



# Harnessing AI for Organisational Transformation in Science-Policy Interfaces

*JRC AI Peer Group Workshop Report 10-11 April 2025*

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## Abstract

On 10–11 April 2025, the Joint Research Centre (JRC) hosted the workshop "*Harnessing AI for Organisational Transformation in Science–Policy Interfaces*" in Brussels. Gathering 35–40 participants from the Joint Research Centre, other Directorates of the European Commission, and seven external organisations, the workshop explored how generative AI (GenAI) is reshaping organisational processes, collaboration, and decision-making.

Through presentations, breakout sessions, and strategic discussions, participants exchanged best practices and reflected on the wider organisational implications of AI adoption. They emphasised that integration must go beyond technical deployment to include **governance, culture, communication, and trust**.

Key enablers include a **clear strategic vision, balanced implementation** combining quick wins with long-term goals, and **robust, scalable governance structures**. Addressing data fragmentation and building digital, legal, and technical literacy are essential. However, equal focus must be placed on **critical thinking and human capability**. A collaborative, psychologically safe culture and clear framing of AI as a tool to support—rather than replace—staff are vital. Transparent communication about AI's risks and benefits reduces hidden use and ethical risks.

The workshop also launched a peer network to support ongoing exchange on GenAI adoption across administration, research, education, communication, and governance. Participants agreed that transformation must be inclusive, human-centred, and guided by shared learning.

## Foreword

The rapid advancement of artificial intelligence (AI) is reshaping not only research methodologies but also the operational frameworks of organisations, including public sector organisations ([Tangi et al, 2024](#)). Beyond its capacity to enhance research outputs, **AI holds transformative potential for organisational processes, efficiency gains, and strategic decision-making**. However, AI adoption comes with challenges that must be carefully balanced, including ethical considerations, workforce adaptation, and infrastructure readiness.

The Joint Research Centre (JRC) of the European Commission is contributing with its multi-disciplinary research to promote and use trustworthy AI in their research. With its in-house Large Language Model platform, GPT@JRC, **the JRC positioned itself as a front runner** in the experimentation of Generative AI within the EU Institutions ([de Longueville et al, 2025](#)). GPT@JRC tool has meanwhile become an established resource for scientists and administrators and is increasingly also explored across our administration.

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## **Editor**

*J. Thielen-del Pozo: During the preparation of this workshop report, the editor used gpt@JRC and Mistral in order to harmonise the individual contributions, identify redundancies and overlaps. After using the tools, the editor reviewed and edited the content as needed and takes full responsibility for the editing.*

## 1. Introduction

Motivated by the rapid advancements in generative artificial intelligence (GenAI), which are reshaping both private and professional spheres, the JRC organised a workshop entitled "*Harnessing AI for Organisational Transformation in Science-Policy Interfaces*" on 10-11 April 2025, in Brussels. The workshop provided a platform for sharing experiences and best practices on integrating AI into organisational processes.

Organised as a fully physical meeting with 35-40 participants from the JRC, the Commission, and seven external organisations, and drawing from diverse disciplines and sectors, the workshop offered ample opportunities for discussions, exchanges, and brainstorming on how to manage the transformative and cultural shifts in a safe and trusted environment.

In recent years, the European Commission has taken a leading role in the safe adoption of GenAI and laid down crucial legislative frameworks, such as the AI Act and the Digital Services Act, ensuring that this transformation respects intellectual property and personal data protection rights, thereby safeguarding European citizens. As the Commission's in-house science service, the JRC is uniquely positioned to contribute to this transformation safely and efficiently, facilitating knowledge sharing and collaboration within the Commission and with external organisations.

With the workshop, the JRC also marked the launch of a peer network with the participating organisations to create a forum of continued exchange during the GenAI journeys of our organisations—in research, administration, education, communication, and governance. By bringing together organisations at varying stages of AI adoption, the event brought to the foreground a nuanced understanding of the complexities and benefits of AI adoption in different contexts. In particular, one message resonated throughout the discussions: while embracing AI, it is crucial to place humans at the centre of all actions. As the transformation of AI extends beyond the workplace, impacting also our cognitive skills and learning capabilities, we need to ensure that colleagues are well prepared, trained, skilled, and aware of the benefits as well as drawbacks.

## 2. The JRC AI peer network

The organisations invited to the workshop were selected from science, policy, research and education to cover a diverse range of sectors as well as expertise and stages of AI adoption. The workshop was intentionally kept to a manageable size of not more than 40 participants, allowing for sufficient face to face time, bilateral exchanges and in-depth exploration of topics.

The **Government Office of Estonia** has already embarked on a comprehensive AI adoption journey, with a strong focus on integrating AI into their policy-making processes, public services, and administrative operations.

International Organisations such as the **International Atomic Energy Agency (IAEA)** and the **Organisation for Economic Co-operation and Development (OECD)** are also actively exploring the potential of AI to enhance their policy-making processes, improve decision-making, and facilitate international collaboration, with an advancement at slightly different stages.

The **European Centre for Medium-Range Weather Forecasts (ECMWF)** and the **European Space Agency (ESA)** are multi-site organisations primarily focused on operational activities underpinned by strong research departments. They have already leveraged AI to improve their forecasting capabilities, enhance data analysis, and streamline their operational processes, and are now exploring its potential in administrative contexts.

The **AI for the Common Good Institute (FARI)**, a joint initiative between Vrije Universiteit Brussel (VUB) and Université Libre de Bruxelles (ULB), and the **Technical University Munich (TUM)** bring a strong academic and research focus to the table, with expertise in AI development, ethics, and governance, and are working on developing trustworthy AI systems and promoting responsible AI innovation.

The **Joint Research Centre (JRC)** is a unique player within the European Commission, placed at the intersection of science, policy, and research, and is well-positioned to facilitate knowledge sharing and collaboration among these diverse organisations including the European Commission services. Apart from the JRC, other Directorate-Generals from the **European Commission** attended, in particular from DG Human Resources and Security (HR), DG Research and Technological development (RTD), DG Informatics (DIGIT) and DG Translation (DGT).

