# 4 Challenges, good practices and recommendations to foster competition and neutrality in the procurement of computers in Latin America

The findings of the practices in Chile, Colombia and Mexico illustrate that there are common challenges, as well as lessons learnt that could be leveraged to advance efficiency and promote competition, not only in these three countries but in the wider Latin American context. This section will take stock of such challenges and good practices, as well as provide recommendations to build a level playing field for the procurement of computers.

## Tackling the most basic challenges

One of the main challenges in any public procurement system is the recognition of this activity as a strategic tool for achieving policy priorities beyond an operational tool to procure goods and services at the lowest price. Indeed, the procurement of computers and information and communication technology (ICT) can support the effective delivery of public services and the modernisation and digital transformation of public institutions. The findings of this report indicate that such strategic recognition is stronger in Chile and Colombia. Chile, for example, just completed a major reform of its public procurement regulatory framework and Colombia is strongly advocating for the leverage of public procurement for inclusion processes. For instance, *Colombia Compra Eficiente* (CCE) recognises the procurement of computers as a means to connect remote and marginalised regions and provide them with better public services and economic opportunities.

Another major challenge is developing the capacities of the procurement workforce. A skilful and trained procurement staff can facilitate the uptake of market research and engagement practices, which are key to understanding the computer market and devising strategies to avoid vendor lock-in. This is certainly an opportunity in Latin America, where public procurement is recognised as a profession in only 10% of the countries (Figure 4.1). Even though Chile did not report an explicit recognition of public procurement as a profession, it has developed a competency matrix and a certification framework that supports professionalisation (see Table 4.1 on ChileCompra's certification framework). Neither Colombia nor Mexico have developed such professionalisation tools.

### Figure 4.1. Public procurement recognised as a profession in Latin America, 2022
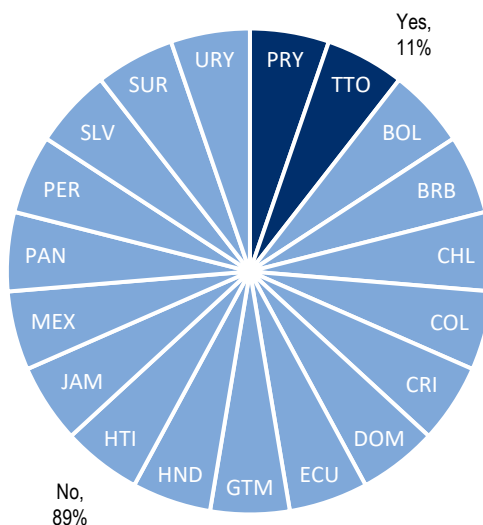


Source: IDB-OECD (2022[1]), "Survey on the implementation of the 2015 OECD Recommendation on Public Procurement", OECD, Paris.

## Table 4.1. ChileCompra's certification framework

| Level | Condition | Deadline | If approved… | Expiration | If not approved… |
|---|---|---|---|---|---|
| Basic | • Induction plan (for new users)<br>• Two virtual conferences<br>• One e-learning course<br>• Certification exam | Two months | • Can move to next level<br>• Keeps access to the e-procurement platform | One year | • Can try the failed activities again (within the deadline) to take the exam<br>• If failed, access to the e-procurement platform will be blocked |
| Intermediate | • Basic level approved<br>• Two virtual conferences<br>• Two e-learning courses<br>• Certification exam | Four months | • Can move to next level<br>• Keeps access to the e-procurement platform | Two years | |
| Advanced | • Intermediate level approved<br>• Three virtual conferences<br>• Two e-learning courses<br>• Certification exam | Four months | • Keeps access to the e-procurement platform | Two years | |
| Recertification | • Advanced level approved<br>• Updating seminar<br>• Certification exam | Seminar twice a year | • Keeps access to the e-procurement platform | Two years | |

Source: ChileCompra (n.d.[2]), *Certificación de Competencias en compras públicas*, https://www.chilecompra.cl/certificacion/ (accessed on 14 December 2023).

Some OECD countries are going beyond, recognising the need for specific skills related to ICT procurement, covering the full procurement cycle and using different methods. The United States, for instance, invested heavily in developing dedicated training (Box 4.1).

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### Box 4.1. ICT procurement training in the United States

Recognising that the digitalisation of public services often requires information technology (IT) skills that are difficult to master for public procurement professionals, the United States Digital Service joined forces with the Federal Acquisition Institute (FAI) to set up the specialised Digital IT Acquisition Professional Training Programme, which includes training and certification.

