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THE DIGITALIZATION OF THE ITALIAN PUBLIC ADMINISTRATION: PERFORMANCE, CHALLENGES AND CURRENT POLICY RESPONSES

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1. INTRODUCTION

The digitalization of public administration has become a central objective of public policy across Europe, and Italy is no exception. Over the last two decades the Italian government has introduced a range of digital tools intended to modernise the relationship between citizens and the State, including a public digital identity system, a national payment platform, an application for public services, and, more recently, a national platform for the exchange of data between administrations. Since 2021 a large part of this effort has been financed through the National Recovery and Resilience Plan, which has made digitalization one of the priorities of Italian public investment.

Despite this sustained effort, Italy continues to perform below the European average on most international indicators of digital public services, and on the principal international measurement of digital government its score has remained essentially unchanged over the most recent cycle while other countries advanced. This combination of considerable investment and modest relative progress is the starting point of this work. It suggests that the difficulty facing the Italian public administration may not be primarily a matter of technology or of resources, but rather of how digitalization has been organised, sequenced, and implemented.

This work examines that possibility. It asks what the available evidence, drawn from international measurements, official planning documents, and academic literature, says about the performance of the Italian public administration in digitalization; which obstacles are consistently identified as explaining that performance; and how the measures currently being implemented in Italy respond to those obstacles. The work does not propose a new reform plan of its own. Its purpose is descriptive and analytical: to

organise what is already known, to compare it against relevant international experience, and to discuss the extent to which existing policy responses address the difficulties that have been identified.

The scope of the work is deliberately limited. It relies entirely on secondary sources: international indices, in particular the OECD Digital Government Index and the United Nations E-Government Development Index; monitoring reports published by the European Commission; official Italian planning documents produced by the Agency for Digital Italy; and the relevant academic literature on digital government. No original data collection was undertaken, and no interviews or surveys were conducted. This is a limitation of the work and is discussed further in the concluding chapter, together with the other limits of the analysis.

The work proceeds in six chapters. Chapter 2 introduces the theoretical background and the three concepts used throughout the analysis: interoperability, the once-only principle, and trust. Chapter 3 examines Italy's performance on the main international indicators and sets out six obstacles identified in the literature and in official reports. Chapter 4 places Italy in comparative perspective through three cases selected for their contrasting characteristics: Estonia, Albania, and Egypt. Chapter 5 turns to Italy itself and discusses the principal measures currently being implemented, together with the steps that appear necessary for the digitalization of the Italian public administration going forward. Chapter 6 concludes by drawing together the findings of the work and discussing its limitations.

2. DIGITALIZATION OF THE PUBLIC ADMINISTRATION

2.1 FROM E-GOVERNMENT TO DIGITAL GOVERNMENT

The use of information technology in public administration is not recent, but the way it is understood has changed. The first generation of reforms, generally described as e-government, consisted mainly in making existing procedures available online. A form previously collected at a counter became a form that could be downloaded and later completed on a website, while the underlying administrative process remained unchanged.

The literature distinguishes this from digital government, understood as a broader transformation. Mergel, Edelmann and Haug (2019), on the basis of interviews with practitioners and experts, define digital transformation in the public sector as a change that concerns organisational structures, processes and the relationship with users, and not only the technology employed. The distinction matters in practice, because an administration can make a large number of procedures available online and remain slow and fragmented, since transferring an inefficient process to a digital channel reproduces the inefficiency.

An earlier contribution by Dunleavy, Margetts, Bastow and Tinkler (2006) described the emerging phase as digital-era governance and identified reintegration, that is the recomposition of functions previously divided among separate agencies, as one of its defining features. This concept is directly relevant to the Italian case discussed in Chapter 3, where the difficulty concerns less the availability of digital services than their dispersion among different administrations.