### 3. State-of-play

The presentations made clear how rapidly the landscape of artificial intelligence (AI) is evolving, and how it is transforming both operational practices and strategic planning across organisations. Currently, organisations are leveraging a mix of off-the-shelf commercial AI tools, in-house developed GPT instances, and tailor-made AI solutions to meet specific needs. Tools such as Microsoft Copilot and virtual assistants are also being tested to enhance various functions, although their broader deployment remains limited due to data protection concerns as well as financial considerations and reluctance to become dependent on long-term licence conditions.

Off the shelf, general-purpose **generative AI (GenAI) tools are already being successfully applied in a wide range of areas**, particularly in language-related tasks. They assist with content creation and communication, in particular generation of meeting minutes, blog posts, social media updates, short media texts, and policy briefs. Large Language Models (LLMs) are particularly effective for summarizing text, formatting, transcription, and localisation. It is also powerful for both structured and unstructured information retrieval in support of reporting and monitoring. GenAI is also being used for translating and adapting content for different regions, automating reporting, and providing basic user support. See Annex 1 for a summary breakdown.

Beyond general-purpose tools, specific developments such as **AI-driven dashboards and virtual assistants** are increasingly being integrated into administrative workflows, improving efficiency in functions like procurement, finance, and logistics. In procurement and human resources, AI assists with drafting public tender documents, conducting market research, writing job descriptions, and is being piloted for evaluating job applications. The potential for leveraging GenAI support for a more efficient handling of administrative processes, including at the user side, has been recognised and is being explored. In the research and science domain, GenAI supports data analysis, coding, statistical operations, and literature reviews. Additionally, it facilitates creative tasks such as brainstorming new research questions and identifying emerging topics.

Looking ahead, organisations are focusing on **developing virtual AI assistants to support more specific and complex tasks** such as regulatory impact assessments, enhanced foresight, policy monitoring, learning, and predictive analyses. There is also a strong push toward integrating AI into core administrative systems and building management tools to enable intelligent decision-making. Custom GPT models tailored to specific use cases are being explored, alongside efforts to integrate AI with other emerging technologies. A key focus is ensuring that these systems are explainable, transparent, and trustworthy.

However, there is a strong awareness that the adoption of **AI presents several challenges across technical, organisational, legal, and societal dimensions:**

**Technical barriers** include biases in AI models, legacy IT infrastructures not adapted for GenAI operations, fragmented or inadequate training data, and data infrastructures. **Legal and ethical concerns** centre on intellectual property rights, data protection, cybersecurity, and the need for transparency and accountability in AI decision-making. **Organisational barriers** include a lack of shared understanding of AI, cultural resistance to adoption, and reliance on third-party tools. Finally, **societal concerns** involve fears of job displacement and the spread of AI-driven disinformation and misinformation.

To address these challenges, organisations are taking a multi-faceted approach that includes **governance, capacity-building, and collaboration**. Developing clear, concise, and organisation-

specific guidelines and standards for AI use is a key step in ensuring responsible and consistent implementation. **Building internal capacity** through training in AI literacy and critical thinking is considered essential to empower staff and support informed decision-making.

A strong emphasis is being put on **human-centric design**, ensuring that AI systems are developed with ethical principles, usability, and societal impact in mind. Fostering **collaboration and knowledge sharing**—both within and across organisations and stakeholder groups—underpinned by trust, is seen as critical for scaling AI adoption effectively and responsibly.

Areas that require particular attention to support the effective adoption of AI include the need for a **comprehensive collection of documented use cases** to facilitate learning and replication. Equally important is the **assessment of cost-benefit and efficiency gains**, which calls for the development of robust methodologies and evaluation tools. The absence of **standardised frameworks for measuring AI performance** and a lack of **common metrics to evaluate impact** was pointed out as a particularly important barrier for consistent assessment. Additionally, organisations reported that they would benefit from clearer **guidance on change management** and **best practices for AI procurement**, both of which are essential for scaling AI responsibly and sustainably.

## 4. The ongoing AI transformation

During four breakout sessions, the workshop participants elaborated on the currently ongoing transformation in terms of enabling technology, upskilling, cultural and organisational change for AI integration, role of communication, and efficiency gains.

### 4.1. Enabling technology for organisational transformation

The discussion revealed a strong focus on aligning AI technologies with organisational needs and readiness, rather than pursuing technical advancement for its own sake. Participants found the AI complexity scale (ranging from level 0 to 6, as proposed in De Longueville et al.'s framework, see Annex 2) to be a useful common reference. Most organisations reported operating at levels 2 and 3—where generative AI systems begin to integrate internal data in a safe and trustworthy way.

It was widely acknowledged that **technical progression is driven by practical use cases**. Once foundational applications such as drafting, translation, and reformatting are in place, organisations naturally seek to expand toward more advanced, knowledge-integrated use cases.

Looking ahead, forecasting AI developments over a five-year horizon was seen as inherently difficult due to the rapid evolution of the field. However, the major **challenges and opportunities** identified largely mirror those seen today: ensuring data sovereignty, managing biases, and balancing what is feasible with what creates meaningful impact. The potential for more sophisticated applications—such as automated literature reviews—was seen as a key opportunity.

Across all groups, the central question remained: *which technologies are needed for which purposes?* This question shaped a number of shared insights:

- **Learning by doing is essential:** Practical experimentation and iterative use are seen as the most effective paths to understanding and advancing AI use.
- **Basic GenAI tools can have outsized impact:** When supported by appropriate upskilling initiatives, even low-complexity solutions can significantly benefit operations.
- **Moving to higher AI complexity (e.g., agent systems) is a major leap:** Participants expressed uncertainty about their organisations' readiness to adopt more autonomous AI systems, citing the governance, change management, and technical maturity such a shift would require.

Overall, the discussions emphasised the importance of purposeful, value-driven AI adoption, guided by use-case relevance and organisational capacity rather than technical ambition alone.

