OECD Public Governance Reviews

The Digital Transformation of Public Procurement in Ireland

A REPORT ON THE CURRENT STATE



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Foreword

The digital transformation of public procurement is a priority for many countries as it promises a host of benefits. By streamlining processes for public buyers and suppliers, it can make transactions more efficient and effective. It can make procurement more agile, allowing for swift adaptation to changing needs and supporting innovative approaches. Moreover, the increased collection and use of data can enable more precise measurement of outcomes, especially as procurement is increasingly used as a policy tool to drive strategic, environmental and social objectives. The wealth of data generated by procurement systems can also be used by a wide spectrum of stakeholders in policymaking and to increase transparency and accountability. Finally, the shift towards digital systems can promote user-friendliness and openness, foster greater participation from small and medium-sized enterprises (SMEs) and promote competition. However, digital transformation in public procurement should not be pursued for its own sake. Rather, it should be a strategic endeavour that connects and builds on existing systems and initiatives and contributes to broader policies such as digital government and the digital transition.

While Ireland was an early adopter of e-procurement, meeting society's increasing expectations for digital services will require further steps. Moreover, a clear national strategy and a common set of guiding principles for the digital transformation of public procurement are needed to ensure coherence and quality in implementation. Operational silos, lack of consistency in approach, limited interoperability among systems and reduced ability to use joined-up data could ultimately result in a more complex environment for public buyers and suppliers and limit oversight and strategic decision making. Initiatives for digitalising the public procurement system should also be fully aligned with Ireland's Digital Public Service Strategy, Connecting Government 2030, and other digital government initiatives.

This report maps the current state of digital public procurement in Ireland, identifying areas of strength and opportunities for improvement. It also presents stakeholders' perspectives on related challenges and opportunities, with a view to informing a future strategy for the digital transformation of public procurement in the country. It was developed under the Project "Strategy for the digital transformation of public procurement in Ireland", funded by the European Union via the Technical Support Instrument, and implemented by the OECD, in co-operation with the Directorate-General for Structural Reform Support of the European Commission.

The first section of the report summarises the findings on the current landscape and the initial recommendations for the way forward. The second section defines key concepts and terminology on the digital transformation of public procurement. This includes an overview of European experiences and orientations in terms of similar or related strategies, standards, emerging technologies, and learnings from other European Union (EU) and OECD Members. The third section identifies areas of strength and opportunities for improvement in the use of digital in Ireland. Finally, the report outlines the main factors that should inform Ireland's direction for digital public procurement and initial recommendations for a digital transformation strategy.

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Executive summary

The current state of digital public procurement in Ireland shows promising foundations. This includes the mature use of e-procurement system for the tendering phase of the procurement lifecycle, as well as a supportive policy framework that encourages the use of data and the digital transformation of government processes and services. However, there are gaps in areas such as the pre- and post-tender phases and the collection and use of data across the procurement system. By identifying these strengths and areas for improvement, this report provides a baseline to inform decisions on the ambition and scope of a digital transformation strategy in Irish public procurement.

Areas of strength

The digital transformation of public procurement is closely aligned with the Irish government's ambitious digital agenda. Public sector digital and data strategies emphasise the direct delivery of public services, including reducing administrative overhead and increasing openness for business. These government transformation efforts present an opportunity for the Office of Government Procurement (OGP), sector central purchasing bodies (CPBs) and other procurement stakeholders to employ broader strategies and initiatives for the digital transformation of public procurement.

Ireland has been successful in establishing the mature use of e-procurement for the tendering phase of the public procurement lifecycle. This has taken place primarily through the implementation of eTenders, which functions as a central point for publishing notifications and as the single eSender to Tenders Electronic Daily (TED), the online portal for public procurement notices from across the European Union. In addition, sector CPBs have developed and implemented tools and platforms adapted to their specific sectors.

Areas for improvement

Public procurement governance structures could better address and support digital transformation. Because many of the benefits are dependent on integration across the procurement cycle and between contracting authorities and CPBs, Ireland could make greater use of existing governance bodies and consider creating a digital-focused public procurement forum or body.

There is no clearly articulated vision and roadmap to achieve digital transformation. The absence of a clear national strategy for digital public procurement means that initiatives have mainly been driven by specific regulatory requirements such as those set out in the EU's Public Procurement Directives. The absence of a common set of guiding principles and oversight contributes to operational silos, limited interoperability among systems and reduced ability to make the most of joined-up data, ultimately resulting in a more complex environment for contracting authorities and suppliers, especially SMEs.

There are opportunities to expand digitalisation in the pre-tendering and post-tender phases of the public procurement lifecycle. An increased focus on the full public procurement lifecycle, from needs assessment and planning to e-invoicing and contract management, could equip the public sector with improved tools and result in more efficient processes and better data.

There is limited interoperability across the public procurement lifecycle. Procurement solutions and tools are generally not integrated and there appear to be few existing initiatives or plans to increase interoperability. Transferring information requires inefficient manual processes, leading to data errors and challenges tracking individual procurements through the lifecycle.

Advances in the digitalisation of public procurement in Ireland have not consistently addressed access to and sharing of high-quality and timely procurement data. Connecting data across the lifecycle in a consistent and unified way could improve procurement decisions and strategies and, if made publicly accessible through open data efforts, would improve transparency and oversight. A more ambitious approach to the development of procurement data collection, sharing, and use, such as broader e-invoicing implementation, could provide the basis for a procurement data architecture that facilitates the uptake of digital technologies and greater openness.

Digital transformation could make public procurement more responsive to the needs and expectations of users. Enhancing the user experience is vital to addressing capacity and staff turnover challenges; by establishing a one-stop-shop approach that is data-driven and process automated for procurement tasks, public servants could more easily access the tools and resources they need. A strong user experience is also critical to attracting potential suppliers. For example, Ireland's application of the once only principle in procurement could be strengthened.

Recommendations

Ireland would benefit from defining a clear vision and ambition for the digital transformation of public procurement. A clear whole-of-government plan would improve Ireland's ability to make strategic decisions about the deployment of new tools and systems that could work together in a co-ordinated way. Working with partners and stakeholders from inside and outside procurement, the OGP should lead the development of a credible strategy and roadmap for digital public procurement. The digital public procurement strategy should establish clear governance structures to facilitate decision making and collaboration across the lead institutions. The strategy should outline a roadmap and the necessary investments to make the vision a reality and recognise the opportunity for the digital transformation of public procurement to support policy goals in areas such as the green transition and social inclusion.

Ireland should develop interoperable applications and tools that can adapt to the needs of different stakeholders across the public procurement lifecycle. Digitalisation should take a holistic approach that seeks to identify opportunities to expand digitalisation in the pre-tender and post-tender phases. This approach does not imply the introduction of a single solution or platform: efforts should focus on making public procurement processes more efficient by connecting systems and putting in place a consistent experience across platforms. A focus on users can help to ensure this process is successful in delivering systems and tools that contracting authorities and economic operators will use.

Data should be used to increase access and transparency, ensure seamless integration between systems and applications, support evidence-informed decision making, and enable innovation in public procurement. Digital transformation should enable data access and exchange among various stakeholders, promoting coherence and sharing of procurement data.

Ireland's digital transformation strategy should include a co-ordinated approach to the deployment of innovative and emerging technologies in public procurement. This could include identifying requirements for the use of innovative and emerging technologies. Implementing innovative and emerging technologies in a co-ordinated way can enhance interaction across platforms and applications and help ensure that different stakeholders can learn from each other's experiences and co-design interfaces.

1 The digital transformation of public procurement

The digital transformation of public procurement goes beyond replicating existing analogue processes into digital formats. It is reconsidering the whole public procurement process from an end-to-end perspective, including pre-tender and post-tender phases. This chapter provides an overview and conceptual framework for digital transformation, including the data collection, maintenance and use of data and the increasing use of innovative technologies in public procurement. It also describes the close links between digital public procurement and wider public sector digital transformation.

1.1. The digital transformation journey in public procurement: from e-procurement to digital public procurement

The overarching OECD guiding framework on public procurement, the OECD Recommendation on Public Procurement, highlights the need to invest in technology and to improve the public procurement system by harnessing the use of digital technologies throughout the public procurement cycle (OECD, 2015[1]). The Recommendation invites governments:

- to employ recent digital technology developments covering the public procurement cycle to ensure transparency and access to public tenders, increasing competition, simplifying processes for contract award and management, driving cost savings and integrating public procurement and public finance information.
- to pursue state-of-the-art digital procurement tools that are modular, flexible, scalable and secure in order to assure business continuity, privacy and integrity, provide fair treatment and protect sensitive data, while supplying the core capabilities and functions that allow business innovation.

The Recommendation also highlights that digital procurement tools should be simple to use and appropriate to their purpose, and consistent across procurement agencies, to the extent possible as excessively complicated systems could create implementation risks and challenges for new entrants or small and medium enterprises (SMEs).

Further, the OECD Recommendation on Digital Government Strategies guides governments in the design and implementation of whole-of government digital transformation reforms that enhance efficiency, inclusion and transparency in the public sector (OECD, 2014[2]). The Recommendation encourages governing and using digital tools and data for human-centred and data-driven service design and delivery and policymaking across different policy areas, including public procurement, by:

- defining strategic instruments that guide digital government reforms, fostering alignment across different sectors and promoting wide stakeholder participation and engagement.
- securing leadership and political commitment that promote a coherent use of digital technologies and establish effective organisational and governance frameworks to co-ordinate implementation.
- establishing policy instruments and mechanisms that support a coherent and strategic decision making, implementation and monitoring of investments in digital technologies across the public sector.

OECD member countries have used digital public procurement to advance a range of goals (see Box 1.1 for a recent example from Czechia). Digital technology can radically change the way public procurement operations are conducted and reported. Technological advances provide governments with increased data and data processing techniques, which can inform robust public procurement strategies, help achieve transaction efficiency, increase transparency, improve risk management and capture data-driven insights on costs and emerging needs (OECD, 2019[3]). Data that allows for better measurement of public procurement outcomes is crucial for accountability and transparency in government spending and, as procurement is increasingly used as a tool to achieve strategic outcomes, provides a means to assess the impact and effectiveness of procurement strategies. Digitalisation also provides increased transparency and accountability, allowing oversight bodies, civil society and the public at large to better track and understand government spending. At the same time, digitalisation should not be pursued for its own sake, but only when it can improve the experience of public buyers and suppliers and can contribute meaningfully to evidence-based policymaking.

Digital transformation of public procurement is an opportunity to drive public procurement priorities, too. For example, it can help increase the uptake of framework agreements and Dynamic Purchasing Systems (DPS), which can lead to more efficient and standardised procurement processes. Digitalisation is already reducing some of the barriers to SME participation in public contracting, making it easier to learn about relevant opportunities and submit tenders. Digitalisation can also help to achieve the Sustainable

Development Goals (United Nations, n.d.[4]) by increasing public buyers' capacity to identify and target opportunities and to measure and report on their results.

Box 1.1. Czechia's digital public procurement strategy 2022-2030

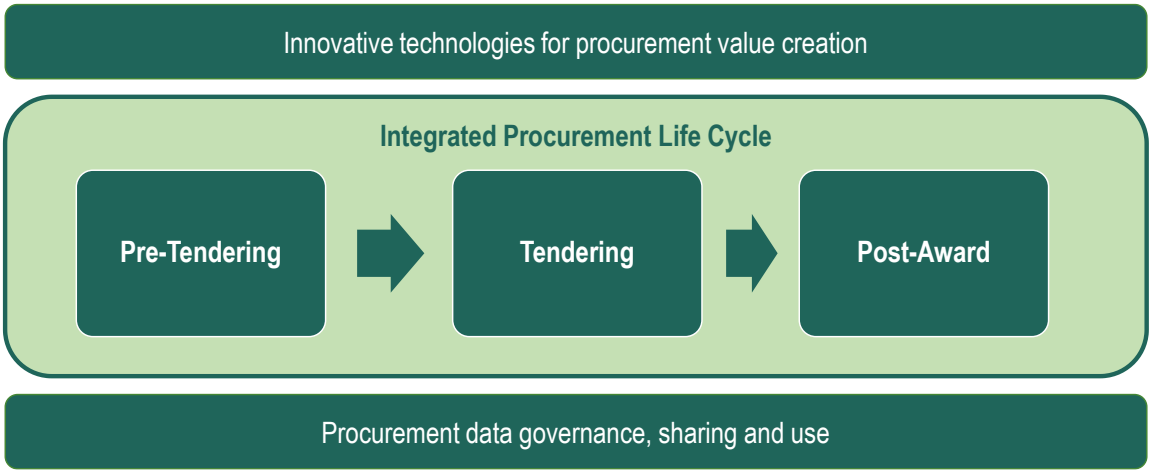
Czechia's digital public procurement strategy 2022-2030 builds on the previous strategy covering 2016-2020, the strategy for the period 2011-2015, and the National Plan for the Introduction of Electronic Procurement for the period 2006-2010. While previous strategies covered five-year periods, the new strategy was extended to nine years due to the long-term nature of its goals. The current strategy is based on four strategic objectives:

1. **Simple and efficient procurement:** ensuring that the digital public procurement ecosystem allows for the open exchange of data, reducing obligations to provide data and supporting process automation, thus reducing the administrative burden in public procurement, both for contracting authorities and suppliers. This will include ensuring the quality of digital tools across the public procurement ecosystem, introducing uniform registration and logins for contracting authorities and suppliers across systems, and promoting the automatic pre-filling of data by increasing communication between systems.
2. **Maximise the transparency of the public procurement market and the openness of systems:** ensuring a single high-quality database on the public procurement market, published in open data formats and applying modern data analytics methods. This will include implementing data quality controls, making available machine-readable data beyond mandatory published information, and providing contracting authorities and suppliers with analytical tools to work with their procurement data.
3. **Support the successful implementation of innovative e-procurement:** supporting public procurement innovation in the framework of digitalisation, including by placing more emphasis on the use of tools, such as e-catalogues, providing support for knowledge sharing, and using innovative technologies such as AI to simplify and automate processes.
4. **Cross-cutting measures supporting several strategic objectives:** specific measures supporting several strategic objectives at the same time. These include comprehensively updating the e-procurement system architecture and improving the functionality of the main e-procurement platform (Národní Elektronický Nástroj).

Source: (Ministry of Regional Development, 2022[5]; Ministry of Regional Development, 2022[6]).

In fact, public procurement was one of the first areas where governments promoted the use of digital tools. Historically, the digitalisation of public procurement started with the emergence of digital tools and technologies that supported effective procurement performance. The first genuinely revolutionary changes were related to the introduction and uptake of e-procurement solutions focused mainly on the tendering (pre-award) phase with widespread adoption starting from the mid-2000s. Since then, the rate of change has been astounding, and has continued as other emerging technologies – such as artificial intelligence (AI), robotic process automation (RPA), blockchain, and the Internet of Things (IoT) – have advanced concurrently. Today, the digital transformation journey in public procurement includes a wide range of initiatives from establishing a digital portal to post information about government contract opportunities to using emerging technologies such as AI to analyse data to inform evidence-based decision making and strategic policymaking. As Figure 1.1 shows, digital transformation of public procurement goes beyond simply replicating existing analogue processes into digital formats. It is reconsidering the whole public procurement process from an end-to-end perspective, including pre-tender and post-tender phases, investment in data collection, storage and management and the application of innovative technologies to the procurement process.

Figure 1.1. Digital transformation of public procurement

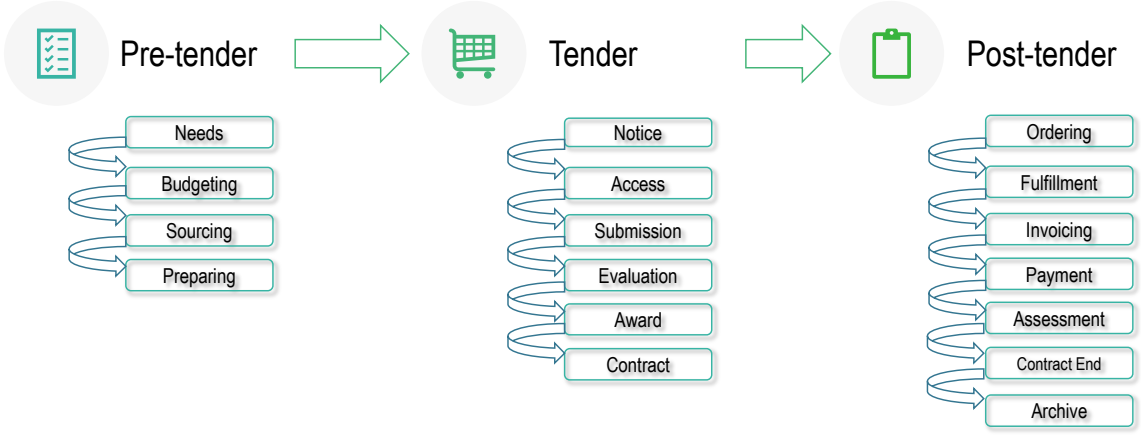


Source: Authors' elaboration.