2.2 HOW DIGITAL GOVERNMENT IS MEASURED

Two international measurements are used in this work. The OECD Digital Government Index assesses six dimensions: digital by design, data-driven public sector, government as a platform, open by default, user-driven, and proactiveness, assigning a score between zero and one to each (OECD, 2024a). The United Nations E-Government Development Index combines the quality of online services, telecommunication infrastructure, and the human capital of the population (United Nations, 2024). Within the European Union, the European Commission monitors the same area through the annual reports on the Digital Decade, which since 2023 incorporate the indicators previously published as the Digital Economy and Society Index (European Commission, 2024).

The two international indices measure different aspects, which is useful for the analysis. The United Nations index gives greater weight to infrastructure and education, while the OECD index examines more closely how the administration is organised internally. A country may therefore obtain acceptable results on infrastructure and weak results on organisation.

These measurements have limits that should be stated. They rely in part on information supplied by governments themselves, they are published with a delay of one or two years, and a single national score conceals internal variation. In a country with the regional differences of Italy, this last limitation is significant. The indices are used here as indicators of a general tendency rather than as precise measurements.

2.3 THREE IMPORTANT CONCEPTS IN DIGITALIZATION OF PA

2.3.1 Interoperability

Interoperability is the capacity of different organisations and information systems to exchange and use data through agreed processes. The European Interoperability Framework treats interoperability as a combination of legal, organisational, semantic and technical requirements, rather than as a purely technical issue (European Commission, 2017). Where interoperability is absent, each administration may hold its own archive, and citizens can be required to provide the same information to different administrations.

The European Interoperability Framework distinguishes four layers: technical, semantic, organisational and legal interoperability (European Commission, 2017). This distinction is important because systems may be technically connected while still using different meanings, procedures or legal rules. Interoperability is therefore not resolved by the purchase of software alone.

2.3.2 The once-only principle

The once-only principle establishes that citizens and businesses should supply a given piece of information to the public administration only once, after which the administration is responsible for sharing it internally with the consent of the person concerned. The principle forms part of European policy and is among the objectives of the Digital Decade Policy Programme (European Commission, 2023). In Italy it is expressly identified as the purpose of the national data platform described in Chapter 5 (AgID, 2024).

The principle is simple to formulate and difficult to apply because it presupposes interoperability and a reliable way of identifying the person to whom the information

refers. A reliable digital identity therefore supports the practical application of the once-only principle (European Commission, 2023; AgID, 2024).

2.3.3 Trust

Trust is the least technical of the three concepts. It matters because digital public services often require citizens to share personal information with public institutions. The OECD trust survey shows that trust in government remains an important issue in Italy (OECD, 2024b). More generally, the OECD notes that confidence in the legitimate use of personal data is an important condition for digital government (OECD, 2026).

3. THE ITALIAN PUBLIC ADMINISTRATION: PERFORMANCE AND OBSTACLES

3.1 ITALY IN THE INTERNATIONAL MEASUREMENTS

Italy's position in the international measurements is weak in relative terms and substantially static in absolute terms. In the 2024 edition of the United Nations survey Italy obtained a score of 0.836, which placed it 51st among the 193 States assessed. The comparison with the previous cycle is instructive: between 2022 and 2024 the Italian score remained essentially unchanged, while the global average rose from 0.610 to 0.638 (United Nations, 2024). Italy therefore did not decline in its own terms, but it did not advance either, in a period in which most countries did.

The comparison with the countries examined in Chapter 4 illustrates the point. Estonia obtained 0.973 and second position, Albania 0.800 and 62nd position, and Egypt 0.670 and 95th position. Albania and Egypt both improved their scores appreciably between the two cycles, whereas the Italian score did not change (United Nations, 2024).

The OECD measurement, which examines the internal organisation of the administration rather than infrastructure, indicates a more differentiated situation. In the 2025 edition of the Digital Government Index Italy obtained a composite score of 0.67, below the OECD average of 0.70, having improved by 0.09 with respect to the 2023 edition. The improvement is concentrated in two dimensions: the data-driven public sector, where Italy obtained 0.77 against an OECD average of 0.74, and openness by default, where the score rose from 0.55 to 0.73 against an average of 0.59 (OECD, 2026).

