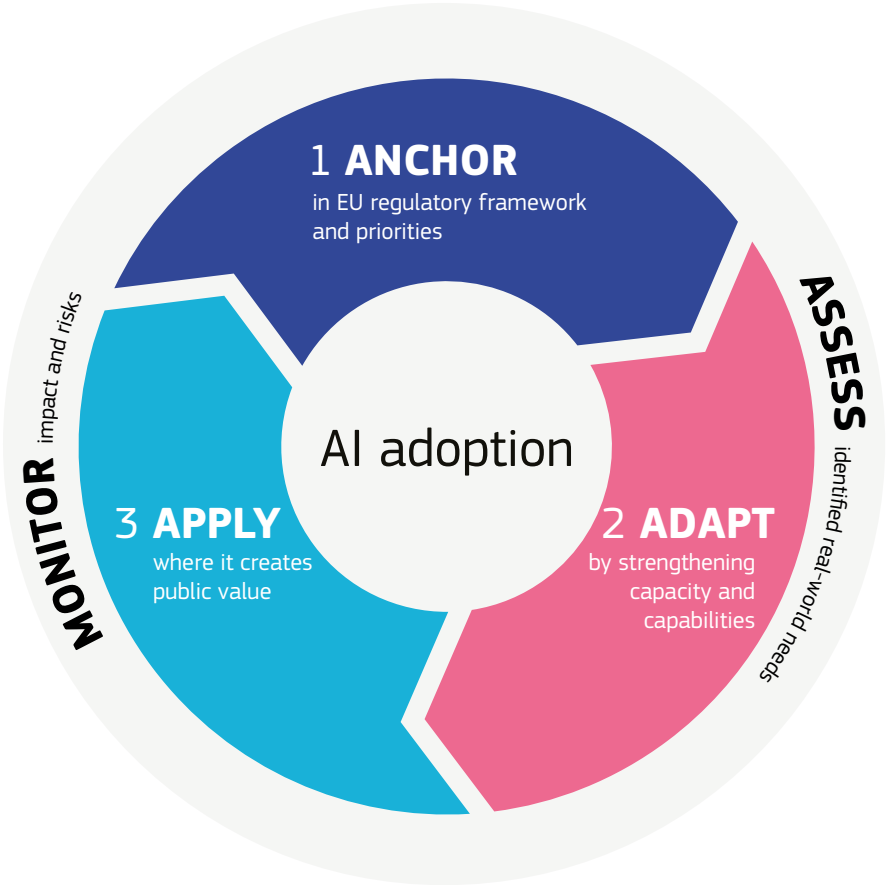
3. AI adoption framework for EU public administrations

The report proposes an AI adoption framework for EU public administrations. With a comprehensive legislative landscape in place and the technology becoming increasingly mature and accessible, public administrations are encouraged to accelerate AI adoption, positioning it as a strategic asset within their organisations, as emphasised by the strategy. To achieve this, a clear and structured approach is needed, taking into account the technology's characteristics, the European context and the specific features of the public sector.

The proposed framework aims to outline such an approach, thus supporting policymakers and public administrations in their AI adoption efforts. It offers guidance on how to introduce AI into existing processes and supports the implementation of the AI-first policy outlined in the Strategy.

The framework, illustrated in Figure 1, is structured around three core activities: **anchoring** AI in EU regulations, policies and values; **adapting** public administrations to ensure that they are adequately equipped for AI use; and **applying** AI in areas where it can create the most public value. These activities are guided by **assessment** of identified real-world needs and are embedded in a broader logic of continuous **monitoring**, ensuring that AI adoption responds to concrete operational demands and that its impact and risks are regularly reviewed (see Box 2 for guidance on how to engage with the framework).

Figure 1. AI adoption framework for EU public administrations.



Source: Authors.

Box 2. How to use the framework.

This framework is designed to help public administrations structure their reflections on AI adoption, whether exploring a new opportunity, addressing a specific problem or wondering where to begin.

The framework is organised around three core activities – anchoring AI in EU values and regulations, adapting organisational and technological capacity and capabilities and applying AI where it creates public value – embedded in a continuous logic of assessment and monitoring. These activities are interconnected, and different administrations will find different activities more or less relevant depending on their mandate, AI maturity and resources. It is above all a starting point and a source of inspiration, to be adapted to the specific needs and circumstances of each administration.

If you want to...	**Use...**
Find inspiration for where AI could make a difference	The **use cases** in Section 3.4 – browse them and identify what resonates with your context
Understand what conditions need to be strengthened	The **enabling factors** in Section 3.3 – use them as a baseline for self-assessment
Structure a team discussion or strategic reflection	The **framework as a whole** – it offers a shared language across technical, policy and management perspectives

3.1 Assess and monitor: ensuring a strategic approach to AI adoption

The external circle of the framework as shown in Figure 1 stands for a broader approach to AI adoption, aimed at helping to ensure its systemic integration. This element emphasises the underlying logic of the framework: AI adoption should be treated not as a series of isolated projects but as a continuous process that connects needs assessment, adoption and learning over time.

Public administrations are encouraged to pursue widespread adoption of AI. However, they should be wary of rapidly introducing AI solely to increase the number of AI applications. Given the current hype surrounding the technology, public administrations may face pressure to rapidly adopt AI due to external influences such as funding opportunities, political expectations or broader trends (Rodriguez Müller et al., 2025a).

Effective AI adoption begins with **identifying a clear real-world need and defining the problem to be addressed** (Tangi et al., 2025a, 2025b). These needs should be carefully assessed, with a focus on public value creation (Chen et al., 2023; van Noordt et al., 2023), trustworthiness and people-centric design (Grimmelikhuijsen, 2023; Tangi et al., 2023).

Alongside a needs assessment, public administrations might want to conduct a **readiness assessment** as a baseline and starting point for their AI adoption journey. Before committing to any AI initiative, administrations might take stock of their current state across the technological, organisational and contextual dimensions detailed in Section 3.3. This would include evaluating data governance and infrastructure, internal competencies and governance arrangements and the broader environment in which the administration operates. Such a readiness assessment does not need to

be exhaustive: it should be proportionate to the scope of the intended AI initiative and focused on identifying the most significant gaps and strengths. Its purpose is to ground the adoption process in an honest and evidence-based understanding of what is already in place and what will need to be built or strengthened before moving forward.

Monitoring is equally important. Throughout the adoption process – and after deployment – public administrations should monitor whether AI solutions are delivering the intended public value, tracking progress through key performance indicators, and deciding if adjustments are needed.

By combining needs assessment with a readiness baseline, public administrations can introduce AI in a deliberate and strategic way. This dual assessment logic – understanding both the problem to be solved and the organisation's current capacity and capabilities to address it – helps ensure that AI adoption will result in the expected public value, increases effectiveness and efficiency and reduces the risk of adopting technology as an end in itself.

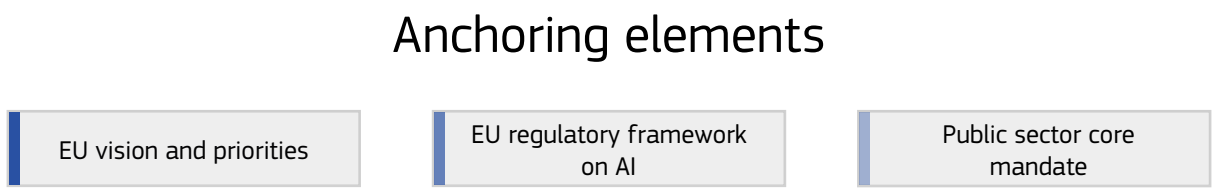
3.2 Anchoring AI in the EU regulatory framework and the EU's priorities

In pursuing the benefits of AI, it is crucial to adopt a measured and responsible approach. AI adoption should be firmly rooted in the existing EU policy and regulatory framework and in the values that shape both the European approach to AI and the specific mandate of the public sector. This alignment helps ensure that AI adoption serves the European public interest.

The framework identifies three dimensions in which AI adoption should be anchored: (1) the public sector core mandate; (2) the EU regulatory framework on AI and (3) the EU's vision and priorities (Figure 2).

These elements should not be seen as an additional administrative burden or as obstacles to innovation. Rather, they provide a stable foundation for designing and deploying AI solutions in public administrations. They should be considered from the outset of any AI project and integrated into each stage of development and adoption.

Figure 2. Anchoring elements for AI adoption in EU public administrations.



Source: Authors.

3.2.1 THE PUBLIC SECTOR CORE MANDATE

The adoption of AI in public administrations requires careful consideration of the specific mandate and responsibilities of the public sector. While AI is often introduced to increase operational efficiency and effectiveness, public administrations must ensure that its adoption supports the public sector's primary mission, which is to create public value by addressing collective needs and safeguarding fundamental rights and the well-being of society.

