1 Assessment and recommendations

This chapter summarises the key findings and the policy recommendations of this assessment. The first section of the chapter presents the key findings around the current state of digital project development in Greece, identifying potential bottlenecks that could hamper effective implementation. The second section presents the policy recommendations for sound governance for digital transformation projects in the Greek public sector. The third and last section summarises the methodological approach used in this assessment.

Addressing public governance challenges and driving the digitalisation of the public sector are high priorities on the Greek government's agenda. The recently created Ministry of Digital Governance (MDG) concentrates all responsibilities related to digital government and cross-governmental service design and delivery, including the mandate to implement an ambitious digital government strategy to 2025 – the Digital Transformation Bible. However, the advances made in terms of leadership and political commitment to the digital transformation of the Greek public sector have not necessarily been encompassed with the development of institutional capabilities to plan, prioritise, manage, procure and monitor/assess digital government projects in a successful fashion. Such is the case of projects co-financed by the European Structural Investment Funds (ESIF), where in some cases the limited institutional capabilities for sound digital government investments have hindered the successful implementation of projects and have constrained the realisation of final benefits.

In the context of the Greek Recovery and Resilience Plan (RRP), "Greece 2.0" 17.8 billion euros in grants and 12.7 billion euros in loans will be disbursed over the period 2021-26. The plan devotes around 23% of Greece's total allocation to the digital transition (see (European Commission, 2021[1]) and (Hellenic Republic, 2021[2])). For this reason, the Ministry of Digital Governance is looking at strengthening its institutional capabilities for a coherent planning, management, procurement and monitoring of digital government projects. This report presents an assessment of the existing governance, institutional frameworks and functions for the implementation of digital government projects, including the procurement function, identifying key findings and concrete proposals for sound governance arrangements that can help Greece realise the expected benefits from digital government projects and investments in the public sector.

Key findings

Fragmented organisations and processes hinder coherent governance

- Departments and units within and outside the MDG operate under a fragmented approach due to the successive institutional reforms in the past decade. Similarly, their respective roles and mandates are often unclear to key stakeholders involved in the implementation process. This siloed operation reflects how departments and units involved in the life cycle of ICT/digital projects (from planning, to project approval, procurement and implementation) engage in limited collaboration and interaction throughout this process. The institutional culture does not appear to promote co-ordination.

- Governance and ownership of data used in digital projects need to be well defined. Several digital reforms projects sometimes require the same data to be collected multiple times depending on the authority in charge. Better cooperation between data owners (ministries and their departments) can ensure that data is collected systematically and is fit for future use. Designing technical specifications for setting up of new systems is often complex because of a lack of standardised approach to design and operations of data systems. Having guidance and "blueprints" available for regulatory and administrative agencies would help ensure more coherence and consistency. Properly analysing, rethinking, redesigning, consolidating, simplifying regulatory and administrative processes *before* starting the digitization work is also essential.

- When looking at the availability of standards and common practices for ICT/digital projects to secure more coherent and aligned implementation, MDG has not set a concrete and actionable set of guidelines and standards to enable system-wide transformation while promoting coherence and alignment in the development of ICT/digital projects both within and outside MDG.

- The current governance structure of MDG presents a duplication of bodies in charge of procurement of digital projects. While there is duplication of procurement of digital projects within MDG, the level of sophistication of procurement operations seems to varies between responsible entities.

- The Ministry devotes significant time and effort in dealing with the long-tail of small projects, which could be implemented by line Ministries.

Limited planning and approval process for ICT/digital projects

- MDG does not have a comprehensive knowledge management approach to leverage policy goals, technical specifications, and expected timelines to effectively steer the implementation of the Digital Transformation Bible (DTB), prioritise efforts and create synergies between relevant authorities to avoid project duplication and fragmentation as well as shadow IT costs across the public sector.

- The existing approval process to establish the value proposition of ICT/digital projects does not provide strategic information to guide decision-making, prioritisation and progress monitoring. Despite the critical role of the MDG in approving and funding most of ICT/digital projects in the public sector, the Ministry is not leveraging this process to secure digital investments adhere to the priorities and standards for digital government in Greece before allocating funding, nor for medium- or long-term planning purposes.

