

Leveraging artificial intelligence in the design and preparation of regional public funding calls

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Abstract: European funds managed at the regional level, such as the European Regional Development Fund (ERDF), are essential tools for supporting research, innovation, and competitiveness. However, the long time intervals between the approval of Operational Programmes by the European Commission and the actual publication of calls create significant challenges. In technological and scientific sectors, which are characterized by rapid cycles, innovation risks becoming “outdated” even before the calls are published, reducing the competitive impact of investments. Companies and universities, lacking predictable timelines, are unable to plan strategically, which negatively affects industrial planning, applied research, and partnerships. Delays in the evaluation phases further aggravate the situation, generating mistrust and slowing down project implementation even more. This study analyzes the main factors that slow down the call cycle, from the moment the programmes are adopted to the allocation of funds, and proposes the introduction of systems based on Artificial Intelligence (AI) to accelerate the drafting of calls. It presents a Proof of Concept (PoC) developed by Adamantic, a company specialized in AI-, Blockchain-, and Web3-based solutions, which combines the capabilities of AI and Blockchain to support Public Administrations in drafting public calls. The PoC has already been validated through simulations and initial tests to demonstrate its technical feasibility and will be demonstrated in a real operational environment through the GOV-LAZIO 2030 project proposal, which for the first time in Europe introduces the use of Artificial Intelligence (AI) for the preparation of funding calls.

Keywords: Artificial Intelligence, European Funds, Innovation and Public Calls, Research and Development, Blockchain.

1. INTRODUCTION

In the coming years, the adoption of Artificial Intelligence (AI) in public administration is expected to grow systematically in Europe, driven by EU and national policies that encourage its responsible use [1]. Experiences already underway in countries such as Estonia, a pioneer in e-government [2], or in Romania, where the use of AI has been tested to accelerate access to agricultural funds [3], demonstrate how AI can drastically reduce the time it takes to manage procedures. The AI Act [4], recently approved by the EU, provides a clear regulatory framework that favors the safe and ethical implementation of these technologies, while programs such as Horizon Europe and Digital Europe finance the development of concrete solutions for public governance. At a regional level, AI will be able to support the programming of structural funds (such as the European Regional Development Fund ERDF or the European Social Fund ESF), the drafting and publication of calls for proposals, administrative simplification, project evaluation and predictive policy analysis. Thanks to Natural Language Processing (NLP) models, predictive machine learning and decision support

systems based on knowledge graphs, public administration will be able to become more proactive and able to respond quickly to the needs of citizens, businesses and universities. The current evolution clearly indicates that, in the coming years, AI will no longer be an experimental tool, but a structural pillar of public governance in Europe [5]-[7]. Although the adoption of Artificial Intelligence in public administration is therefore growing strongly, especially for policy evaluation, citizen services and process automation, it has never been applied to the drafting phase of regional calls for tenders, which instead represents a crucial step in the governance mechanisms of the funds. The European Union is encouraging the integration of AI in public sectors through strategic initiatives such as the "AI-ready public administration" programme of DG REFORM [8], aimed at strengthening skills, data infrastructures and regulatory alignment. Added to this are the funding from the Digital Europe Programme and Horizon Europe, which allocate over a billion euros per year to the development and adoption of AI solutions for public systems [9]-[10]. Recent experimental calls, such as “GenAI for Public Administration” within Apply AI [11], have begun to

fund the use of generative models to support decisions, simplify procedures and even assist in the drafting of regulatory texts. However, these innovations have focused mainly on improving internal administrative activities or front-end services, without ever touching the upstream dimension of the policy, i.e. the creation of funding calls. Precisely for this reason, the proposal to systematically apply AI to the design and co-creation of regional calls represents an absolute novelty at European level, with the potential for a strong impact in terms of the effectiveness and transparency of development policies.