First, public administrations are responsible for providing high-quality services to all citizens, ensuring inclusivity and non-discrimination. This is reflected in the principle of **'leaving no one behind'**. AI solutions should therefore be designed and deployed in ways that promote fairness, accessibility and equal treatment, including for marginalised and underserved communities.

There may be tension between the goals of public administrations and certain characteristics of AI. AI solutions can inherently have a margin of error, and by their nature they may lead to unexpected outcomes. While the risks vary depending on the specific application, they need appropriate governance and oversight.

Transparency is another core element of the public sector mandate. While transparency obligations are set out in the AI Act for specific AI applications across sectors, transparency is particularly important in the public sector context. Public administrations have a duty to provide clear details about the data, processes and decision-making involved in AI solutions, enabling individuals to understand and trust these solutions and how they are used by public administrations. This requires public administrations to make available information on the AI algorithms, models and solutions that they use (Grimmelikhuijsen, 2023).

Clear communication is essential to ensure **accountability** and support public trust. In practice, this might include mechanisms such as algorithmic registries providing accessible information about AI solutions used in public services.

Proportionality should also guide decisions on whether and how to adopt AI. The scale, complexity and intrusiveness of AI solutions should correspond to the public need they address. AI should therefore be adopted only where it provides demonstrable added value compared with less complex or less resource-intensive alternatives.

Proportionality also requires a long-term perspective. Public administrations should assess environmental, social and economic sustainability across the life cycle of the AI solutions they are considering. This might involve considering energy consumption, supply chains and long-term operational impacts. By assessing expected benefits against potential environmental and societal costs, public administrations can ensure that resource consumption and potential externalities are justified. Anchoring AI adoption in proportionality and sustainability strengthens accountability and supports the long-term creation of public value.

3.2.2 THE EU REGULATORY FRAMEWORK ON AI

Since the advent of AI as a strategic policy issue, the EU has embarked on a journey to set up a distinct approach to AI adoption, ensuring that fundamental rights are neither compromised nor overshadowed by economic interests (see Rodriguez Müller et al., 2026).

Public administrations are now deeply engaged in the adoption phase, during which AI must be fully integrated into public operations, as noted in the Strategy. However, the AI solutions adopted need to be anchored in the principles, policies and regulations that underpin the EU approach to AI.

The central anchoring element in the EU approach to AI is its **regulatory framework**. In particular, the AI Act constitutes the core and overarching legislative framework for AI adoption within the EU. The act is having, and will increasingly have, profound implications for public administrations as it becomes fully operational. It applies across sectors and includes specific obligations that apply in providing or using AI systems that fall under the high-risk category, including obligations relating to '[a]ccess to and enjoyment of essential private services and essential public services and benefits' (Annex III to the AI Act).

Beyond binding regulation, the EU has also articulated a series of guiding principles for AI adoption, which are fundamental to the European approach to AI. These principles, first consolidated in the work of the High-Level Expert Group on AI ([9]), have shaped the development of later legislation, including the AI Act. Public

9. See the European Commission webpage 'High-level expert group on artificial intelligence'.

administrations should take these principles into account when designing, procuring and adopting AI solutions.

Taken together, EU legislation and guiding principles provide the normative framework within which AI adoption in the public sector must take place.

3.2.3 THE EU'S VISION AND PRIORITIES

AI adoption should also be considered in the light of the current geopolitical context and the EU's broader vision and priorities.

Recent policies, such as the Competitiveness Compass, emphasise the need to strengthen **EU digital sovereignty and competitiveness**. Among other goals, this will entail addressing the innovation gap between the EU and other global actors, particularly the United States and China, and investing in the growth of the European market.

Digital sovereignty can be understood as 'the EU capacity to exercise its independence in the digital domain while remaining open and connected to global networks' (Di Marco et al., 2025, p. 2). It is relevant to reducing vulnerabilities in the economic, security and technological domains and to strengthening Europe's competitiveness. As highlighted in a recent European Parliament resolution (European Parliament, 2026), technological sovereignty aims to guarantee EU independence and security by protecting our strategic infrastructure and reducing our dependence on non-European technology providers.

This broader vision should influence how public administrations in the EU operate, not only as facilitators of market growth but also as users and procurers of technology. In this context, **prioritising EU-made solutions** is increasingly seen as relevant. This approach aims to strengthen the EU digital single market and the European GovTech ecosystem (Niehaves et al., 2024), thereby contributing to EU sovereignty.

The Strategy explicitly states: 'Public administration can benefit from the AI first policy … by helping AI startups grow through increased demand for European-made open source AI solutions. This, in turn, can strengthen EU AI sovereignty' (COM(2025) 723, p. 12).

In line with this direction, a recent European Parliament resolution suggests that specific award criteria in public procurement may be promoted in areas where critical dependencies exist, with a view to incentivising competition and strengthening European technological sovereignty (European Parliament, 2026).

In addition to market considerations, buying EU-made solutions may also provide direct benefits for public operations. **Reducing dependence on foreign technologies** can result in greater control over data and infrastructure, improved alignment with EU regulatory standards and reduced dependency on opaque AI models developed by private companies outside the EU. This aligns with the goal of mitigating the risk to democracy posed by a shift in decision-making power to entities beyond the EU's borders (for an in-depth exploration of this topic, please refer to Tangi et al., 2026b).

The **European Declaration on Digital Rights and Principles** (2023) further expresses this vision, affirming that everyone should have access to digital public services designed to meet people's needs and that AI and algorithmic systems should not be used to pre-empt people's choices ([10]). These principles ground the competitiveness and sovereignty objectives discussed above in a commitment to human-centred AI adoption.

10. European Declaration on Digital Rights and Principles for the Digital Decade 2023/C 23/01 (OJ C 23, 23.1.2023, p. 1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:-JOC_2023_023_R_0001).

3.3 Adapting public administrations by strengthening capacity and capabilities

Adopting AI responsibly requires a thorough assessment of enabling factors to ensure the accurate and effective adoption of AI and its ethical use and transparency.

AI should be introduced only when both the administration and its surrounding environment are adequately prepared. This includes ensuring that the necessary technological, organisational and contextual factors are in place, creating a foundation for sustainable and responsible use of AI (Grimmelikhuijsen et al., 2024; Medaglia et al., 2024; OECD, 2025). By taking these preparatory steps, public administrations can mitigate risks, strengthen internal capacity and foster public trust.

To effectively embrace AI, public administrations should adopt a holistic approach, rather than focusing on individual use cases. The goal is to become 'AI ready' by strengthening overall capacity and capabilities (OECD, 2025; Tangi et al., 2025a).

This process requires public administrations to adapt to the new technological wave by re-evaluating their internal structures, investments and working practices. For instance, in relation to the workforce, public administrations should assess which skills and roles are becoming more relevant and where new competencies are needed (Medaglia et al., 2024). Similar assessments should be made as regards data governance, infrastructure, funding mechanisms and other enabling resources.

The overarching goal is to ensure a stable and adequate allocation of both economic resources (funding) and non-economic resources (infrastructure, human resources, etc.) to support the development of AI-enabling factors (Maragno et al., 2023; OECD, 2025).

This process of **adaptation** is closely linked to the AI-first approach set out in the Strategy. Once needs have been identified, public administrations must take steps to adapt the current realities as necessary to enable them to fully harness the potential of AI.

We distinguish three categories of enabling factors, each critical to this adaptation process: technological, organisational and contextual (Figure 3; see Box 3 for evidence on perceived challenges from the public consultations).

Figure 3. Enabling factors for AI adoption in EU public administrations.

