# Building AI and Digital Governance Transformation Capacity in the EU and beyond - Shaping the AI4Gov-X Ecosystem and Platform

Gianluca Misuraca<sup>1,2,\*</sup>, Claudio Feijóo<sup>3</sup>, Marzia Mortati<sup>2</sup> and Camilla Roveri<sup>3</sup>

#### **Abstract**

Artificial Intelligence (AI) is becoming increasingly central to public sector transformation in Europe, yet its adoption poses significant challenges for capacity building, ethical deployment, and cross-role collaboration. The AI4Gov-X initiative addresses these challenges through an integrated ecosystem of training and digital tools, underpinned by a competency framework tailored to governance realities. This workshop is the first in a series of validation activities designed to test and refine that framework. Using interactive methods, participants will assess the clarity and relevance of functional profiles, validate and prioritise competencies, and identify gaps or emerging skills. The session will generate directly usable evidence—validated lists, ranked priorities, and proposals for refinement—that will inform both academic publications and the further development of AI4Gov-X tools. By engaging a diverse group of stakeholders, the workshop will enhance institutional capacity for the responsible and democratic adoption of AI in public administrations.

### Keywords

Artificial Intelligence, Public Sector, Competency Framework, Digital Governance, Capacity Building

### 1. Introduction

Artificial Intelligence (AI) is central to public sector transformation in Europe, yet its adoption raises challenges for capacity-building, ethics, and cross-role collaboration [1, 2].

The AI4Gov-X initiative addresses these through an ecosystem of training and digital tools, built on a governance-oriented competency framework [3]. Drawing on EU strategies [4], institutional references [5], and academic work [6], the framework distinguishes meta-competences (know-why), governance competences (know-how), and operational competences (know-what) [7]. These are clustered into five functional profiles—Technical; Legal/Policy; Service Design and Participation; Programme Management and Digital Transformation; and Anticipatory Governance and Foresight—supported by a transversal layer of ethics, transparency, and accountability [3].

This workshop inaugurates a series to validate and refine the framework, aiming to (i) map gaps and training needs, and (ii) test the validity and usability of the functional profiles.

## 2. Workshop Format

The 90-minute workshop has four phases. Each is designed to generate evidence for framework validation.

**Opening (15 min).** Welcome and objectives by the Scientific Director of AI4Gov-X, Gianluca Misuraca. Participants will briefly indicate their roles and governance levels to contextualise the findings. The competency framework and profiles are briefly presented to provide a shared basis for subsequent activities.

 $Proceedings\ EGOV-CeDEM-ePart\ conference,\ August\ 31\ -\ September\ 4,\ 2025,\ University\ for\ Continuing\ Education,\ Krems,\ Austria.$  \*Corresponding author.

**<sup>1</sup>** 0000-0002-5406-9447 (G. Misuraca); 0000-0002-9499-7790 (C. Feijóo); 0000-0002-6900-403X (M. Mortati); 0009-0007-0644-5456 (C. Roveri)



© 2025 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0)

<sup>&</sup>lt;sup>1</sup>Inspiring Futures Europe, Calle Espronceda, 13, 28003, Madrid, Spain

<sup>&</sup>lt;sup>2</sup>Department of Design, Politecnico di Milano, via Durando 10, 20158, Milan, Italy

<sup>&</sup>lt;sup>3</sup>Universidad Politécnica de Madrid, Campus de Montegancedo, 28660 Boadilla del Monte (Madrid), Spain

应 gianlucacarlo.misuraca@polimi.it (G. Misuraca); claudio.feijoo@upm.es (C. Feijóo); marzia.mortati@polimi.it (M. Mortati); camilla.roveri@upm.es (C. Roveri)

Activity 1: Validating clustering (35 min). This activity will test the robustness of the framework's clustering methodology. Participants will individually review the five functional profiles, assessing their clarity, completeness, and distinctiveness. Using the Slido platform to ensure anonymity, they will identify potential shortcomings—such as overlaps, complexity, or missing dimensions—and propose refinements or alternative groupings. The activity will conclude with a voting exercise to prioritise areas requiring urgent revision. The outcome will be direct evidence on the validity and usability of the clustering, complemented by suggestions for structural improvements.

Activity 2: Validating competencies (25 min). The second activity will assess the validity and clarity of the competencies linked to each functional profile. Working in groups, participants will review the competencies profile by profile, annotating items as relevant, unclear, or missing. They will then prioritise the most critical competences through a dot-voting exercise. This process will generate a ranked and validated list of competencies, highlighting those that require refinement, and identify gaps or emerging skills to be incorporated into the framework.

**Final discussion (15 min).** The closing plenary will synthesise insights from the previous activities. Participants will collectively identify urgent gaps, clusters requiring revision, and opportunities for new training approaches or institutional applications. The discussion will conclude with a prioritisation of the most critical competencies, resulting in consolidated recommendations and a roadmap for further development of the framework.

### 3. Expected Outcomes

The session will yield: (i) a clear mapping of gaps and strengths within the framework; (ii) evidence on the validity and usability of the clustering methodology; and (iii) refinements to both the overall structure and the competencies identified. Broader stakeholder involvement will ensure the framework's relevance, usability, and impact, reinforcing AI4Gov-X as a reference for capacity building in digital governance.

### **Declaration on Generative Al**

The authors utilised Grammarly for language refinement, including sentence structure and word choice, and afterwards, they carefully reviewed and edited the manuscript, taking full responsibility for the final version.

### References

- [1] G. C. Misuraca, P. Rossel, P. Sibal, Towards Mastering Artificial Intelligence and Digital Governance in the Public Sector: Principles and Recommendations, in: Pesquisa sobre o uso das Tecnologias de Informação e Comunicação no Setor Público Brasileiro: TIC Governo Eletrônico 2023, Núcleo de Informação e Coordenação do Ponto BR, 2024.
- [2] G. C. Misuraca, P. Rossel, P. Sibal, Mastering AI Governance in the Public Sector, in: The Routledge International Handbook of Public Administration and Digital Governance, Routledge, 2024. EBook.
- [3] G. C. Misuraca, M. Nicolosi, M. Mortati, A. Deserti, C. Roveri, C. Feijóo, Analysis of the State of the Art and Benchmarking of Thematic Training and Educational Programmes in the Area of Artificial Intelligence, Data Spaces and Digital Governance Transformation, 2025. AI4Gov-X Project Deliverable D1.1 (31 July 2025). Inspiring Futures Europe, Politecnico di Milano, Universidad Politécnica de Madrid. Unpublished internal report.
- [4] R. Vuorikari, S. Kluzer, Y. Punie, DigComp 2.2: The Digital Competence Framework for Citizens, 2022.
- [5] G. C. Misuraca, Digital Governance and AI Compass for Policy-Makers and Regulators, 2024. Unpublished report, UNESCO.
- [6] G. C. Misuraca, R. Medaglia, C. Feijoo, M. Mortati, C. van Noordt, Developing Competences for Artificial Intelligence in the Public Sector: The AI4Gov Canvas, in: Vol. 1 (2025): International Conference on Digital Government Research (dg.o 2025), 2025.
- [7] R. Garud, Know-how, Know-why, and Know-what, Advances in Strategic Management 14 (1997) 81–101.