The exception is significant. On proactiveness, which measures whether the administration anticipates the needs of citizens rather than waiting to be approached, Italy

obtained 0.39 against an OECD average of 0.67, and the score declined from the 0.46 recorded in the previous edition. Italy is among a small group of countries whose score on this dimension fell between the two editions (OECD, 2026). The dimension on which Italy performs worst is therefore also the only one on which it moved backwards.

Tab. III.1 – Italy's position in the main international measurements

Source: own elaboration based on United Nations (2024), OECD (2026) and European Commission (2024).

A further indicator concerns the users rather than the systems. According to the European Commission's monitoring of the Digital Decade, 45.8 per cent of the Italian population possessed at least basic digital skills in 2024, against a European Union average of 55.6 per cent (European Commission, 2024). The same report observes that Italy has made appreciable progress in digital public services while significant difficulties persist in the area of skills.

3.2 OBSTACLES IDENTIFIED IN THE LITERATURE AND IN OFFICIAL REPORTS

The indicators presented above describe the outcome but not its causes. The paragraphs that follow set out the principal obstacles identified in the academic literature and in the official monitoring documents. They are presented separately for clarity, although the sources indicate that they are connected.

3.2.1 Institutional fragmentation

Italian public administration is distributed over twenty regions and approximately eight thousand municipalities, each with its own competences and information systems. The Agency for Digital Italy acknowledges this condition explicitly, describing the

reference architecture of the national information system as polycentric and federated, and identifying the coordination of a large number of autonomous administrations as one of the central organisational challenges of the current planning period (AgID, 2024). The problem identified in the theoretical literature by Dunleavy et al. (2006) as the need for reintegration therefore corresponds to a difficulty recognised in Italian official planning.

3.2.2 Limited interoperability

Italian administrative databases were constructed at different times and for different purposes, and frequently cannot exchange information automatically. That this constitutes a recognised national problem is indicated by the fact that the National Recovery and Resilience Plan devotes a specific line of investment, within the mission concerning the digitalization of public administration, to data and interoperability, with the declared objective of ensuring the interoperability of the principal datasets between central and local administrations (AgID, 2024). The measure adopted in response is examined in Chapter 5.

3.2.3 Insufficient digital skills

The European Commission identifies skills as one of the principal areas of difficulty for Italy, observing that fewer than half of citizens possess at least basic digital competences and that the proportion of specialists in employment remains below the European average (European Commission, 2024). The practical consequence follows directly from these figures: where a service moves online without accompanying measures, the part of the population least equipped to use it is placed at a disadvantage, a concern reflected in the objectives of the national strategy for digital competences.

3.2.4 Limited trust

According to the OECD Survey on Drivers of Trust in Public Institutions, 36 per cent of Italians reported high or moderately high trust in the national government, against an OECD average of 39 per cent, and 35 per cent reported the same level of trust in the national civil service (OECD, 2024b). The same survey records a marked internal variation: trust in national government stands at 31 per cent among those aged between 18 and 29 and at 41 per cent among those aged 50 and above.

The relevance of this for the present subject is that an integrated administrative system requires the exchange of personal data between administrations, and it is reasonable to expect that citizens with low confidence in the administration will be more hesitant to authorise such exchanges. On this reading, low trust may act as a constraint on precisely those measures that would produce the greatest simplification, although the survey does not measure this relationship directly. The survey also indicates that the perception of having a say in public decisions is strongly associated with trust, which connects this obstacle to the decline in participation discussed in the literature on digital government.

3.2.5 Reactive rather than proactive administration

The low score obtained by Italy on the proactiveness dimension, and its decline between the two most recent editions (OECD, 2026), reflects an administrative model in which the initiative rests with the citizen. To obtain an entitlement a person must know of its existence, establish whether they qualify, identify the competent office, and submit a correct application within the applicable time limit. This process can create several points at which an eligible person may fail to complete the procedure. It is plausible that any

resulting gap between formal entitlement and actual take-up would be widest among those least equipped to complete it, that is the same group affected by the skills deficit described above, although this work does not test that expectation.