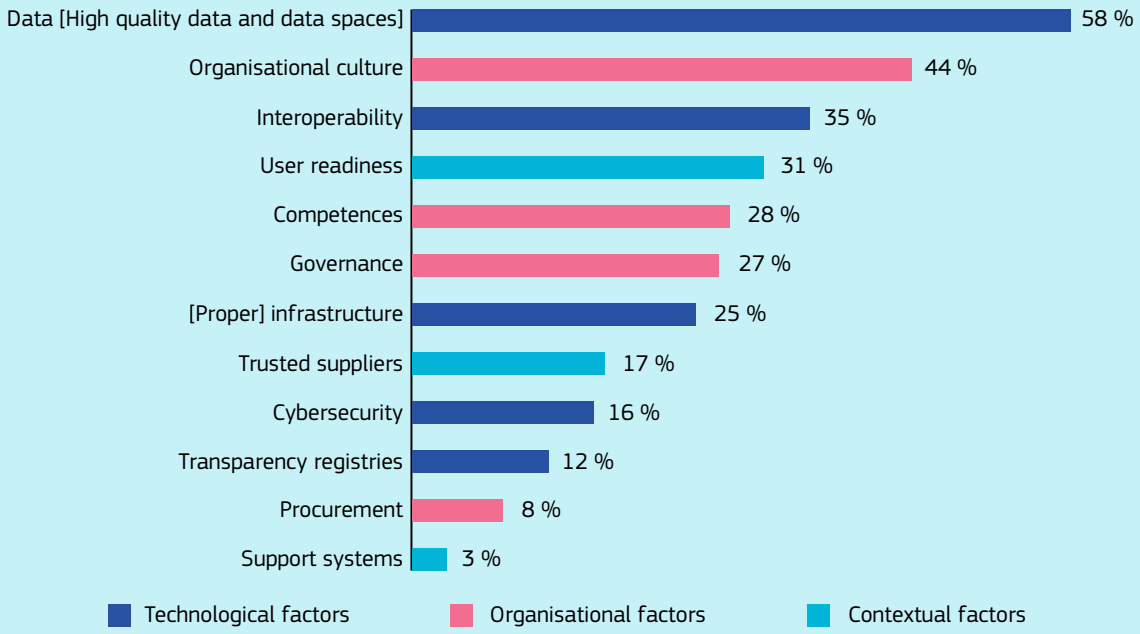
Enabling factors

Technological factors	Organisational factors	Contextual factors
Data Infrastructure Cybersecurity Interoperability Transparency registries	Organisational culture Governance Competences Procurement	User readiness Trusted suppliers Support systems

Source: Authors.

Box 3. How challenging will it be to put each of the enabling factors in place? Evidence on perceptions from the public consultations.

Figure 4. Perceived extent of challenges related to achieving enabling factors for AI adoption.



Source: Authors.

NB: Respondents were asked 'Which of the enabling factors do you expect will be the most challenging to obtain?' (multiple answers allowed) n = 119.

Participants in the public consultations (see Annex for details) were asked to determine which enabling factor would be the most challenging to put in place (Figure 4).

The results show that all three categories of enabling factors present significant challenges. In particular, the factor perceived as most challenging is the availability of high-quality data and data spaces (58 %). This is followed by organisational culture (44 %) and interoperability (35 %). The contextual factor perceived as most challenging is user readiness, highlighted by the 31 % of the respondents as particularly challenging. Factors perceived as less challenging include support systems (3 %), procurement (8 %) and transparency registries (12 %).

3.3.1 TECHNOLOGICAL FACTORS

In the adoption of AI, several technological factors are critical to success. The systemic integration of AI into public administrations involves ensuring that they have in place the necessary technological factors to serve as the foundation for AI development and functionality. Adopting AI requires evaluating whether all essential technological components are in place and of sufficient quality to ensure that the system runs effectively and in a secure and sustainable way. Quality extends beyond technical specifications like storage capacity and processing speed; a strategic assessment of the infrastructure's criticality and accessibility is also needed. This includes thoughtful consideration of factors such as cloud services, adherence to industry standards and technology provider choice, ensuring that these elements align with the public administration's long-term goals and objectives, as well as the EU's vision and priorities.

The framework identifies some of the most relevant technological enabling factors, namely data quality, infrastructure, cybersecurity, interoperability and transparency registries, each of which plays a unique role in ensuring that AI is effective, secure and trustworthy (Janssen et al., 2020; Maragno et al., 2023; Neumann et al., 2022; OECD, 2025). Below is a more detailed overview of these factors.

- **Data.** Access to accurate, reliable and comprehensive data is fundamental for AI solutions to function effectively. Establishing robust and well-governed data spaces is crucial to support AI adoption.

- **Infrastructure.** Reliable and scalable infrastructure is necessary to support AI adoption and ensure efficiency, flexibility and sustainability. From a public sector perspective, infrastructure choices should also consider sustainability considerations, including energy efficiency and environmental impact.

- **Cybersecurity.** Ensuring robust cybersecurity measures is critical to protect AI systems, underlying infrastructure and data from cyber threats. This is paramount to preserve system integrity, ensure continuity of public services and maintain public trust.

- **Interoperability.** AI solutions must be able to interact effectively with existing technologies and platforms, to allow for seamless integration and functionality. Interoperability spans technical, semantic, organisational and legal dimensions. The development and use of common standards are key to enable this integration. The revised EIF, as announced in the Interoperable Europe Act and referred to in the Apply AI Strategy, will serve as a useful resource, enabling public administrations to embrace an **interoperable by design** approach.

- **Transparency registries.** Tools such as algorithmic registries play an important role in informing citizens about the AI solutions used by public administrations, thereby strengthening accountability and building trust.

3.3.2 ORGANISATIONAL FACTORS

Adopting AI in public administrations requires organisational shifts (Grimmelikhuijsen, et al., 2024; Maragno et al. 2022). Key factors include fostering a culture of innovation, establishing strong AI governance for ethical decision-making, developing the necessary AI competencies and adapting procurement processes (Grimmelikhuijsen et al., 2024; Medaglia et al., 2024; OECD, 2025; UNESCO 2022). Each of these elements contributes to the responsible and effective use of AI (Mikalef et al., 2023; Neumann et al., 2022; Tangi et al., 2025a). The organisational enabling factors identified are discussed further below.

- **Organisational culture.** A culture that embraces innovation and learning is essential for the adoption of AI. This includes openness to change, willingness to experiment and continuous learning. AI often requires new ways of working, new forms of collaboration and a fresh approach to technology (Mahroof et al., 2025; Maragno et al., 2022), all of which require a cultural shift within the organisation (Tangi et al., 2025a). Cultural change takes time and should be supported by leadership and clear communication.

- **Governance.** Clear internal governance arrangements are necessary to guide the ethical and effective use of AI in decision-making processes (Medaglia et al., 2024; OECD, 2025). Putting such arrangements in place may entail establishing dedicated AI strategies for development and adoption, clearly establishing roles and responsibilities, creating oversight mechanisms and promoting collaboration (Rodriguez Müller et al., 2025b).

- **Competencies.** Building AI-related competencies within public administrations is necessary to ensure that staff can effectively manage and work with AI (Medaglia et al., 2024; UNESCO, 2022). This may require the development of competency-based job profiles, targeted recruitment, and upskilling and continuous training.

- **Procurement.** Procurement processes should facilitate the acquisition of AI solutions that meet functional and performance needs while complying with ethical and regulatory requirements. This will require the integration of appropriate technical specifications, contractual safeguards and evaluation criteria into procurement procedures. Interoperability requirements should be embedded in technical specifications from the outset, ensuring that AI solutions procured by public administrations are interoperable by design.

3.3.3 CONTEXTUAL FACTORS

The final set of factors concern the broader environment in which public administrations operate. To fully leverage AI's potential, not only must administrations be prepared internally, but the wider context must also be conducive to AI adoption.

Citizens' attitudes and expectations play an important role. Public administrations should monitor and understand users' readiness to interact with AI-based services and understand their concerns and expectations (Grimmelikhuijsen et al., 2024; OECD, 2024). Collaboration with trusted suppliers and partners is essential to facilitate experimentation with and adoption of AI (Maragno et al. 2023; Medaglia et al., 2024). In addition, a clear understanding of the regulatory framework is necessary to ensure compliance and reduce uncertainty (Mikalef et al., 2022). Contextual factors, such as political expectations or funding opportunities, may also influence decisions regarding AI adoption (Madan et al., 2024; Rodriguez Müller et al., 2025a). These external factors should be acknowledged and considered when deciding on the AI adoption approach (Chandra et al., 2025). The following contextual factors are identified in the framework.

- **User readiness.** Public acceptance and understanding of AI are crucial for its successful adoption. Engaging citizens and assessing their readiness to interact with AI solutions can help ensure responsible adoption.

- **Trusted suppliers.** Collaborating with reliable and ethical suppliers contributes to the integrity and quality of AI solutions.

- **Support systems.** Establishing strong support systems and networks, including partnerships with other organisations and stakeholders, can facilitate knowledge sharing and resource pooling.

3.4 Apply AI where it creates public value

The AI adoption framework outlined above highlights the conditions that need to be met to effectively adopt AI in EU public administrations. With AI becoming more mature and accessible, many examples show its potential to improve internal processes and enhance service delivery (European Commission: Directorate-General for Digital Services, 2024). Such examples can help in creating the momentum to move beyond experimentation and accelerate AI adoption in the public sector context (OECD et al., 2024).

This is where the Strategy comes in, introducing the 'AI first policy', and with it a set of initiatives designed to support AI adoption in the public sector. It also establishes a clear European governance mechanism to facilitate and coordinate this transition at the European level.

As part of this process, public administrations should pinpoint areas where AI can be applied, focusing on their specific needs and identifying domains where AI can deliver the most value (European Commission: Directorate-General for Digital Services, 2024; OECD, 2025).