1.1.1. An end-to-end approach to the public procurement cycle

Digitalisation of the "end-to-end public procurement lifecycle" refers to systems that cover the entire lifecycle of a public procurement procedure, in a digital format and enabling an integrated view from the beginning to the end (see Figure 1.2). It includes all stages of the public procurement procedure starting from preparation and planning up to the final payment phase. This end-to-end approach is critical both for accountability and transparency and to build linkages with contract performance and the broader outcomes of public spending.

Figure 1.2. End-to-end public procurement lifecycle



Source: Authors' elaboration.

Digital transformation has enormous potential to remake the public procurement lifecycle from an end-to-end perspective because it can not only optimise the solutions already implemented but also allow for the creation of new added-value services. This approach includes enhancing the adoption of digital tools as well as integrating and managing data to streamline and improve processes at every step.

This end-to-end perspective also entails a user-centric approach, where the focus is on users and their needs rather than on technologies. By understanding and meeting the needs of contracting authorities, Central Purchasing Bodies (CPBs), economic operators, and other users, it is possible to rethink existing processes and procedures via the strategic adoption and use of digital tools and data. Rather than merely digitising existing analogue processes, or upgrading technologies that already support processes, the ambition must be to revisit culture and practices. This involves promoting a culture of understanding of user needs and embracing a bottom-up approach, where the insights and requirements of users, as well as data inputs, inform the transformation process. It requires understanding and responding to user needs, integrating their feedback, involving them in the transformation process, and tailoring digital solutions to address their specific challenges and requirements.

In the **pre-tendering phase**, which includes the planning and preparation (design) of the tender, digital transformation offers numerous benefits that can significantly enhance the efficiency and effectiveness of procurement processes. Examples include:

- Contracting authorities and CPBs can leverage digital tools to conduct market research more effectively, to identify and engage with potential suppliers and to gain insights into market trends and economic operators' capabilities.
- Advanced data analytics can help demand forecasting and strategic procurement planning, ensuring that procurement activities align with actual needs and budgets.
- Digital tools (e.g. cloud-based collaboration tools) can facilitate stakeholder engagement and collaboration and the application of a user-centric approach by improving communication between procurement officials and various stakeholders. Contracting authorities can gather valuable feedback from end users and potential suppliers to refine procurement requirements and specifications based on end users' needs and the opportunities that the market can offer.

Box 1.2. Lisbon's Public Procurement Planning Platform

The Lisbon Procurement Planning Platform for Innovation and Sustainability (Lx PPP-IS) was developed in 2021 as the backbone for a strategic sourcing approach to sustainability and innovation. The Lx PPP-IS promotes a strategic approach to needs assessment, facilitating the medium-term forecast of goods, works and services needs and the early identification of social, green and economic measures for consideration in future tenders.

The Platform supports needs assessments, allowing the registration of annual needs for goods, works and services, identifying social, green and economic measures to consider in future tenders, promotes annual budget and procurement planning, and identifies Sustainable Development Goals related to public procurement initiatives. The Platform sets sustainability targets at the pre-tendering stage, identifies key areas for sustainability and results in an annual public procurement plan and provides benchmarks and data for monitoring. The PPP follows an internal regulation that defines the mandatory steps in the process, requiring all procurement units to register and categorise their purchasing needs.

By taking an innovative approach to pre-tendering, the Platform turns the annual planning process into a strategic action to promote sustainable innovation that goes beyond the use of green criteria. It promotes a strategic approach by guiding the focus to sustainability and innovation at an early stage, allowing for more focused market engagement and a project-based approach to tenders. This also supports the city's budget planning, including alignment with the Sustainable Development Goals and climate-neutrality targets.

Source: (Observatory of Public Sector Innovation, 2023[7]; Procura+ Network, n.d.[8]).

The **tendering phase** also benefits significantly from digital transformation. The tendering phase includes the publication of the tender opportunity, submission by potential suppliers, the opening of bids, the evaluation of compliant tenders against the selection and evaluation criteria, the publication of the award notice and the signature of the contract with the successful tenderer. Digital transformation can support decisions regarding supplier selection, promoting greater transparency and accountability in the tendering process. Moreover, data analytics during the tendering phase can support bid evaluation and price analysis. Automated algorithms have the potential to compare bids, detect anomalies, and flag potential instances of bid collusion or fraud, ensuring a fair and transparent evaluation process. This data-driven approach minimises human bias and enhances the integrity of the procurement process, leading to better value for money and improved procurement outcomes. Box 1.3 provides an example from Italy of an eMarketplace that provides operational flexibility for the purchase of low-value purchases, allowing for direct awards from standardised e-catalogues and for requests for quotations from pre-qualified suppliers.

Box 1.3. MePA: the eMarketplace for small value procurement in Italy

Managed by Consip, Italy's national CPB, the MePA digital marketplace provides a paperless environment for awarding low-value public contracts for goods, services and maintenance works. MePA encourages economic operators to engage with contracting authorities throughout Italy. Contracting authorities can choose among a wide range of goods and services offered by an increasing number of economic operators. It provides operational flexibility, allowing for direct awards from standardised e-catalogues and for requests for quotations (RfQ).

Contracting authorities can access the MePA e-catalogue, a user-friendly shop window showcasing the goods and services available; easily compare the prices, features and delivery conditions offered by different economic operators; and then proceed with the purchase through direct order or RfQ. The process is split into three steps:

1. Consip publishes the MePA tenders
2. Economic operators qualify and publish their e-catalogues and offers compliant with the tender specifications
3. Contracting authorities issue direct orders or negotiate prices and supply conditions through a RfQ

MePA's key benefits for contracting authorities include time savings, transparency across the entire procurement process, a greater range of available products with the opportunity to compare prices and characteristics offered by economic operators from across Italy, and the potential to satisfy customised needs by means of an RfQ that identify specific requirements. MePA's major benefits for economic operators include reduced commercial costs and optimising sales times and wider access to the public procurement market.

Source: OECD (2018[9]), *SMEs in Public Procurement: Practices and Strategies for Shared Benefits*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264307476-en.

The **post-tendering phase**, encompassing contract management, performance evaluation, and ordering and payment, can benefit from digital transformation in multiple ways. Contract management can be supported by digital tools, enabling streamlined monitoring and enforcement of contractual obligations. Digital contract repositories and contract management systems allow easy access to contract details, facilitating timely renewals, amendments, and compliance tracking. In real-time, automated performance tracking systems can assess supplier performance against Key Performance Indicators (KPIs). This data-driven approach enables proactive identification of underperforming contracts and timely interventions,

ensuring the delivery of goods and services per the agreed-upon terms. More broadly, the data produced by greater digitalisation can be used to measure the impacts of procurement strategies, and answer questions about the impact of government spending on the environment, the economy and society at large. Furthermore, digital transformation can enable better risk management. By integrating risk assessment tools with contract management systems, potential risks such as supplier non-compliance or financial instability can be monitored closely. Early identification of risks allows contracting authorities to take preventive measures, mitigating potential disruptions.

In conclusion, an end-to-end digital transformation approach in public procurement substantially benefits each phase of the procurement life cycle. Governments can achieve greater efficiency, transparency, and accountability in their procurement processes by focusing on data integration, user-centricity, and process automation, leading to improved outcomes and enhanced public value creation.

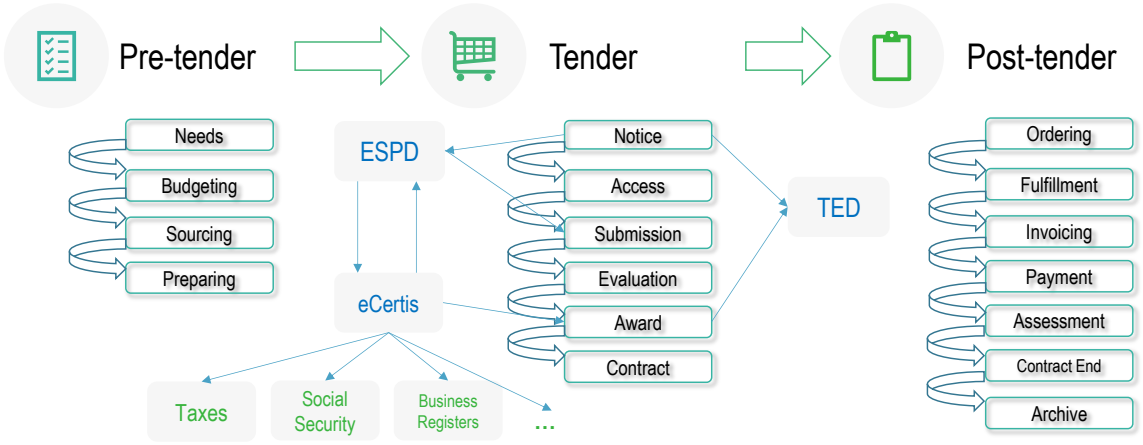
In the European Union, several initiatives have been implemented to support the process of rethinking the public procurement lifecycle with digital technologies (see Figure 1.3). The EU Public Procurement Directives provide rules on the organisation of procurement procedures and the publication of data generated for public contracts above the EU thresholds. Public buyers at local, regional and national level must publish data on the notification and awards steps of procedures above the EU thresholds on Tenders Electronic Daily (TED) according to the technical specifications provided by the Publications Office of the European Union. The publication obligation however does not currently cover the whole procurement cycle, e.g. in particular the post-tender phases. The EU Public Procurement Directives also require that procurement documents be accessible electronically and a link be included in TED notices, that economic operators submit tenders electronically, and that contracting authorities accept electronic invoices (unless a derogation for sub-central authorities is used).

The European Commission has also developed the European Single Procurement Document (ESPD) which is a single self-declaration form of businesses' financial status, abilities and suitability for a public procurement procedure. It is available in all EU languages and is used as preliminary evidence of compliance with the requirements concerning exclusion criteria (e.g. criminal convictions, grave professional misconduct) and selection criteria (financial, economic and technical capacity). Tenderers no longer have to provide full documentary evidence and different forms (e.g. attestations, certificates); generally, only the winning economic operator has to present the full set of underlying documentation (unless verification of specific documentation from other participants is needed to ensure a proper conduct of the procedure). Since October 2018 the ESPD has been provided exclusively in an electronic form. The full potential of the ESPD can be reached, however, through the integration of the ESPD with national e-procurement services and the national registers and databases of Members. In this way, the ESPD can act as a 'business passport' for companies bidding for tenders anywhere in the European Union. This enables data reusability, default form pre-filling and data interexchange among different databases. In turn, public buyers and suppliers benefit from automation, making the application of the ESPD much easier and decreasing data errors rates (European Commission, 2017[10]).

The eCertis information system helps businesses identify criteria and evidence requested in procurement procedures across the European Union and supports public buyers with the evaluation of bids received from various Members. Economic operators wishing to participate in a public procurement procedure or contracting authorities evaluating bids received from various Members can use eCertis to help understand what evidence is requested or provided by the other party.

Together, the ESPD and eCertis create a basis for the simplification of procedures via the implementation of the once-only principle, a cornerstone of the EU's Digital Single Market Strategy. The once-only principle refers to the requirement that suppliers should not be asked to provide information to demonstrate that they meet the requirements set out in an administrative procedure, since this information is already available in databases owned by public authorities.

Figure 1.3. Digital tools and solutions supporting the procurement lifecycle in the European Union



Source: Authors' elaboration.

1.1.2. Enhancing the collection, maintenance, and use of data

Transparency requirements and the implementation of digital solutions generate a huge amount of data submitted by public buyers and economic operators, but this data holds value only when put to practical use. The digital transformation of public procurement therefore requires investment in public procurement data governance to ensure its effective management, sharing, and use across the entire public procurement system. Because public procurement involves multiple stakeholders who own and use data in different ways, a robust governance framework is also needed. This framework should include clear policies, standards, and data collection, storage, access, and sharing procedures. It should also define roles and responsibilities for data custodians, stewards, and users within the procurement process. A well-defined governance structure will instil trust in the data, promote accountability, and reduce the risk of data misuse.

At the **pre-tendering phase**, during procurement planning, data-driven insights can help identify procurement needs, forecast demand, and assess market conditions, ensuring that procurement activities align with organisational goals and achieve value for money. With access to high-quality data and analytics, procurement planning becomes more strategic, and evidence based. For instance, by assessing and interpreting contract data, CPBs can identify patterns and potential risks, leading to improved decision making, cost savings, and enhanced procurement strategies. This could include identifying categories of goods and services where new central arrangements could be successful. Data can give economic operators enhanced visibility into market opportunities, improving access and fostering competition.

Throughout **the tendering phase**, implementing real-time data reporting and monitoring mechanisms allows procurement officials to track the progress of ongoing procurement activities, identify bottlenecks, and take corrective actions promptly. It also provides opportunities to enhance oversight from public bodies such as auditors and competition authorities, as well as from civil society organisations.

Real-time data also aids in measuring procurement performance in the **post-tendering phase**, and assessing the impact of policies and strategies, such as green, social, and innovative goals. A data-driven procurement enables continuous supplier performance and risk assessment evaluation. By analysing historical performance data and monitoring supplier metrics, procurement entities can identify high-performing suppliers, foster healthy competition, and mitigate potential risks associated with suppliers' financial stability or past performance issues.

Beyond those directly involved in procurement, the data produced by digital procurement systems can be a valuable resource for auditors and competition authorities, aiding in their assessments. Data can also be used to increase transparency and accountability in procurement processes and in government spending (see Box 1.4 for an example from Slovenia).

Box 1.4. Connecting spend and procurement system data in Slovenia

In 2022, the Slovenian public procurement system was upgraded with a mechanism to monitor payments under contracts concluded through successful procurement procedures. A portal for entering payments has been created, where contracting authorities report payments made for contracts concluded following successful procurement procedures. The portal is managed by the Public Payments Administration of the Republic of Slovenia.

Beginning in January 2023, contracting authorities are obliged to report monthly on payments made under public procurement contracts through the payments portal. The payments portal connects directly to the public procurement portal. The data uploaded by contracting authorities on the payments portal are transferred back to the procurement portal in the contract file under the relevant contract and allow an overview of the status of contract performance.

Source: Information provided by the Public Procurement Directorate of the Ministry of Public Administration of Slovenia.

Accurate, complete, and timely data is critical, and can be established through data quality checks, validation mechanisms, and data cleaning processes. Adopting standardised data formats and definitions across different procurement systems and departments can also facilitate data integration and analysis. Structured data collection is key for achieving higher data quality and completeness. The use of standardised public procurement notices can help ensure structured, high-quality data. For example, the procurement notices or forms used by public buyers in the European Union to publish procurement notices on TED are standardised. New standard forms, the eForms, were adopted from 25 October 2023, allowing the collection of procurement data in a more structured way. The introduction of eForms will also allow for the capture, over time, of data on the complete public procurement cycle. To that effect, eForms will be extended to include voluntary forms for contract completion notices (i.e. post-tender information such as the final price paid, subcontractors used, actual completion time needed, and complaints received) (see Box 1.5).

Box 1.5. European Union: eForms

eForms are an EU legislative open standard for publishing public procurement data, established under European Commission Implementing Regulation (EU) 2019/1780. They are digital standard forms used by public buyers to publish notices on Tenders Electronic Daily.

By introducing a common standard and terminology, eForms are expected to significantly improve the quality and analysis of procurement data. Well-implemented eForms should increase the ability of businesses and other organisations to find procurement notices, reduce the administrative burden for contracting authorities, increase the ability of governments to make data-driven decisions about public spending, and make public procurement more transparent. The standard forms should be automatically filled-in or generated with information from previous notices, technical specifications, tenders, contracts, national administrative registries, and other sources of data. The use of eForms became mandatory in October 2023.

As the European Commission has emphasised, the eForms Implementing Regulation and its annex do not constitute an 'off-the-shelf' law that can be implemented 'as is'. Public procurement decision makers must first define the national approach to the various aspects of eForms, such as also using them for contracts below thresholds, and defining the national governance structure for eForms.