3.2.6 Weakness of evaluation

A considerable number of digital initiatives have been undertaken in Italy, but their systematic evaluation has been limited. That this is recognised is indicated by the fact that the current planning document gives increased attention to monitoring and revises its indicators expressly in order to render them more significant with respect to impact rather than to activity (AgID, 2024). The distinction matters for the argument of this work, and the following observation is my own rather than one drawn from the Plan: counting the number of platforms activated does not by itself establish whether the time a citizen must spend on a procedure has been reduced.

3.3 CONSEQUENCES

These obstacles can create additional administrative effort for citizens, public employees and businesses. Repeated requests for information are one of the burdens that interoperability and the once-only principle are intended to reduce (European Commission, 2014).

4. INTERNATIONAL COMPARISON

This chapter compares Italy with three countries selected because they represent different situations rather than because they resemble Italy. Estonia is the recognised international reference. Albania has achieved rapid progress with limited resources. Egypt has invested substantially in infrastructure without obtaining corresponding results. Each case isolates a distinct factor.

4.1 ESTONIA

Estonia occupies second position in the 2024 United Nations ranking with a score of 0.973 (United Nations, 2024). The country developed important parts of its digital public administration around interoperable systems from an early stage, including the X-Road data exchange layer (RIA, 2024).

The central element of the Estonian model is the data exchange layer known as X-Road, in operation since 2001. It enables secure and standardised data exchange between information systems without creating a central database: participating organisations retain responsibility for their own data, while exchanges are authenticated and logged (RIA, 2024).

Two features of this design are relevant to the Italian discussion in Chapter 5. First, the distributed architecture means that X-Road is not itself a central database (RIA, 2024). Second, the system has been developed and maintained over a long period, making interoperability a continuing part of the country's digital administration.

Estonia is consistently among the leading group in the OECD measurement as well (OECD, 2026). For the purposes of this work, the Estonian case suggests that

institutional integration and continuity may be at least as important as the technological features of the system itself. The architecture described above is not technically elaborate, and it has been applied consistently across the administration since 2001 (RIA, 2024). This is an interpretation of the case rather than a measured causal finding.

4.2 ALBANIA

Albania is a smaller country with considerably fewer resources, which began from a weaker position and has digitalised a large proportion of its public services within a short period, improving its score from 0.741 to 0.800 between 2022 and 2024 and reaching 62nd position, one of the more marked improvements recorded in the period (United Nations, 2024).

The Albanian case shows that expanding digital services also requires attention to service quality, inclusion and institutional capacity. A recent World Bank report on Albania highlights the need to improve the quality and accessibility of digital services, strengthen local government capacity and support vulnerable users (World Bank, 2025).

4.3 EGYPT

Egypt improved its United Nations E-Government Development Index score from 0.590 to 0.670 between 2022 and 2024, reaching 95th position (United Nations, 2024). Compared with the European cases examined here, its score remains lower. The comparison is used in this work mainly to show that infrastructure and digital systems should be considered together with the conditions that allow people to use digital services.

The Egyptian case suggests that investment in digital systems alone may not be sufficient to ensure effective use when digital competences, trust, or accessibility remain

limited. The available indicators show the gap between infrastructure and outcomes but do not establish the causal weight of each factor.

4.4 COMPARATIVE SUMMARY

Tab. IV.1 – Comparative summary of the four cases

Source: own elaboration based on United Nations (2024).

Considered together, the three comparisons indicate that the Italian difficulty consists less in a shortage of digital initiatives than in the absence of a common structure connecting them. The Estonian case suggests that an integration layer combined with a single identity is a central element, and that adopting it is largely an organisational decision. The Albanian case suggests that rapid progress is possible but needs to be accompanied by supervision. The Egyptian case suggests that competences and trust influence whether infrastructure produces a benefit. These are readings of three individual cases and are not offered as general rules.

These observations correspond to obstacles identified in Chapter 3, and the following chapter examines the measures through which Italy is currently addressing them.