### 4.2. AI Upskilling in organisations

As AI tools rapidly evolve and disrupt traditional workflows, organisations are grappling with the challenge of upskilling a diverse workforce. This session showcased a wide range of strategies being explored to make AI learning accessible, relevant, and engaging across all staff levels.

Organisations are experimenting with multiple formats to support continuous learning:

**Light-touch guidelines**—short, practical documents outlining AI do's and don'ts—serve as easy entry points. Initiatives such as **AI support desks (“AI clinics”)** or **regular Q&A and coaching sessions** can provide ongoing informal support, while regular or occasional **bite-sized learning formats** (60–90 minutes) can help integrate training into busy schedules. While being recognised as time and cost intensive, **peer-to-peer learning** and **co-creative sessions** have shown best outcome for encouraging collaboration and adaptability, allowing employees to shape training content around their own needs. **Coaching**, both individual and group-based, can offer personalised guidance, and **e-learning platforms** allow for scale. The suggestion of branding training as **team events** or integrating it into team routines was also found to boost engagement. A notable practice was the **“train-the-trainer” approach**, enabling staff outside technical fields to spread AI knowledge within their teams and create a multiplier effect.

Several organisations noted the importance of involving **top management** in training efforts to model engagement and drive participation. **Use-case driven learning**, hands-on demonstrations, and the open sharing of both **successes and failures** help build comfort and confidence, especially among non-technical staff. Effective communication is critical in reinforcing the value of AI for modern work and ensuring that training is purposeful and motivating.

Many upskilling programs are still in their early stages, and given the pace of change, meaningful metrics are difficult to define. Additionally, assessing the concrete effect of learning on organisational performance remains a common challenge in learning and development more broadly.

Overall, the session highlighted that

- Despite the progress and experiences gained, there is widespread **uncertainty around how best to measure the impact of AI training** in terms of **efficiency and quality gains**.
- There is no one-size-fits-all solution and deploying **a diverse mix of practical, inclusive, and evolving learning strategies** to build AI literacy across the workforce—anchored in real-world applications and a culture of shared learning – seems to be promising.
- Making AI relatable to employees’ day-to-day work was endorsed as a clear key success factor.

### **4.3. Cultural and organisational change for AI integration and the role of communication**

This session focused on the cultural and organisational shifts necessary for successfully integrating AI into everyday work. Participants agreed that fostering acceptance of AI requires more than deploying new tools—it involves building **trust, aligning leadership**, and **communicating a clear vision** while addressing concerns and uncertainties.

A key insight was that **resistance to change often stems from fear or lack of understanding**. Rather than imposing change, the creation of supportive environments through **positive messaging** and clear, inclusive communication was considered more beneficial. In

particular, GenAI brings a unique kind of uncertainty, which calls for a **thoughtful and human-centric integration strategy**.

A **compelling organisational vision or narrative**, communicated from both top-down and endorsed bottom-up, was seen as essential. It does not need to be overly detailed but it should offer direction and purpose. Here senior and mid-level management were seen to play a crucial role in advocating for this vision, explaining why the change matters, and ensuring **trust and transparency** in the process.

Adopting a **problem-oriented approach**—focusing on how AI can ease or eliminate repetitive and frustrating tasks—was considered effective in making AI relatable and valuable. Participants also noted the importance of **realistic expectations**, recognising that not all problems require advanced AI; in some cases, simpler technologies may suffice. Additionally, organisations should consider how to **redeploy efficiency gains**, whether toward productivity, human interaction, or strategic thinking.

**Bottom-up initiatives** emerged as powerful drivers of change. Examples that were presented included the establishment of **Communities of Practice** for AI use, **mapping tasks** suitable for automation, **consultation of staff** to prioritise initiatives, encouragement of **AI champions** and curiosity for exploring and testing as well as **piloting new workflows** with flexibility and openness to adjustment.

Concrete **hands-on use cases** were viewed as essential for demonstrating the relevance of AI to everyday work. Practical examples—such as using AI to screen security footage—help staff see the tangible benefits and lower the barrier to experimentation.

One suggested enabler was the appointment of an **AI Advisory Officer**—a go-to person for staff with questions about AI tools and adoption. This role could help surface concerns, offer guidance, identify risks, and ensure that feedback flows to leadership.

**Communication** was emphasised as a central pillar for driving the transformative change. Participants advocated for deliberate **over-communication**, with tailored messaging that considers diverse audiences and clearly answers: “*What’s in it for me?*” Consistent, transparent updates on guidelines and strategic direction help align teams, although achieving full coherence across actors remains challenging.

Finally, while not the session’s primary focus, the group acknowledged the link between culture and **upskilling**. Running workshops, showcasing examples, and tailoring training to teams’ needs can boost confidence and engagement. However, the **rapid pace of AI development** makes it difficult to keep training both timely and relevant.

The key takeaway points are:

- Organisations should identify areas where **GenAI can add value**, and consider how to redeploy efficiency gains towards productivity, human interaction, or strategic thinking.
- Fostering a supportive culture is crucial for GenAI adoption within an organisation.
- Concrete use-cases are essential focusing on how AI can ease or eliminate repetitive and frustrating tasks that can make AI more relatable and valuable to staff.

- Effective communication is an essential pillar of change with a need for deliberate over-communication and tailored messaging that considers diverse audiences.

#### 4.4. AI for Efficiency Gains

This session explored how organisations are leveraging Artificial Intelligence (AI) to optimise business processes, reduce costs, and boost productivity. Discussions focused on identifying automation opportunities, comparing AI to traditional tools, and developing robust methodologies for measuring efficiency gains and return on investment (ROI).

To identify automation potential, participants described two main approaches: building existing service catalogues or conducting bottom-up mappings through surveys, interviews, or external consultants. Once candidate activities were identified, a cost-benefit analysis helped prioritise those that promised high impact with low implementation cost. Participants emphasised the value of grouping and rationalising activities early in the process and recommended piloting AI on a small scale using a “think globally, act locally” mindset to ensure manageable implementation and tangible outcomes.

