

# AI Manual for public administration: from planning to execution

Acatech – Lernende Systeme

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## CHALLENGE

**AI** becomes more prevalent in society & will also be used in digital administration

**How** can we ensure that AI in digital administration benefits citizens & aligns with core principles?

**AI can revolutionize public administration**

<p>Improves efficiency</p> <p>Automates routine tasks, allowing administrators to focus on higher-level, creative work</p>	<p>Enhances decision-making</p> <p>Provides data-driven insights &amp; recommendations for public administrators</p>	<p>Increases accessibility &amp; convenience</p> <p>Provides additional support via chatbots and virtual assistants</p>
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However,

**AI implementation comes with risks**

<p>Personal data</p> <p>usage for AI in public administration raises privacy concerns</p>	<p>Bias in AI</p> <p>can lead to unfair or discriminatory outcomes</p>	<p>Ethical &amp; legal issues</p> <p>arise with the use of AI for decision making, accountability, and liability</p>
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## CHALLENGE

**Current issue:** State of German public administration's digitalization

**Challenge:** Implementing responsible Artificial Intelligence in public administration

## RECOMMENDATION

**Manual** guiding public administration through the implementation of responsible AI covering two parts:

**If-part** (Does it make sense to implement AI for a particular process?)

**User & Problem Definition**

- Who is the user? (e.g., government agencies)
- What is the problem? (e.g., data entry & processing)

**Risk assessment**

- What legal risks are involved? (e.g., GDPR-compliance)
- What ethical risks are involved? (e.g., IEEE Framework)
- What resource risks are involved? (e.g., costs, human resources)

**Benefits Assessment**

- What cost-benefits would come? (e.g., reduction in salary costs)
- What service-benefits would come? (e.g., improved customizability)
- What societal benefits would come? (e.g., transparency & participation)

**Do the benefits outweigh the risks?**

If not, we recommend not to go through	If yes, we recommend to go through	If roughly equal, we recommend external consultation
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**How-part** (How to implement AI?)

**Organizational & technical dimension**

- Organizational dimension deals with staff, acceptance by citizens, financial resources
- Technical dimension deals with technical support, technology to implement

**Identification of To Dos**

- To answer "How to implement?", it is crucial to know what needs to be done for each step on both dimensions

**"What do we have?" - assess status quo**

- What resources and infrastructure are available?
- Are there staff, servers, and external contractors to utilise?

**"What do we need?" - assess needs for successful implementation**

- Consider staff & societal acceptance, technical know-how, infrastructure requirements, contractor necessities.

**"What are the To Dos for implementation"?**

- Identify what's needed but not yet available
- Decide what needs to be changed, acquired or outsourced.
- Plan the execution process, eg., public procurement

**Risk assessment**

- Assess legal and ethical risks iteratively & simultaneously in each layer
- Perform risk assessments before making decisions, considering all technical and organisational needs.

Assess if readjustments are necessary and evaluate the impact of legal and ethical frameworks on required resources, including infrastructure and duties.

## KEY LEARNINGS

- Potential benefits** that AI can bring for the public administrations
- Implementing AI responsibly** can be challenging and requires the fulfilment of legal and ethical conditions and other aspects to reach successful implementation
- It is important to consider** the management structure of public administrations as a potential barrier for AI implementation

## OUTLOOK

- Reach out to public agencies:** Including stakeholders in the design process is essential to meet their needs and expectations of the AI manual. Regular communication channels ensure that all parties stay informed and engaged throughout the project.
- Roll-out:** The pilot will be implemented on a larger scale, with a monitoring process established to optimize system performance and ensure long-term effectiveness.
- Pilot implementation:** The system will be continuously improved to ensure the precision and quality of the recommendations. Pilot testing is essential to identify potential issues and improve usability.

## LITERATURE

- Shengoma, F. R., Shao, D., Alexopoulos, C., Saxena, S., & Nikiforova, A. (2022). Integration of artificial intelligence of things (AIoT) in the public sector: drivers, barriers and future research agenda. DIGITAL POLICY, REGULATION AND GOVERNANCE, 24(5), 449-462. doi:10.1108/DPRG-06-2022-0067
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