To support this prioritisation, this report identifies **key AI application fields** [11] **and use cases** [12] **where AI shows significant potential for public value creation**. The methodology used to identify them is described in Box 4, and there are more in details in Annex.

Box 4. Methodology for the selection of application fields and use cases.

The identification of the application fields and use cases was carried out following a rigorous methodology, briefly described here, with more details reported in Annex.

The first step involved analysing the PSTW database, which provides a comprehensive overview of over 1 600 cases of AI adoption ([13]). The aim was to discover recurrent patterns and similarities among the cases collected. Similar cases were grouped together and abstracted from their specific contexts to identify a set of distinct use cases.

The second step involved reflecting on current trends and emerging AI applications. The PSTW database contains historical data, which may emphasise more established technologies; therefore, it was essential to also consider recent developments to ensure that the selection of use cases was forward looking. The use cases were then grouped into application fields.

Third, the proposed use cases and application fields were discussed in two public consultations, where participants graded their relevance, complexity and completeness. After each of the consultations, the list of use cases and application field was revised. The results of and details on these consultations are reported in Box 3, Box 5 and Annex.

Finally, the proposed list was reviewed in collaboration with European Commission policy directorates-general. This enabled us to gather their opinions on the list and refine it through an internal assessment process, to ensure alignment with EU policy priorities.

The result of this exercise is a list of three application fields, each encompassing a set of use cases (Figure 5; see Box 5 for consultation findings on expected impact and scalability). The application fields are as follows.

1. **AI-enhanced administration.** AI solutions aimed at reducing administrative burdens and increasing internal efficiency.
2. **AI-enabled people-centric public services.** AI solutions that transform interactions between public administrations and citizens, businesses and other stakeholders.
3. **AI-assisted policymaking.** AI solutions that support analysis, generate useful recommendations and facilitate evidence-based policymaking processes.

11. Application fields are defined here as broad functional domains of public sector activity within which related AI use cases are situated, classified according to their institutional purpose and area of impact. Application fields therefore operate at a higher level of abstraction than use cases: a case of AI adoption falls within a particular application field according to the primary function of public administration that is being supported or transformed.

12. Use cases are defined here as clearly delineated scenarios in which an AI solution is applied to perform a specific task in order to achieve a clearly identifiable objective. Use cases represent the practical manifestation of AI adoption within a specific application field. Each use case is analytically distinct and refers to a single type of functionality, irrespective of the specific technical solution used.

13. See 'Cases viewer' in the Public Sector Tech Watch area of the European Commission's Interoperable Europe portal (last accessed 31 January 2026).

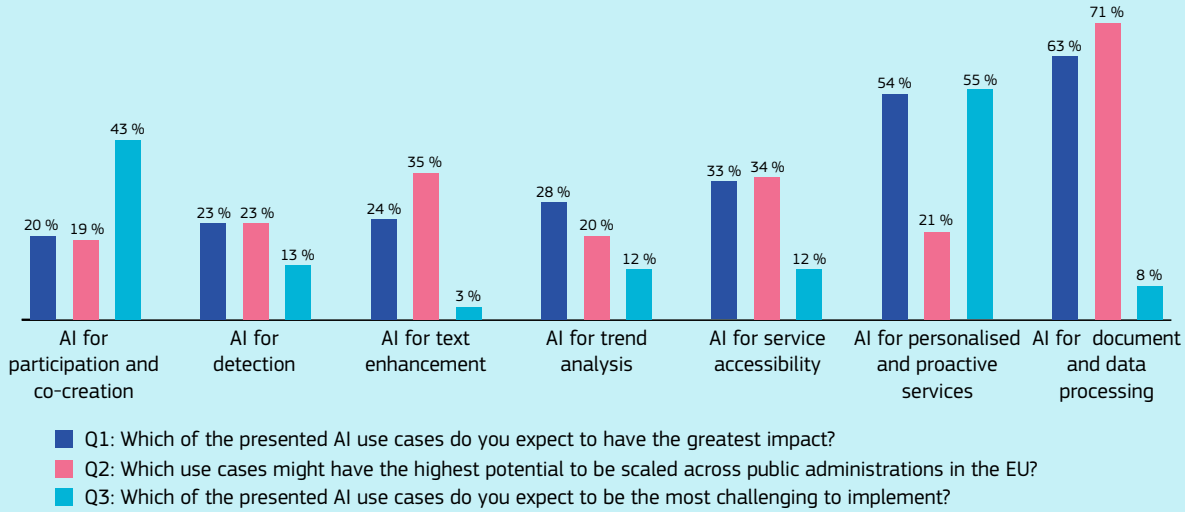
Figure 5. AI application fields and use cases in public administration.

AI-enhanced administration	AI-enabled people-centric public services	AI-assisted policy making
→ AI for text enhancement	→ AI for service accessibility	→ AI for data exploration
→ AI for document and data processing	→ AI for personalised and proactive services	→ AI for trend analysis
→ AI for detection	→ AI for participation and co-creation	→ AI for evidence-based policy-drafting
→ AI for detection and decision making	→ AI for service engagement	→ AI for policy assessment and alignment
→ AI for learning		

Source: Authors.

Box 5. Public consultations: impact, scalability and difficulty of adoption of the use cases.

Figure 6. Expected impact and scalability of the use cases and perceptions of how challenging they might be to adopt.



Source: Authors.

NB: Question 1: E_1 (Event 1), n = 84; E_2 (Event 2), n = 35. Question 2: E_1, n = 70; E_2, n = 32. Question 3: E_1, n = 72; E_2, n = 42.

For a subset of use cases in the context of the public consultations (see Annex for the full methodological description), participants were asked to evaluate the different use cases by indicating their expected impact, scalability and difficulty of adoption (Figure 6).

Overall, from the participants' responses, AI for data and document processing ([14]) emerged as the use case from which most was expected in terms of both potential impact (63 %) and scalability across organisations (71 %), and its adoption was expected to pose a relatively low level of challenges. This may be because documents are a primary resource to be managed and processed within public administrations. Conversely, a use case like AI for personalised and proactive services is seen as offering strong potential impact (54 %) but is constrained by challenges related to scalability (55 %). Other impactful use cases identified include AI for trend analysis (28 %) and AI for service accessibility (33 %).

14. During the public consultations, the use case was labelled 'AI for document processing'.

3.4.1 AI-ENHANCED ADMINISTRATION

This application field includes AI solutions designed to reduce administrative burdens, boost internal efficiency and strengthen organisational resilience. AI can also support the decision-making process, for example by detecting inconsistencies or eligibility issues in the implementation of public programmes.

However, several challenges remain to be addressed in this field. These include fragmented data sources within the public sector, limited access to reliable AI solutions, a shortage of AI expertise and insufficient ongoing skills development in public administrations.

Five use cases were selected to illustrate how AI can streamline administrative processes (Figure 7).

Figure 7. Use cases in the AI-enhanced administration application field.

AI-enhanced administration

- → AI for text enhancement
- → AI for document and data processing
- → AI for detection
- → AI for detection and decision making
- → AI for learning

Source: Authors.

AI for text enhancement. AI can significantly **enhance written content** by increasing clarity and improving grammar and style. For instance, AI writing assistants analyse text to suggest corrections for grammatical errors, offer synonyms to improve word choice and provide style recommendations to ensure that writing is consistent and polished. This can reduce drafting time and increase consistency across administrative documents.

> Example: **Open-source GenAI for public administrations**
>
> The GenAI solution F13, developed by a start-up, serves as a German alternative to OpenAI's ChatGPT, targeting government, administration and industry. The Baden-Württemberg public administration innovation lab introduced this generative AI text assistance for state administration to alleviate employee workload. It offers text workflow optimisation features, including a summary function for text compression, cabinet template notes for summarising cabinet documents, a research assistant for handling large information sets and the Vermerkomat function for generating texts. Since 2024, all employees with access to the state administration network have had full use of the solution.
>
> Reference: PSTW-2195.

AI for document and data processing. AI can improve **document and data management** by automating tasks such as data extraction, classification and routing. For example, public administrations can leverage AI algorithms to automatically extract relevant information, such as names, numbers, amounts and dates, from input documents, even if they are scanned or unstructured. The solution then classifies these documents by sender and routes them to the appropriate department for processing, potentially reducing manual workload and errors.

Example: **AI for thematic document classification**

To boost efficiency and transparency, streamline processes and enhance public services, the website of the *Official Barcelona Provincial Gazette* (*Butlletí Oficial de la Provincia de Barcelona*) has introduced the AI-based solution Cidobot to automate summaries. This initiative provides access to public information in compliance with state and Catalan transparency laws, using platforms like the gazette website and the official information and documentation search engine (Cercador d'Informació i Documentació Oficials). Cidobot, an AI solution, employs neural networks to classify publications in the official gazette by thematic or procedural area. This innovation has improved the quality and increased the efficiency of public services by simplifying publication classification and summary writing, thereby increasing governmental transparency and improving the user experience.