Examples of successful use cases included

- **Procurement:** LLMs have been used to draft documents, maintain living FAQs, verify content, support market research, and automate checklists—though human oversight remains essential.
- **Coding:** AI-supported coding was cited as a powerful aid for internal tool development.
- **Budget Management:** One organisation built an AI tool to generate financial predictions that outperformed traditional forecasting methods.
- **Document Management:** Large-scale AI-driven initiatives, such as HAN-AI in the European Commission, explore automated classification, archiving, and retrieval of millions of records.

Consultants were considered good facilitators for the transformative process and useful for supporting scoping and analysis, while their ability to implement practical AI solutions was considered limited—and often costly.

Participants acknowledged that **access to data as well as data quality** are limiting factors in AI automation. Inconsistent or unstructured data and scattered databases can impair output quality, requiring upfront effort to ensure data readiness and integrity.

Measuring efficiency and Return on Investment (ROI) remains a complex task. Although some organisations are beginning to define methodologies and indicators, the field is still emerging and data often missing. Metrics such as time savings, error reduction, and quality improvements are commonly used, but must be benchmarked against a well-defined baseline of current human-driven processes. Establishing a **shared understanding of metrics across teams** was also identified as key, especially given language differences across departments. Moreover, the maturity of technology providers in certain domains remains uneven, which can affect procurement and adoption timelines.

Ultimately, the session underscored the practical value of AI in streamlining operations, while emphasising the **need for measured, data-driven implementation and ongoing evaluation**.

Participants highlighted in particular that

- **Efficiency gains** need to include **improvements in the quality** of outputs—particularly in areas like accuracy, consistency, and decision support.
- As AI capabilities advance, organisations must **continuously revisit their metrics and baselines** to accurately assess benefits and guide future investments.
- Language barriers could be a limiting factor, as even within the same organisation departments and teams may use different terms, making the **development of a common understanding framework** important for an effective implementation progress.

## 5. Towards a strategic approach in AI empowerment

After having reviewed the state of play and the ongoing transformations, the last four sessions focused on strategic building blocks for developing future oriented roadmaps towards achieving AI empowered organisations.

### 5.1. Balancing quick wins with strategic vision

To achieve effective AI empowerment, participants agreed that a **strategic vision** – or narrative – endorsed across all levels of the organisation is essential. However, **the rapid evolution of AI demands a flexible and adaptable framework** with a short-medium term roadmap and concrete tasks. One practical approach to achieving this balance is to focus on quick wins that can serve as important steppingstones, helping build momentum, demonstrate value, and justify further investment.

To ensure that these quick wins align with the broader strategic framework, participants recommended setting milestones at different intervals (e.g. 6 months, 1 year, 3 years) to structure progress and re-evaluate direction as AI capabilities evolve. It's also crucial to **stay problem-focused** and **business-led**, engaging the business owner throughout the lifecycle of a use case to foster ownership and increase the chances of successful adoption.

When prioritising AI initiatives, participants emphasized the importance of using a multi-faceted approach covering dimensions such as budget, expected impact, frequency of use, scalability, risk, time to implementation, and return on investment. These indicators can help organisations balance short-term feasibility with long-term strategic value. Both top-down and bottom-up approaches were considered valuable, with business users providing insight into operational pain points and IT teams offering innovation. Workshops were suggested as useful forums for identifying and validating use cases, and **scoring initiatives were seen as a sufficient and pragmatic way to reduce complexity** and focus on the most promising projects.

Effective governance is also critical to **managing complexity and scale**. Participants stressed the need for scalable, cross-functional governance models that extend throughout the organisation, including both formal bodies (e.g. digital steering committees) and informal structures (e.g. AI communities of practice). Governance should not rest solely with IT departments, but rather involve **co-leadership from across departments**, including HR, to ensure alignment with operational needs and organisational culture. **Connecting AI governance to broader risk management frameworks, including reputational, financial, and ethical risks, is also essential.**

To sustain momentum and deepen strategic thinking, participants called for more in-depth, topic-specific workshops that can help **build shared understanding** and **practical guidance** around AI adoption. They also emphasized the importance of encouraging a **culture that tolerates calculated risk** and embraces learning from failure and exploring the benefits of flattened hierarchies and more agile, cross-functional teams. Ultimately, long-term success depends on a deliberate balance between short-term results and strategic foresight, enabled by strong governance and adaptive planning.

### Strategic building blocks:

- Develop a clear, concise and understandable for all **strategic vision and roadmap** with short- medium term tasks.
- Remain **problem-focused** and adopt a **business-driven approach** and create a **shared understanding**.
- Develop a **framework for effective governance** and **risk management** for managing the complexity and the scale in AI adoption.

## 5.2. A strategy for measuring impact and efficiency gains from AI

This session proposed strategies for measuring the impact of AI adoption, focusing in particular on how to establish meaningful baselines and assess efficiency gains over time. While AI offers clear potential to streamline operations and reallocate resources, participants noted that its benefits are often hard to quantify—especially in the absence of consistent data or clear pre-implementation benchmarks.

A recurring theme was that AI is often adopted out of **strategic necessity** or **resource constraints**, rather than as the result of a rigorous cost-benefit analysis. Many organisations feel pressure to keep pace with others, even though they may not yet have the tools or frameworks in place to evaluate the effects of AI in a structured way.

Participants agreed that **measuring efficiency gains is particularly difficult in complex, evolving environments**, such as public administration. While KPIs are commonly used, their usefulness depends on how well they are defined, tracked, and contextualised. Surveys were also discussed as a tool to capture staff perceptions, but concerns were raised about **employee hesitancy to answer honestly**—especially when job security is a perceived risk—and about **low response rates** in demanding or poorly designed surveys.

More promising approaches involved tracking AI's effect on **specific processes**—for example, measuring time, personnel, and budget needs before and after implementation. While such task-level data offers practical insights, it can be difficult to isolate AI's impact from other variables. **Combining process KPIs with well-designed surveys** was suggested as the most effective way to gain a holistic view.