The programme teaches federal procurement professionals how to design flexible and innovative procurement processes for IT and digital services. The aim is for participants to become ambassadors for change. Participants who complete the programme acquire learning credits and receive a Federal Acquisition Certification in Contracting Core-Plus Specialization in Digital Services from the FAI. After a pilot phase, the training is offered to all professional levels across several agencies.

Source: OECD (2022[3]), *Digital Transformation Projects in Greece's Public Sector: Governance, Procurement and Implementation*, https://doi.org/10.1787/33792fae-en (accessed on 10 October 2023).

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Another important challenge that is common in many Latin American countries is the prevalence of a compliance approach rather than looking for value for money. This may lead to risk-averse behaviour among procurement officials, which hinders the adoption of innovative and dynamic approaches or market engagement strategies. The organisational culture may make it difficult for contracting authorities to accept the risks linked or perceived to be linked with dynamic purchasing. The illustration of such risk aversion can be clearly seen in the rigidity of market engagement strategies in Mexico, for example. While a protocol regulates contacts between procurement officials and the supplier community, such interactions are not prohibited; even so, officials tend to avoid them to remain on the "safe side". However, by doing so, they may be failing to fully understand the market for computers.

*Recommendations*

- Latin American governments should explicitly recognise the strategic nature of public procurement. In the specific case of the computer procurement, it can support the provision of seamless public services, the modernisation of public institutions and the connectivity of remote and marginalised regions to advance a more inclusive and balanced development.

- Latin American governments should build the capacities of their procurement workforces to effectively tackle challenges such as vendor lock-in. Good OECD practices to professionalise the procurement workforce usually include developing a strategy, designing a competency matrix, adopting a certification framework and providing specialised training on ICT procurement to the relevant officials (OECD, 2023[4]).

- Latin American governments should advance the objective of realising value for money and allow for experimentation and risk taking to favour the adoption of innovations and dynamic approaches. Experimentation can take the form of piloting dynamic purchasing and communicating the results, as well as building communities of practice to share experiences. Such understanding should include raising awareness among control and audit authorities, which were pointed out, particularly in Colombia, as a factor breeding risk aversion.

## Tackling the lock-in challenge and advancing competition

Given the dynamic nature of computers and the innovation behind them, as well as concerns related to data security, their procurement has become increasingly complex. Emerging trends introduce uncertainties (for example, relative to dominant standards) and new issues that should be managed by contracting authorities (e.g. exit strategies and transitioning from legacy systems). Likewise, high levels of dependency on single brands over long periods are also common traits. Long-held incumbent contractual relationships imply not only over-dependence on specific equipment but also on the brand's advice and services. This creates a situation in which public organisations may end up unintentionally "locked-in" to particular brands and equipment because the knowledge about how they work is only available or mastered by specific suppliers and, when the public organisations need to buy new components or licenses, only a specific brand can deliver. This vendor lock-in issue is usually caused by poor knowledge about drafting tender specifications in a way that facilitates sufficient flexibility and allows for vendor turnover according to needs.

Vendor lock-in occurs when a public institution is unduly dependent on a single brand or supplier beyond the timeframe of the initial procurement contract, damaging competition for future procurement. For example, vendor lock-in may be illustrated when one supplier is entrenched over a number of years to provide computer equipment, using specific brand names in procurement documents and requesting backward compatibility with proprietary systems of which only a few suppliers have expertise. In consequence, costs for the public institution of migrating to equipment from other suppliers increase significantly, even if there are other advantages from such migration. Lock-in reduces the ability of market participants to compete for public contracts, which in turn results in higher prices and hinders efficiency. As a result, lock-in reduces the supplier base, excludes new companies from providing alternative equipment and solutions, and causes the market to stagnate. Vendor lock-in is also quite relevant to other IT goods and services, such as devices and software (e.g. branded software for specific needs) (OECD, 2022[5]).

The prevalence of a lock-in situation can lead procurement authorities to engage in practices that minimise competition intensity and restrict the ability of suppliers to engage in the public market. Symptoms of possible lock-in include the use of brand names in procurement documents and requests for backward

compatibility with proprietary systems, for which only a few suppliers have expertise. Furthermore, there is a risk of operational continuity in case those few suppliers are unable to deliver.