5. FUTURE STEPS FOR THE ITALIAN DIGITALISATION

The obstacles described in Chapter 3 are recognised in Italian official planning, and Italy is already taking a number of steps that respond to them. This chapter sets out the principal measures currently being implemented and discusses the further steps that appear necessary for the digitalization of the Italian public administration to proceed. The measures examined are existing programmes and their planned developments, not a new proposal formulated in this work.

5.1 THE PLANNING FRAMEWORK

The reference document for the digitalization of Italian public administration is the Three-Year Plan for Information Technology in Public Administration, published by the Agency for Digital Italy and approved by the Presidency of the Council of Ministers. The edition covering 2024-2026, subsequently updated, is oriented towards digital services that are interoperable and accessible, aligns its content with the objectives of the National Recovery and Resilience Plan, and revises its indicators with the intention of measuring impact rather than activity (AgID, 2024). The Plan operates within the objectives established at European level by the Digital Decade Policy Programme (European Commission, 2023).

The financing of a substantial part of the current effort derives from the National Recovery and Resilience Plan, whose first mission concerns the digitalization, innovation and security of public administration. The presence of a defined external timetable and of associated conditionality is relevant to the question of continuity discussed in Chapter 3.

5.2 DIGITAL IDENTITY: FROM SPID AND CIE TOWARDS THE IT-WALLET

Italy has employed more than one instrument of digital identity, principally the Public Digital Identity System and the Electronic Identity Card, together with the national services card. Their coexistence has produced a degree of fragmentation, since not every service accepts every credential and the citizen is required to determine which is applicable in each case.

The response currently in progress is the IT-Wallet, a national digital wallet accessible through the public services application, released to the general public in December 2024 and designed to bring together within a single instrument the existing identity systems and a set of digital documents. The initiative is aligned with the revised European framework on digital identity and with the corresponding European wallet, and is intended to permit cross-border use (AgID, 2024).

The relationship of this measure to the obstacles identified is direct. A reliable single identity constitutes the precondition for the exchange of data between administrations discussed in the following section, since without a stable method of establishing that two records refer to the same person the once-only principle cannot be applied. Whether the measure resolves the fragmentation described above will depend on the extent of its adoption and on the number of services that accept it, which is an empirical question that cannot be settled at present.

5.3 THE NATIONAL DIGITAL DATA PLATFORM

The measure that responds most directly to the interoperability obstacle is the National Digital Data Platform. It is established by article 50-ter of the Digital

Administration Code, is operated by PagoPA under the responsibility of the Department for Digital Transformation, and became operational in 2022 within the interoperability line of investment of the National Recovery and Resilience Plan (AgID, 2024).

The Platform does not constitute a central archive of personal data. It functions as a catalogue of interfaces through which participating administrations publish their own services and consult those of others, with authentication of the parties, verification of authorisation, and recording of transactions. Its declared purpose is the application of the once-only principle, that is that the administration should not request from citizens and businesses information already held by another administration. The OECD describes the resulting arrangement as a robust interoperability ecosystem, noting alongside the platform itself the national catalogue of public-sector interfaces and the national catalogue of common data models for semantic interoperability (OECD, 2026).

The architectural logic is comparable to that described in Chapter 4 with reference to Estonia, since in both cases each administration retains its own data and the exchange occurs through a common protocol under recorded conditions. The relevant difference concerns not the design but the context of application: the Estonian system was introduced in a small and administratively homogeneous country at the moment of its construction, whereas the Italian platform is being extended to a pre-existing and highly fragmented administrative structure. This suggests that the extent of adoption across the thousands of administrations concerned may be an important factor, perhaps more so than the design of the platform itself. The comparison with Estonia is my own and is offered as a way of reading the two cases, not as a demonstration.

5.4 ARTIFICIAL INTELLIGENCE AND THE PROACTIVENESS DIMENSION

The current planning framework also addresses artificial intelligence in public administration and the most recent update consolidates work in this area (AgID, 2026). The subject is relevant to the proactiveness dimension on which Italy obtains its lowest OECD score, because some proactive services can require the analysis of information held by different administrations (OECD, 2026).