- The different funding sources to support implementing ICT/digital initiatives, including European and national funds, challenge the coherent planning of digital transformation efforts. According to the evidence collected, there are different procedures and internal responsibilities within MDG depending on the origin of funds, following different approval workflows and legal formalities.

Overly lengthy implementation cycle of digital projects

- A critical success factor for ICT/digital projects is the speed of implementation. In Greece, however, several elements contribute to extended implementation timeframes, including project approval (*relevance attestation*), communication between relevant ministries, and management of the procurement process.

- As part of the assessment, data from the implementation and procurement of digital projects funded by European Structural and Investment Funds (ESIF) over the programming period 2014-2020 was analysed. The data reveals bottlenecks in each stage of the procurement process. On average, the procurement process for ESIF projects takes 686 days, from the project approval to the start of contract implementation. The tender preparation appears lengthy, partly due to the lack of effective co-ordination processes with the project beneficiary.

- A key challenge delaying the procurement process of digital projects lies in frequent legal challenges. Importantly, a significant share of ESIF-approved projects (78%) have not reached the contract signature stage during their expected 2014-2020 programming period.

Lack of strategic procurement practices and agility

- The procurement process is a critical element of the implementation of ICT/digital projects. Due to identified shortcomings in their procurement, digital projects in Greece are at high risk of failure or sub-optimal implementation. These risks include taking a long time from design to implementation, lacking flexibility to respond to changes in user needs, lacking interoperability and adoption of cross-governmental standards, limited incorporation of the latest technologies. Ultimately, weaknesses in the procurement process leading to complex and closed systems with the risk of vendor lock-in and legacy costs.

- Key procurement practices that contribute to a sound process and allow delivering results of ICT/digital project implementation are not sufficiently used, or not fully exploited. In particular, practices for market engagement vary within MDG, but overall do not explore the full possibilities permitted by the existing legal procurement framework, and the related benefits for the procurement of digital transformation projects. Namely, focusing on market engagement entails

gathering a sound understanding of what the market can deliver, thus limiting misunderstandings, discrepancies and mistakes in the procurement process and when managing contracts. In the ICT/digital context, this is of even greater importance given the fast pace of the market.

- By focusing on price-only instead of quality in the award criteria, contracting authorities are often not able to award contracts to high-quality providers that offer value-for-money solutions. Namely, choosing the lowest price increases the risk of poor execution and less advanced technology.

- Overly prescriptive technical specifications are potential causes of sub-optimal execution of digital projects, as such specifications may turn out overly rigid, inflexible and even outdated by the time of the implementation of the contract. In the digital environment, however, it is especially important to allow for agility, modifications and iterations. Thus, a product or service procured based on an overly defined specifications may prove not to be fit-for-purpose.

- Stakeholders within MDG are hesitant about using Dynamic Purchasing Systems (DPS) and advanced procurement practices suitable for digital projects (e.g. public procurement of innovation), given the lack of experience with using these practices, and have an overall risk-averse attitude towards new approaches in procurement.

- The market has been characterised by a small number of large contracts, which are highly attractive to the pool of available suppliers. Such large contracts, however, limit agile implementation and increase the incentives for litigation, as suppliers are aware that only few large opportunities are present on the market.

Supplier eco-system

- The Greek ICT market overall is quite localised and characterised by small and medium-sized enterprises, as most companies do not surpass 250 employees. In some instances, these SMEs represent Greek subsidiaries of international corporations.

- To attract a pool of suppliers capable of delivering the desired digital transformation, the Greek government needs to be considered an attractive client. This is even more important given that the share of the ICT market by the public sector has been relatively small compared to the private sector (although the influx of funds from the Recovery and Resilience Facility (RRF) will likely change this dynamic).

- Several barriers persist to making the public procurement market accessible to suppliers, particularly small, innovative start-ups and SMEs, notably the long duration of procurement cycle, and competition that does not reward the highest quality offer, or innovative solutions. These aspects may deter small and innovative companies from participating in public sector bids.