Meeting Business Needs

Funding calls often fail to fully address the real needs of local businesses and universities, and some recurring critical issues emerge:

- **Top-down approach:** Calls are often defined based on political or institutional guidelines, or to comply with EU/national regulatory frameworks, with limited stakeholder involvement. As a result, they tend to prioritize broad themes (e.g., green transition, digitalization, inclusion) while neglecting the specific needs of local supply chains.
- **Time misalignment:** Lengthy preparation phases and administrative delays mean that support often arrives too late. Universities, which operate on multi-year research cycles, and businesses, which require rapid investment decisions, struggle to adapt to tight timelines.
- **Excessive bureaucracy:** Unwieldy documentation and procedural requirements discourage small businesses and university laboratories, shifting participation toward larger organizations with greater administrative capacity.
- **Weak connection to local strengths:** Calls for proposals are often generic, poorly anchored in Lazio's recognized specializations.
- **Fragmented stakeholder engagement:** Dialogue with businesses and universities is often episodic and formal, rather than structured and ongoing, reducing the ability to identify real needs.
- **Compliance rather than impact:** Calls for proposals are designed primarily to ensure the proper spending of EU/national funds, rather than to maximize the long-term impact on innovation, sustainability, decarbonization, and competitiveness.

Taken together, these factors create a governance gap: despite significant resources available through EU and regional funds, the processes and tools used are not sufficiently flexible, responsive, or co-created to maximize effectiveness.

2. FROM REGIONAL OPERATIONAL PROGRAMS TO CALLS FOR PROPOSALS

European funds managed at the regional level, such as the ERDF, represent a fundamental resource for supporting research, innovation, and regional competitiveness. However, the time lag between the European Commission's approval of Operational Programs, the publication of specific calls for proposals, and the selection and implementation of projects creates a series of critical issues that penalize universities and businesses. In the technological and scientific sectors, innovation cycles are extremely rapid. Often, a project deemed innovative at the time of Program approval is already outdated or partially obsolete by the time the call for proposals opens 12–18 months later. This makes it difficult to submit and implement truly "cutting-edge" projects, reducing the competitive impact of funding. In this way, innovation becomes stale before the call for proposals and the allocation of resources are announced, and effective strategic planning for businesses based on European funds becomes difficult. Companies, especially SMEs, need certainty about the timing and opportunities to plan investments, hire qualified personnel, and develop prototypes and growth plans. If calls for proposals arrive too late and projects are not evaluated and selected quickly and without a predictable timeline, companies are unable to synchronize public funds with their business plans, either refusing to participate or adapting to projects with less impact.

The academic world also suffers from the same delays. Indeed, if research groups cannot effectively plan the use of resources, projects risk falling out of line with the scientific state of the art, and partnerships with companies weaken due to the lack of clear timeframes. In this case, companies often lose trust in institutions because they cannot wait that long, the proposed innovation becomes less relevant, and funding arrives only when market conditions have already changed. The result is that many companies and universities do not participate in calls for proposals, funds risk being underutilized or concentrated on "tactical" rather than strategic projects, and the opportunity to truly support the growth and competitiveness of the region is lost.

This study briefly describes the processes between Program approval and the publication of calls for proposals and analyzes the main factors that slow down these processes, focusing on the period from program adoption and funding allocation to the publication of the call for proposals. It also analyzes how digital solutions based on artificial intelligence and other technologies capable of improving and accelerating the call for proposals writing phase can represent concrete development levers for the region, facilitating the identification of real innovation, supporting business strategic planning, and increasing the impact of regional policies.

A Complex Process

Access to European funds by businesses, universities, and research centers depends on a complex process that begins with the approval of the Regional Operational Programs (now called Regional Programs – PR in the 2021–2027 cycle) and ends with the publication of calls for proposals. Understanding the phases and timelines of this process is essential for planning investments, research activities, and territorial development strategies. The various phases of the process are summarized below:

1. Adoption of the Regional Program

The Program is approved by the European Commission following negotiations with the Lazio Region and represents the political and strategic reference document containing priorities, axes, measures, and financial allocations. The Program's adoption date marks the beginning of the process.

2. Implementation Planning

After the Program's approval, the Managing Authority and the relevant regional directorates define operational plans and implementation documents that specify how to translate the priorities into concrete interventions. These require time to coordinate stakeholders, internal offices, and technical assessments.