Source : (European Commission, 2019[11]) ; https ://single-market-economy.ec.europa.eu/single-market/public-procurement/digital-procurement/eforms_en

An ambitious approach to the development of procurement data collection, sharing, and use can provide the basis for a procurement data architecture that facilitates the uptake of digital technologies. For example, in the European Union, the European Strategy for Data commits to a data initiative for public procurement data covering both the EU dimension (EU datasets, such as TED) and national dimension, complemented by a procurement data governance framework.

For the implementation of the European Strategy for Data (European Commission, 2020[12]), the European Commission has issued the Data Governance Act, a cross-sectoral instrument that aims to equip private and public sector institutions to better handle, share and re-use data while respecting fundamental rights and privacy (European Commission, 2023[13]).

Box 1.6. Initiatives on public procurement data in the European Union

European Strategy for Data

The Strategy seeks to make the European Union a leading role model for a society empowered by data to make better decisions in business and the public sector. It seeks to ensure that:

1. data can flow within the European Union and across sectors
2. European rules and values, in particular personal data protection, consumer protection legislation and competition law, are fully respected
3. the rules for access to and use of data are fair, practical and clear, and there are clear and trustworthy data governance mechanisms in place
4. there is an open, but assertive approach to international data flows, based on European values.

Opportunities identified in the Strategy include making public sector data available for the common good, the potential for data sharing between public authorities to contribute to improving policymaking and public services, as well as reducing the administrative burden on companies (once-only principle) and increasing the use of privately held data by the public sector.

The Strategy is based on four pillars:

1. a cross-sectoral governance framework for data access and use
2. investments in data and strengthening Europe's capabilities and infrastructures for hosting, processing and using data, interoperability
3. empowering individuals, investing in skills and in SMEs
4. common European data spaces in strategic sectors and domains of public interest, including a common European data space for public procurement.

The Strategy acknowledges the importance of public procurement data to increasing transparency, reducing corruption, and improving value for money. It points out that public procurement data is often spread over several systems, made available in different formats, not easily accessible for policymaking, and often low quality. The Strategy commits to a data initiative for public procurement data covering both the EU dimension (EU datasets, such as TED) and national dimension,

complemented by a procurement data governance framework.

The Data Governance Act

For the implementation of the European Strategy for Data, the European Commission has issued the Data Governance Act, a cross-sectoral instrument that aims to equip private and public sector institutions for the better handling, sharing and re-use of data while preserving fundamental rights and privacy issues. The Act acknowledges the importance of increasing trustworthy and safe data access and use, for which it sets specific technical requirements for the public sector to ensure the privacy and confidentiality of data in re-use situations (e.g. through anonymisation, pseudo anonymisation or accessing data in secure environments). Similarly, government institutions will need to assist possible re-users to seek consent from individuals to re-use data by other institutions.

The Public Procurement Data Space

The Public Procurement Data Space (PPDS) will connect European databases, including TED data on public procurement, and national procurement datasets available in national portals. It will create an EU-level platform for public procurement data that is currently scattered at EU, national and regional levels. Together with eForms implementation, it is expected to improve data quality, availability and completeness for public buyers, policymakers at EU and national level, companies, researchers and citizens. This data will be combined with an analytics toolset including advanced technologies such as AI.

The PPDS will consist of 4 layers:

1. **Data sources layer:** a federated network of connected data sources such as the European databases and procurement datasets available in national portals
2. **Integration layer:** the European e-procurement ontology as a common data format to create a harmonised dataset
3. **Analytics layer:** capacities for data discovery, querying and data analysis to generate new insights, to make data-driven decisions and to set KPIs on priority policy areas
4. **Client layer:** a user-friendly interface for different users

The use of the PPDS will be voluntary. EU Member States will be able to connect their national data bases to gain access to the data and analytics on the PPDS. Access to the PPDS will be free of charge for users but countries will be responsible for the costs of digitalising their public procurement systems and connecting their data sources to the PPDS. Countries will also be able to make decisions on whether to participate in the PPDS over time. The European Commission intends to have the basic PPDS architecture and analytics toolkit in place and procurement data currently published at EU level available in the system in 2023. Participating national publication portals would be connected, historic data published at EU level integrated, and the analytics toolkit expanded by the end of 2024. As of 2025, the system could establish links with additional external data sources.

Source: (European Commission, 2023[14]; European Commission, 2023[13]).

Connecting procurement data across the lifecycle can improve decision and strategy making in areas such as needs assessment and market analysis. Box 1.7 provides an example from the Netherlands of contracting authorities' efforts to leverage the data from their e-procurement systems to inform their procurement strategies and operational decisions. For efficient data sharing and collaboration, it is vital to implement interoperable systems that can seamlessly exchange data. Application Programming Interfaces (APIs) can enable data interoperability between different procurement platforms and between other key

systems that are part of the end-to-end procurement lifecycle, ensuring smooth data flow and eliminating silos.

As data collection and sharing increase, ensuring data privacy and security becomes paramount. Procurement agencies should adhere to strict data protection regulations and implement robust cybersecurity measures to safeguard sensitive information. Encryption, access controls, and regular security audits should be employed to prevent data breaches and unauthorised access to procurement-related data.

Box 1.7. The Netherlands: TenderNed's investment in data analysis

TenderNed is the Dutch government's e-procurement system, managed by the Netherlands Enterprise Agency of the Ministry of Economic Affairs and Climate. All contracting authorities in the Netherlands are obliged to publish contract notices and contract award notices on TenderNed if the value of the contract is equal to or exceeds the EU thresholds. The publication of documents relating to contracts below the EU thresholds is voluntary.

Being the mandatory national e-procurement system, TenderNed has a wealth of public and non-public procurement data. To leverage that data for itself and for contracting authorities, TenderNed has undertaken a number of measures. This includes the technical redesign of its analysis environment to be able to share more real-time information and establishing various output channels for data and analysis sharing. This includes regularly publishing analysis of procurement trends and figures in specific sectors, as well as analysis in more specific areas such as the use of negotiated procedure without publication and common complaints from economic operators.

Under the 'Data Excellence' pillar of its 2023-2027 Vision and in line with the Dutch government's broader digital transformation strategy (the National i-Strategy 2021-2025), TenderNed is seeking to give contracting authorities and the private sector more opportunities to access and use data. Contracting authorities have access to their own data in TenderNed and an API is being made available to contracting authorities to offer them the opportunity to directly link their systems to their own data within TenderNed. Contracting authorities can use this data to answer questions such as:

- How long (on average) does the organisation take to complete a tender?
- How many respondents are there (on average)?
- Which procedures are used most often?
- When is the procurement workload of the organisation the highest?

TenderNed also plans to establish data communities with the public and private sectors to share knowledge and expertise.

Source: TenderNed (n.d.[15]), TenderNed website, https://www.tenderned.nl/cms/nl (accessed on 4 October 2023).

1.1.3. Applying emerging technologies

The use of emerging technologies can enhance the public procurement process and improve value for money. Organisations can use these technologies to eliminate repetitive operations to increase productivity and reduce costs, but also to streamline processes and data flows between suppliers and contracting authorities. For instance, AI and user-friendly internet tools can provide stakeholders with real-time access to insights and information. Emerging technologies that improve planning, expedite workflows and processes, and facilitate new platforms for market engagement can ultimately lead to more agile procurement processes that can swiftly adapt to changing demands and market conditions. Box 1.8

includes an example from Austria on how digital tools, in this case an online platform for matching contracting authorities with innovative solutions, can facilitate the use of procurement to promote broader innovation across the public sector and the economy.

Box 1.8. The IÖB innovation platform in Austria

The PPPI Service Center (or national competence centre for innovation procurement) was established within the Federal Procurement Agency (BBG), the Austrian federal government's CPB, in 2013. The PPPI Service Center acts as the single point of contact for pre-commercial procurement and innovation procurement issues in Austria. It also initiates and conducts pilot projects and offers services in the fields of further education and training, in addition to running the innovation platform www.ioeb-innovationsplattform.at. Through the innovation platform, the PPPI Service Center works as a bridge between contracting authorities and innovative companies.

The PPPI Service Center's innovation platform (Innovationsfördernde Öffentliche Beschaffung, IÖB) publishes the needs of public procurers in the form of Open Innovation Challenges. Recent challenges ranged from climate-friendly and low-emission government boats to AI support in processing rail passenger rights requests. Economic operators can submit their innovative solutions that solve those challenges. This process allows contracting authorities to better understand innovative solutions to prepare for a procurement and have moderated discussions with the market through a clear and fair research process. For economic operators, it provides an opportunity to present solutions directly to public sector buyers and find potential partners for joint ventures.

The platform also contains an online marketplace for innovative companies to showcase their products and services. Solutions that have been tested by expert juries are presented to contracting authorities who use this marketplace for research purposes. For economic operators, the platform provides an opportunity to promote their innovative solutions to over 2 500 public institutions for free. It allows contracting authorities to discover the latest products and pioneering solutions, benefit from pre-selection by an expert jury, and establish direct contact with innovative companies.

Source: IÖB Innovationsplattform (n.d.[16]), IÖB Innovationsplattform website, https://www.ioeb-innovationsplattform.at/ (accessed on 4 October 2023).

However, defining which technologies are "emerging" is difficult because so few of the usual metrics – journal citations, number of researchers in a new field, budgets and products on the market – are readily available. Moreover, many emerging technologies are defined less by the parameters of a particular field (biology, physics, etc.) than by the global challenges they seek to address (the search for new sources of clean energy, the effort to deal with Alzheimer's disease and dementia in an ageing society, etc.) Furthermore, an emerging technology can quickly become mainstream or disappear altogether depending on its pace of development (Ubaldi et al., 2019[17]).

This report applies the following definition for emerging technologies: "technologies of recent adoption, or currently under development, that offer disruption to the current operating models of government and allow for innovative solutions for public policy and service delivery, and to the socio-economic context overall." (Ubaldi et al., 2019[17]). Table 1.1 presents an indicative list of emerging technologies that can support public procurement operations.

Table 1.1. Innovative/emerging technologies supporting public procurement operations

	Description	Potential use cases in public procurement	Example
Data Analytics	Data analytics is the process of analysing data to describe events that have happened. It uses a range of statistical methods to aggregate data in order to report a result, search for a pattern and find relationships between variables.	• Identifying cost-saving opportunities, • Detecting fraudulent/anti-competitive activities, • Assessing supplier performance, • Promoting better decision making and transparency.	The Department of Mobility and Public Works in Flanders developed a platform to make full use of its existing data. The MEDIAAN platform provides a searchable database of historical prices together with a range of applications for cost engineering and analysis.
Predictive Analytics and Big Data	Big Data describes the quantitative explosion of digital data and refers to the storing of huge amounts of information on a numerical basis. Predictive Analytics uses Big Data to generate insights and find meaningful patterns to forecast future events.	• Forecasting procurement needs and enabling proactive and efficient procurement planning, • Gaining insights into market trends and dynamics.	Arkestro is a company that offers predictive procurement solutions, focusing on enhancing procurement processes through innovative technologies like machine learning and behavioural science. Their platform helps organisations make more informed buying decisions by learning from their historical data and best practices as well as proactive alerts and tailored recommendations to identify risks or opportunities.
Artificial Intelligence (AI) and machine learning (ML)	An AI system Is a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment. ML is a form of AI that involves the use and development of computer systems that are able to learn and adapt without following explicit instructions, by using algorithms and statistical models to analyse and draw inferences from patterns in data.	• Automating analysis (e.g. predicting demand, prediction of prices to be used for budget-making purposes, supplier performance evaluation) • Risk assessment • Streamlining procurement operations and improving decision making	A machine learning solution was developed for ProZorro, Ukraine's e-procurement system, that predicts the correct Common Procurement Vocabulary (CPV) code for a product. The algorithm does this based on textual input including the description and title of the product. The output of the algorithm is a number of different CPV codes, together with a probability for each one that it is correct.
Robotic Process Automation (RPA)	RPA is a technology designed for automating repetitive tasks.	• Automating repetitive, information intensive, back-office tasks that do not require complex logic like invoice processing, order management, and supplier onboarding, • Reducing manual efforts, • increasing process efficiency.	Palkeet, the Finnish Government shared services centre for finance and HR, has automated two processes related to procurement, creating a bot that automatically processes purchase invoices, and another that maintains the supplier register.
Blockchain	Blockchain is a cryptographically secured distributed database technology for storing and transmitting information.	• Enhancing supply chain traceability, • ensuring vendor compliance, • increasing transparency in procurement transactions, • improving accountability and reducing fraud risks.	Mercurion is a Portuguese platform for purchasing goods and services. As an end-to-end solution, it centralises all the flows associated with procurement processes into one solution that is secure, intuitive and complies with the law. The solution is developed using blockchain technology, making information storage secure and ensuring that the information, once generated, is immutable and auditable in real-time throughout the process.

	Description	Potential use cases in public procurement	Example
Low-Code/No-Code Solutions	Low-code and no-code platforms allow users to build applications through visual interfaces using common components. Point-and-click or pull-down menu interfaces allow non-specialist staff to quickly design and implement systems which respond directly to their needs and the needs of their clients.	Opening new opportunities for public procurement by empowering stakeholders to shape the procurement ecosystem: • these platforms allow users to create and customise applications and workflows with minimal programming knowledge. • the accessibility and flexibility of these platforms create a more user-centric approach to procurement, fostering collaboration, efficiency, and innovation.	A number of local councils in the United Kingdom have implemented low code development platforms to build user-centred digital services that are replacing expensive and inflexible legacy systems. councils have designed and built a range of applications, including waste and recycling services, social housing repairs, asset management, customer complaints, human resource management and freedom of information requests.
Internet of Things (IoT)	IoT refers to a system in which physical objects, often remote sensors, are connected to the internet and are capable of creating and transmitting data in order to create value for its users through various services (aggregation, analytics, and so on).	More effective procurement planning and cost optimisation by: • Monitoring inventory levels, • tracking asset performance, and • improving logistics management.	Swedish regions and municipalities and the Research Institutes of Sweden (RISE) are testing and evaluating IoT technologies to support inventory management. These technologies can support public organisation'' logistics chains with real-time control of current stock balances. They provide better control and data on what is available in warehouses as well as automatically placing orders when stocks are low.

Source: (European Commission, 2020[18]; The research institute of Sweden, n.d.[19]; OECD, n.d.[20]; OECD, 2019[21]; Johannessen and Davenport, 2021[22]).

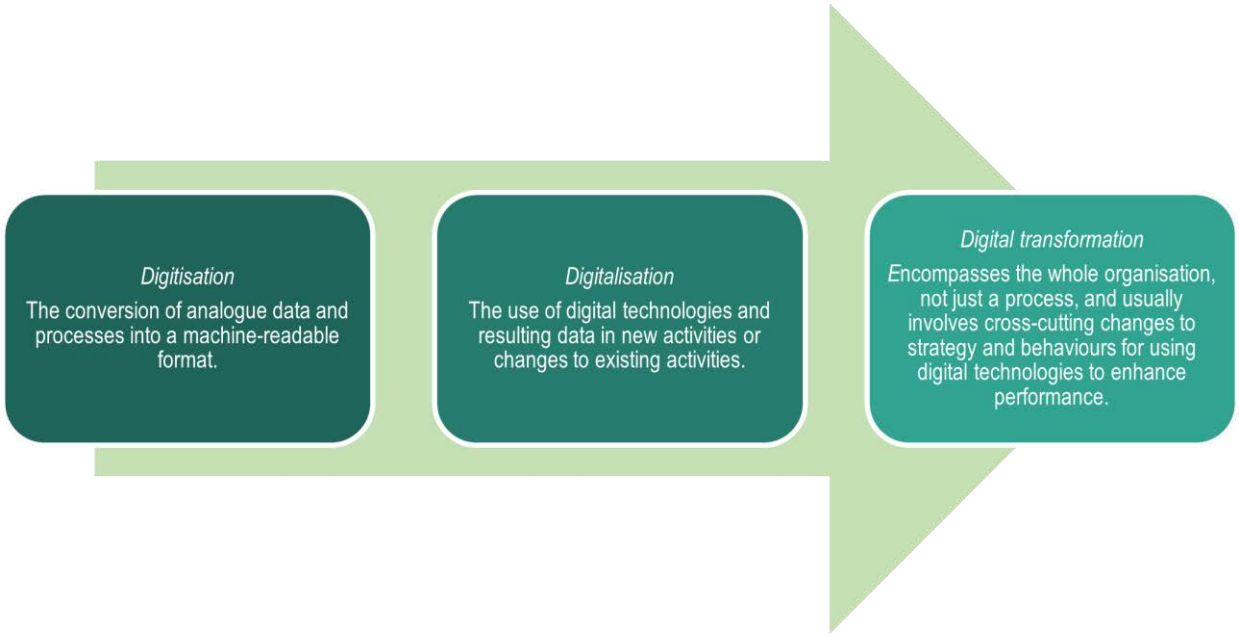
1.2. The digital transformation of public procurement should be part of the wider public sector digital transformation journey

From the wider perspective of public sector digital transformation, the *digitisation* of government processes and public services (i.e. transition from analogue to e-government) has progressed significantly over the last few decades. Governments have been working to modernise their working methods and procedures to adapt to new technologies and to changing user needs through large-scale public sector reforms. The final objective of *digital transformation* is to increase effectiveness and efficiency by harnessing digital technologies.