Reference: PSTW-2169.

AI for detection. AI can monitor data in real time to **detect and report** unusual events or conditions. This capability is particularly relevant in areas such as cybersecurity, where AI solutions can identify anomalies in network traffic and alert administrators to potential threats, enabling timely responses. AI can also support **detailed examination** of images to identify anomalies or patterns that may show maintenance needs, security risks or areas requiring policy intervention. In many public administrations, AI inspection solutions can analyse location-based images and trigger smart alerts, supporting more precise monitoring, greater coverage and reduced physical effort and time consumption for staff.

Example: **AI for spotting undeclared swimming pools**

The French tax office has implemented an AI-driven computer vision system to verify whether homeowners have declared their swimming pools. This initiative led to the identification of over 20 000 residential swimming pools that had previously gone undeclared, resulting in an additional EUR 10 million in tax revenue. This approach is also helping the government to identify other undeclared architectural features, such as annexes and verandas. The software automatically detects pools in aerial photographs by identifying features like blue rectangles and cross-references these findings with real estate and tax databases. If a pool is found at an address not registered in the records, a procedure is started to determine whether the owner is in violation of tax regulations.

Reference: PSTW-887.

AI for recommendations and decision-making. AI can process complex and heterogeneous data to generate recommendations that **support human decision-making**. It can support prioritisation of actions, allocation of resources and optimisation of solutions based on predefined objectives, increasing the consistency, precision and speed of decisions across different governmental functions.

Example: **AI for smart public employment services**

EMi (Emprego Intelixente, or 'Smart Employment') is an AI-powered tool deployed across all employment offices of Galicia's public employment service, Emprego Galicia, in Spain. The solution combines data analytics, labour market intelligence and AI to build competency-based profiles of jobseekers and companies, generating personalised recommendations that support career counsellors in their advisory role. By identifying skills gaps, matching candidates to relevant job openings and training opportunities and providing territorial labour market forecasts, EMi equips counsellors with richer information to help jobseekers and employers make better-informed decisions. The tool continuously improves by learning from anonymised user interactions, while ensuring that final decisions remain with the human professionals involved.

Reference: PSTW-2167.

AI for learning. AI can support internal staff by enhancing job performance and **facilitating continuous learning**. For instance, virtual assistants can offer employees immediate access to internal policies and procedural guides, supporting comprehension and learning. Likewise, intelligent question-and-answer solutions can address employee queries in real time, providing personalised support and minimising the need for extensive training sessions. This approach enables staff to swiftly adapt to new processes and supports productivity.

Example: **AI for improving access to public documentation**

To effectively carry out all their duties, civil servants often consult a substantial amount of information stored in public administration documents. To make this process more efficient, the Berlin Senate Chancellery and City LAB Berlin developed Parla, an AI assistant that generates response suggestions by extracting information from over 11 000 files held on the parliamentary documentation website. The general objective of the project was to streamline research using the Berlin public administration's documentation by minimising manual search.

Reference: PSTW-2252.

3.4.2 AI-ENABLED PEOPLE-CENTRIC PUBLIC SERVICES

This application area focuses on AI solutions that can transform and enhance the interaction between public administrations and citizens, businesses and other stakeholders, with the aim of improving service delivery and user experience. AI-driven interfaces, including chatbots, voice assistants and recommendation systems, can improve service accessibility and inclusivity, particularly benefiting users with disabilities, facing language barriers or affected by limited digital literacy. As services become more automated, it is crucial to maintain transparency, human oversight and accountability, in order to uphold public trust and meet auditability standards, in accordance with the requirements of the AI Act.

Four use cases were selected to illustrate how AI can enable people-centric public services (Figure 8).

Figure 8. Use cases in the AI-enabled people-centric public services application field.

AI-enabled people-centric public services

- AI for service accessibility
- AI for personalised and proactive services
- AI for participation and co-creation
- AI for service engagement

Source: Authors.

AI for service accessibility. AI can play a crucial role in improving public service accessibility by **breaking down language and communication barriers**. For instance, automated translation services can instantly convert documents, websites or spoken interactions into multiple languages, enabling non-native speakers to access important information and services. In addition, voice interfaces powered by AI enable users with visual impairments or limited literacy skills to interact with services through spoken commands. Thus, AI can make services more inclusive by removing linguistic, sensory or cognitive barriers that prevent people from accessing or operating public services in the first place. The primary goal of AI for service accessibility is to widen who can reach and use a service, rather than to sustain ongoing interaction or guide users through multi-step processes over time.

Example: **AI for social claims**

AIM is an AI solution that helps users anonymously determine what state benefits they are eligible for and provides personalised advice. The solution simplifies access to state support by calculating individual claims based on a single form. Social workers and counsellors can also use the application to guide clients through the process, saving time during consultations. The project aims to break down barriers to government support services, reducing linguistic and bureaucratic challenges. AI, including machine learning and natural language processing, powers the solution's interactive forms, dynamic data extraction and multilingual capabilities, ensuring seamless access to financial aid.

Reference: PSTW-2398.

AI for personalised and proactive services. AI can enhance public services by analysing individual needs and data to **deliver personalised and anticipatory experiences**. For example, AI algorithms can assess a user's past interactions and preferences to suggest relevant services, such as recommending specific healthcare programmes or educational resources. By anticipating future needs, AI can proactively send reminders for upcoming deadlines or suggest actions to users, ensuring that they receive timely and relevant support without having to seek it out themselves.

Example: **AI for proactive administrative procedures**

To reduce the effort required of citizens, a pilot programme has been launched in Catalonia in collaboration with universities to explore the use of AI in proactive public services. Examples of the services being piloted include automatically applying annual property or water tax discounts without requiring any action of citizens and pre-filling applications for school lunch aid, which then require just a click for confirmation. These initiatives aim to alleviate administrative burdens on citizens, ensuring that they do not have to worry about missing application deadlines or repeatedly filling out the same forms. The goal is to direct public resources to those in genuine need, rather than those who are simply adept at navigating bureaucracy.

Reference: PSTW-1071.

AI for participation and co-creation. AI can **empower citizens to actively participate** in the design and improvement of public services and policies by contributing ideas or feedback. For example, a city government might use an AI-driven platform to collect and process large volumes of citizen input on urban development projects, automatically clustering similar suggestions, identifying recurring themes, detecting conflicting needs and summarising findings for decision-makers. In more advanced configurations, such platforms can be combined with digital twin solutions, enabling citizens to visualise the potential impact of proposed changes on their neighbourhood before providing feedback. This collaborative approach can make public services more responsive and better aligned with the actual needs of the community, fostering a sense of ownership and engagement among citizens.

Example: **AI for participatory urban co-design**

The City of Helsinki used the UrbanistAI platform to involve residents in co-designing street transformations as part of its 2023 Summer Streets programme. During participatory workshops, citizens uploaded photographs of public spaces and contributed ideas for how those spaces could be reimagined. The platform used generative AI to instantly produce photorealistic visualisations based on participant inputs, enabling attendees to iteratively refine proposals and evaluate design options without requiring technical expertise. This approach shifted residents from passive commentators to active contributors in the planning process, and the two co-designed streets were subsequently built as proposed.

Reference: PSTW-2001.

AI for service engagement. AI-driven channels such as chatbots and recommendation engines can enhance user engagement by **keeping individuals informed and involved** throughout their interactions with public services. For instance, a chatbot on a government website can provide instant responses to frequently asked questions, guiding users through processes like applying for permits or accessing social services. Similarly, recommendation engines can suggest relevant updates or new services based on a user's past interactions, helping them stay informed and engaged with the resources available to them. This use case aims to sustain ongoing interaction, clarify next steps and offer timely prompts or reminders that aid users in progressing through and completing procedures over time. While it is similar to the use of AI for personalised and proactive services, the key distinction in the use of AI for service engagement is directionality: AI for proactive services initiates contact or action based on anticipated citizen needs, whereas service engagement AI responds to and guides citizens through interactions they have already started.

Example: **AI for answering questions about public competitions**

A collaboration between Formez (the Italian public administration modernisation body) and CSI Piemonte (a public in-house company) has produced Formez's first virtual assistant, using generative AI to answer questions about competitions managed by Formez. Camilla, the digital assistant, operates 24 hours a day, 7 days a week, to reduce waiting times for responses and help citizens navigate public competitions more easily.

Reference: PSTW-2334.

3.4.3 AI-ASSISTED POLICYMAKING

This field concentrates on adopting AI applications to enhance and support policymaking within public administrations. For example, AI can boost resilience by detecting emerging risks or unintended consequences early in the policy design phase, enabling prompt adjustments for more fair outcomes.