3. Funding Allocation and Call for Proposals

Once the projects have been selected, the Region decides on specific funding and prepares the calls for proposals. This requires defining the eligibility criteria, preparing the application forms, and implementing the application procedures. The average duration of this phase is 3–6 months.

4. Publication of the Call for Proposals

Once drafted, the call for proposals is published in the Official Bulletin of the Lazio Region (BURL) and on regional portals, marking the opening of the application window.

5. Collection of Applications

Typically, two to six months are allowed to submit project proposals, and multiple deadlines may be set, including one-off deadlines, time windows, or continuous calls until the funds are exhausted.

6. Evaluation and Ranking

The preliminary investigation and technical evaluation phases generally take between 3 and 6 months, after which the rankings are published and the commitment procedures with beneficiaries begin.

Adding together the various phases, the timeframe ranges from a minimum of 9 months in an optimal scenario with a very rapid process to a worst-case scenario that can take 18 months or more, especially if there are planning delays or significant complexity. This means that companies and universities intending to participate must be able to anticipate their planning in some way: once a Program is approved, the first concrete calls for proposals are not immediate, but require at least a year to mature. Figure 1 graphically illustrates the timeline, with an estimated average time

of 9–18 months from Program approval to the publication and implementation of the first call for proposals.

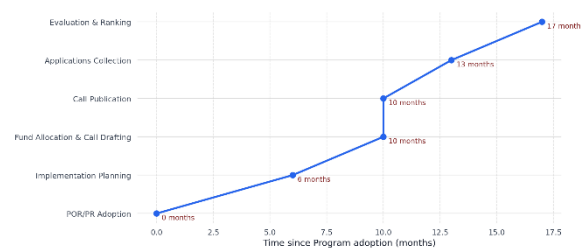


Fig. 1. Publication Time for a Call

The time between the publication of the PR and the appearance of the first actual calls is therefore generally long and requires advance planning by companies to be ready to apply, constant coordination with universities and research institutions that can contribute innovative projects, and constant monitoring of institutional portals to avoid missing windows of opportunity, often concentrated in just a few months. Understanding and improving these timeframes is essential to transforming European funds from potential resources into concrete opportunities for growth, research, and innovation.

Main Challenges

For regional administrations, the implementation times for the Programs are therefore not immediate, and, as seen above, the publication of a call is a complex process involving numerous administrative, technical, and political steps. Each call for proposals must comply with multilevel regulations, from European regulations to national and regional guidelines, with particular attention to State aid and the Procurement Code. It must coordinate multiple internal offices (Managing Authorities, thematic directorates, legal and budget offices), each with its own timelines and procedures. It must define transparent and balanced selection criteria that guarantee fair access for businesses, universities, and local authorities. It must integrate digital systems and platforms that require configuration and testing. It must pass essential preventive checks and validations to reduce the risk of errors, appeals, and disputes. It must also align with long-term strategies and regional plans, such as the Smart Specialization Strategy [12], to ensure consistency with the area's innovation priorities. All of this explains why very long periods can elapse between the planning phase and the actual publication. The time required to prepare a regional call for proposals depends on several factors, both technical and political.

The main reasons that can slow down the process are listed and discussed below:

Regulatory Complexity and European Constraints

Calls for proposals must comply with EU and national regulations (Procurement Code, rules on business aid,

expenditure eligibility criteria), and each clause must be verified to avoid incompatibilities that could lead to penalties or loss of funding.

Internal Coordination between Regional Offices

Proposals are processed through multiple departments: Managing Authorities, legal offices, accounting offices, and internal audit offices, each of which must validate the call for proposals text, criteria, and required controls. This increases complexity and lengthens the process due to the various revisions and mandatory administrative steps.

Definition of Selection Criteria

It is necessary to establish who can participate, which projects are eligible, how they will be evaluated, and the definition of scoring grids as well as different territorial or sectoral priorities often require consultation with stakeholders (businesses, universities, local authorities).