Digital transformation in the public sector enables governments to rethink processes and services through intense use of digital tools and data, increasing public value in line with broader modernisation efforts (with greater openness, transparency, engagement with and trust in government). This results in the integration of digital technologies and user preferences in service design and the delivery of direct personal services and in shaping public policy outcomes, while contributing to efficiency and productivity gains (OECD, 2016[23]). While the use of digital technologies in the public sector covers a broad spectrum, three levels of maturity can be identified:

1. *Digitisation* refers to the introduction of digital technologies in public administration, namely by translating analogue information and processes into digital means.
2. Building on digitisation*, digitalisation* is the process of using digital technology, and the impact it has on business operations (e.g. digitalisation of a process).
3. *Digital transformation* is a transformative process that helps rethink government processes and services through the integration of digital technologies as essential components in the design and delivery phases (OECD, 2016[23]).

Figure 1.4. From digitisation to digital transformation



Source: Adapted from OECD (2024[24]), *Strengthening Oversight of the Court of Auditors for Effective Public Procurement in Portugal: Digital Transformation and Data-driven Risk Assessments*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/35aeab1e-en.

The OECD Recommendation of the Council on Digital Government Strategies underscores the paradigm shift from e-government to digital government required to realise the digital transformation of the public sector. According to the Recommendation, digital government is "the use of digital technologies, as an integrated part of governments' modernisation strategies, to create public value" (OECD, 2014[2]). While digitisation has undoubtedly led to higher vertical integration within single public sector organisations, policymakers are still confronted with the challenge of fostering the horizontal integration that is enabled by digitalisation but also required to advance coherent digital transformation (OECD, 2021[25]).

While digitalisation emphasised transferring analogue and paper activity to the internet, the concept of digital transformation proposes a paradigm shift focused on re-engineering and re-designing processes and interactions through digital-era working practices, smarter use of data, and the appropriate use of technology. Digital government practices ensure public services are designed and delivered such that the benefits of digital transformation are available to and accessible by all, including those who rely on face-to-face interactions. That means looking inwards to address the context and governance (including administrative structures, culture, capability and processes) and outwards, to focus on the needs of users throughout their experience of a public service – whether some, or all, of that service is delivered via mail, telephone, in-person or through a digital device (OECD, 2020[26]; OECD, 2021[25]).

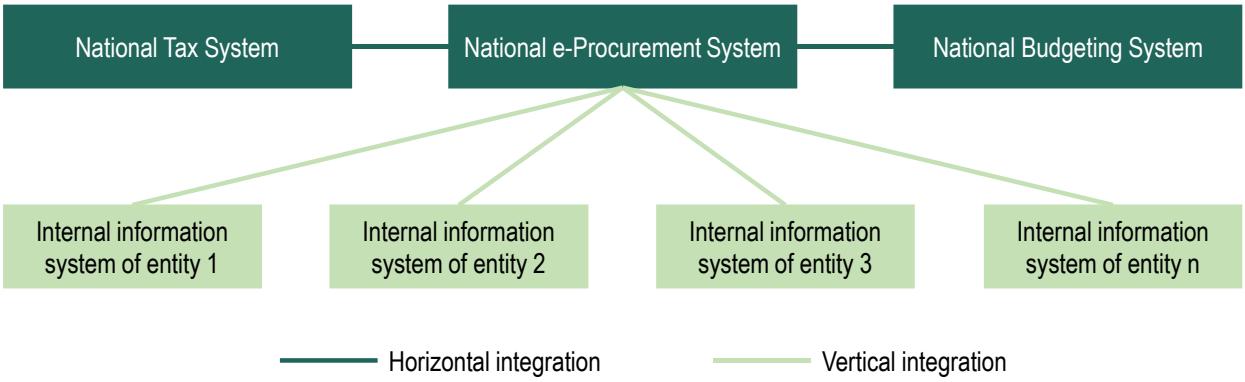
Digital public procurement is closely linked to digital government. Issues related to whole-of-government policies and initiatives such as the ''once-only principle'' in public administration – a cornerstone of the EU's Digital Single Market strategy – and digital identity are two examples of core digital government tools that inform the digitalisation of government functions and services.

Integration or interoperability of e-procurement systems with other governmental platforms is essential to achieving full visibility on the use of public funds and to the development of a comprehensive public procurement performance measurement framework. Integration or interoperability with other digital government systems – such as public finance management, budgeting, human resources management, social security databases, justice, business and (central and local) tax registries, auditing, and enterprise

resource planning (ERP) –can provide a comprehensive picture of the procurement function, increase efficiency and accountability, and enable the government to develop innovative and impactful procurement strategies. a lack of integration or interoperability between systems can increase the administrative burden for users (with the multiple input of the same information in several systems), reducing the expected efficiency gains from digitalisation.

In this context, there are two categories of integrations to consider: horizontal integration and vertical integration (see Figure 1.5). *Vertical integration* refers to the integration of the national e-procurement system with the internal digital procurement and management tools of contracting authorities. *Horizontal integration* involves integrating the e-procurement system with other governmental systems such as the national tax system, the national budgeting/accounting system, or the national social security system.

Figure 1.5. Example of horizontal and vertical integration of the e-procurement system



Source: OECD (2018[27]), *Mexico's e-Procurement System: Redesigning CompraNet through Stakeholder Engagement*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264287426-en.

Data sharing and interoperability can help advance the use of public procurement data in service delivery and policymaking. Without interoperability between the different systems, however, digitalisation can result in increased work, error propagation and inconsistent data. Registering the same data in multiple systems creates administrative burden for users in addition to risks in terms of fragmented and incoherent information.

2 The status of the digital transformation of public procurement in Ireland

This chapter provides an overview of the public procurement landscape in Ireland as of 2023, benchmarks the development of digital public procurement against European and OECD peers, and identifies areas of strength and areas for improvement. While Ireland was an early adopter of e-procurement, the absence of a clear national strategy and a common set of guiding principles contribute to operational silos, limited interoperability between systems, and reduced ability to leverage joined-up data, resulting in a complex environment for public buyers and suppliers. Broader digital government efforts in Ireland offer possibilities for the digital transformation of the public procurement to leverage existing policies and strategies to improve interoperability and improve access to high-quality data.

2.1. An overview of the public procurement landscape in Ireland

2.1.1. Ireland has developed a centralised approach to public procurement organised around five Central Purchasing Bodies (CPBs)

To reduce duplication and take advantage of economies of scale, Ireland has developed a centralised approach to public procurement. However, responsibility for compliance and ensuring value for money rests with individual contracting authorities (Office of Government Procurement, 2019[28]). Irish public sector procurement is divided into 16 expenditure categories procured by five CPBs, covering the goods and services purchased by over 7 000 contracting authorities. The Office of Government Procurement (OGP) is responsible for eight categories of common goods and services. The four sector CPBs, health, education, local government, and defence, retain sourcing functions to procure the remaining categories. Each CPB establishes central solutions within those categories. Table 2.1 provides details on the breakdown of these 16 categories (note that major capital works are not covered by the centralised sourcing model).

Table 2.1. Categories of goods and services by CPB

Office of Government Procurement	Health (Health Business Services)	Education (Education Procurement Service)	Local Government (Local Government Management Agency and Local Government Operational Procurement Centre)	Defence (Department of Defence)
• Professional services • Facilities management • Utilities • ICT and office equipment • Marketing, print and stationary • Travel and HR services • Fleet and plant • Managed services	• Medical professional services • Medical and diagnostic equipment and supplies • Medical, surgical and pharmaceutical supplies	• Veterinary and agriculture/ library book purchase • Laboratory, diagnostics and equipment	• Minor building and civil engineering works • Plant hire	• Defence and security

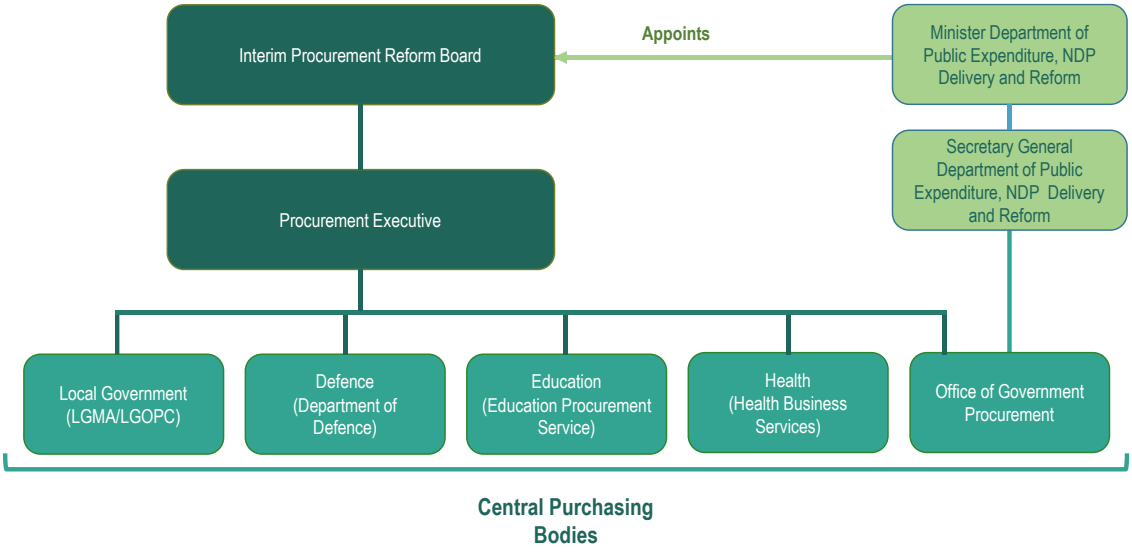
Source: Adapted from OECD (2023[29]), "Procurement for better value – A case study of Ireland: Measuring the impact of centralised purchasing", *OECD Public Governance Policy Papers*, No. 37, OECD Publishing, Paris, https://doi.org/10.1787/ca1e6c47-en.

The Interim Procurement Reform Board was appointed in 2017 to oversee the delivery of the Government's procurement priorities, oversee the operations of the OGP, and advise the Minister for Public Expenditure, NDP Delivery and Reform (DPENDR) (Department of Public Expenditure, NDP Delivery and Reform, 2023[30]). The Board is made up of an independent Chair appointed by the Minister, representatives from the Department of Public Expenditure, NDP Delivery and Reform, sector CPB partners, and client bodies and several independent members (Interim Procurement Reform Board, 2023[31]).

Ireland's Procurement Executive brings together senior procurement representatives from the OGP and sector CPBs to enable co-operation and collaboration. The members of the Procurement Executive provide regular reports on procurement activities and results to the Interim Procurement Reform Board. The Procurement Executive is also used to discuss policy changes.

Figure 2.1 provides a high-level overview of the governance structure of the system.

Figure 2.1. Overview of procurement governance structures (2023)



Notes: Figure reflects procurement governance structures as of 2023. LGMA is the Local Government Management Agency and LGOPC is the Local Government Operational Procurement Centre.
Source: Adapted from Interim Procurement Reform Board (2023[31]), *Public Procurement Annual Report 2022*, https://www.gov.ie/en/publication/e57e5-public-procurement-annual-report-2022/.

The OGP was established in 2013 as a new division within the then Department of Public Expenditure and Reform with two key roles: develop public procurement policy and function as one of five CPBs. In its function as a CPB, the OGP establishes framework agreements, dynamic purchasing systems, and conducts bespoke competitions. Over recent years the OGP has taken into account EU priorities on public procurement which include the wider uptake of innovation, green and social procurement, increasing access to procurement markets, improving transparency, integrity and data, and boosting the digital transformation of procurement.

Along with sourcing common products and services, transposing EU Directives, developing national policy, and supporting training and development, the OGP's responsibilities include administering eTenders, the national electronic tendering platform. It is used by the OGP, other CPBs, government departments and agencies, local government and health sector organisations, and by the wider public sector, including state owned enterprises and voluntary and community groups that are funded by EU or government bodies. All Irish public sector procurement opportunities advertised in the Official Journal of the European Union (OJEU) are posted on eTenders, as well as other lower-value contracts uploaded to the site by contracting authorities.

As electronic submission is mandatory for all TED procurement competitions, eTenders provides the functionality required to enable the mandatory use of electronic communications between contracting authorities and economic operators. eTenders provides a detailed audit trail of the procurement process from contract notice to contract award notice, as required by the EU Directives. It functions as a central point for publishing notifications and the single eSender to TED. While OGP manage the functioning and administration of eTenders the data contained in the platform is owned by each contracting authority.

The thresholds for the mandatory use of eTenders was raised in March 2023 (see Table 2.2 for the thresholds). The Circular announcing the change indicated that it was intended to assist SMEs in competing for public contracts (Department of Public Expenditure, NDP Delivery and Reform, 2023[32]).

Table 2.2. Thresholds for the publication of opportunities on eTenders

Threshold for publication	Threshold as of March 2023	Previous threshold
Goods	EUR 50 000	EUR 25 000
Services	EUR 50 000	EUR 25 000
Public Works	EUR 200 000	EUR 50 000

Note: The thresholds for the use of eTenders are also the thresholds for the mandatory requirement to advertise opportunities. Amounts are exclusive of VAT.
Source: (Department of Public Expenditure, NDP Delivery and Reform, 2023[32]).

2.1.2. The diversity of public procurement and digital stakeholders create challenges for digital transformation

Key stakeholders for digital transformation include the contracting authorities and CPBs who undertake public procurement, the economic operators who supply goods, services and works, and public procurement policymakers. Outside those directly involved in public procurement, stakeholders include other institutions and actors involved in digital government, public sector transformation and oversight. This section maps the key stakeholders for the digital transformation of public procurement and briefly describes their perspectives on priorities and challenges.

This diversity of stakeholders is not unique to Ireland but can create challenges in designing and implementing tools and systems that meet the needs of all participants. To overcome these challenges, governments have implemented wide-ranging and intensive consultation mechanisms (see Box 2.1 for an example from Mexico).

Box 2.1. Establishing a multi-stakeholder group for Mexico's e-procurement reform

In 2018, Mexico's Ministry of Public Administration (Secretaría de la Función Pública, SFP) established a multi-stakeholder group for the reform of CompraNet, its e-procurement system. This group included representatives from the public sector, business, and civil society and worked towards a shared vision statement for e-procurement in Mexico. The vision statement also aimed at guiding the future development of e-procurement tools in Mexico, including at the subnational level.

The Plural Working Group consisted of six subgroups: information disclosure, interaction with suppliers, competition and capacity building, efficiency and effectiveness, management of complaints and integrity and trust in the tool. Each subgroup was represented by a wide range of stakeholders, including the public sector, civil society, and businesses, and worked on specific key issues and themes.