Participants also suggested repurposing **existing staff surveys**, such as those measuring satisfaction or well-being, to indirectly gauge the effects of AI—particularly when it frees up time for more meaningful work.

The conversation underscored the importance of **how AI adoption is framed**. Presenting AI as an opportunity to improve work—not a threat—can foster trust, support honest evaluation, and build momentum.

## Strategic building blocks

- **Frame AI as an enabler**, not a threat, to foster trust and openness.
- **Impact measurement should be layered**, combining process-level data with employee insights.
- **Start small**, with clearly defined use cases and KPIs, then scale.
- **No single metric captures AI's value**—measurement must be context-sensitive and cumulative.

### 5.3. Ensuring trustworthy AI and mitigating risks

This session addressed the increasingly pressing need to ensure **trustworthy AI adoption**, given the fast-paced development of AI systems and their far-reaching implications. Trust was recognised as a cornerstone of successful AI use — both trust in the systems themselves and in the organisations deploying them. However, building this trust requires more than technical compliance; it involves equipping users with **critical skills, legal awareness**, and establishing **institutional safeguards** that reduce risks without hindering innovation.

The group focused on risks associated with the **everyday use of AI tools by staff**, especially those without technical or legal backgrounds. One major concern was that excessive reliance on AI could lead to a **loss of creativity, expertise, and professional judgement**, particularly when tasks like summarising or drafting are routinely outsourced to machines. Participants also highlighted the danger of **missing key information**, either because AI outputs are too generic or because users become overly dependent on them.

The session also pointed to risks like **AI hallucinations, dissemination of fake or biased content**, and the ethical implications of **hidden AI use** — which can arise when staff feel discouraged from openly using such tools. Suppressing AI use, it was noted, might drive it underground, increasing organisational risk rather than reducing it.

To mitigate these issues, participants emphasised the need to develop a **core set of individual skills**. These include **critical thinking, awareness of AI limitations, understanding of data sources**, and **basic legal literacy** in areas like copyright and data protection. Legal training should focus on **positive, use-oriented guidance**, using **practical, short, and targeted formats** rather than abstract or theoretical sessions.

At the institutional level, the group recommended **structured, differentiated training programmes**, tailored to the actual tasks and expertise of various staff profiles. Encouraging **open and acknowledged use of AI**, rather than stigmatising it, was seen as essential for managing risks transparently. The idea of **“keeping humans in the loop”** was considered vital: no matter how advanced AI becomes, human oversight remains key for quality assurance and maintaining staff expertise.

Limiting real-time data retrieval was seen as a trade-off: it may reduce risk but can lead to outdated information, requiring further balance through human validation.

## Strategic building blocks

- Establish a **robust foundation for trustworthy AI** use by ensuring that users possess the necessary skills, are aware of the relevant legal frameworks, and that institutional practices are transparent and accountable.
- Foster a **culture of transparency and openness around AI use**, recognizing that hiding AI use can create more risks than encouraging it within clear guidelines. This involves establishing and communicating clear guidelines, protocols, and standards for AI use.
- Invest in differentiated, practical, and regularly updated training programmes that equip users with the **skills and knowledge needed to effectively and responsibly use AI**, acknowledging that AI is a rapidly evolving field, and that continuous learning is essential for staying up-to-date.
- Prioritise **human-centred AI design** by keeping humans in the loop and ensuring that AI systems are designed to empower and support human decision-making, rather than replacing it.
- **Implement user-friendly feedback mechanisms** to report inaccuracies, biases, or hallucinations—enabling continuous learning and tool improvement.

## 5.4. A strategy for organising change management

This session focused on what it takes to become an AI-ready organisation—not only in terms of technology, but also in culture, skills, and communication. Participants explored how to effectively balance top-down direction with bottom-up engagement, foster a culture of collaboration and learning, and frame a motivating narrative around AI adoption that resonates across the organisation.

Participants agreed that successful AI transformation requires a **cyclical interplay between top-down strategy and bottom-up experimentation**. Leadership must articulate a clear and compelling vision for why the organisation is investing in AI and how it will benefit staff and operations. This includes visible sponsorship, aligned prioritisation, secure and accessible data, and mechanisms that go beyond silos—particularly through sound **data governance**.

At the same time, **empowering staff to identify their own needs and experiment with AI tools** is vital. Rather than starting with technology, organisations should begin with real use cases rooted in day-to-day work. Continuous feedback between staff and management helps refine both the vision and the practical implementation. This bottom-up process builds ownership and helps ground strategy in operational reality.

Culture was seen as a cornerstone of AI readiness. A collaborative mindset can be nurtured through **networks of change**, composed of volunteers and early adopters who share experiences and showcase what is possible. Highlighting small, successful initiatives can inspire broader engagement.

Importantly, organisations must remain open to **external learning**, recognising they don't have all the answers. A willingness to experiment—and to make mistakes—is crucial, as long as safeguards such as the **reversibility principle** are in place to manage risk. Middle management plays a

critical role here, serving as a bridge between strategic goals and frontline innovation, ensuring that experimentation is channelled constructively.

An effective AI narrative must be **honest, balanced, and emotionally engaging**. It should explain why AI is needed, what benefits and risks it brings, and how it can support evidence-based decision-making. Success stories are powerful, but acknowledging failures and uncertainties helps build credibility and trust.

The narrative should embrace **adaptability**, acknowledging that the path ahead may not be fully defined but that **everyone is on the same journey**. Using foresight and reflections on past organisational changes can help create a sense of direction in times of uncertainty.

Ultimately, the message is one **shared transformation**: AI is here to stay, and organisations must continuously evolve to make the most of it—together!

### Strategic building blocks

- **Combine strategic direction with grassroots experimentation** to foster innovation and relevance.
- **Empower staff** to identify needs, try solutions, and feed insights back into the strategy.
- **Build a collaborative culture** through champions, openness to failure, and cross-level communication.
- **Craft a compelling narrative** that connects emotionally, explains the purpose, and embraces uncertainty.
- **Continuously adapt** to evolving technologies while staying anchored in organisational values and mission.