Budgetary Constraints and Reprogramming

Program resources must be allocated to the various actions according to political and sectoral balances, and adjustments or reprogramming are often necessary based on urgent needs (e.g., energy crisis, pandemic, adaptation to new policies, etc.).

Technical Complexity of Digital Tools

Calls for proposals must be integrated with platforms (such as the LazioEuropa portal and the Gecoweb+ electronic application management system in Lazio), with registration and interoperability required. This requires time to configure and test the systems.

Need for Transparency and Preventive Controls

To reduce the risk of appeals and litigation, calls for proposals must be highly detailed, requiring extensive internal checks and, at times, public consultations or hearings with stakeholders.

Political and Strategic Factors

Regional governments can slow down or speed up the publication of calls for proposals based on political priorities, changes in administration, or to coordinate institutional announcements and campaigns.

Need to identify the real needs of businesses

Calls for proposals must be consistent with the regional Smart Specialization Strategy (S3), which identifies the strategic sectors to focus on (e.g., aerospace, green economy, health, digital). Compliance with the S3 requires consultations with businesses, universities, and research centers. This, while essential because it increases the call's impact by responding to real needs, unfortunately lengthens the process.

In conclusion, writing a call for proposals is time-consuming because it must balance regulatory rigor, administrative transparency, and fairness across sectors, while also adapting to political and strategic constraints. Writing a call for proposals requires balancing regulatory rigor, consistency with EU strategies, internal controls, and the needs of businesses and universities. This mix partly explains the long time it can take from Program approval to the publication of the first calls for proposals.

3. THE USE OF ARTIFICIAL INTELLIGENCE

As seen in the previous section, drafting a call for proposals requires months of work, involving shuffling between offices, data collection from diverse sources, and numerous revisions. In this section, we see how the targeted use of Artificial Intelligence can simplify and speed up much of this process. With the support of AI, the time it takes to write a call for proposals could be significantly reduced because data collection can be automated, standard texts can be generated in real time, and regulatory and quality controls can be integrated. AI should obviously not be used to replace policymakers or merit checks, but it can become an intelligent co-pilot for regional officials, reducing bureaucratic delays and increasing the quality and consistency of calls for proposals with the real needs of businesses and universities and with regional strategies.

Below are some of the processes that can be improved with the help of AI:

1. Data Integration and Analysis

An AI system can connect to all relevant information bases, such as EU and national databases (regulations, guidelines, state aid rules), regional databases (budgets, previous calls for tenders, expenditure monitoring), and contextual data (economic statistics, employment indicators, Smart Specialization Strategy priorities, ad hoc surveys). AI can then be used to automatically develop an updated overview, reducing manual research time.

2. Support for Regulatory Consistency

Through models trained on regulations and directives, AI can flag regulatory inconsistencies, propose standard clauses validated in other calls for tenders, and ensure that the text is consistent with EU and national constraints. This limits errors and reduces legal review times.

3. Assisted writing of call texts

AI Natural Language Processing systems can generate call drafts from templates, describe eligibility and evaluation criteria standards, and prepare technical sections tailored to the sector (innovation, energy, digital, etc.). This way, officials can have a pre-structured document to refine rather than writing from scratch.

4. Alignment with the Smart Specialization Strategy and other regional plans or strategies

AI can cross-reference regional S3 priorities and other regional plans or strategies with business needs (data from surveys, chambers of commerce, associations) and university and technological research trends, allowing calls to be tailored to the actual priority sectors, without lengthy manual consultations.

5. Simulation and optimization of criteria

Through simulation techniques, AI can virtually test evaluation frameworks, estimate the impact of criteria on different types of beneficiaries (SMEs, universities, local authorities), and suggest modifications to avoid

biases or unwanted exclusions. This can speed up the definition and validation of selection criteria.

6. Quality control and transparency

AI and NLP can automatically verify that the final text is clear, consistent with other calls for proposals, and free of terminological ambiguities. This reduces review times and the risk of litigation.