Table 2.3. Subgroups of the CompraNet reform Plural Working Group

Topic	Key Issue	Subgroup Members	Themes Covered
1. Information disclosure	CompraNet discloses all information relevant for users	Journalists, civil society organisations (CSOs), suppliers, National Institute on Transparency, Freedom of Information and Personal Data Protection (INAI), businesses (chambers of commerce), SFP	Availability, accessibility, opportunity, usefulness, accuracy of information
2. Interaction with suppliers	Streamlining the tools for engaging suppliers through e procurement	Businesses (chambers of commerce)	Functionality enhancements, transparency, anti-corruption, statistics, professionalisation

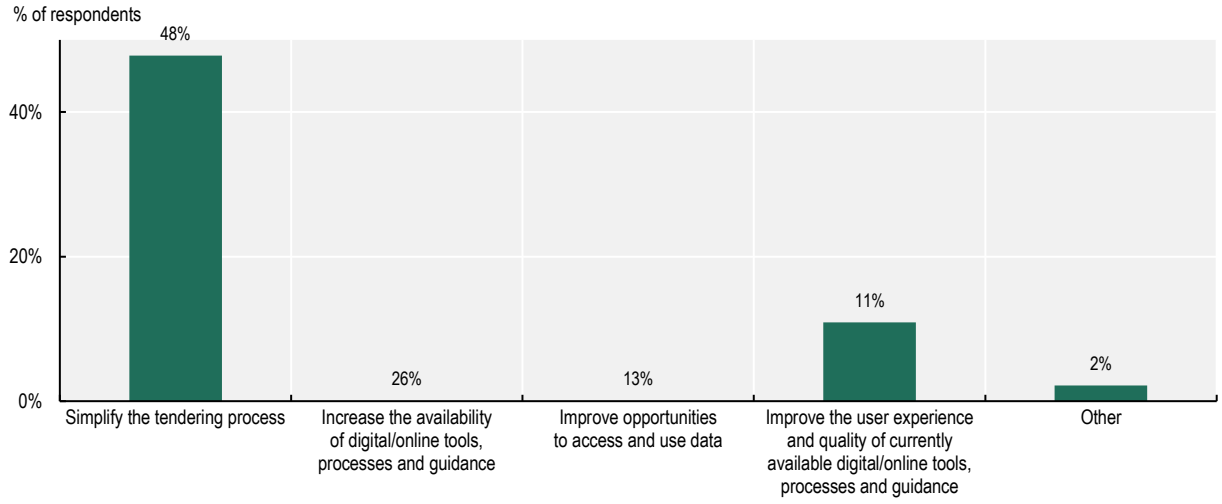
3. Competition and capacity-building	Encourage the use of electronic means throughout the public procurement cycle	Public servants, contractors and suppliers	Robustness of platform, reducing participation costs, reducing administrative costs, limiting direct contact between participants
4. Efficiency and effectiveness	Alternative solutions and measures to improve the platform	CSOs	Analysis of applicable regulations, background of CompraNet, practical operation of the platform, accessibility of processes and results
5. Management of complaints	Processing of complaints focused on creating confidence and credibility in the business sector	Public servants and businesses (chambers of commerce)	Analysis of current process flow, diagnosis of options to improve SIDEC (SFP's complaint system, Sistema Integral de Denuncias Ciudadanas) and CompraNet (best practices), technological update proposal
6. Integrity and trust in the tool	Identify actions that increase trust in CompraNet, ensuring accurate and timely information	CSOs	Integrity of the information contained in CompraNet, trust in processes related to CompraNet, mechanisms and actions external to CompraNet that affect its reliability and integrity

The establishment of the Plural Working Group was indispensable to set up a shared vision statement for Mexico's e-procurement system. In this vision, the Plural Working Group recognised the opportunities provided by digital technology to enable a fully transactional system that supports the whole public procurement cycle. The vision statement articulated twelve principles to capture the goals and ambitions of all stakeholders involved in the public procurement process.

Source: OECD (2023[33]), "Professionalising the public procurement workforce: A review of current initiatives and challenges", *OECD Public Governance Policy Papers*, No. 26, OECD Publishing, Paris, https://doi.org/10.1787/e2eda150-en.

The Irish public sector has over 7 000 contracting authorities, ranging from large organisations with dedicated procurement teams to small buyers with more limited technical skills and capacity. Based on five (+ "other") factors, respondents to the OECD's survey of contracting authorities were asked to rank how the efficiency and effectiveness of public procurement could be improved. Half (48%) listed "Simplifying the tendering process" as most important, followed by "Increase the availability of digital/online tools, process and guidance" (26%), "Improve opportunities to access and use data" (13%) and "Improve the user experience and quality of currently available digital/online tools, processes and guidance" (11%). Respondents who chose "Other" specified factors such as education and intuitive tools that are not too complicated for individuals working in organisations with decentralised procurement functions.

Figure 2.2. Improving the efficiency and effectiveness of public procurement, top listed way by contracting authorities



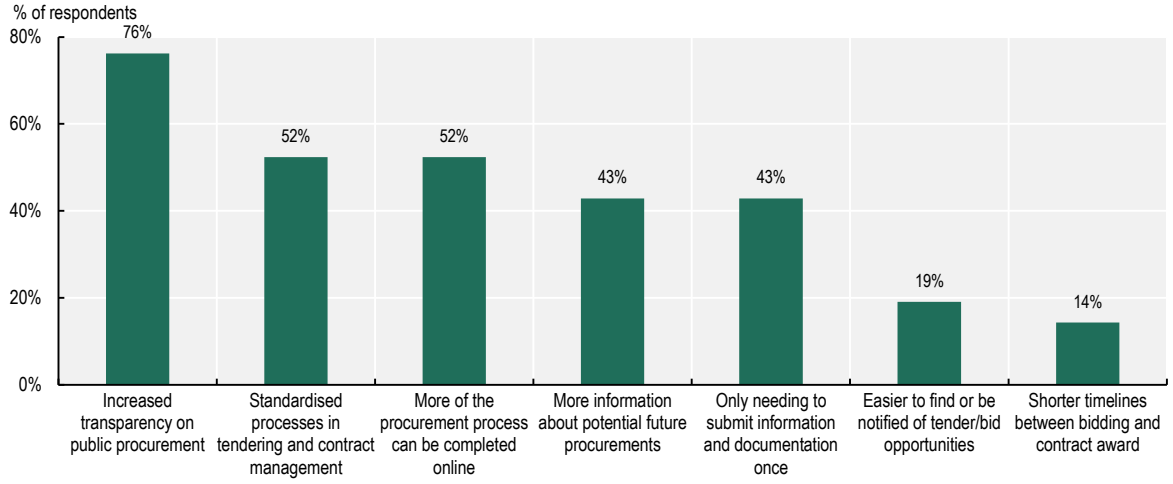
Source: OECD survey of Irish contracting authorities, 2023.

The ecosystem of economic operators in Ireland is diverse. It includes large and small companies, primarily local and national suppliers. The OGP's most recent Public Sector Spend and Tendering Analysis Report, which analyses procurement expenditure across the public sector, found that 92% of analysed spend for 2019 was with firms based in Ireland (Office of Government Procurement, 2022[34]).The ecosystem is supported by networks and industry associations that facilitate engagement between suppliers and the public sector.

SMEs play a key role in the Irish economy and as suppliers to the public sector. In 2020, micro (<10 employees), small (10-49 employees) and medium (50-249 employees) enterprises made up almost the entire private sector, representing 92.6%, 6.1% and 1.1% of enterprises respectively. This accounted for over two-thirds (68.4%) of total private sector employment (Central Statistics Office, 2022[35]). The OGP's 2021 Public Sector Spend and Tendering Analysis Report found that 52% of analysed spend for 2019 was with SMEs (Office of Government Procurement, 2022[34]).

When asked to rank seven factors that could increase bidding on public contracts, 76% of respondents to the OECD's survey of economic operators listed increased transparency in their top three. Standardised processes and a more online procurement process were both listed in the top three by half of respondents (52%).

Figure 2.3. Factors to increase bidding on public contracts, listed in top 3



Source: OECD survey of Irish economic operators, 2023.

As noted above, Ireland has five CPBs: the OGP and four sector CPBs. Along with their sourcing function, the sector CPBs also play a role in developing and implementing digital procurement tools aimed at their sectors' needs.

In line with their role aggregating purchasing and reducing duplication and transaction costs, CPB representatives identified increased efficiency for contracting authorities and easier processes for economic operators as the key priorities for digital procurement in a June 2023 workshop. CPBs would also benefit from improved access to data and more user-friendly tools and processes in their own procurement activities. As the procurement policymaker for Ireland, the OGP in particular could benefit from increased access to data other than that captured centrally by eTenders and eForms to help guide and inform decision making.

Outside of contracting authorities, economic operators and CPBs, other institutions and actors are important stakeholders for the digital transformation of public procurement. This includes those concerned with transformation and digitalisation across the public sector as well as organisations impacted by digital transformation through its impact on the production and availability of data. Rather than being directly concerned with procurement efficiency and outcomes, they are concerned with the alignment of the digital transformation of public procurement with broader transformation strategies, transparency and data availability, and procurement's role in contributing to the achievement of government priorities. The following provides a short summary of a selection of these stakeholders.

The Office of the Government Chief Information Officer (OGCIO) has the leadership role for the digital agenda across the Irish government (Office of the Government Chief Information Officer, 2022[36]). The OGCIO leads the implementation of Connecting Government 2030, Ireland's public service digital and ICT strategy, and Ireland's Data Sharing Governance Framework, which includes the Data Sharing and Governance Act 2019, the Data Governance Board, and the Public Service Data Strategy 2019-2023.

The OGCIO is responsible for ensuring that new digital and ICT-related initiatives are aligned with Government policy and strategies and that they demonstrate good governance structures and practice. This includes a peer review process which applies to digital and ICT initiatives of significant scale, risk, or strategic importance. Peer reviews are carried out by a group of senior personnel, independent of the project team and the OGCIO, with significant experience and knowledge of project management, project governance and/or digital and ICT technical expertise. The peer review group reviews project documentation and project status and meets with the project team at regular milestones. On that basis, it

issues an opinion to the OGCIO on the overall health of the project and its continued viability (Department of Public Expenditure, NDP Delivery and Reform, 2021[37]). The OGCIO also delivers a range of collaboration tools, platforms, and services for public service bodies. For example, the OGCIO delivers eFOI, a platform that enables Freedom of Information processes and deadlines to be centrally administered and tracked, and eDocs, a document and records management system (Office of the Government Chief Information Officer, 2021[38]).

Along with its role as the home department of both the OGP and the OGCIO, the Department of Public Expenditure, NDP Delivery and Reform is responsible for public service transformation and innovation and promoting accountable and transparent government (Department of Public Expenditure, NDP Delivery and Reform, 2023[39]). This includes developing and overseeing the implementation of the Civil Service Renewal 2030 Strategy and Better Public Services, Ireland's public service transformation strategy.

The Central Statistics Office (CSO) is Ireland's national statistical office. Its purpose is to collect, analyse and make available statistics about Ireland's people, society and economy, including co-ordinating the official statistics of other public authorities (Central Statistics Office, n.d.[40]). The CSO is responsible for Ireland's National Data Infrastructure (NDI), which was established in 2017 and involves the collection and storage of common identifiers on public sector data whenever they are relevant to public sector bodies. The CSO also promotes the use of common data standards and classifications on administrative data across government organisations.

The Competition and Consumer Protection Commission (CCPC) is responsible for promoting compliance with and enforcing competition and consumer protection law in Ireland. This includes enforcing Irish and European competition law by conducting investigations and taking administrative, civil or criminal enforcement action where there is evidence of breaches of the law, including price fixing, bid-rigging, and market sharing (Competition and Consumer Protection Commission, 2023[41]). The CCPC does not currently leverage public procurement data in its work and there are no existing agreements or mechanisms for the CCPC to access data from the OGP or other public procurement bodies for the purposes of screening for bid rigging; however, the CCPC is building its data analysis capabilities, actively seeking opportunities to increase its access to and use of procurement data and its powers to screen procurement data for potential bid rigging are to be enhanced.

Civil society organisations are also stakeholders in the digital transformation of public procurement. Civil society groups can play an important independent oversight role, which can be supported by the increased transparency and availability of data that digital transformation can facilitate. For example, between 2018 and 2022, Transparency International Ireland produced the National Integrity Index (NII), a series of reports that measured the degree to which organisations in Ireland were prepared to address integrity risks based on the information they publicly disclosed (Transparency International Ireland, n.d.[42]). Amongst other topics, the reports examined organisations' provision of key information on public procurement. One of the key recommendations was that public bodies provide clear information on procurement procedures and disclose details of procurement contracts awarded (Transparency International Ireland, 2022[43]). In addition, the report on local authorities found that information on expenses, purchase orders, public contracts and annual budgets was often only provided in .pdf format and recommended that it be provided in machine readable formats to make analysis easier (Transparency International Ireland, 2019[44]).

2.1.3. Benchmarking digital public procurement against European and OECD peers

This section situates Ireland's digital public procurement system in relation to European and OECD peers. Cross-country variations in digital procurement implementation are caused by a wide range of factors, including what is being purchased, the economic structure, and national digital government policies and initiatives. Nevertheless, experiences and variations across countries can be helpful in highlighting opportunities and challenges.

All of Ireland's European and OECD peers have implemented digital procurement to varying degrees. In 2018, an OECD survey found that all 32 OECD respondents used their central e-procurement system, or that of specific procuring entities, to announce tenders, provide tender documents and notify contract awards. This is also evident in more recent data from the European Union, which shows that all or almost all member states have implemented or are in the process of implementing core e-procurement functions such as e-notice, e-submission and e-invoicing, as well as tools such as the ESPD and DPS (see Table 2.4).

Table 2.4.Implementation of e-procurement phases and functionalities in EU Members for above EU threshold procurements

	Implemented or in the process of being implemented	Not implemented	Ireland
Phase			
e-notice	28	0	Yes
e-access	28	0	Yes
e-submission	28	0	Yes
e-evaluation	27	1	Yes
e-award	28	0	Yes
e-ordering	23	5	No
e-invoice	28	0	Yes
e-payment	18	10	No
Functionalities			
ESPD	27	1	Yes
Contract Registers	27	1	Yes
DPS	28	0	Yes
e-auctions	26	2	Yes
e-catalogues	25	3	Yes

Note: Implemented indicates that at least one service offers this capability but does not indicate the quality or whether it covers the whole country. Data covers the 27 EU member states and Norway.
Source: Adapted from European Commission data.

Looking more closely at the phases of the procurement cycle, the tender phase is more developed across EU member states, including in Ireland. Almost all Members have procurement solutions with extensive capabilities in this phase, focused primarily on formal communication with the market. Procurement solutions are less complete in the pre-tender and post-tender phases. Like Ireland, almost a third of EU countries do not have procurement solutions that allow for the collection of information about needs and requirements or link to information about budget approvals. In the post-tender phase, the picture is mixed: functionalities such as providing information about contract modifications and eInvocing are widely available, but more advanced functionalities such as interoperability with payment systems and capabilities related to the evaluation of contracts are much less common. These broad trends generally reflect where EU Directives make certain functionality mandatory (e.g. the tender phase, e-invoicing). However, there are some countries which stand out as particularly advanced in their implementation of digital procurement across all three phases, such as Estonia, Latvia, and Italy.