## 6. Gaps on the path to a fully optimised AI-empowered organisation

The workshop underscored that the journey toward becoming a fully optimised, AI-empowered organisation is still in its early stages. This section summarises the **critical gaps**—spanning **technological, cultural, operational, and strategic dimensions**—that have been identified throughout the workshop presentations and discussions. They would need addressing to unlock the full potential of GenAI for organisations and reflect both the **complexity of AI integration** and the **transformative changes** it demands.

### Technological Gaps:

One of the most pressing issues is the **lack of integration and interoperability** across AI tools and existing IT systems. Organisations often deploy a mix of off-the-shelf and custom-built solutions, but these remain fragmented. Seamless integration is essential to support end-to-end automation and informed decision-making.

Equally important is **data readiness**. Many organisations face challenges in preparing internal data and knowledge systems for AI use. The quality, structure, security, and governance of data are often insufficient, limiting the effectiveness of AI models and the insights they can produce.

While basic applications—such as content generation, translation, or data analysis—are becoming more common, organisations are still far from adopting **advanced AI capabilities** like predictive analytics or autonomous agentic systems. Moving in this direction will require investment in R&D, infrastructure, and workforce skills.

### Cultural and Operational Gaps:

A key challenge is **cultural resistance** to AI. Fear of job displacement, a lack of understanding, and general scepticism can undermine adoption. Organisations need robust **change management** strategies that build trust, encourage experimentation, and promote AI as a supportive tool rather than a threat.

There is also a significant **skills gap**. Beyond technical competencies in AI and data, staff need **critical thinking, ethical awareness, and problem-solving skills** to use AI responsibly. Regular upskilling and reskilling programs are essential to build an AI-literate workforce.

Additionally, many organisations struggle to foster **collaboration and knowledge sharing**. Without platforms and structures that support cross-team interaction and learning, experimentation remains siloed, and progress fragmented.

### Strategic Gaps:

Many organisations have a broad **vision for AI** but lack a **coherent strategy** to guide implementation. Bridging this gap requires setting clear priorities, aligning initiatives with mission objectives, and establishing **governance frameworks** to monitor and guide AI deployment.

The **measurement of impact** remains underdeveloped. Organisations often lack standardised frameworks to assess efficiency gains or ROI from AI projects. Without reliable metrics, it is difficult to evaluate progress or inform future investment decisions.

Finally, **risk management and ethical considerations** need to be strengthened. From data privacy and algorithmic bias to security and transparency, organisations must embed ethical safeguards into their AI governance to ensure responsible and trustworthy use.

### **Key takeaways**

- **Gaps and barriers** limiting more advanced use of AI applications **exist across the board**, including (i) technological and data fragmentation, ii) cultural resistance, iii) lack of skills, cross-learning culture, and transdisciplinary teams, iv) clear AI strategies, methodologies and metrics for measuring impact, and v) clear ethics framework and communication strategy.
- Addressing these gaps calls for a **holistic transformation**, combining **technological advancement, cultural change, operational agility**, and **strategic clarity**.
- Becoming a truly AI-empowered organisation is not just about adopting new tools, but about fostering a culture of **innovation, collaboration, and continuous learning**.

## 7. Summary and Conclusions

The workshop “*Harnessing AI for Organisational Transformation in Science–Policy Interfaces*” brought together participants from diverse disciplines to explore how AI can be meaningfully and responsibly integrated into organisational processes. Through presentations, breakout group discussions, and strategic sessions, participants examined both the potential and the challenges of AI adoption—ranging from quick operational gains to long-term cultural and strategic transformation.

Discussions underscored that successful AI integration is not just a technical endeavour, but a multifaceted process involving **vision, governance, culture, skills, communication, and ethics**. The following key conclusions emerged:

### Strategic Alignment and Vision

A clear and compelling vision for AI integration is essential to guide organisational transformation. This vision must be **flexible and adaptive**, enabling organisations to evolve in step with rapidly changing technologies. To stay on course, progress should be structured around **realistic milestones**—short-, medium-, and long-term—that allow for regular evaluation and strategic adjustments as conditions evolve. Crucially, AI strategies must be **firmly aligned with core organisational objectives**, ensuring that adoption serves mission-critical work rather than being driven by hype or the appeal of technology alone.

### Balanced Implementation: Quick Wins and Long-Term Impact

Organisations should strive to **balance quick wins with long-term strategic priorities**. Demonstrating early value through achievable projects helps build momentum and trust, while also laying the foundation for more advanced and impactful AI applications. Adopting a “**think globally, act locally**” approach, where use cases are piloted in specific contexts and scaled based on proven success, is particularly effective in navigating the complexity of large systems.

At the same time, there is a recognised need to **strengthen measurement frameworks**. Many organisations still lack robust methods for assessing the impact of AI initiatives which hamper effective implementation of strategic goals and roadmaps. Combining **process-level KPIs** with **staff perception surveys** offers a more holistic view of progress and return on investment (ROI) and is essential for **adaptive prioritisation and continuous improvement**.

### Governance and Prioritisation

Effective AI integration depends on the establishment of **robust and scalable governance structures** that can coordinate efforts across the organisation, prevent fragmentation, and uphold clear lines of accountability. To prioritise AI initiatives, organisations should use a multi-faceted approach including —cost benefit implications, feasibility, and risk—while balancing **top-down strategic direction** with **bottom-up identification of practical needs**. This approach not only ensures alignment with organisational priorities but also fosters staff ownership and engagement.

Governance must also include **comprehensive risk management and ethical oversight**, addressing critical issues such as **data privacy, bias mitigation**, and **reputational risk**. Importantly, organisations should recognise that the **AI journey is uneven and context-specific**: different units or teams may progress at different speeds. As such, AI strategies should be **modular and adaptable**, accommodating diverse starting points, capacities, and evolving needs.