Four use cases were selected to illustrate how AI can assist in policymaking (Figure 9).

Figure 9. Use cases in the AI-assisted policymaking application field.

AI-assisted policy making

- → AI for data exploration
- → AI for trend analysis
- → AI for evidence-based policy-drafting
- → AI for policy assessment and alignment

Source: Authors.

AI for data exploration. AI enables public administrations to **extract insights** from vast and complex datasets, revealing hidden knowledge across governmental functions such as public health, social assistance, and environmental and economic affairs. This could involve the use of AI in exploring, identifying and understanding patterns and connections that are not yet evident to provide an informed basis for policy analysis, strategic planning and the design of more effective public interventions.

Example: **AI for exploring and mitigating the impact of extreme weather events**

The Norwegian Meteorological Institute and the European Centre for Medium-range Weather Forecasts are among the entities entrusted with the Destination Earth project, a major initiative launched by the EU and aimed at creating a highly accurate digital model of the earth. These organisations are demonstrating how machine learning and deep learning can enhance Destination Earth datasets and products. The initiative focuses on increasing the utility of the data collected by the project using digital twins. By leveraging advanced computational techniques, the AI solution can refine climate and weather predictions to offer more accurate insights that can be used in understanding and mitigating the impacts of extreme weather and geophysical events.

Reference: PSTW-2382.

AI for trend analysis. AI can support temporal data analyses to **detect emerging patterns and forecast future developments** relevant to governance. It can anticipate demographic shifts, economic fluctuations or environmental risks, supporting forward-looking policy design and resource planning. Trend analysis applies predictive models to inform strategic preparation and long-term decision-making.

Example: **AI for forecasting demand for emergency medical services**

The LifeSaver project, led by the Estonian Health Board, aims to enhance emergency medical services by improving resource allocation, optimising service areas and using AI-driven predictive analytics to forecast system demands. The project also focuses on real-time monitoring, transparent insights and detailed analysis of emergency responses to ensure faster and more effective life-saving assistance. Funded by the 2021–2027 EU cohesion policy, LifeSaver seeks to enhance emergency care and strengthen public sector innovation capacity.

Reference: PSTW-2352.

AI for evidence-based policy-drafting. AI can support the creation of new public policies founded on empirical evidence and **data-driven recommendations**. By analysing selected information and established datasets, predictive models can help in identifying key issues, understanding social and economic dynamics and assessing potential policy impacts. The resulting recommendations can help drafters to design targeted, data-driven measures that address real needs and align with strategic objectives, strengthening the quality and transparency of policy formulation.

Example: **AI for supporting legislative drafting**

In a pilot funded by Sitra, the Finnish Innovation Fund, the Ministry of Transport and Communications tested generative AI based on Finnish large language models to support legislative drafting. The pilot produced a chatbot interface through which legal drafters could search Finnish legislation and obtain direct links to relevant provisions, supporting the screening of large volumes of material during the early stages of drafting. The tool was tested in the context of the national implementation of the EU Data Act, and it was found that AI has clear potential to increase efficiency in handling large amounts of legislative material.

Reference: PSTW-2260.

AI for policy assessment and alignment. AI can ensure that existing or newly drafted policies **comply with legal and institutional frameworks**. It can check syntax and semantics, detect overlaps or contradictions and evaluate consistency with national or supranational legislation. Beyond compliance, AI supports alignment between regional, national and EU policies, promoting coherence and interoperability. These capabilities contribute to 'law as code' initiatives, making legal frameworks machine-readable and supporting automation and enforcement.

Example: **AI for supporting of the legislative process**

The GenAI4Lex-B project has introduced three innovative prototypes aimed at (1) enhancing the understanding of regulatory sources, (2) streamlining and simplifying the amendment process and (3) checking compliance with the existing regulatory framework. This project utilises a hybrid and interdisciplinary AI approach, built upon the expertise and research contributions of various stakeholders in legislative informatics and incorporating principles such as interdisciplinarity, transparency, fundamental rights, ethics, legal analysis, hybrid AI and user-centric design. It focuses on effective collaboration between AI and humans and on ensuring the technological quality, repeatability, explainability and validity of results. This approach helps users identify relevant regulations, similar laws and judicial decisions linked to proposed legislation.

Reference: PSTW-2194.

4. Policy recommendations for Member States and public administrations

The Apply AI Strategy provides a clear political direction for accelerating AI uptake across Europe. To make this ambition operational in the public sector, Member States and public administrations need structured, context-sensitive and actionable guidance.

Drawing on the analytical work and AI adoption framework presented in this report, the following recommendations set out priority actions to support responsible, scalable and public-value-driven AI adoption in public administrations.

RECOMMENDATION 1

Recognise the public sector as a strategic domain in (national) AI strategies by deciding on dedicated actions, governance arrangements and priority use cases.

The Apply AI Strategy underscores the significance of the public sector as a strategic domain for AI adoption, essential for strengthening European competitiveness and modernising public administration. The strategic prioritisation of the sector should start with an assessment of the current policy approach, followed by the design of a revised framework, prioritising the design of suitable policy actions to support AI adoption in public settings, in alignment with the Strategy's vision.

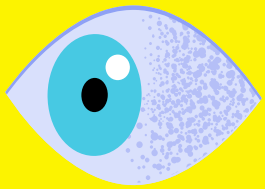
The first step in this direction is the assessment and, where necessary, revision of national AI strategies to align with the sector-specific, bottom-up and use-case-driven approach proposed in the Strategy. As stated in the Strategy, 'the Commission calls for Member States to align their national AI strategies to the sectoral approach presented in this Communication' (COM(2025) 723, p. 18). National AI strategies should frame the public sector not only as a beneficiary of innovation but as a structured and accountable driver of AI adoption.

Recognising the public sector as a strategic domain requires clear governance arrangements, dedicated resources and well-defined responsibilities across levels of administration. The adoption framework presented in this report can serve as an operational reference also for the design of national strategies. By structuring actions around the three core activities – anchoring, adaptation and application – Member States can ensure that AI adoption is embedded in institutional mandates (anchoring), supported by organisational, technical and contextual adjustments (adaptation) and translated into high-impact and context-relevant use cases (application), grounded in the assessment of real-world needs and supported by continuous monitoring of impact and risks.

Finally, national strategies should include proportionate but robust monitoring mechanisms – as also highlighted by the framework – operating both at the national level and within individual administrations. These mechanisms should begin with assessing existing needs and subsequently monitor not only the pace of AI adoption but also public value creation, effectiveness, risk management, compliance with applicable rules (e.g. the AI Act) and the readiness of the organisation and the surrounding environment. Clear and measurable objectives will enable public administrations to track progress and take timely corrective action and will ensure that AI adoption in the public sector stays aligned with the broader goals of public value, sustainability and trust.

RECOMMENDATION 2

Take measures to ensure an adequate level of AI literacy within public administrations, particularly among those responsible for strategy, procurement, oversight and operational deployment of AI solutions.



Responsible and effective AI adoption depends on adequate AI literacy within public administrations. In line with Article 4 of the AI Act, Member States should support their staff to become AI literate. Particular attention should be paid to staff responsible for strategic planning, procurement procedures, risk management, legal compliance and operational supervision of AI systems. AI literacy in these functions is essential to ensure lawful, transparent and accountable deployment.

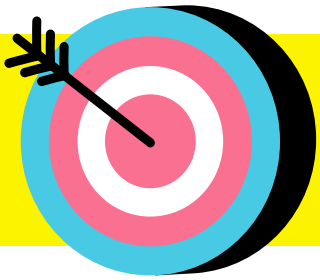
Potential measures for Member States include, but are not limited to, offering structured and role-specific training programmes, supported by curated learning resources and peer exchange mechanisms, including through the European Commission's repository of AI literacy practices ([15]).

Member States are also encouraged to leverage instruments forming part of the EU AI innovation ecosystem, such as the EDIHs and the AI skills academy, to support their national actions. Relevant competence frameworks, such as the Digital Competence Framework 3.0 and the AI Literacy Framework for Primary and Secondary Schools, can provide a basis for designing AI literacy initiatives.

The AI Board, and particularly the sub-configuration on the AI Innovation Ecosystem, may serve as a forum for exchange of good practices and coordination of efforts to advance AI literacy across EU public administrations.

RECOMMENDATION 3

Engage with EU initiatives, funding instruments and guidance mechanisms to maximise impact and avoid fragmentation.



The European Commission is developing a range of policy actions to facilitate AI uptake, including funding programmes, support infrastructures, research and innovation initiatives and capacity-building measures. These instruments are designed to respond to concrete needs identified by Member States and public administrations.