Table 2.5. e-Procurement capabilities across the procurement lifecycle in EU Members

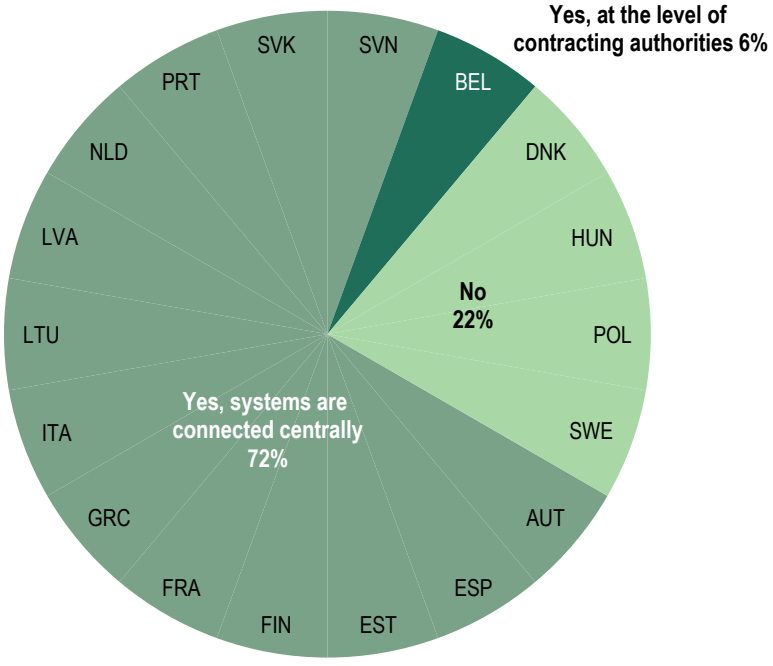
Capabilities Across the Public Procurement Cycle	Implemented (fully or partially) or in the process of being implemented	Not implemented	Ireland
Pre-Tender Phase			
Procurement solutions provide information about budget approval or procurement planning for future procedures	19	9	No
e-Sourcing solutions are available to gather requirements from other authorities to understand procurement needs	21	7	Partially implemented1
Procurement solutions provide a workflow to guide users through the procurement procedure, helping to prepare documentation and notices	28	0	Fully implemented
Tender Phase			
Procurement solutions provide support to create notices	28	0	Fully implemented
Procurement solutions send notices to TED either directly or indirectly (through a central service) to avoid double entry	27	1	Fully implemented
Procurement solutions provide procurement documents to interested suppliers	28	0	Fully implemented
Procurement solutions offer questions and answers to interested suppliers	28	0	Fully implemented
Procurement solutions allow interested suppliers to submit bids electronically	28	0	Fully implemented
Procurement solutions support public buyers in evaluating bids, i.e. comparing values and/or supporting a ranking	25	3	Fully implemented
Procurement solutions inform suppliers if they were successful or not	28	0	Fully implemented
Procurement solutions allow for the submission of contract award notices	28	0	Fully implemented
Procurement solutions allow for the archiving or storage of contracts with structured meta data	23	4	Under consideration2
Post-Tender Phase			
Procurement solutions provide information about contract modifications	28	0	Partially implemented
Procurement solutions allow buyers to order goods or services electronically	24	4	Not implemented
Procurement solutions allow buyers to mark electronic orders as delivered	20	6	Not implemented
Procurement solutions allow contracting authorities to receive electronic invoices in structured format	28	0	Fully implemented3
e-Invoicing solutions are linked to payment solutions	16	11	Not implemented
Procurement solutions allow for the evaluation of the efficiency of contracts	15	13	Not implemented
Procurement solutions allow to inform about the contract fulfilment (i.e. how long it took in the end and the final costs)	18	8	Not implemented
Procurement solutions allow for the electronic submission of complaints	19	7	Partially implemented4
Procurement solutions provide information about decisions on complaints	19	9	Not implemented
Procurement solutions provide information about sanctions	11	17	Not implemented

Capabilities Across the Public Procurement Cycle	Implemented (fully or partially) or in the process of being implemented	Not implemented	Ireland
Procurement solutions allow for the digital archiving of procedures (either within the platform itself or on a separate platform)	27	1	Not implemented5

Notes: Data covers the 27 EU member states and Norway. Totals do not always add to 28 due to 'unknown' responses. Implemented capabilities does not imply that they are widely used.
1. The eTenders platform provides a pre-market consultation functionality in the form of a message board where contracting authorities can publish requirements and economic operators can respond and provide supporting material.
2. The eTenders platform provides a contract module which can store high-level transactional information. The implementation of archiving is under consideration.
3. The eTenders platform does not support this functionality. However, contracting authorities are required to receive electronic invoices compliant with the European e-invoicing standard under e-invoicing Directive 2014/55/EU.
4. The eTenders platform provides a messaging facility where an aggrieved party can submit a message but does not support a formal complaints mechanism.
5. While the eTenders platform supports archiving, it has not been implemented.
Source: Adapted from European Commission with additional information provided by OGP.

Finally, OECD Members are increasingly integrating their e-procurement systems with other government IT systems, such as budgeting interfaces, business and tax registries, social security databases, public financial systems, and enterprise resource planning (ERP). In Belgium, France, Portugal and Slovenia, countries reported connecting their e-procurement system with the budgeting and accounting ERP of the central government. In Austria, Estonia, Greece, Latvia and the Slovak Republic, the e-procurement system was integrated with the business registry, and in Estonia and Latvia with the local tax register as well. Many countries have also started to integrate e-procurement systems with e-signature and e-invoicing systems (OECD, 2019[45]).

Figure 2.4. Integration of the e-procurement system(s) with other digital government systems, 2018



Note: Data for the Czechia, Germany, Ireland, and Luxembourg are not available.
Source: Adapted from OECD (2019[45]), "Digital transformation of public procurement", in *Government at a Glance 2019*, OECD Publishing, Paris, https://doi.org/10.1787/603bd7ed-en.

2.2. Areas of strength

2.2.1. The digital transformation of public procurement is closely aligned with the Irish government's ambitious digital agenda

Ongoing efforts on digital government in Ireland offer possibilities for the digital transformation of public procurement to leverage policies and actions intended to increase the capacity of public sector institutions to adopt and use digital tools and data. Starting from the forefront of digital government, strategies such as 'Harnessing Digital – The Digital Ireland Framework', 'Connecting Government 2030 – A Digital and ICT Strategy for Ireland's Public Service' and 'Better Public Services' set out a strong vision for the further digital transformation of government. While public procurement has not figured prominently, there are opportunities for the digital transformation of public procurement to draw on and align with these strategies.

Ireland's whole-of-government approach to digital reflects and builds on its strong existing position: Ireland ranked 5th overall in the EU's 2022 Digital Economy and Society (DESI) Index, which ranks Members according to their level of digitalisation and analyses relative progress over the last five years. The Commission found that Irish public services are highly digitalised and a large proportion of internet users engage actively with e-government services. In 2021, the share of e-government users had increased significantly from 67% to 92%. Ireland performed well in digital public services for both businesses and citizens and scored high in open data. The Commission also highlighted Ireland's involvement of stakeholders in the co-creation of digital public services, including the development of new structures to create a closer working relationship with industry, academia, and the public (European Commission, 2022[46]).

Harnessing Digital, Ireland's national digital strategy, was released in 2022. It is set out across four core dimensions, which are in line with the four cardinal points of the EU's Digital Compass: Digital Transformation of Business; Digital Infrastructure; Skills; and Digitalisation of Public Services. Under the Digitalisation of Public Services dimension, the strategy commits to moving towards a more user-centric service model, including leveraging and building on the significant increase in digital service provision and uptake during the COVID-19 pandemic. It also acknowledges the role of strong data governance and the importance of harnessing publicly held data to increase transparency and improve public services (Department of Taoiseach, 2022[47]).

Ireland's public service digital and ICT strategy, Connecting Government 2030, was published in 2022. It aims to change how people, businesses, and policymakers interact, ensuring interoperability across levels government and across public services (Office of the Government Chief Information Officer, 2022[48]). The strategy identifies six priority action areas with direct implications for the digital transformation of public procurement:

- A human-driven digital experience: including aspects related to service design and promotion of simplified access to government digital services and processes by citizens and businesses.
- Harnessing data effectively: including actions for improved data sharing and use in the Irish public sector such as the data strategy, data interoperability initiative, and the data governance board.
- Government as a platform: development of an ecosystem of building blocks such as digital standards, common components and resources that enable a systemic and coherent digital transformation across Ireland's public sector. The development of common components and use of open-source solutions that enable scalable digital tools across the public sector are emphasised.
- Evolving through innovation: including the use of emerging technologies and out-of-the-box solutions for common and old problems.

- Strengthening digital skills: including an update of the competence model led by the Public Service with the needed digital skills to enable government digital transformation as well as the development of ICT professionalisation and talent development programmes.
- Focusing on governance and leadership: including broader governance structures within the public sector to enable the digital transformation of the government as well as consultations with businesses and individuals regarding priorities for digital government services.

Ireland is paying particular attention to public sector data. This includes a dedicated Public Service Data Strategy that sets the vision and actions for advancing improved data governance in the public sector (Office of the Government Chief Information Officer, 2019[49]). The Data Strategy aims to support the Irish public sector in the implementation of the EU Data Governance Act (European Commission, 2023[13]) for trustworthy governance, sharing and re-use of data within the public sector as well as with private entities. Several actions are being carried out with a direct impact on the digital transformation of public procurement:

- National data infrastructure: OGCIO is currently implementing an interoperability platform based on APIs to enable public sector institutions to co-operate, share and re-use data and services in an effective and consistent way.
- Trusted identifiers: Ireland is working toward increase the consistency and coherence of natural and legal persons' identifiers, with the purpose of effectively enable the once-only principle and operationalise efforts for data sharing and use in the public sector. This includes the development of the Unique Business Identifier (UBI) by the Central Statistics Office (CSO).
- Governance and capabilities: the OGCIO leads Ireland's Data Governance Board, entity that oversees data management and sharing agreements across the Irish public sector. Besides, public sector institutions will be requested to define their institutional data strategies and define dedicated roles to oversee data governance at sector level.
- Digital collection and standards: development of dedicated data standards to foster digital data production and collection across the Irish public sector.

Better Public Services, Ireland's public service transformation strategy provides the direction for strategic reform in the Irish Public Service. The strategy is focused on six outcomes: greater use of digital, increased customer satisfaction, increased public trust, greater employee engagement, improved quality of public services, and better government effectiveness. It aims to achieve these objectives through measures based around three core pillars:

- Digital and innovation at scale: harnessing the potential of digitisation and applying innovation, putting the customer at the centre of the design of service delivery, and providing a dynamic and agile workplace.
- Workforce and organisation of the future: ensuring a public service that is more diverse, agile and inclusive and reflects Irish society, ensuring that staff are equipped for the future, and establishing itself as an employer of choice.
- Evidence-informed policy and services designed for and with the public: delivering effective human-centred policies and services designed with evidence and insights from the public and from data and research and enabling accessible and shared public service data (Department of Public Expenditure, NDP Delivery and Reform, 2023[50]).

These government digital transformation efforts offer an opportunity to OGP and other CPBs to leverage strategies and initiatives for the digitalisation of public procurement. For example, given the digital transformation of public procurement's focus on data and the user experience, it could be closely aligned with Better Public Services through the pillar on digital and innovation and the pillar on evidence-informed

policy and services. Alignment with these broader strategies can promote overall policy coherence and allow the public procurement system to leverage existing public sector knowledge and resources. This could include, for example, the recently published Action Plan for Designing Better Public Services, which includes commitments to establishing central design support and creating funding mechanisms for design related initiatives (Department of Public Expenditure, NDP Delivery and Reform, 2023[51]).

However, there is limited evidence that current efforts for the digitalisation of public procurement are anchored in the government's vision and action on digital government. Efforts to expand the use and functionality of eTenders, for example, are not clearly articulated within the government strategy on digital government. In addition, the fragmentation in terms of digital solutions implemented by CPBs across different phases of the procurement lifecycle and the limited interoperability and coherence call for greater alignment and leveraging of the principles, standards and solutions implemented or under development at the central level. Looking ahead, OGP and other CPBs could explore central efforts on public sector data sharing, in particular regarding the new interoperability platform and standards for data collection and sharing. They could form the basis for an approach to connecting different CPBs' solutions and the procurement lifecycle phases that could lead to an interoperable public procurement function within the Irish public sector.

2.2.2. Ireland has been successful in digitalising the tendering phase of the procurement lifecycle

Ireland has been in successful in establishing the mature use of e-procurement for the tendering phase of the public procurement lifecycle, primarily through the implementation of eTenders.

The eTenders system is primarily used for communication with the market during the tender process. It supports the procurement procedures, instruments and techniques set out in the EU Directives and national legislation. It also supports the publication of a range of procurement documents and notices including contract notices, contract award notices, requests for tenders, prior information notices, request for information, and voluntary ex ante transparency notices. The system provides email alerts of procurement opportunities to registered suppliers in their respective areas of business. This single platform for publishing notifications may also be a strength of the Irish procurement system. For example, in the OECD's 2022 survey of economic operators, when asked how challenging it is to find tender opportunities, only 16% of respondents rated it a 4 or 5 on a scale from 1 (very easy) to 5 (very challenging).

Ireland has continued to invest in eTenders, with a change of the IT platform going live in May 2023. The OGP awarded a contract for the provision of the eTenders platform to a new supplier for a period of up to 10 years in 2022. The new solution remains focused on the publication to award phase of the procurement lifecycle but provides additional functionality to make it easier for contracting authorities to access centralised arrangements and is expected to improve future access to data for the OGP and other stakeholders on a going forward basis.

When transitioning to the new eTenders platform, the OGP ensured that historical data covering the previous 10 years would remain available by maintaining access to the previous ('legacy') eTenders platform on an interim basis until May 2024. This continued access to the legacy platform will allow contracting authorities time to make the necessary provisions and act to retrieve and retain their procurement competition data off the platform beyond that date. However, stakeholders noted that this will result in the loss of a single point of access to the consolidated historical data, which will only be available through individual contracting authorities rather than on the eTenders platform. Given the large number of contracting authorities, this will represent a loss of transparency unless the consolidated historical data can be made publicly available in future.

There remain areas to strengthen the eTenders user experience and continue to expand functionality in the tendering phase to provide a strong foundation for digital transformation. Stakeholders raised concerns in areas such as e-evaluation, notifications and overall usability and support. In some cases, challenges may reflect the ongoing transition to the new IT platform (e.g. the migration of existing central arrangements) and the recent introduction of eForms.

In addition to eTenders, other CPBs use tools adapted to their specific sectors to allow contracting authorities to draw on purchasing arrangements. The Local Government Operational Procurement Centre (LGOPC) operates an e-procurement platform, supplygov.ie, customised for the needs of the Local Government sector-led categories, which are available for use by all public sector bodies. The framework agreements and dynamic purchasing systems available on supplygov.ie have been established and are contained on eTenders, but contracting authorities are able to conduct mini-competitions under centralised arrangements directly through the LGOPC platform. Supplygov.ie also provides a mechanism for contracting authorities to request quotes from suppliers for purchases below the thresholds set out in Table 2.2. By allowing for rapid purchases and reflecting the needs and work environment of the sector in terms of documentation and process, supplygov.ie increases the efficiency and effectiveness of procurement for Local Government-led categories. Notably, supplygov.ie has been developed in-house by the LGOPC, providing flexibility in adapting and modifying the platform to meet the needs of its users. Health Business Services, the health sector CPB, established an e-catalogue system as part of its COVID-19 pandemic response. The use of e-catalogues will be facilitated by the new financial management system currently being implemented across the health sector.

2.3. Areas for improvement

2.3.1. Public procurement governance structures could better address and support digital transformation

There is a lack of co-ordination and collaboration between key stakeholders on the digital transformation of public procurement. During workshops held in June 2023, representatives from CPBs identified governance and co-ordination challenges, such as siloed decision making, as the biggest barrier to successful digital transformation. Under existing governance mechanisms, the role of the OGP and other organisations in digital transformation are not always clearly defined. For example, while the eTenders system is clearly the responsibility of the OGP, responsibility for the establishment of mandatory or voluntary standards that would promote interoperability and data sharing is not.

Public procurement policymaking in Ireland is based largely on consensus building and voluntary compliance rather than the imposition of mandatory requirements. Officials noted that this is the result of both the varying capabilities and needs of contracting authorities and sectors, as well as a broader approach to the transposition of European directives that emphasises policy over legal mandates. For example, while it is government policy that public bodies should make use of central arrangements where possible, there is no requirement that they be used (Office of Government Procurement, 2019[28]). Exceptions to this voluntary approach are driven largely by European directives and regulations, such as the requirement to accept electronic invoices or the introduction of eForms.

This approach increases the importance of governance structures and mechanisms that allow key stakeholders such as CPBs to co-ordinate their activities. This is particularly true for digital transformation, where many of the benefits are dependent on integration across the procurement cycle and between contracting authorities and CPBs. For example, the French Ministry of Economy and Finance made governance, including the creation of a project committee to direct overall implementation, a key axis of its Plan for the Digital Transformation of Public Procurement (see Box 2.2).

Box 2.2. France: Governance of the digital transformation of public procurement

Governance is one of five axes of France's Plan for the Digital Transformation of Public Procurement. The Plan recognises that digital transformation requires supporting the various players through structured and clear governance. The governance structure aims at the implementation or supervision of the actions under the Plan, monitoring progress, raising awareness, and co-ordination of the various public and private sector actors.

The Plan is led by a project director appointed by the Prime Minister and attached to the French Ministry of Economy and Finance. Operational guidance is provided by a project committee made up of representatives from central government and procurement bodies, while strategic guidance is provided by a committee whose members include the Interministerial Digital Directorate (La direction interministérielle du numérique) and the General Directorate of Public Finances (La direction générale des Finances publiques).

Sources: (Ministère de l'Économie et des Finances, 2017[52]) (Direction interministérielle de la transformation publique, n.d.[53])

While there are no governance bodies or mechanisms dedicated to co-ordinating the development of digital public procurement, there are a number of co-ordinating bodies focused on either procurement or digital. Existing procurement governance bodies include the Interim Procurement Reform Board and the Procurement Executive, whose composition and roles are described above. In addition, there are a number of digital governance mechanisms:

- The Data Governance Board, chaired by the Government Chief Information Officer and made up of public servants and external representation, advises the government on the rules, procedures and standards for base registries[1] and accessing of personal data and on compliance with those rules, procedures, and standards. It also reviews data sharing agreements and makes recommendations if required (Department of Public Expenditure and Reform, 2021[54]).
- The NDI Champions Group, chaired by the CSO with representatives from departments and agencies with high-value data, monitors and promotes coverage of the unique identifiers across public sector data holdings (Central Statistics Office, n.d.[55]).
- The peer review process for major digital and ICT initiatives, described above.

