

DGovAl

Integrating Digital Twin with GenAl for a Smarter, Efficient & Resilient Public Administration

Apply Al: GenAl for Public Administrations



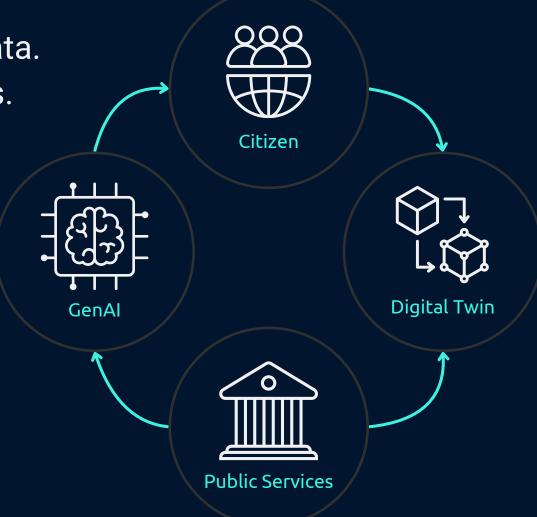
Context & Motivation

- → Public services remain bureaucratic and slow to adapt.
- → Standalone GenAl risks replicating inefficiencies from historical data.
- → Need to connect AI directly to the real operational state of services.



Objectives

- → Increase internal efficiency and automate low-value tasks.
- → Coordinate humans and robots in collaborative operations.
- → Provide fast, accurate citizen responses.
- → Ensure resilience during disruptions or emergencies.
- → Simplify bureaucratic procedures and improve accessibility.





Concept

Digital Twin: real-time replica of infrastructure & processes (data from IT systems, IoT, human inputs).

GenAl: trained with regulations + live operational data

Healthcare Example:

hospital under stress \rightarrow automatic reallocation of staff/robots + live updates to citizens on appointments and wait times.

Methodology

WP1: Requirements & Co-Design with stakeholders

WP2: Digital Twin (3D modeling, system integration, human-robot coordination)

WP3: GenAl integration (LLMs + operational data, multi-channel interfaces)

WP4: Pilots (hospital & municipal office)

WP5: Dissemination & replication (national & EU scale)

Expected Impact

Operational: lower 40% average response time; automated workflows; effective coordination.

Citizen: stronger trust through faster, accurate service.

Systemic: true modernization of public services; resilience and adaptability

Innovation

Direct, real-time link GenAl ↔ Digital Twin.

Decisions based on live data, not outdated rules.

Smart, adaptive automation for dynamic contexts.