4. A PROOF OF CONCEPT BASED ON AI AND BLOCKCHAIN

Adamantic, a company specializing in Artificial Intelligence, Blockchain, and Web3-based solutions, recently developed a Proof of Concept (PoC) that combines the potential of AI and Blockchain to support public administrations in drafting public calls for tenders. The adoption of AI in this area has so far been limited primarily to downstream processes, such as evaluating submitted projects, analyzing policies, and automating administrative procedures. In all these cases, the added value of AI technologies has demonstrated its potential in comparing a self-contained information package (the call for tenders, previously drafted and provided in full to the neural network) with one or more documents that comply with its requirements. The locality of the information processed, therefore, does not require any special training and/or contextualization, except for any specific terminology or conventions of the Public Administration, which are already widely available in publicly distributed models – including through subscription services.

The PoC developed by Adamantic, however, proposes a paradigm shift: the systematic use of AI in the upstream phase of governance, namely the drafting of tenders. This approach is part of an emerging research stream exploring the use of NLP models and generative AI for legislative and regulatory drafting.

The PoC was designed to conduct initial simulations and tests to demonstrate its technical feasibility, thus reducing the risks and costs of a subsequent, larger pilot project to be demonstrated in a real-world operational environment. The PoC served to validate the idea's fundamental principles, gather early feedback, and decide whether to invest further in development. The clear goal was to reduce bureaucratic delays, increase transparency, and ensure full traceability of decisions throughout the entire process, assisting in the preparation of tenders at all stages. The system, still in the prototype phase with a TRL of 4, is based on a modular architecture illustrated in Figure 2 and described below.

The first element to consider is the **Data Integration Layer**, conceived as a point of collection and standardization of relevant information sources. In this phase, data from European regulations, national laws, regional guidelines, historical tender archives, and socioeconomic datasets are subjected to extraction and transformation procedures aimed at standardizing

heterogeneous formats and correcting any inconsistencies. The integration was achieved using an ETL pipeline, capable of processing both structured data (e.g., financial statements and statistical tables) and unstructured text (regulatory documents and past tenders). The result of this phase is a homogeneous corpus, which constitutes the information base on which the entire system rests.

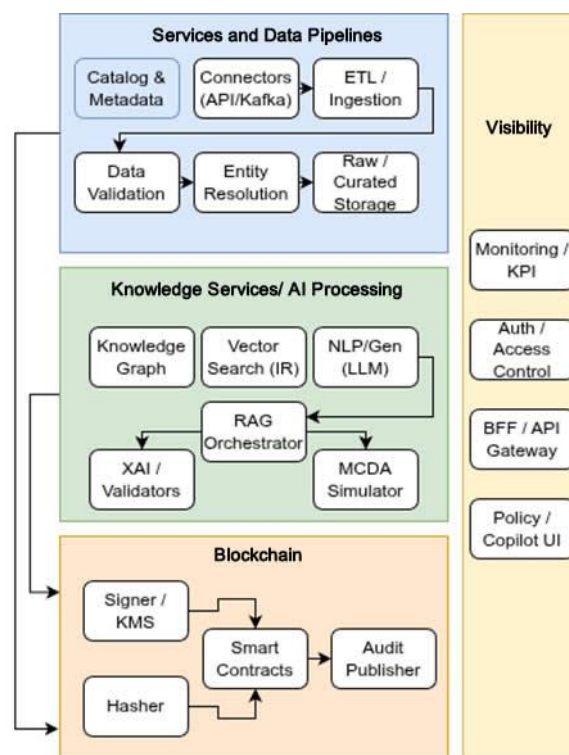


Fig.2: The architecture of the PoC.

This information heritage is the basis for the **Knowledge Graph**, a semantic graph developed to explicitly represent the relationships between regulatory concepts, strategic priorities, and production sectors. The adoption of ontologies derived from European vocabularies and the Smart Specialization Strategy allows for the modeling of complex domains, while the use of graph embedding algorithms, such as Node2Vec and GraphSAGE, allows for the learning of numerical representations of nodes and the identification of latent similarities between seemingly distant entities. In this way, the knowledge graph performs a dual function: on the one hand, it provides a semantic basis for queries and formal reasoning, and on the other, it enables predictive analyses capable of suggesting connections that are not immediately obvious to regional officials.