### **Skills, Training, and Literacy**

AI readiness depends not only on building technical capability, but also on cultivating **critical thinking, legal awareness**, and a **practical understanding** of AI's capabilities and limitations. To be effective, training must be **practical, contextual, and tailored** - adapted to different roles, levels of expertise, and types of interaction with AI tools. Legal training should focus on enabling safe and informed use, offering **positive guidance grounded in real-work cases**, particularly in areas such as intellectual property, data protection, and ethics.

Training should be seen as a continuous process, not a one-off exercise, with regular updates to keep pace with the rapid evolution of AI tools and their applications. Differentiated training pathways can ensure that both technical and non-technical staff feel confident and competent in their use of AI, reducing reliance on informal experimentation and **encouraging transparent, responsible adoption**.

### **Culture, Collaboration, and Change Management**

At the heart of successful AI integration lies **organisational culture and change management**. A truly AI-ready organisation fosters a **collaborative environment** that supports **continuous learning, experimentation**, and **psychological safety**. Building **communities of practice** and **networks of change**—championed by volunteers and early adopters—can play a vital role in spreading adoption and confidence through peer learning and visible success.

Overcoming **cultural resistance** is essential. This requires clear messaging that presents AI as a **tool to augment human expertise**, not to replace it. Creating **safe spaces for experimentation and failure**, supported by **appropriate safeguards and reversibility**, helps foster innovation while managing risk.

Above all, **trust is foundational**. Building trust in both the AI systems and the organisational processes around them requires **transparency, user literacy**, and **visible leadership support** at all stages of the AI lifecycle. When AI use is **discouraged or poorly communicated**, staff may resort to **hidden or informal use**, which carries far greater risk. Encouraging **safe, acknowledged, and supported use of AI** is ultimately more effective than prohibition.

### **Communication and Narrative**

A **motivating and honest narrative** around AI is essential to foster genuine engagement across the organisation. This narrative should **clearly explain the rationale for adopting AI**, articulating how it supports the organisation's mission and enhances daily work. It must **present both opportunities and risks transparently**, avoiding overpromises while highlighting realistic

benefits. Striking the right tone means blending **emotional resonance with factual clarity**, appealing to both the head and the heart and embracing uncertainty.

Given the fast pace of technological change and the uncertainty it brings, the narrative should also **emphasise adaptability and shared responsibility**, reinforcing that everyone is part of this evolving journey. To be effective, **communication strategies must be tailored** to different roles, levels of expertise, and areas of work—ensuring that the message is relevant and understood organisation-wide.

Importantly, poor communication or ambiguity around AI use can lead to **hidden or informal adoption**, where tools are used without oversight or transparency. This significantly increases the risk of errors, bias, or ethical lapses. By contrast, **encouraging safe, visible, and supported use** fosters a culture of accountability, learning, and trust—considered far more effective than restrictions.

## References

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**Tangi**, Luca and Combetto, Marco and Hupont Torres, Isabelle and Farrell Eimear and Schade Sven **(2024)** *The potential of generative AI for the public sector: current use, key questions and policy considerations*. Available at: <https://publications.jrc.ec.europa.eu/repository/handle/JRC139825>

## List of abbreviations and definitions

<b>Abbreviations</b>	<b>Definitions</b>
AI	Artificial Intelligence
DG	Directorate-General
GenAI	Generative Artificial Intelligence
gpt	Generative pre-trained transformer
gpt@JRC	JRC platform for testing various gpt-models
LLM	Large Language model
ROI	Return on Investment

## Annexes

### Annex 1. Level of task maturity in AI adoption

During the workshop, various examples of tasks with different levels of AI maturity adoption at the time of the workshop were noted and are summarised in this table. The applied AI tools range from commercially available LLMs and GenAI tools, in-house customised tools as well as ongoing or envisaged full in-house developments.

Description	Examples
<b>Available at present</b>	
<b>Commonplace use of GenAI, well-established tools</b> (either in-house development or commercially available)	<ul style="list-style-type: none"> <li>• <b>Content generation:</b> communications, policy briefs, meeting minutes, recurrent publications, answering FAQ, drafting email</li> <li>• <b>Communication:</b> blog posts, social media, creating images and videos, explaining complex issues in simple terms, briefings, speeches</li> <li>• <b>Writing:</b> summary, formatting, transcribing, translating</li> <li>• <b>Information retrieval:</b> for structured and unstructured information</li> <li>• <b>Data analyses:</b> coding, creating figures, statistical operations</li> <li>• <b>Research:</b> literature review, brainstorming, foresight, detecting plagiarism, finding information, identifying sources, citation of sources</li> <li>• <b>Procurement:</b> support to writing of public tender documents, support for market research, verification of public tender documents and offers</li> <li>• <b>Human Resources:</b> writing job descriptions, assessing job applications</li> <li>• <b>Translation and Localisation</b></li> <li>• <b>Automated Reporting and dashboarding</b></li> </ul>
<b>Expected to be available in the near future</b>	
<b>Some tools exist, but best practices still forming.</b>	<ul style="list-style-type: none"> <li>• <b>Virtual assistants for specific applications</b> and initial user support including             <ul style="list-style-type: none"> <li>○ <b>Scientific assistant</b> (brainstorming, enhanced foresight, literature review, citations, learning, predictive analysis...)</li> <li>○ <b>Science for policy assistant</b> (regulatory impact, monitoring policy outcomes, predictive analysis)</li> <li>○ <b>Virtual admin assistant</b> (administrative processes, procurement, finance, logistics, safety, security, handling first-line inquiries as first-line <b>support</b>)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ <b>Safe-to-use HR assistant</b> for services (for onboarding new colleagues, answering FAQ, draft standard email responses, ...)</li> <li>● <b>Custom GenAI tools</b> for learning (in-house development)</li> <li>● Testing of <b>commercial software</b> such as MS Co-pilot (testing, with restrictions)</li> <li>● Automated reporting and dashboarding</li> <li>● <b>Integration of AI with other technologies</b></li> <li>● <b>Development of explainable AI and transparent AI systems</b></li> <li>● Integrate AI in critical administrative systems, such as PPMT, ticketing tools (OTRS, FMportal), Secpac, intranet sites, document management tools (ARES),....</li> <li>● <b>Integrate AI in building management and logistics systems</b>, for management of ambient conditions, taking of system management decisions based on presence, intelligent assignment and management of office and laboratory space</li> </ul>
<b>Further explorations needed</b>	
<p><b>Use is exploratory, proof-of-concepts or custom builds</b></p>	<ul style="list-style-type: none"> <li>● <b>AI-driven organisational transformation</b> (policy-making processes, public services and administrative operations, decision-making)</li> <li>● <b>Integration of AI with other technologies</b></li> <li>● <b>Responsible AI innovation, explainable AI and transparent AI systems</b></li> <li>● Integrate <b>AI in critical administrative in-house systems</b> and databases, such as PPMT, ticketing tools (OTRS, FMportal), Secpac, intranet sites, etc.</li> <li>● Integrate <b>AI in building management and logistics systems</b>, for management of ambient conditions, taking of system management decisions based on presence, intelligent assignment and management of office and laboratory space</li> <li>● Development of <b>fully performing, trustworthy Virtual assistants with controlled and understood bias</b> <ul style="list-style-type: none"> <li>○ Scientific assistant</li> <li>○ Science-for-Policy Assistant (proof-of-concept)</li> <li>○ Virtual Admin Assistant for various tasks including linking to databases (proof-of-concept)</li> <li>○ Safe-to-use assistant for HR scanning job applications and handling sensitive data</li> </ul> </li> </ul>