This report found that, even though there have been improvements in the last few years, the use of brand names has not been fully abandoned in the region, even when, for example, in Mexico, technological independence and autonomy are part of the vision of the National Digital Strategy (*Estrategia Digital Nacional*, EDN). However, in order to ensure that as many brands as possible are present in the electronic catalogue, ChileCompra incorporated a clause in the award process for the fourth version of the co-ordinated purchase, which requires at least three new brands to be awarded. This condition allowed greater access for new brands while maintaining a wider choice for buyers, which in turn should facilitate a less concentrated distribution in the market, thus minimising lock-in risks. Similarly, in Colombia, selection criteria in framework agreements cannot specify brands or specific suppliers. Instead, the framework agreement establishes benchmarks in terms of performance. Furthermore, the regionalisation strategy aims to attract more suppliers (including small and medium-sized enterprises or SMEs) and brands.

The good practice to favour vendor-neutral tendering of computers is described in a manual by the German Association for Information Technology, Telecommunications and New Media (Bitkom) (Box 4.2).

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### Box 4.2. Bitkom's manual on vendor-neutral tendering of computers

Bitkom represents more than 2 700 digital economy companies, including 1 900 direct members, which produce an annual turnover of EUR 190 million, including EUR 50 million in exports, and employ more than 2 million workers in Germany. Its members also include 1 000 SMEs and over 500 start-ups.

Bitkom's manual on vendor-neutral tendering of computers encourages contracting authorities to formulate their tenders in a non-proprietary manner that avoids using brands or referencing specific manufacturers while leveraging current technical standards. This is consistent with legal requirements in Germany, which mandate equal treatment of suppliers and market products by using descriptions of the procurement objects based on factual and non-discriminatory criteria. Indeed, Bitkom considers vendor-neutral tendering as an opportunity to ensure fair and open competition, prevent early technical determination and avoid lock-in effects. As the number of competing suppliers increases when the tender is based on factual and technical criteria, better options and savings are realised, minimising obstacles to change providers as deemed suitable.

In the case of public tenders, contracting authorities are advised to draft a list of criteria that allows comparison of different offers and sufficient differentiation. Such award criteria should be needs-based, vendor-neutral and transparent. However, Bitkom also recognises that technical complexities may lead to difficulties in describing the desired performance of computing equipment. In consequence, it recommends the use of technical standards and benchmarks.

Source: Bitkom (2022[6]), *Product-Neutral Tendering of Desktop PCs: Guideline for Public IT Procurement*, https://www.bitkom.org/sites/main/files/2023-09/ICT-Procurement-Product-Neutral-Tendering-of-Desktop-PCs-2022.pdf (accessed on 12 October 2023).

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### *Recommendations*

- Contracting authorities should avoid using brand names when procuring computers and privilege using technical standards and benchmarks. This practice will help markets remain open and competitive and allow public institutions to choose from a wider choice of products, minimising claims that the used procurement strategies do not respond to their needs. Indeed, technical

standards and benchmarks can prevent reliance on single vendors by identifying key elements and performance features required and ensuring that they are not limited to specific brands or manufacturers.

- Procurement authorities could pilot dividing computer contracts into lots (or regionalisation, as in Colombia) as a means to attract the participation of more bidders and applicants (including in framework agreements), particularly SMEs. This would make vendor lock-in more difficult and increase competitive pressures. In applying this recommendation, procurement authorities should be aware of the risk of hindering value for money by impeding competitive suppliers from participating in different lots or regions. Piloting would provide opportunities to assess the costs and benefits of this strategy and act accordingly.
- Preventing lock-in demands understanding the market to assess the risk and take the necessary measures. Hence, contracting authorities in Latin America should strengthen market research and engagement practices to create a level playing field for all computer suppliers and understand lock--in risks, as well as other risks (e.g. collusion, bid rigging, etc.) and variables (e.g. market composition, manufacturers with regard to distributors, etc.).

## Using benchmarks

As mentioned before, selection criteria should avoid the use of brands and be based on standards and performance features. However, the dynamic nature of computer technologies creates complexities in comparing their performance based solely on technical specifications. For example, a processor with a higher clock rate does not always have more processing capacity. In this context, benchmarks facilitate performance comparisons (Bitkom, 2022[6]).