Ireland could make greater use of existing governance bodies and consider creating a digital focused public procurement forum or body. This could include, for example, the creation of a digital transformation working or steering group chaired by OGP and including representatives from CPBs, the OGCIO and other key stakeholders and reporting regularly to the Procurement Executive and Interim Procurement Reform Board to ensure high-level buy-in and alignment with broader procurement priorities.

2.3.2. There is no clearly articulated vision and roadmap to achieve digital transformation

Strategy documents and plans across the procurement landscape acknowledge the importance of digitalisation but are limited in their articulation of a clear whole-of-government plan to advance the digital transformation of public procurement. This limits organisations' ability to make strategic decisions about the deployment of new tools and systems that could work together in a co-ordinated way.

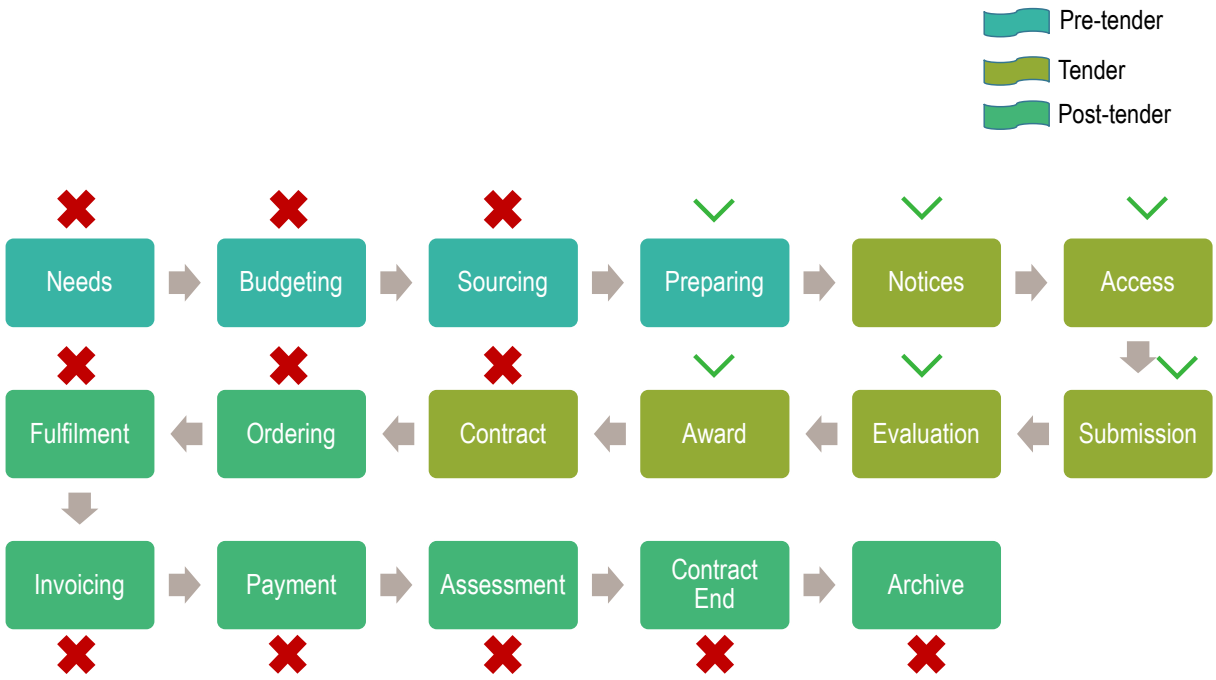
For example, while advancing digitalisation was one of five objectives of the OGP's 2021-2023 Statement of Strategy, there was not a detailed roadmap or timeline for planned actions or a detailed explanation of why digitalisation is important to achieving the OGP's mission and vision (Office of Government Procurement, 2021[56]). The Department of Public Expenditure, NDP Delivery and Reform's 2023-2025 Statement of Statement, which replaces the OGP's Statement of Strategy, includes actions to lead the implementation of Connecting Government 2030 and to deliver transparent and sustainable public procurement, suggesting opportunities to link the two (Department of Public Expenditure, NDP Delivery and Reform, 2023[57]). Digitalisation appears as an area of focus in other strategies and plans across the procurement system. The HSE's 2021-2024 Corporate Plan, which sets out key actions to improve the health service and people's health and well-being, includes the implementation of a single integrated financial management and procurement system across the Irish health service (Health Service Executive, 2021[58]). The Interim Procurement Reform Board's 2021 and 2022 annual reports have also identified change management for the transformation of public procurement, including enhancing efficiency through digitalisation, as a priority and signalled the need to use digital systems to leverage central solutions and enable greater competition (Interim Procurement Reform Board, 2022[59]) (Interim Procurement Reform Board, 2023[31]). While these strategies and plans acknowledge the importance of digital procurement, they do not present a national, cross-sectoral approach.

This absence of a clear articulation of the aims and benefits of digital transformation on the national level may be contributing to silos of people, data and processes across the broad range of procurement stakeholders. A national strategy for the digital transformation of public procurement linking concrete actions and initiatives across organisations to broader goals could help to establish the overarching vision and structure to advance digital transformation across sectors.

2.3.3. There are opportunities to expand digitalisation in the pre-tender and post-tender phases of the procurement lifecycle

Digitalisation efforts have focused on the tender phase, while the pre- and post-tender phases of the procurement lifecycle have been relatively neglected. One result is a fragmented view of public procurement in Ireland, making it challenging for policymakers to build an accurate picture of the full procurement landscape. An increased focus on the full procurement lifecycle, from needs assessment through contract management, could equip the public sector with improved tools and result in more efficient processes. As noted above and illustrated in Figure 2.5, the eTenders platform is focused primarily on the tender phase. In the pre- and post-tender phases, contracting authorities and CPBs rely on heterogenous tools and manual processes.

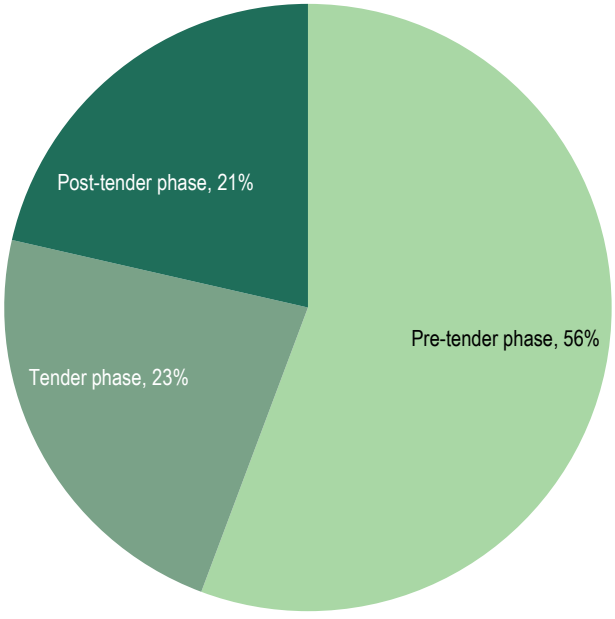
Figure 2.5. eTenders functionality



Source: Authors' elaboration.

The pre-tender phase is challenging for Irish contracting authorities, suggesting that it may be a fruitful area to focus digitalisation efforts. Respondents to the OECD's survey of contracting authorities reported that they had the most challenges in the pre-tender phase (56%), followed by the tender phase (23%) and post-tender phase (21%).

Figure 2.6. Phase of the procurement process with the most challenges for contracting authorities



Source: OECD survey of Irish contracting authorities, 2023.

Tools exist for procurement planning but are generally not fully digitalised. For example, the National Public Procurement Policy Framework requires that non-commercial State bodies complete a corporate procurement plan and OGP guidance advises contracting authorities to publish details of their future procurement plans (Office of Government Procurement, 2019[28]; Department of Public Expenditure, NDP Delivery and Reform, 2023[32]). The plans support procurement planning, early identification of procurement priorities and the alignment of procurement needs with the organisation's broader strategic objectives and help CPBs identify where existing frameworks can be enhanced and new ones are needed. The OGP's guidance on developing corporate procurement plans identifies data points such as CPV codes, estimated cost, procurement method, timeline, contract duration, and whether the procurement will include strategic considerations (Office of Government Procurement, 2020[60]).

However, corporate procurement plans are not collected centrally or produced in a standard format that would allow data from different organisations to be aggregated, and there is no legal or policy mandate to do so. In the OECD's 2023 survey of contracting authorities, one respondent suggested that more transparency around corporate procurement plans and the sharing of information and data could improve strategic procurement decision making.

In the education sector, the Multi-Annual Procurement Plan (MAPP) is used as a standardised planning tool. MAPPs are an excel-based tool that is completed by contracting authorities with their procurement plans over three years. Completed MAPPs are submitted to the Education Procurement Service (EPS), the education sector CPB. The data is aggregated and analysed to support the planning of future central arrangements. EPS carries out analysis of the data, mapping it across the 16 categories of spend of the centralised procurement model and produces reports for the three-year forecast of education sector requirements (Education Procurement Service, n.d.[61]). However, the MAPP is excel-based and can be a time-consuming process for contracting authorities.

Support for the preparation of calls for tender such as standardised tendering documentation, offers, general contract terms/conditions, evaluation forms and administrative documents exist but are not integrated with tendering platforms or generally seen as user friendly. For example, the Capital Works Management Framework (CWMF) is a suite of best practice guidance, standard contracts and generic template documents covering all aspects of the delivery process of a public works project from inception to final project delivery and review. It is highly structured and clearly lays out the appropriate form of contract, form of tender, invitation to tender and other model forms for different situations, as well as providing project management support. Although work is underway to revisit processes and digitalise the CWMF, it currently reproduces existing paper-based processes and is delivered through a series of PDFs and word documents. A relatively recent tool that takes greater advantage of digitalisation opportunities in the pre-tender phase is the Green Public Procurement (GPP) Criteria Search (https://gppcriteria.gov.ie/), launched in 2022 (see Box 2.3 for details).

Box 2.3. OGP's Green Public Procurement Criteria Tool

Green public procurement (GPP), the public purchasing of products and services which are less environmentally damaging when taking into account their whole life cycle, is increasingly used by countries to achieve environmental policy objectives. By using their purchasing power to choose goods, services and works with a reduced environmental impact, governments can make an important contribution towards sustainability goals.

Ireland's Environmental Protection Agency published updated GPP Criteria for ten sectors along with Green Public Procurement Guidance for the Public Sector in 2021. The criteria can be copied by contracting authorities directly into tender documents (minor adjustment may be necessary in some circumstances). Technical specifications, selection criteria, award criteria, and contract performance clauses are included, as appropriate for a particular category. Methods of verification are provided for each criterion.

In 2022, OGP, the Environmental Protection Agency and the Department of the Environment, Climate and Communications developed the Green Public Procurement Criteria Tool, which allows users to find, select and download the GPP criteria relevant to their specific procurement. Users can search criteria by keyword or by sector (e.g. food and catering services, textile products and services). The online search tool facilitates the use of GPP Criteria to advance sustainability goals in a user-friendly and efficient way.

Source: (Government of Ireland, n.d.[62]; Government of Ireland, 2023[63]).

Following contract award, there are few widely available or used digital tools or processes. Contracting authorities indicated that they generally use manual processes and focus their contract management activities on their most important contracts. Some expressed interest in tools that would allow for greater performance management (e.g. measuring and tracking KPIs) and enable automated communication with suppliers. An OGP information note on procurement planning refers to the need under freedom of information legislation for contracting authorities to maintain a contract register, but their form and implementation is organisation-specific. In terms of transparency, an OGP information note encourages contracting authorities to publish details on their websites of what they procure as well as information on existing contracts (Department of Public Expenditure, NDP Delivery and Reform, 2023[32]).

Ireland has taken a relatively light touch in implementing e-invoicing. Contracting authorities are required to receive and process electronic invoices, but only for invoices that relate to public procurement contracts above EU threshold values. There is no obligation on economic operators to submit eInvoices. This approach aims at avoiding increasing costs or burden on enterprises, including SMEs, and allowing contracting authorities to gradually gain maturity in processing eInvoices (European Commission, n.d.[64]). However, it differs from the majority of Members, 70% of which have made or plan to make the submission of electronic invoices by economic operators mandatory (European Commission, n.d.[65]). As a result of this approach, some contracting authorities have advanced standards-based, automated and integrated systems while others process invoices in both manual and semi-automated ways (European Commission, n.d.[64]).

In interviews with procurement professionals from CPBs, contracting authorities and business groups, views on the readiness of economic operators for a mandatory approach to e-invoicing were mixed. Some indicated that there was a high degree of capability, driven in part by the digitalisation of government services and support during the COVID-19 pandemic. Others, however, still expressed concern that mandatory e-invoicing would impose a burden on economic operators. In the 2023 survey of economic

operators carried out by the OECD, 88% of respondents reported using e-invoicing, 75% with all of clients and 13% with only some (private sector) clients.

Financial Management Shared Services systems are expected to be the main e-invoicing processing points across the public sector as they are rolled out over the coming years. Public bodies across different sectors are being on-boarded to standardised financial shared services systems which include invoice processing functionality over the next few years (European Commission, n.d.[64]). All public service financial shared services systems have established a solution to enable them to receive and process European standard compliant eInvoices via the PEPPOL eDelivery network. This rollout may provide an opportunity to drive the uptake of e-invoicing, as many contracting authorities will not need to invest in their own e-invoicing solutions.

Box 2.4. Finland: Hansel's use of e-invoicing data to make government spending more transparent

Hansel, Finland's central procurement agency, worked to build a public open data portal so that everyone could analyse government spending. The OpenProcurement.fi service, launched in 2017, provides public access to information on state and other public organisations' procurement.

Users can search the purchases of more than 70 government buyers and around 20 000 suppliers each year from 2016 to the present. They can see details such as the procurement category, date and price of every invoice. Bulk downloads are available in various formats through Finland's open data directory. The service shows the parties from which products and services have been procured as well as when these purchased were made.

Data from OpenProcurement.fi has led to high-profile investigations in Finnish media. The project's goal was to increase transparency, but it has also highlighted potential savings: for example, one ministry's stationery costs were 1 000 times more than another. Economic operators also use the service for market research.

The portal allows procurement data to be analysed from three perspectives:

- Buyers: Buyers are state and other organisations that purchase goods and services.
- Suppliers: When the supplier is a private individual, the supplier is marked as "supplier information not public" (this process is made easier by Finland's central supplier registry). Some state and other organisations' purchases are classified as confidential by law and are not included in the service.
- Procurement categories: Purchases can be also inspected by procurement category. From there, users can also inspect the product and service groups that the data has been divided into based on the posting of invoices.

Because Finland uses a mandatory centralised e-invoicing system, the accuracy of the data is very high. Central government data is collected from the state invoice system and data for other organisations is based on invoice data submitted to Hansel. Thanks to the availability of the data and a strong political commitment, the initial project was launched in only nine months.

Source: (Neumann, 2023[66]; Hansel, n.d.[67]); and information provided by Hansel.

2.3.4. There is limited interoperability across the procurement lifecycle

Procurement solutions and tools are generally not integrated and there appear to be few existing initiatives or plans to increase interoperability. Across the procurement lifecycle, organisations in Ireland are using a wide variety of solutions and tools of varying sophistication. Many contracting authorities use internal systems for procurement but lose the ability to track procurements and reported increased data errors when data is transferred to or from eTenders. Some contracting authorities have procure-to-pay systems, but there is no exchange of data between these systems and eTenders.

This includes limited integration or automated data transfer between the systems of different CPBs. During workshops held in June 2023, representatives from CPBs identified incompatible systems and formats as the biggest barrier to the greater use of data in procurement. A new financial management system is being implemented across the health sector but there was limited consideration to integrating the new system with eTenders in either the procurement and development of the new health sector financial management system or the development of the new eTenders platform. Similarly, there is currently no integration between eTenders and supplygov.ie.

There is limited integration between e-procurement systems and other digital government systems and platforms. This is not unique to procurement and may reflect the digital landscape across the public sector in Ireland more generally. Officials indicated that the implementation of integration and tools such as open APIs is relatively immature even between central government departments. The new eTenders platform has functionality to support interoperability, including data exchange through API with financial management systems, customer relationship management solutions building information modelling tools, and the websites of the Irish Revenue Commissioners (the agency responsible for taxation) and Eircode (Ireland's unique geographic identifier) as well as the functionality to import and export data in line with the Open Contracting Data Standard[2]. Given the recent launch of the new platform, the use of this new functionality has not been extensively explored, in part because there are seen to be few national databases to connect with.