The heart of the PoC is the **AI Engine**, which combines different Natural Language Processing and machine learning approaches. Information Retrieval and Semantic Search techniques, based on transformer models such as Sentence-BERT, allow for the rapid identification of relevant regulatory clauses and precedents. Following this phase, encoder-decoder

models such as BART and T5 are used for controlled text generation, capable of producing draft tender notices that adhere to pre-established templates and respect the linguistic conventions of administrative language. To ensure that the generated content is consistent with regional priorities, the AI Engine integrates topic modeling algorithms, particularly BERTopic, which allow for the extraction of recurring themes from the data and comparison with the axes of the Smart Specialization Strategy. Measuring semantic similarity through cosine similarity between text embeddings also allows for quantitative verification of the alignment of drafts with emerging needs.

An additional module of the AI engine is dedicated to multi-criteria simulation. Using Multi-Criteria Decision Analysis methods, such as Analytic Hierarchy Process (AHP) and TOPSIS, it is possible to pre-emptively assess the effect of scoring grids on different beneficiary profiles, avoiding systemic biases that could harm small and medium-sized enterprises or research laboratories. This virtual experimentation dimension offers significant added value, as it allows us to anticipate potential critical issues and fine-tune the selection criteria before publication. To complete the framework, the system includes quality control modules based on lexical and terminological rules, and Explainable AI tools such as LIME and SHAP, which clarify the rationale behind the recommendations generated by the models.

The **Blockchain** component was designed as a distributed notarization mechanism. Each draft call, amendment, or approval is recorded on the network using smart contracts developed in Solidity and tested on Ethereum and Polygon. The use of blockchain ensures the immutability and external verifiability of all versions, providing a complete audit trail. This feature is particularly relevant in a public context, where stakeholder trust also depends on the ability to access reliable, non-manipulable evidence of administrative decisions. The blockchain component was tested on Ethereum and Polygon, with Solidity smart contracts to certify documents and selection criteria, all orchestrated via containerized microservices and APIs.

To connect the various components, a **prototype dashboard** was created, designed as an interactive interface for regional officials. The dashboard, illustrated in Figure 3, integrates, in a single environment, the functions of assisted text generation, evaluation grid simulation, regulatory consistency verification, and consultation of notarized versions in the blockchain. Particular attention was paid to usability, allowing even users without advanced technical skills to interact with complex artificial intelligence models.



Fig.3: Prototype dashboard for the interactive interface.

The prototype was tested in a virtual laboratory environment, demonstrating the technical feasibility of the implemented solutions and their ability to concretely improve process efficiency. The system was proposed to the Lazio Region as an innovative use case for the integrated governance of the Regional Operational Plan [13], the Regional Energy Plan [14], and the Lazio Industrial Plan [15], with the aim of leveraging the experience gained and testing the application in a real-world policymaking and governance context. The expected results of the PoC are significant:

- a drastic reduction in tender writing times,
- systematic alignment with the Smart Specialization Strategy [16] and other strategic plans,
- greater transparency and accountability thanks to blockchain,
- the possibility of replicating the model across various programs, from the ERDF to the ESF, and even national tenders.

This prototype demonstrates how the combination of AI and blockchain can revolutionize the way public tenders are designed, making the process faster, more secure, and more transparent. It represents a first step toward building a fully-fledged operational platform, capable of becoming a daily tool for public administrations, with the aim of accelerating the implementation of European funds and strengthening regional competitiveness. The Proof of Concept presents strong innovative potential and some significant challenges. First, the system is still in the experimental phase and has not been tested in a real-world operational context, implying uncertainty about its effectiveness and usability in environments characterized by complex administrative and legal constraints. Furthermore, the adoption of advanced technologies such as AI, blockchain, and knowledge graphs requires significant investment in capacity building for public officials, with the risk of encountering cultural resistance stemming from mistrust of tools perceived as overly technical or a substitute for human judgment. The architectural

complexity of the model implies the need for robust, multi-level governance capable of coordinating technological, legal, and organizational aspects. Then there is the risk of over-automation: AI must remain a decision-support tool, without replacing the strategic role of policymakers in setting priorities. Finally, the system's full effectiveness depends on the quality and availability of regional data: without solid data governance and a reliable data infrastructure, the results produced by AI could be partial, distorted, or unusable, compromising the project's overall impact.