These actions offer a range of opportunities for Member States and public administrations to access funding, expertise and other resources essential for AI adoption. For instance, the EDIHs provide technical support and experimentation facilities to help in efforts towards AI adoption. PSTW offers examples of AI use cases in public administrations, and EU GovTech catalogues provide information on European start-ups and SMEs active in the field. Furthermore, the AI on Demand platform provides a collaborative space to support European research and innovation on AI, and the GenAI4EU initiative offers funding opportunities to boost EU-made GenAI solutions.

15. See the European Commission webpage 'AI literacy practices | Shaping Europe's digital future'.

National and local administrations should strategically mobilise these resources to strengthen their technical, organisational and financial capacity to adopt AI. EU-level support structures – including advisory hubs, repositories of use cases and GovTech catalogues – can help administrations access expertise, identify trusted providers and replicate successful solutions. Coordinated use of these instruments can reduce fragmentation, accelerate learning and enhance the scalability of AI initiatives across the EU.

RECOMMENDATION 4

Develop structured pathways that prioritise public-value-driven AI solutions and enable their scaling across administrations, in line with the EU's vision and priorities.

The Strategy underscores the urgency of advancing AI adoption while ensuring that the integration of AI into the public sector adheres to the highest values and standards. Translating this ambition into practice requires structured and coherent implementation pathways.

Therefore, public administrations should establish pathways that integrate technological development with softer elements, such as skills development, process reengineering and awareness raising, to ensure that AI adoption generates public value and aligns with the EU's vision and priorities.

This approach begins with identifying the areas where AI can be most effectively applied and deciding which applications of the technology will yield the greatest value. This report offers a list of use cases derived from a comprehensive analysis. Public administrations can conduct similar evaluations to customise this list according to their specific needs and characteristics.

Moreover, prioritising AI solutions requires assessing and investing in the enabling factors – technological, organisational and contextual – that can support their adoption and scaling within and across administrations. Mechanisms to validate pilot outcomes and enable replication are essential to ensure that successful pilots evolve into sustainable and interoperable solutions.

RECOMMENDATION 5

Use public sector demand strategically to strengthen the European GovTech ecosystem and EU digital sovereignty.

Public administrations have a pivotal role to play in reinforcing EU digital sovereignty by promoting the adoption of AI solutions that reduce strategic dependency on non-EU providers. As articulated in the Strategy, '[p]ublic administrations can benefit from the AI first policy ... also by helping AI startups grow through increased demand for European-made open source AI solutions. This, in turn, can strengthen EU AI sovereignty' (COM(2025) 723, p. 12).

Strategic use of public procurement and the alignment of administrative needs with emerging GovTech solutions can contribute to strengthening the EU innovation ecosystem. In this regard,

the proposed 28th regime, a forthcoming EU-wide legal framework intended to enable innovative companies to operate under a single harmonised set of rules across the Single Market, could further ease the path for GovTech start-ups to scale up across Member States ([16]). Where appropriate and within their powers, public administrations might consider measures such as targeted funding, incentives and regulatory support for European AI GovTech companies.

Providing support for a stronger EU AI ecosystem will entail adapting procurement and administrative processes to lower barriers for start-ups and better align public sector needs with innovative market solutions. This will include, among other things, identifying existing European AI solutions, replicating successful GovTech practices and facilitating cross-administrative diffusion of innovative approaches. Observatories such as PSTW and the EU GovTech initiative can support public administrations in this process. Through these measures, public administrations can contribute to a more resilient and strategically autonomous European digital ecosystem.

RECOMMENDATION 6

Establish and maintain public AI registries and promote co-creation and outreach initiatives to strengthen trust in AI-enabled public services.

Sustainable AI adoption in the public sector depends on maintaining public trust. AI solutions should be deployed transparently and with appropriate safeguards in a way that fosters trust in government.

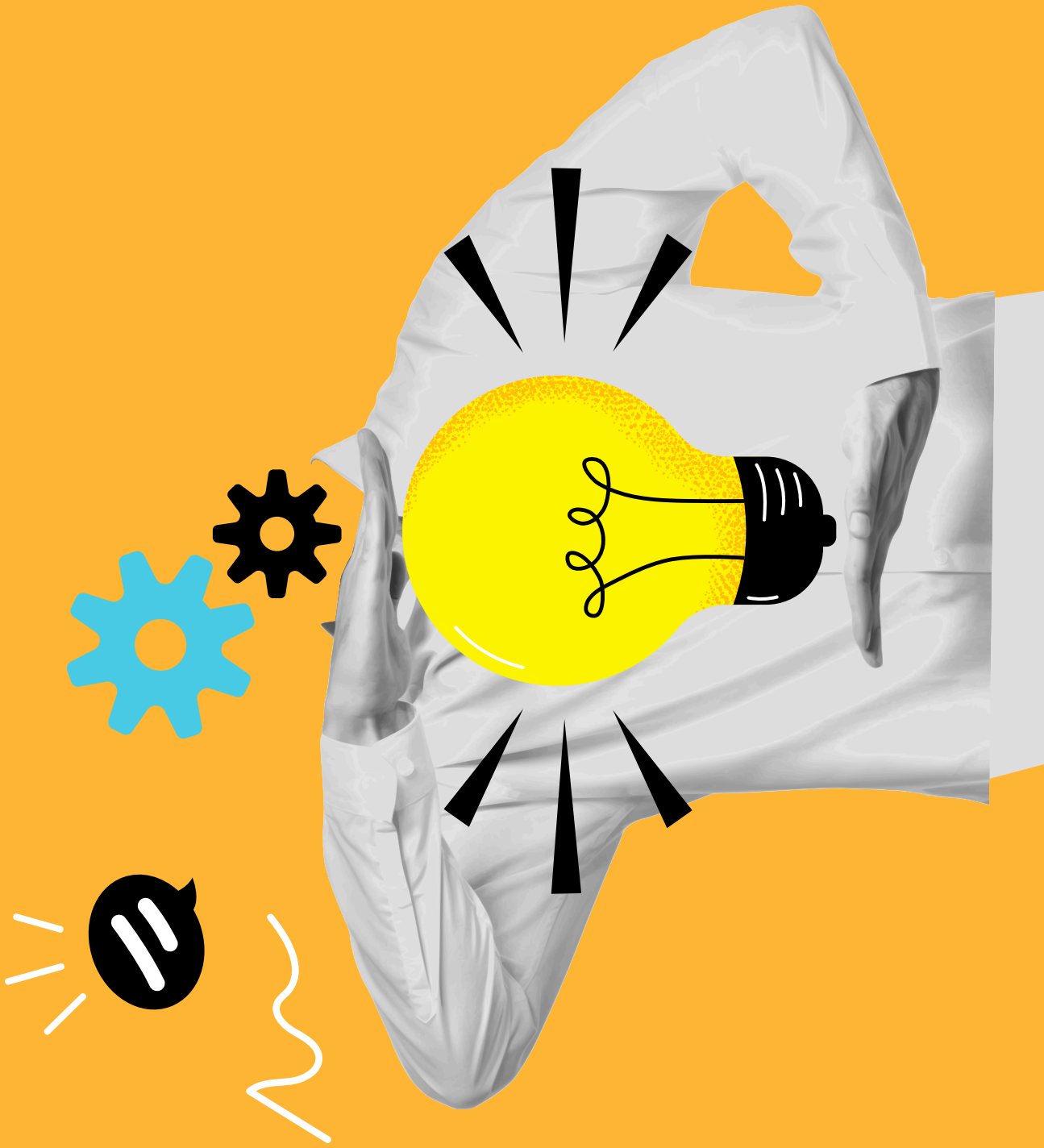
Establishing public AI registries could be a concrete step in this direction. Transparently disclosing where AI is used, for what purposes and under what governance arrangements can increase accountability. Experiences from cities such as Helsinki [(17)] and Amsterdam [(18)] show how registries can support transparency and oversight.

Transparency should be complemented by efforts to improve public understanding of AI in an administrative context. Outreach initiatives that explain both the benefits and risks of AI and the opportunities for citizen engagement and co-creation that it presents can help ensure that AI adoption aligns with public values, expectations and needs. Such an approach can strengthen democratic legitimacy and support sustained trust in and acceptance of AI-enabled public services.

16. The forthcoming proposal for the new legal regime is mentioned in the Commission communication on the competitiveness compass (COM(2025) 30).

17. See the City of Helsinki AI Register.

18. See 'Public AI registers' on the openresearch.amsterdam website.



5. Conclusions

The Apply AI Strategy marks a shift towards a sectoral and implementation-oriented approach to accelerating AI adoption across the EU. In this context, the public sector plays a dual role: as a strategic domain for AI adoption and as a market-shaping actor capable of influencing the broader European AI ecosystem.