Benchmarks are programmes that measure the overall performance of a system or individual elements (e.g. graphics card, memory drive, etc.). The benchmark programme applies standardised tests that simulate specific tasks and produces a score for the performance of the system or component. Such scores facilitate objective and evidence-based comparisons. Benchmarks are developed independently from the industry and should be recognised by all competitors. They are updated annually to take into account innovations. Indeed, outdated benchmarks may disadvantage innovative and newer, more powerful products, which is why it is important to ensure that the benchmark used incorporates new technologies. Using benchmarks facilitates having multiple participants and, thus, a plurality of offers, avoiding mere brand comparisons, achieving vendor neutrality and preventing the potential purchase of obsolete technology.

One particular challenge for procurement authorities is choosing the benchmark to apply in the calls for tender. Using an inadequate benchmark may end up excluding suppliers, hindering the potential to realise value for money. As mentioned before, there are two types of benchmarks: i) system-level, measuring the general performance of computer systems based on user scenarios; and ii) component-level, measuring the performance of individual components. Considering this categorisation, a good benchmark has the following qualities (Bitkom, 2022[6]):

- Measures the general performance of a system and its overall actual workload, and not only single components.
- Tests scenarios based on the intended use and represents applications in typical office environments.
- Represents all relevant manufacturers and computer platforms.
- Its development process is independent and transparent.
- Is relevant, representative and up to date.
- Reflects the balance of the expected performance during the lifetime of the computer.

In its manual, Bitkom recommends the use of SYSmark 2018, SYSmark 25 (overall score) and PCMark 10 (standard score) (Box 4.3).

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**Box 4.3. Examples of benchmarks allowing the comparison of computers**

**SYSmark 2018**

This is the current benchmark of the BAPCo consortium (a non-profit benchmark developer) for the performance of Windows Personal Computer (PC) platforms. It uses three application scenarios to measure performance: productivity, creativity and responsiveness. It offers a supplementary energy consumption measurement for the performance test and covers applications of various software developers such as Microsoft, Google and Adobe 3. SYSmark 2018 produces an overall result and a value for each application scenario (the higher the score, the better). BAPCo has replaced version SYSmark 2018 with version SYSmark 2018 1.5, which also supports Microsoft operating systems, Windows 10 and Windows 11.

**SYSmark 25**

This is the successor of SYSmark 2018 for the performance of Windows PC platforms. It tests the same three application scenarios, productivity, creativity and responsiveness, as well as performance. SYSmark 2018 is still used for tenders with Windows 10.

**PCMark 10**

This is a benchmark that measures the performance of Windows PC platforms. PCMark 10 measures system performance in three groups: essential, productivity and digital content creation. Office space applications, such as writing documents, browsing the Internet, creating spreadsheets and making video conference calls, are used for the tests. Likewise, image and video editing, as well as rendering and virtualising, are tested. PCMark 10 measurements produce an overall and a partial score for each usage scenario (the higher the score, the better).

**CrossMark**

This is a benchmark for different operating systems (Windows 10/11, Android, iOS and macOS) that measures system performance and system responsiveness. The test uses models from well-known applications and generates values for productivity, creativity and responsiveness.

Source: Bitkom (2022[6]), *Product-Neutral Tendering of Desktop PCs: Guideline for Public IT Procurement*, https://www.bitkom.org/sites/main/files/2023-09/ICT-Procurement-Product-Neutral-Tendering-of-Desktop-PCs-2022.pdf (accessed on 12 October 2023).

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In Colombia, the framework agreement currently uses PCMark 10, which was selected after consultation with the industry. One of the greatest challenges reported is designing clauses that allow the update of score thresholds for each category or lot, as well as differentiating single core scores with regard to multiple core scores, in the understanding that both should be defined because they are relevant for different tasks. ChileCompra uses a different benchmark to classify processors and central processing units (CPUs). PassMark CPU is free and based on user feedback, so not necessarily made for professional comparisons.

*Recommendations*

- Procuring authorities in Latin America should advance the use of benchmarks to allow comparisons in the performance of computers and their components. Such benchmarks should be relevant, representative and up to date, incorporating the latest technologies and developed independently and transparently.

- Given that technological performance is increasing at exponential levels, procurement authorities in Latin America could leverage benchmarks to continuously revisit existing procurement mechanisms, particularly those related to framework agreements.

- As did the CCE, procuring authorities in Latin America could consult with the industry and relevant stakeholders to choose benchmarks for use in their calls for tender.