5. THE GOV-LAZIO 2030 PROJECT

To bridge this governance gap and address the challenges listed above, the GOV-LAZIO 2030 project proposes a first at the European level: the implementation of a platform that leverages the results obtained so far from the PoC created to prepare funding calls. While AI has already been tested in Europe for project evaluation or administrative optimization, this will be the first time AI will be systematically used to design calls for funding. This innovative approach directly addresses the critical issues identified below:

- *Alignment with real needs*

AI will analyze heterogeneous datasets (sector reports, regional plans and strategies, academic research, business trends, stakeholder feedback) to identify emerging priorities. This way, calls for funding will be based on concrete evidence and rooted in the real challenges faced by businesses and universities.

- *Timeliness*

AI-assisted analysis will shorten the cycle between needs identification and call publication, allowing regional authorities to act more quickly.

- *Accessibility*

By reducing mismatches and complexity, the system will make calls more relevant and inclusive, especially for SMEs and small research laboratories currently discouraged by bureaucratic burdens.

- *Transparency and trust*

AI-generated recommendations will be integrated into participatory processes, providing traceable justifications for selected priorities and strengthening stakeholder trust.

- *European replicability*

The Lazio Region will define an adaptive governance framework that other regions can adopt, positioning this project as a model for innovation.

Expected Benefits Compared to Baseline

By addressing structural weaknesses in call preparation and introducing AI-supported participatory governance, the project aims to strengthen regional governance capacity and responsiveness by improving stakeholder engagement and co-design practices. It will also enhance the implementation of EU policies by ensuring that public investments are better targeted, more effective, and more transparent. The project therefore represents not just an administrative improvement, but a true policy

innovation: the first European AI-enabled governance model for preparing calls for tenders, offering a replicable framework that can directly contribute to the mission of improving governance for the environment and society.

Direct Results for the Lazio Region

The project aims to achieve the following direct results for the Lazio Region:

1. An AI governance system for preparing calls for proposals, operational in the Lazio Region, integrating data analysis, stakeholder consultation, and decision support functions.
2. Reduction in call launch times by at least **30%** compared to the current baseline (measured from needs identification to publication).
3. Better alignment with real needs: at least **70%** of funded projects will clearly match sector priorities and stakeholder feedback identified by the AI.
4. Increased participation of SMEs and small research laboratories: at least a **25%** increase in applications from these categories compared to previous calls.
5. Transparent decision-making process: publication of evidence and justifications generated by the AI, accessible to stakeholders via a public dashboard.
6. Capacity building for regional staff: training of at least 50 public officials on the use of AI-enabled governance tools and participatory methodologies.

At the same time, a series of broader impacts will be achieved in the Lazio Region, including:

- Increased stakeholder trust: businesses, universities, and civil society will perceive calls for proposals as more transparent and responsive, reducing frustration with bureaucracy.
- Strengthening the regional innovation ecosystem: calls for proposals that are more aligned with local specializations will increase the competitiveness and impact of research.
- Better use of EU and national funds: more targeted and effective allocation of resources, with higher absorption rates and long-term sustainability.
- Increased participation of businesses and universities in calls for proposals, also contributing to the objectives of the Regional Energy Plan for mitigation and adaptation to climate change.

The project's main impacts can also be identified at the European level:

- First replicable model of AI governance in Europe for preparing calls for proposals, as a reference for other regions and Member States.
- Contribution to EU policy objectives: Greater regional capacity to implement the Green Deal [17], Digital Agenda [18], and S3 through better aligned calls.
- Strengthening the role of the LIFE Governance program [19] as a driver of institutional

innovation, demonstrating how advanced technologies can improve the implementation of European policies.

- Scalability potential: At least two other European regions will be involved during the project to explore replication opportunities.