Monitoring results

- There is no comprehensive monitoring and assessment policy for digital transformation initiatives in the public sector, including measuring the procurement function's impact. Currently, the systematic use of monitoring tools in MDG, including key performance indicators, is limited and responds to efforts scattered across the different phases of ICT/digital project development and the respective departments/units involved in the process.

- The absence of common and agreed-upon monitoring and assessment mechanisms, with information openly available to the public and relevant stakeholders, limits the awareness of digital transformation efforts within and outside the public sector and the accountability of all involved actors in the implementation of ICT/digital projects.

- Structured monitoring of ICT public procurement is not in place in Greece. Measuring and analysing performance indicators contributes to identifying potential bottlenecks in public procurement processes, which might hinder the smooth implementation of public procurement procedures.

Public sector capabilities

- The Greek public sector requires a cultural shift in developing ICT/digital projects to better understand user needs and embed agility at the core of the development processes. Despite anecdotal cases, Greece's public sector institutions do not conduct user research processes to understand and define the requirements when planning ICT/digital projects. Similarly, there are few civil servants with user research and service design skills and concrete mechanisms to channel user feedback at early development stages.

- The restricted availability of managerial and technical capacities in line ministries to carry out digital transformation projects has created a significant overload in MDG and its dependent units, including Information Society S.A., as they concentrate most of the digital expertise in the public sector and take complete control over the development lifecycle of ICT/digital projects.

- There are limited procurement and digital competencies among public officials to support the development of digital initiatives. There has been limited investment and recruitment of personnel with specific ICT skills over the past several years. As a result, procurement entities are short in specialised personnel that can bridge the divide between expertise in digital technology and procurement competence. Understaffing and the lack of appropriately skilled resources are considered one of their main challenges in the implementation of procurement of digital projects.

Policy recommendations

Strengthen governance for digital government in Greece

- **Establish clear roles and mandates for all relevant stakeholders within MDG**, including policy setting and project management roles within MDG, the functions of departments/units involved in the development of ICT/digital projects, and the role of Information Society S.A. as a strategic partner in the implementation process.

- **Promote co-ordination between relevant authorities involved implementing and procuring ICT/digital projects.** This includes further alignment between relevant digital government, public procurement and public budgeting authorities and actors, including Information Society S.A. The MDG could leverage the Digital Transformation Steering Committee and the Implementation Network for this purpose.

- **Establish a Project Management Office (PMO)** to support the development of a coherent, organic, and structured way to manage ICT/digital projects. For this, MDG needs to revisit and integrate existing procedures for project approval, funding, procurement, implementation, and monitoring to address ICT/digital project development from an end-to-end perspective.

Adopt an ICT portfolio management system for ICT/digital investments and redesign the ICT/digital project approval process

- **Implement an ICT portfolio management system** to guide planning, decision-making, investments and progress monitoring of critical ICT/digital projects in the Greek public sector. This tool can equip the PMO as well as relevant co-ordination bodies with timely and strategic information to guide medium- and long-term decision-making on ICT/digital investments in the public sector.

- **Redesign the ICT/digital project approval process** establishing a single and coherent procedure for all projects regardless of the funding source. Adopting a unified approach would help streamline the interactions between MDG and line ministries, and act as a coherent information source to support strategic decision-making e.g., centralised procurement of ICT/digital goods, redefinition of priorities, and co-ordination between line ministries.

- **Establish clear and transparent criteria to prioritise digital investments** as part of the ICT portfolio system, supporting the PMO's role in identifying the priority projects under the scope of the MDG, Information Society S.A., and line ministries. For this, MDG can leverage the new governance for digital government, including the Digital Transformation Steering Committee and the Digital Transformation Implementation Network, to identify and concert clear criteria for project approval and funding, aligning all relevant actors at early project definition stages.