Two qualifications are necessary. The first is that such applications presuppose the interoperability discussed above, and cannot precede it. The second is that automated processing in the public sector is subject to specific obligations under the European regulation on artificial intelligence and under data protection law, Annex III of the Regulation classifies as high risk, among others, AI systems used by public authorities to evaluate the eligibility of individuals for essential public assistance benefits and services, and to grant, reduce, revoke or reclaim them (European Union, 2024). This is precisely the type of application described above, and such systems are subject to requirements including transparency and human oversight. The relationship between this dimension and the trust discussed in Chapter 3 is therefore reciprocal, since automated decisions that are not comprehensible to those affected by them may reduce confidence rather than increase it.

5.5 DISCUSSION

Two observations follow from this description. The first is that the instruments corresponding to the principal obstacles identified in Chapter 3 exist and are operational: a data exchange platform addresses interoperability, a digital wallet addresses the

fragmentation of identity, and the current planning gives increased attention to the measurement of impact. In this respect the Italian position differs from that described in the earlier academic literature, which was formulated before these measures were introduced.

The second observation, which is my own reading of the comparison, is that some of the obstacles identified appear less likely to be resolved by technical measures alone. The extension of the data platform to several thousand autonomous administrations is an organisational question; the level of digital competences is a question of education and of maintaining alternative channels; and trust is affected by the manner in which the measures are implemented rather than by their design. The comparison with Egypt presented in Chapter 4 is relevant in this respect, since it suggests that infrastructure alone may not be enough to produce use.

It is not possible on the basis of the sources examined to determine whether the measures described will reduce the gap identified in the international measurements. The indicators available at present describe a period preceding their full implementation, and an assessment will require data from subsequent editions.

6. CONCLUSIONS

This work examined the digitalization of the Italian public administration, considering its performance in international measurements, the obstacles identified in the literature and in official reports, and the measures currently in operation.

The evidence presented in Chapter 3 indicates that the difficulty does not consist principally in a shortage of technology or of financing. Infrastructure exists and substantial resources have been committed, particularly through the National Recovery and Resilience Plan. The obstacles identified concern the organisation of the administration: fragmentation among a large number of autonomous bodies, limited interoperability between their information systems, insufficient digital competences within the population, limited trust in institutions, an administrative model in which the initiative rests with the citizen, and a weak tradition of evaluation. These obstacles are recognised in Italian official planning documents and not only in the academic literature.

The comparison presented in Chapter 4 supports this interpretation. The Estonian case suggests that early institutional integration and continuity have played an important role, and that the technical sophistication of the system is not by itself the decisive element. The Albanian case suggests that rapid progress is possible but needs supervision. The Egyptian case suggests that infrastructure alone may not be sufficient to ensure effective use when digital competences and trust are limited.

Chapter 5 described the measures currently in operation and observed that the instruments corresponding to the principal obstacles exist: a national platform for the exchange of data between administrations, a digital wallet intended to unify the existing identity systems, and planning that gives increased attention to the measurement of

impact. The question that remains open concerns the extent of their adoption, which is an organisational rather than a technical matter, and which cannot be assessed on the basis of indicators referring to a period preceding their implementation.

The limitations of this work should be stated. It rests entirely on secondary sources, no original data was collected, and no examination was made of the considerable variation between Italian regions, which national averages conceal. The international indices employed are published with a delay and rely in part on information supplied by governments. The work describes and discusses existing measures; it does not evaluate them, and such an evaluation would require data not yet available.

Within these limits, one observation appears reasonably supported by the sources examined. The obstacles that appear most important on the basis of the comparison are also those least likely to be resolved by technical means alone. The architecture required has existed for some time and is not the subject of dispute, the European legal framework is established, and Italian planning documents identify the same difficulties as the academic literature. What remains uncertain concerns the extension of these instruments across a highly fragmented administration and the accompanying measures relating to competences and trust, and these are questions of organisation and of continuity rather than of technology.

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