

OECD Global Call for AI in Government

Use case of AI in government.

AI-supported Local Tax Inspection for Fair and Sustainable Municipal Governance

Ensuring fairness, transparency and trust in local governance

Submitted to: OECD

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Level of government: Subnational

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1. Context: A growing challenge for local governments

Across OECD countries, local governments are facing a structural challenge: how to ensure fair, sustainable and legally sound taxation in increasingly complex urban environments.

Municipal tax systems were largely designed for a slower, more stable reality. Today, they must operate in territories characterised by:

- intense construction activity,
- frequent changes in property use,
- high seasonal population fluctuations,
- and increasing citizen expectations regarding transparency and fairness.

In provinces such as Alicante, this complexity is particularly acute. Coastal municipalities experience rapid urban development, strong second-residence markets and a significant foreign population unfamiliar with local administrative procedures. As a result, discrepancies between physical reality and administrative records tend to accumulate over time.

These gaps undermine the **principle of fiscal equity**. Citizens who comply bear a disproportionate burden, while undeclared constructions or changes of use remain invisible to traditional administrative processes.

The problem is not the absence of information. Public administrations already hold vast volumes of data.

The real challenge lies elsewhere:

fragmented datasets, heterogeneous formats, limited interoperability, and insufficient analytical capacity to transform data into actionable public intelligence.

2. Policy rationale: from reactive inspection to intelligent governance

Traditionally, local tax inspection has relied on reactive mechanisms: complaints, sporadic field inspections or ex-post detection. These approaches are costly, slow and often generate legal disputes, particularly when adjustments affect several past fiscal years.

From a policy perspective, this model presents three major risks:

1. **Fiscal inequity**, as similar properties may be taxed differently.
2. **Legal vulnerability**, due to delayed detection and retroactive corrections.
3. **Erosion of trust**, when citizens perceive the system as arbitrary or opaque.

In this context, Suma — the provincial tax administration of the Diputación de Alicante — identified the need for a structural transformation.

The objective was not merely technological modernisation, but a shift towards:

- evidence-based inspection,
- preventive rather than corrective action,
- and data-driven support for public decision-making.

Artificial intelligence emerged as a strategic enabler to support this transformation — not to replace human judgement, but to strengthen institutional capacity.

3. The initiative: AI as decision-support in local tax inspection

The initiative consists of deploying artificial intelligence to support the detection of inconsistencies between real-world constructions and declared tax records, particularly within the Property Tax (IBI).

The AI use case is clearly defined:

Using AI to identify potential undeclared constructions and changes of use in order to ensure fair property taxation and strengthen municipal fiscal sustainability.

AI is embedded within an integrated data environment combining:

- cadastral information,
- municipal building permits,
- geospatial data,
- and selected open-source information.

Through machine learning and pattern-detection techniques, the system supports three core functions:

1. **Data harmonisation**

AI assists in cleaning, standardising and linking heterogeneous administrative datasets.

2. **Geospatial correlation**

Construction permits are georeferenced and matched with cadastral parcels to create a unified territorial view.

3. **Anomaly detection**

AI models identify situations where declared construction data does not align with permits, physical characteristics or usage patterns.

Importantly, the system does **not** generate automated tax decisions.

Its role is strictly to **flag potential inconsistencies**, which are then reviewed, verified and processed by trained public officials.

4. AI in action: how the system works in practice

In operational terms, AI functions as an early-warning mechanism within the inspection workflow.

The process unfolds as follows:

- AI analyses thousands of construction permits and cadastral records simultaneously.
- It detects cases where construction dates, surface areas or declared uses appear inconsistent.
- The system generates geolocated alerts supported by visual and analytical evidence.
- Public inspectors assess each case, validate the findings and initiate administrative procedures when appropriate.

This approach allows administrations to move from isolated inspections to **systematic, territory-wide analysis**, significantly increasing coverage while preserving due process.

AI therefore enhances — rather than replaces — professional expertise.

Human oversight remains central at every stage.

5. Public value and measurable impact

The initiative produced tangible results in pilot municipalities with high urban dynamics.

Among the outcomes identified:

- hundreds of undeclared constructions detected,
- significant numbers of rehabilitations and extensions not previously registered,
- widespread inconsistencies in declared property characteristics.

Beyond quantitative figures, the public value generated is substantial:

- **Improved fiscal fairness**, ensuring equal treatment of taxpayers.
- **Reduced legal risk**, through earlier detection and non-retroactive adjustments.
- **Strengthened municipal revenues**, supporting essential local services.
- **Greater transparency**, as decisions are based on verifiable evidence.

For smaller municipalities lacking analytical resources, the system provides access to advanced capabilities that would otherwise be unattainable.

6. Governance, accountability and responsible AI

The initiative was designed in alignment with OECD principles for responsible AI.

Key safeguards include:

- AI is used exclusively for decision support.
- No automated sanctions or tax assessments are generated.
- All outputs are explainable, auditable and documented.
- Final decisions remain under full human authority.

Institutional governance is clearly defined:

- objectives and use limitations are set by public authorities,
- data access follows legal and organisational mandates,
- and accountability remains fully within the administration.

This governance-by-design approach ensures that technological innovation strengthens — rather than undermines — democratic control.

7. Scalability and replicability

The model is inherently transferable.

It does not depend on proprietary algorithms, but on:

- governance frameworks,
- interoperable data models,
- and a replicable analytical logic.

The approach is particularly suitable for:

- provincial or regional tax administrations,
- inter-municipal cooperation schemes,
- and small municipalities seeking shared digital capabilities.

As such, the initiative demonstrates how AI can reduce territorial inequalities in administrative capacity — a key concern for multi-level governance systems.

8. Conclusion: from data accumulation to public intelligence

This initiative illustrates a broader transformation underway in public administration.

Artificial intelligence, when governed responsibly, enables governments to move from fragmented information silos towards **public intelligence infrastructures** — systems that transform data into knowledge for better policy implementation.

In the case of Suma, AI supports a core governmental function: ensuring fair taxation in complex local environments.

The result is not only greater efficiency, but stronger legitimacy, improved trust and more sustainable local governance.

Institutional and Funding Information

This initiative has been developed and funded by the Suma Tax Management Agency of the Provincial Council of Alicante (Spain).