There are opportunities for increased alignment of the infrastructures and applications linking different systems, but capitalising on these opportunities would require overcoming the challenges posed by legacy systems and the differing levels of maturity between stakeholders. Clear governance to define integration policy and standards would be critical. This may be particularly challenging when interfacing with other government systems and platforms outside of procurement, but there are clear benefits.

2.3.5. Advances in the digitalisation of public procurement in Ireland have not consistently addressed access to and sharing of high-quality and timely procurement data

Advances in the digitalisation of public procurement in Ireland have not consistently addressed access to and sharing of high-quality and timely procurement data, reflecting the existing landscape of heterogeneous digital solutions and approaches. Because of the diverse digital tools used across different phases of the procurement lifecycle, data governance is treated and understood in different ways by CPBs. Additionally, each CPB has to respond to the needs of different users and business needs, resulting in solutions that do not enable a consistent and unified approach to procurement data governance.

Notably, central efforts are led by the OGP through the implementation of eTenders for the tender phase. The role of the OGP as CPB and policy lead for public procurement in Ireland has facilitated the adoption and uptake of eTenders. However, the historical approach to making most data fields optional on eTenders leads to issues of consistency, completeness, and accuracy of data – eventually as diverse as the number of stakeholders involved in tendering processes. Organisations have had differing understandings of the relevance of some data fields which has been reflected in the fact that these are not completed by all contracting authorities. This has affected the government's capacity to leverage eTenders data in a

consistent way. The implementation of eForms and their adaptation by OGP to capture key data should better enable reporting and improve data quality. While these efforts should improve data availability, the recent increase in the thresholds for the mandatory use of eTenders will have the opposite effect.

Currently no dedicated co-ordination mechanisms to improve the quality and timeliness of procurement data in Ireland. The absence of an adequate governance model for procurement data constrains the capacity of all stakeholders to leverage procurement data and to break down organisational silos for a joined-up and whole-of-government approach to public procurement. In line with best practices on data governance in the public sector (OECD, 2019[68]), Ireland could consider establishing such roles, leveraging the policymaking function of the OGP to define a governance model that effectively co-ordinates CPBs and other key stakeholders for a unified approach.

Ireland is using the introduction of eForms to improve the quality of procurement data by improving standardisation and increasing the scope of information collected (Office of Government Procurement, 2023[69]). Ireland's implementation of eForms includes an increase in mandatory fields, including, for example, information on strategic procurement and the inclusion of Eircodes (the unique geographic indicator used across the Irish government). Implementation was structured to allow the capture of priority data based on an assessment of identified data gaps and wider policy agendas, determined in close collaboration with stakeholders such as the Department of the Environment, Climate and Communications. Of the voluntary eForms to be made available in 2024, Ireland is proposing to adopt two below threshold eForms (contract notice and contract award notice). When implemented, the below threshold eForms will be mandatory for publishing on eTenders and will include the same data fields on strategic procurement being implemented on the equivalent above threshold eForms (Office of Government Procurement, 2023[70]). This improvement in data quality and scope should provide the basis for more evidence-informed analysis and policymaking, as well as support Ireland's potential participation in the Public Procurement Data Space.

The eCertis system is rarely used in Ireland; for example, less than a quarter of respondents to the OECD's 2023 survey of economic operators reported having used it. This may reflect the fact that Ireland's cross-border procurement primarily takes place with the United Kingdom, the absence of appropriate national databases and registers, as well as a lack of promotion of eCertis to contracting authorities and economic operators. However, eCertis' role in enhancing the functionality and effectiveness of ESPD implementation by supporting integration with national databases (European Commission, n.d.[71]) and the importance placed by economic operators on the once-only-principle in the OECD's 2023 survey suggest it is worthy of further attention. OGP officials indicated that the organisation has been primarily focused on eForms implementation in order to meet the October 2023 deadline, but that resourcing has been recently reinstated to the management and promotion of eCertis.

2.3.6. Digital transformation could make public procurement more responsive to the needs and expectations of users

Digital transformation is an opportunity to drive broader procurement priorities (e.g. increasing the take-up of framework agreements and improving SME access, adoption of GPP criteria). Improved digital tools and processes could make it easier for users, from contracting authorities to economic operators, to access collaborative arrangements and participate in public tendering.

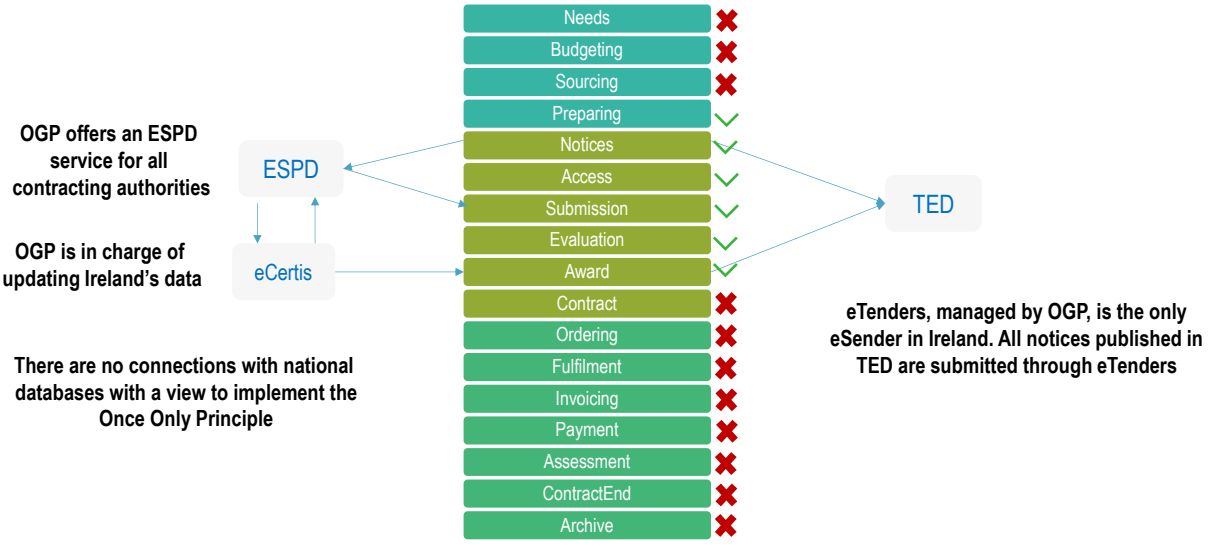
There is interest in using innovative tools and technologies to rethink existing processes, but it will be important to establish the required building blocks. Many emerging technologies, such as artificial intelligence and machine learning, rely heavily on data to provide meaningful insights and outcomes. Access to extensive and quality data is crucial, and a robust investment in data collection, storage, and management systems must ensure the availability of accurate, reliable, and up-to-date data.

Ensuring that digital tools can seamlessly integrate with existing procurement platforms and other relevant systems, not necessarily focused on the tendering process itself, is crucial for a streamlined and coherent procurement process. Public servants responsible for managing procurement processes face the challenge of dealing with complex regulations and procedures, and user-centric digital tools can empower them with the knowledge and skills to navigate these intricacies more effectively. Enhancing the user experience is vital to addressing capacity challenges and staff turnover; by establishing a one-stop-shop approach, data-driven and process automated for procurement tasks, public servants could more easily access the tools, guidelines, and resources not covered by eTenders.

A strong user experience is also critical to attracting potential suppliers. For example, Ireland's application of the once-only principle in procurement could be strengthened. Implementing the once-only principle allows suppliers to submit required information only once and share it across various procurement processes, reducing repetitive data entry and saving time. As a result, economic operators or suppliers would experience a streamlined interaction with the procurement system, increasing their willingness to participate in public tenders and contracts.

Currently, suppliers provide a range of information related to their identity, location, scale and area of business to register on eTenders. However, suppliers reported having to provide similar information multiple times to different contracting authorities, as well as other government departments and agencies. The system provides email alerts of procurement opportunities to registered suppliers in their respective areas of business. In the 2023 survey of economic operators carried out by the OECD, a number of respondents indicated that the need to repeatedly upload or provide the same information was one of the main barriers or challenges to participating in public tenders. In the same survey, 77% of respondents reported having used the ESPD. On a scale of 1 (very bad) to 5 (very good), respondents who had used the ESPD gave the experience a rating of only 2.9. Improving the user experience of the ESPD to reduce the need to provide information multiple times could be an opportunity to make the tendering process more efficient for economic operators.

Figure 2.7. eTenders and the European Union tools



Source: Authors' elaboration.

Notes

[1] A base registry is a trusted and authoritative source of information, which can be digitally reused by others, where one organisation is responsible and accountable for the collection, use, updating and preservation of information. Base registries are reliable sources of basic information on data items such as people, companies, vehicles, licences, buildings, locations and roads (European Commission, 2017[72]).

[2] The Open Contracting Data Standard (OCDS) is a non-proprietary open data standard for public procurement, implemented by over 30 governments. It describes how to publish data and documents about contracting processes for goods, works and services (Open Contracting Partnership, n.d.[73]).

3 Towards a Digital Transformation Strategy for Public Procurement

This report focuses on an assessment of the current state of digital procurement in Ireland, but also provides broad recommendations and considerations for the future development of a national digital transformation strategy. In doing so, it seeks to build on Ireland's strengths and address areas for improvement. This chapter is organised around four broad recommendations that will be central to a successful digital transformation of public procurement. Within these broad themes, it identifies choices and opportunities that should be considered in Ireland's digital transformation strategy.

3.1. Establish a clear vision and ambition for digital transformation

Ireland should define a clear vision and ambition for the digital transformation of public procurement. Working with partners and stakeholders from inside and outside procurement, the OGP should lead the development of a credible strategy and roadmap for digital public procurement. The strategy should define the roles and responsibilities of CPBs, contracting authorities and other stakeholders and establish clear governance structures to facilitate decision making and collaboration across the lead institutions. The strategy should outline a roadmap and the necessary investments in capacity building, training, communications and change management to make the vision a reality. It should recognise the opportunity for the digital transformation of public procurement to support policy goals in areas such as the environment and social inclusion, while acknowledging the needed resources and investments for transformation to be successful.

Ireland should carefully consider its level of ambition: how far and how quickly does Ireland want to go in the digital transformation of public procurement? What is the appetite and capacity for change across stakeholders? What are the incentives to participate in collaborative approaches and to what extent is there a willingness to impose mandatory requirements on CPBs and contracting authorities?

The national strategy cannot be driven by the OGP alone: it will require a joint effort of many public bodies. For example, increased use of the Unique Business Identifier, when implemented, would require close collaboration with the CSO. More broadly, the engagement and participation of OGP's CPB partners will be critical to both ensure the interoperability of existing and future procurement systems and that procurement systems are interoperable with financial shared services systems across sectors. Ireland should consider whether existing governance arrangements in procurement and digital are adequate or whether new governance is required.

To build support, the vision should focus on users and clearly articulate how digital transformation can reduce the burden and improve the experience of contracting authorities and economic operators. In the 2023 survey of contracting authorities and the workshops carried out by the OECD, respondents noted that an increase in the use of digital tools would require intuitive systems accessible to users working in organisations without dedicated procurement functions. This focus on users should carry through to implementation and ultimately aim to make the use of digital systems a choice of users rather than an obligation.

3.2. Digitalise the full public procurement lifecycle

Ireland should develop interoperable applications and tools that can adapt to the needs of various stakeholders across the full public procurement cycle. Digitalisation should take a holistic approach that seeks to identify opportunities to expand digitalisation in the pre-tender and post-tender phases. Efforts should focus on making public procurement processes more efficient by connecting systems and putting in place a consistent experience for contracting authorities and economic operators. At the same time, digitalisation should not be pursued for its own sake, but only when it can improve the experience of public buyers and suppliers. Leveraging user insights can help to ensure digitalisation is successful in delivering systems and tools that contracting authorities and economic operators want to use.

Choices in how to approach the digitalisation of the lifecycle are closely linked to the overall vision and ambition for digital public procurement. The further Ireland seeks to go in digitalising the full lifecycle, the more digital transformation will impact the pre-tendering and post-tendering phases, areas outside of what has traditionally been seen as public procurement. For example, linking contracts with expenditure is essential to understanding how public money is being used. The strategy could consider opportunities to accelerate the uptake of e-invoicing and connecting payment and procurement systems. While these are

the areas with significant opportunity for benefits from digital transformation, they may also be the most challenging for stakeholders.

Digitalisation of the full lifecycle does not imply the imposition of a single, centrally managed system. There are opportunities to invest in the interoperability of existing systems, particularly between CPBs. The new implementation of eTenders, launched in May 2023, provides increased opportunities for information and data exchange with other systems that could be leveraged in the future.

It will also be important to prioritise through the development of a roadmap to target projects for implementation at different time scales. The strategy should also seek to identify opportunities for quick wins and to demonstrate the potential for digital transformation to improve the user experience. The digital transformation of the Capital Works Management Framework may be one such opportunity.

3.3. Improve the availability and use of data

The OGP and the procurement system more generally are already taking a more ambitious approach to the collection and use of data. To be successful, a digital transformation strategy will need to continue down this road. This includes a commitment to transparency and openness to fully benefit from the opportunities that greater data availability can provide. This could include using the functionality of the new eTenders platform to improve access to procurement data and seeking to make historical procurement data publicly available on a consolidated basis.

Ireland should leverage existing data governance efforts to define and implement a procurement data governance strategy. This strategy should seek to improve data consistency and quality through an ambitious approach to initiatives such as eForms, the PPDS and e-invoicing. It should enable data access and exchange and smooth communication between various stakeholders, promoting a unified digital procurement ecosystem with an increased incentive to open procurement data. Data should be used to ensure seamless integration between systems and applications and support evidence-informed decision making. Public procurement data should also be leveraged to support oversight bodies and made publicly available to contribute to the transparency and accountability of procurement processes and government spending. This could, for example, include making more procurement data available through Ireland's open data portal.

Data needs to be approached from a whole-of-government perspective. The OGP should work closely with partners from across the public sector to leverage existing data governance efforts and structures, such as the National Data Infrastructure. At the same time, continued investment in public procurement data management and governance will be required to build on Ireland's implementation of eForms and improve data consistency, quality and use. European initiatives such as the PPDS provide an opportunity to advance the collection and use of data. Ireland will need to consider to what extent it should pursue these opportunities.

3.4. Establish the required building blocks to take advantage of innovative and emerging technologies

Ireland's digital transformation strategy should include a co-ordinated approach to the deployment of innovative and emerging technologies in public procurement. This could include identifying requirements for the use of innovative and emerging technologies, such as access to big data, data analytics, artificial intelligence, machine learning, robotic process automation, and low-code, no-code solutions. Implementing innovative and emerging technologies in a co-ordinated way can help ensure that different stakeholders can learn from each other's experiences and co-design interfaces and enhance interaction with platforms and applications.

The digital transformation strategy should determine the boundaries of Ireland's vision for the use of innovative and emerging technologies, including in areas such as the tolerance for risk and the role of the public procurement as a tool to foster innovation. Emerging technologies also provide opportunities to facilitate more agile and innovative procurement processes that can adapt to changing demands and market conditions.

A number of building blocks, such as access to extensive and timely data, are preconditions for the successful implementation of many innovative and emerging technologies. Ireland's digital transformation strategy should identify these building blocks and how they can be put in place. At the same time, it should identify potential quick wins to use emerging technologies to facilitate data input and reduce the administrative burden for contracting authorities and economic operators.

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The Digital Transformation of Public Procurement in Ireland

A REPORT ON THE CURRENT STATE

The digital transformation of public procurement promises a host of benefits. It can make transactions more efficient and effective, support innovative approaches, enable more precise measurement of outcomes, and improve transparency. The shift towards digital systems can also foster greater participation from small and medium-sized enterprises and promote competition. At the same time, the digital transformation of public procurement should connect and build on existing systems and initiatives and contribute to broader policies such as the digital government and digital transition agendas.

This report maps the current state of digital public procurement in Ireland, identifying areas of strength and opportunities for improvement. It presents stakeholders' perspectives on related challenges and opportunities, with a view to informing a future strategy for the digital transformation of public procurement. The report also defines key concepts and terminology on the digital transformation of public procurement and includes an overview of European experiences and orientations in terms of similar or related strategies, standards, emerging technologies, and lessons from other European Union and OECD Member countries.

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