This report has translated the strategic direction set by the Strategy into an operational framework for AI adoption in public administrations. By structuring adoption around anchoring, adaptation and application, the proposed framework provides a coherent approach to embedding AI in institutional mandates, strengthening organisational readiness and prioritising high-impact, public-value-driven use cases.

AI adoption in the public sector is not solely a technological transformation. It requires governance clarity, workforce readiness, responsible procurement practices and sustained attention to transparency and public trust. Structured pathways, proportionate monitoring mechanisms and cross-administrative learning are essential to ensure that AI solutions evolve from isolated pilots into scalable and interoperable systems.

At the same time, public administrations are uniquely positioned to strengthen the European AI ecosystem through strategic demand, responsible innovation and commitment to EU values and standards. By aligning implementation efforts with digital sovereignty objectives, interoperability principles and trust requirements, the public sector can contribute to a resilient and competitive European AI landscape.

The effective and responsible adoption of AI in the public sector will require coordinated efforts across the EU and national levels, aligning strategic ambition with coherent and sustained implementation within public administrations. The AI adoption framework and recommendations presented in this report aim to support this alignment by offering structured guidance on adopting trustworthy AI in public administrations.

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List of abbreviations and definitions

AI	Artificial intelligence
EDIH	European Digital Innovation Hub
EU	European Union
GenAI	Generative AI
GovTech	Technology-based cooperation between public and private sector actors supporting public sector digital transformation
INNPULSE	Innovation of public services and digital transformation of governance
JRC	Joint Research Centre
PSTW	Public Sector Tech Watch
SMEs	Small and medium-sized enterprises

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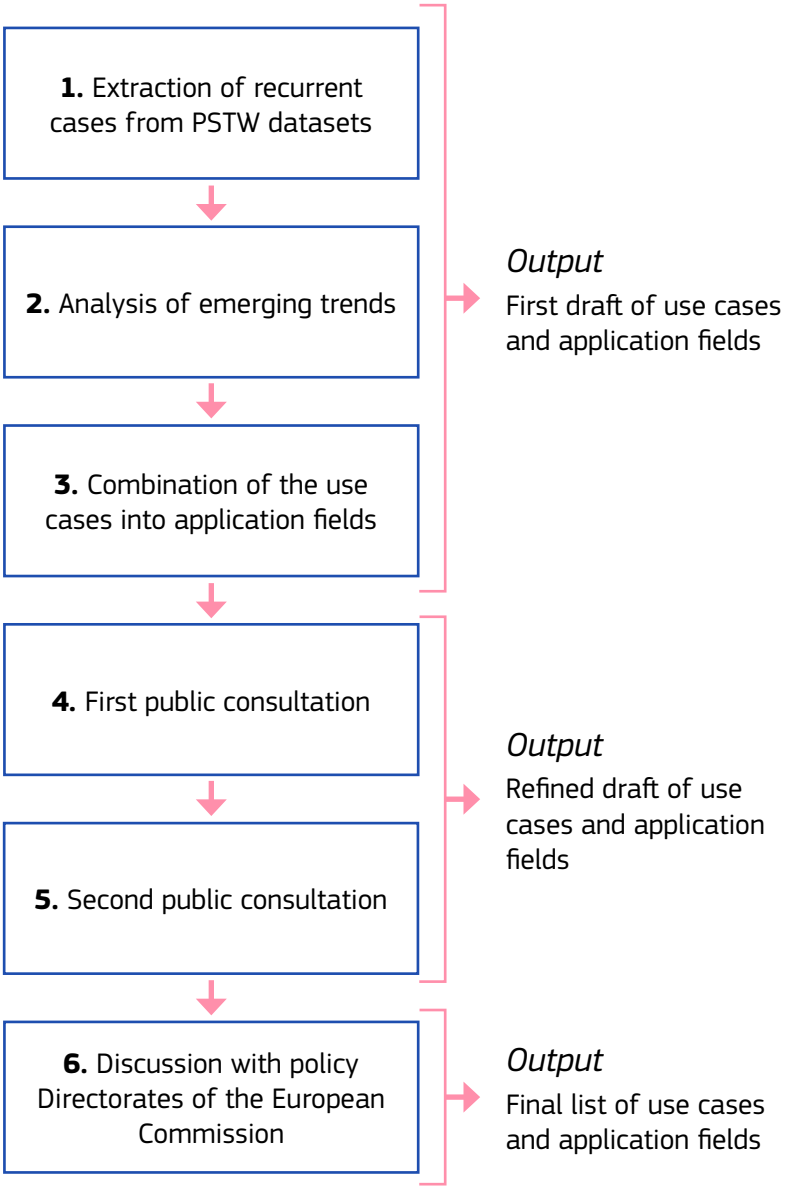
Annex: Methodology for the identification of application fields and use cases – evidence from the public consultations

Methodological approach

The methodology for identifying the application fields and use cases is illustrated in Figure A1.

Figure A1. Process of identifying the application fields and use cases.



Source: Authors.

The first stage (steps 1–3 in Figure A1) consisted of desk research and data analysis. This was supported by previously conducted and published research focused on identifying AI use cases in the public sector. Initiated in 2019 as part of the AI Watch service, this work is currently ongoing within the PSTW observatory, which, at the time of writing, offers a comprehensive overview of over 1 600 instances of AI applications aimed at enhancing government operations and public services. The dataset underwent a thorough analysis, during which real-world cases were abstracted and grouped into broader use cases. To ensure the robustness of our findings, only use cases with at least five recurring entries were included in the initial selection.

Given that the PSTW database reflects historical developments, additional analysis was conducted to capture emerging trends. For instance, although the dataset contains only a few instances of generative AI due to its novelty, its relevance to the public sector is rapidly increasing (Navajas Cawood, et al., 2025; Tangi et al., 2024; Tangi et al., 2026a).

Finally, the selected use cases were subsequently grouped into broader application fields. This resulted in a preliminary list of application fields and use cases, which was further refined through two public consultations and discussions with the Commission policy directorates-general involved in the Strategy.

Public consultations

Two public consultations were organised, in April and May 2025, to gather feedback on the proposed enabling factors, application fields and use cases (see Table A1). They were open to all interested parties, and participants were invited to assess the draft framework and provide input for its refinement.

Table A1. Details of the public consultations.

	EVENT 1 [19]	EVENT 2 [20]
Title	'GenAI meets public administrations' info day	First Digital Participatory Forum and 'GenAI for public administration' info day
Date	14 April 2025	22 May 2025
Number of participants	80	40

Source: Authors.

The consultation had two main objectives.

- **To assess perceptions of a predefined list of application fields and use cases.** The aim was to evaluate the draft list of enabling factors, application fields and use cases by asking participants to rate their relative relevance, adoption difficulty and potential impact. This was done using structured multiple-choice questions.

- **To assess the completeness of the proposed list and identify potential gaps.** The aim was to gather input on what might be missing from the draft list of application fields and use cases. Participants responded in the form of a word cloud, which also helped gauge the frequency with which various topics were mentioned.

19. https://digital-strategy.ec.europa.eu/en/events/genai-meets-public-administrations-info-day-funding-opportunities-and-future-adoption-strategies.

20. https://www.b2match.com/e/genai4publicadmin.

The lists of application fields and use cases presented during the consultations differ slightly from those included in the final report (see Table A2). The enabling factors remain substantively unchanged, with only minor adjustments to wording. This reflects the iterative nature of the process: feedback gathered during the consultations informed revisions to the terminology, structure and composition of the final framework.

Table A2. Lists of enabling factors, application fields and use cases.

	EVENT 1	EVENT 2
Enabling factors	**Technological factors.** High-quality data and data spaces, proper infrastructure, transparency registries, cybersecurity, interoperability	**Technological factors**. High-quality data, proper infrastructure, transparency registries, cybersecurity, interoperability
	Organisational factors. Governance of AI, organisational culture, procurement, competencies	**Organisational factors**. Governance of and with AI, organisational culture, procurement, competencies
	Contextual factors. Users' readiness, trusted suppliers, networks and support	**Contextual factors**. Users' readiness, trusted suppliers, support systems
Application fields and use cases	**AI for streamlining administrative processes**. AI for text enhancement, AI for document processing, AI for resource management, AI for procurement management	**AI for streamlining administrative processes**. AI for text enhancement, AI for document processing
	AI for better public services. AI for service accessibility, AI for personalised and proactive services, AI for participation and co-creation, AI for service engagement	**AI for smart public services**. AI for service accessibility, AI for personalised and proactive services, AI for participation and co-creation, AI for service engagement
	AI for assistance to decision-making. AI for trend analysis, AI for detection, AI for inspection	**AI for assistance to decision-making**. AI for trend analysis, AI for detection, AI for inspection, AI for data exploration

Source: Authors.

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