- **Integrate the ICT portfolio system into the governance of digital government,** empowering relevant units and departments in MDG as well as the strategic functions of the Steering Committee and the Implementation Network with such co-ordination tool to make sure line ministries and related stakeholders are aware of the priorities and challenges for digital investments in Greece.

- **Secure coherent funding management of digital projects.** Under an ICT portfolio management approach, MDG could allocate resources, ensuring that investment decisions are independent of funding mechanisms. In particular, MDG could harmonise the management of all different digital government funding sources, including European funds and national budgets

Promote the strategic use of public procurement and agile procurement practices

- **Promote the strategic use of public procurement** to increase its digital procurements efficiency and effectiveness. In particular, this entails taking a strategic approach to the preparatory phase of procurement of digital projects, i.e., placing a solid emphasis on the importance of needs assessment and early market engagement. A sound preparation of the procurement limits risks of failure, as market capacity and user needs, are well understood. In addition, MDG could promote the use of advanced procurement practices suitable for digital projects.

- **Strengthening early market engagement practices.** MDG could wholly leverage opportunities offered by legal frameworks to engage with market actors during procurement processes, including by creating dedicated platforms that facilitate the exchange with digital technology suppliers.

- **Encourage the use of quality criteria in the procurement evaluation.** Awarding procurement contracts based on quality, including functional specifications, rather than simply descriptive and/or technical, is essential to deliver value for money in the procurement process of ICT products and services. Namely, it ensures that high-quality providers are chosen based on the most relevant characteristics that matter for the specific project and risks of poor execution at the contract stage are minimised.

- **Advance procurement practices such as Dynamic Purchasing Systems (DPS) and Public Procurement of Innovation (PPI).** Digital solutions require procurement processes that are adapted to this purpose. DPS represent a proven tool to enhance the purchasing of standardised ICT goods and services. Public procurement of innovation could serve as a solution to tailor the procurement process to the concrete request, addressing specific needs for which solutions are not yet available on the market. These tools should be part of contracting authorities' toolkit for procuring digital transformation projects.

- **Introduce greater agility in the implementation and procurement processes,** which has shown to be a strong mitigation measure for risks related to the failure of digital projects. This entails developing practical guidance for agile development, including agile project management training and pioneering agile procurement methodologies with Information Society S.A., establishing a competence centre for implementation of digital and agile procurement over the long term.

- **Facilitate access to a supplier base composed of start-ups and innovative SMEs,** including GovTech and CivicTech communities, key to deliver innovative digital transformation projects, i.e. start-ups and innovative SMEs by continuously engaging with these stakeholders, removing specific hurdles, and launching dedicated programmes such as innovation challenges.

Set sound monitoring systems and measure user experience

- **Define a comprehensive set of key performance indicators (KPIs) to assess and monitor ICT/digital project development**. MDG could define a detailed set of indicators to support progress monitoring in line with the expectations, the impact, and adherence to digital government standards. In order to secure the feasibility of this monitoring mechanism, MDG could consider the availability of existing data to construct the KPIs (e.g. the project approval process).
- **Establish open communication channels with relevant stakeholders and the wider community to disseminate ICT/digital project performance data.** MDG could make strategic use of data visualisations and dashboards to share relevant information on the performance of ICT/digital projects, including the availability of open government data (OGD) to support the transparency and accountability of digital investments in the public sector
- **Establish a common and standardised methodology to measure user satisfaction**. Greece could strengthen user satisfaction measurement mechanisms across the public sector to support the goals of the DTB, moving towards a systematic and unified evaluation system that assesses end-users' experience with digital solutions.

Strengthen line ministries' capabilities

- **Leverage digital standards to support coherent and aligned implementation of ICT/digital projects.** The MDG could foster the use of guidelines and standards on (1) data sharing and reuse (2) agile project management, (3) user research, (3) digital identity, (4) notification systems, and (5) digital procurement that public sector institutions can leverage to guide the implementation and procurement of small-scale projects.
- **Promote a user-driven culture throughout the public sector.** MDG could strengthen the public sectors' capacities to understand user needs, including training and capacity building of line ministries in agile project management, user research, and user satisfaction measurement to guide digital transformation projects.
- **Strengthen project management capabilities in line ministries**. For this, the country can encourage training and capacity-building activities on project management, user research, agile development and public procurement at line ministries level to reduce MDG and Information Society S.A. workload with projects that line ministries can eventually implement in a coherent and aligned way.