It will be important to define key indicators (KPIs) capable of quantifying the achievable impacts. The following KPIs have been hypothesized:

- Reduction in average call preparation time (baseline vs. project).
- % of funded projects aligned with the needs identified by the AI.
- % increase in the participation of SMEs and small research laboratories.
- Number of trained public officials.
- Number of external regions interested in replication.
- Level of stakeholder satisfaction (measured through pre- and post-project surveys).
- CO₂ reduction.

Replicability and Transferability

The project is conceived not only as a regional innovation for Lazio, but as a European pilot model of AI governance for preparing calls for proposals. The potential for replicability and transferability is high, and a solid institutional foundation will be necessary for the project's sustainability once completed:

1. Replicability Potential

The proposed model is based on a modular AI architecture, capable of integrating various functions, from data ingestion and analysis to stakeholder interaction and decision-making support, and is designed to be easily adaptable to different regional and regulatory contexts. The approach is deliberately technology-neutral, as it does not rely on proprietary datasets or solutions, facilitating its adoption by different administrations. Furthermore, the system is fully integrated with European strategies, particularly the Smart Specialization Strategies (S3), thus ensuring its relevance for regional innovation ecosystems across Europe. Once the impact on a call for proposals has been demonstrated, it will then be possible to use the platform for other calls for proposals within the same fund and transfer the results to other regional or national funds and programmes.

The replicability and transferability strategy for the project's results also includes the involvement of at least two other external European regions, which will participate in workshops, demonstration activities, and joint training courses. In parallel, a Replication Toolkit will be developed, containing technical specifications, governance guidelines, and lessons learned, designed to facilitate the adoption of the model by other administrations. To support dissemination, a capacity-building program is planned, structured into training sessions and webinars involving participants from institutions, companies, and universities. The project's results will also be shared through a structured policy

dialogue with key European networks, including the European Association of Development Agencies (EURADA) [20], the Committee of the Regions [21], the International Urban and Regional Cooperation (IURC) program [22], and the European AI Alliance [23], in order to propose the model as a replicable best practice. Finally, the open-source dissemination of AI algorithms and dashboards, released under open licenses, will ensure maximum reusability of the developed solutions and reduce adoption costs for interested administrations.

2. Long-term sustainability

The project's long-term sustainability will be ensured through strong institutional anchoring, with the integration of the Artificial Intelligence system into the Lazio Region's ordinary processes, ensuring its continuity beyond the initiative's duration. The results achieved, in terms of reduced timeframes and increased effectiveness, will also provide a solid basis for scalable funding, encouraging the model's replication through ERDF funds. The developed solutions will be easily transferable to other programs, such as the European Social Fund or national programs, broadening the overall impact. Finally, the Lazio Region, the first to adopt an AI system for preparing calls for proposals, will be able to consolidate its position of European leadership, becoming a point of reference for innovative governance and strengthening its role in EU policy experimentation processes.

6. CONCLUSIONS

In the coming years, the adoption of Artificial Intelligence in public administration will grow systematically, supported by EU and national initiatives and a clear regulatory framework such as the AI Act. Experiences already underway in countries such as Estonia and Romania demonstrate that AI can drastically reduce application processing times, and programs such as Horizon Europe and Digital Europe are already funding concrete solutions for public governance. While AI has already been tested in Europe for project evaluation or administrative optimization, it has never been applied to the design of tenders. At the regional level, funding calls often fail to meet the real needs of businesses and universities. The most recurring critical issues include an excessively top-down approach, excessive preparation and evaluation times, excessive bureaucracy, poor alignment with local strengths, fragmented stakeholder involvement, and a focus on compliance rather than impact. Overall, these factors create a real governance gap: despite significant resources, current processes and tools are not flexible, rapid, or co-created enough to maximize the effectiveness of the funds.

To address this gap, the GOV-LAZIO 2030 project proposes a European first: the systematic use of Artificial Intelligence in the drafting phase of regional calls for proposals. This innovative approach will

reduce publication times, improve alignment with the real needs of businesses and universities, simplify access for SMEs and small laboratories, and strengthen transparency and trust in policy tools.

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