## Annex 2. Gen AI Systems complexity levels

Table 2: Gen AI Systems complexity levels (“AI-IQ”) as devised in De Longueville et al (2025) (<http://dx.doi.org/10.2139/ssrn.5141665> or <https://ssrn.com/abstract=5141665>)

AI-IQ level	GenAI system capabilities	Typical Gen AI system configuration
0	<b>Non-conversational</b> – Limited to answering the pre-defined questions anticipated by the system developer	Unlike open-ended interactive conversational LLMs, this level represents a more basic semantic search system that retrieves answers to similar questions predetermined in advance. Examples of this level include traditional chatbots found on airline websites, which provide pre-scripted responses to common user inquiries
1	<b>Conversational</b> – Capable of engaging in open-ended conversations and generating text on demand. The accuracy and reliability of the responses may be limited by outdated knowledge and lack of validation mechanisms, and there is a risk of hallucinations.	The system runs an LLM with some relevant information provided in the context window, such as a custom system prompt (i.e an instruction that is always provided to the LLM at the beginning of each conversation, made by its programmer and not always show to the user).
2	<b>Basic RAG</b> – Capable of providing answers based on specific, proprietary knowledge from the organisation that owns the system, complementing the GenAI’s (e.g. LLM’s) general knowledge.	The GenAI system employs a basic form of Retrieval Augmented Generation (RAG), enabling the retrieval of knowledge from organisation-specific documents or knowledge bases, and making this information available to the LLM to inform its responses.
3	<b>Advanced RAG</b> – The GenAI system is capable of accessing, interpreting and synthesising knowledge from the organisation’s proprietary sources in a targeted and optimal way, specifically tailored to meet the requirements of identified use cases	Multiple knowledge bases are made available to the GenAI system as specialised Knowledge Tools, each optimised for specific use cases through tailored RAG modalities. For example, one knowledge tool might be designed to generate a digest of latest relevant research papers. The user chooses which Knowledge Tool(s) to activate in the context of the interaction with the GenAI system, allowing it to focus on the most relevant information for the task at hand. Advanced RAG is also characterised by the level of sophistication and optimisation of the RAG system, e.g. for dividing documents in information chunks, converting such chunks in machine-understandable embeddings, or for ranking the relevance of selected information

4	<p><b>Basic Agentic</b> – Enables the GenAI system to proactively leverage specialised data sources and tools, automatically selecting the most relevant ones from a predefined set of corporate resources and tools that have been made available with all necessary information for the system to utilise them</p>	<p>A predefined set of tools and corporate resources are made available to the GenAI system, complete with all necessary information for their utilisation. An agentic system component leverages one or multiple LLMs to interpret user requests, and understand how to effectively use the available tools. A RAG based approach is used by the system using the relevant tools. This may involve tasks such as launching API requests, generating Python code that is executed in a sandbox, or taking other actions that enable the system to harness the capabilities of the provided tools.</p>
5	<p><b>Full Agentic</b> - The GenAI system possesses advanced agentic features with some level of autonomy, enabling it to iteratively utilise available tools and resources to not only complete the provided task but also to adapt and improve its approach in response to changing circumstances or new information. This level of agentic capability allows the system to operate with increased independence and flexibility, pursuing multiple lines of inquiry, and incorporating new data or insights as it works to achieve its objectives.</p>	<p>The GenAI system incorporates agentic components that enable it to iteratively complete complex tasks by breaking them down into smaller, manageable tasks, leveraging available resources and tools to execute each step. The GenAI system benefits from a degree of autonomy to explore various avenues and identify an optimal solution and plan various execution steps. Ultimately, the GenAI system can execute routine business tasks with the appropriate level of human oversight, freeing up resources for more strategic and high-value activities.</p>
6	<p><b>Multi-agentic systems</b> – The GenAI system functions as a swarm of agents, each with advanced agentic capabilities, working collaboratively to achieve complex objectives. This level represents a significant leap forward in GenAI capabilities, enabling the system to tackle intricate tasks that require coordination, negotiation, and collective problem-solving. The swarm intelligence allows the system to adapt and respond to changing circumstances, leveraging collective knowledge and the ecosystem of available tools and data.</p>	<p>This level of GenAI system is characterized by a decentralized architecture, in which multiple agents operate autonomously, interacting with each other and leveraging the available tools and data to achieve the goal requested by the user. Individual agents contribute to the collective objectives of the swarm. Advanced knowledge management and sharing mechanisms can facilitate the exchange of information and expertise among agents, potentially enabling them to learn from each other and improve overall performance through continuous collaboration.</p>

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