Build capacity to target advanced procurement practices and ICT skills

- **Increase procurement capacity to strengthen the strategic aspects of the procurement process**, which are vital to ensuring value for money and reducing the risk of digital projects' failure. For starters, this entails assessing gaps with a particular view towards ICT competences. Launching pilot programmes to test specific and scalable practices (e.g. DPS, innovative and agile procurement practices) could also complement capacity-building activities.
- **Design a comprehensive and well-structured capacity-building programme for the procurement staff of MDG and Information Society S.A.** taking into account the different levels of advancement in procurement skills based on a careful assessment. At a minimum, capacity-building activities should cover market engagement, use of quality criteria, and functional

specifications. A more advanced programme should also include project management, negotiation, agile methodologies, modular contracting, as well as innovation procurement.

- **Examine the scope for ICT procurement centralisation** to benefit from efficiency gains, greater specialisation, and related capacity improvements.

Set up a Project Management Office

- To address some of the issues identified in implementing ICT/digital projects, organisational siloes, lengthy delivery process, and lack of monitoring mechanisms, the MDG could develop a Project Management Office (PMO) as part of the new governance structure to support digital transformation projects implementation. Doing so implies addressing current business needs, the organisational culture, and context to secure effective implementation.
- By establishing a PMO, the MDG could streamline ICT/digital projects in Greece. The PMO would act as an executive arm of the strategic decisions and guidelines of the MDG. Securing a successful implementation requires the definition of a clear role for the two bodies:
  - o **Ministry of Digital Governance (Strategic level)**: responsible for setting policies reflecting the government's priorities concerning ICT/digital projects. The MDG will also be responsible for redefining the policy decisions and criteria the PMO will act.
  - o **Project Management Office (Operation oversight)**: the PMO is responsible for approving digital projects following the criteria established by MDG and for the implementation oversight of all digital projects through the ICT portfolio management system.
- The MDG can develop written guidelines to steer the PMO in each of the different phases of digital projects and leverage digital government standards to secure the alignment of all initiatives.
- Based on the strategic relevance of projects, the PMO could dispatch initiatives to Information Society S.A. or line ministries for their implementation. The PMO could focus on strategic and more complex projects, leaving small-scale and standardised projects to line ministries to implement. The PMO would closely monitor all initiatives, reporting to the MDG on delays or over costs. In all cases, the PMO will provide counselling to line ministries.

Methodological approach

This report assesses current practices of ICT/digital transformation projects by the Ministry of Digital Governance (MDG) in Greece to improve project delivery and ultimately strengthen the ministry's capacity to implement the government's agenda for digital transformation. In particular, this report intends to map the internal processes of MDG as well as to identify potential bottlenecks that could hamper the implementation of digital projects, covering the entire project cycle (preparation and approval, funding, implementation and procurement, monitoring).

The following methods were used in order to analyse current practices of implementation of digital projects in Greece:

- Short questionnaire covering the implementation cycle of digital projects and governance arrangements within MDG
- Data from implementation and procurement of digital projects funded by ESIF (2014-2020)
- Virtual fact-finding interviews with stakeholders of the Ministry of Digital Governance
- Consultations with private sector representatives and beneficiaries of digital projects
- Preliminary validation meeting with the Office of the Secretary General for Digital Governance and Simplification of Administrative Procedures

The OECD met the following stakeholders within the Ministry of Digital Governance in the fact-finding virtual meetings: Office of the Secretary General for Digital Governance and Simplification of Administrative Procedures; Department of Digital Strategy; Information Society S.A.; Department of Procurement and Logistics; Department of Strategy, Planning and Project Management. Follow-up meetings were held with Information Society S.A.

The fact-finding meetings were held over the period May-August 2021.

The report also draws on publicly available literature and documentation.

References

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