## Diversifying procurement methods and tools

Public procurement can be a powerful enabler of digital transformation and innovation in government; unfortunately, if managed inadequately, it can also be a barrier. For example, the public procurement process can be long and complex. It can be focused on searching for the cheapest solution – not the one delivering the best value for money – and long-term contracts can become an obstacle to the participation of innovative companies in the public market. Indeed, interviews conducted for the OECD report *Digital Government Review of Latin America and the Caribbean* found that public procurement was the most quoted barrier. Some of the main issues found include the inability of start-ups to demonstrate the experience required to fulfil evaluation criteria, rules establishing that requirements and deliverables must be spelled out in advance by public sector organisations, and long processing times (OECD/CAF, 2023[7]).

Chapter 2 of this report found that framework agreements are the preferred tool to procure computers in the three countries analysed. Indeed, in Colombia and Mexico, the use of framework agreements for such procurement is the required tool, while in Chile, public entities can also rely on co-ordinated purchasing (leasing and purchase), which has delivered significant savings. In Colombia, the framework agreement supports purchasing and leasing, while in Mexico, it only supports leasing, which is preferred to avoid costs related to the disposal of obsolete equipment.

OECD evidence illustrates that wider digital needs in the public sector are addressed through different mechanisms in Latin America. This finding suggests that countries could pilot and assess other mechanisms beyond framework agreements (e.g. dynamic purchasing, challenge-based procurement and innovative public procurement) for the procurement of computers. For example, eleven out of fifteen countries never or rarely used challenge-based mechanisms, while six countries never or rarely used innovative public procurement (Table 4.2).

**Table 4.2. Procurement mechanisms to address digital needs in Latin America**

Digital government authorities, when asked to indicate to what extent public sector institutions use the below procurement methods to purchase ICT goods and services

| | Open public tenders (including tenders with negotiation) | Purchases below thresholds of formal tender procedures | Framework agreements | Direct purchases (single source purchasing) | Public-private partnerships (project-financed schemes) | Innovative public procurement | Challenge-based and/or prize-based procurement |
|---|---|---|---|---|---|---|---|
| Argentina | Sometimes | Neutral | Neutral | Sometimes | Often | Neutral | Rarely |
| Barbados | Often | Often | Sometimes | Sometimes | Sometimes | Rarely | Sometimes |
| Brazil | Often | Sometimes | Often | Sometimes | Rarely | Rarely | Rarely |
| Chile | Rarely | Sometimes | Often | Sometimes | Rarely | Neutral | Never |
| Colombia | Rarely | Sometimes | Sometimes | Never | Never | Never | Never |
| Costa Rica | Often | Sometimes | Neutral | Neutral | Sometimes | Neutral | Never |
| Dominican Republic | Often | Rarely | Often | Never | Often | Neutral | Never |
| Ecuador | Often | Neutral | Rarely | Rarely | Rarely | Rarely | Rarely |
| Jamaica | Often | Often | Rarely | Often | Neutral | Rarely | Rarely |
| Mexico | Often | Neutral | Often | Neutral | Neutral | Neutral | Never |
| Panama | Often | Rarely | Neutral | Neutral | Rarely | Neutral | Neutral |
| Paraguay | Often | Often | Neutral | Neutral | Rarely | Rarely | Sometimes |
| Peru | Often | Often | Often | Neutral | Neutral | Sometimes | Never |
| Uruguay | Sometimes | Often | Neutral | Often | Never | Sometimes | Never |

Source: OECD/CAF (2023[7]), *Digital Government Review of Latin America and the Caribbean: Building Inclusive and Responsive Public Services*, https://doi.org/10.1787/29f32e64-en (accessed on 3 November 2023).

As in the case of the procurement of computers in Chile, Colombia and Mexico, framework agreements are the most widely used mechanisms for digital spending in Latin America, which may be due to the simplification provided by granting access to approved suppliers under predefined conditions. This situation is common in OECD countries, where framework agreements are also one of the preferred mechanisms to acquire digital goods and services (Figure 4.2). According to the OECD Digital Government Survey (IDB-OECD, 2022[1]), centralised procurement and framework agreements are the most common procurement mechanisms for purchasing digital goods and services in OECD countries. As mentioned, Chile has realised important savings through co-ordinated purchasing, which allows aggregate demand through a competitive process that improves procurement conditions for contracting authorities.

**Figure 4.2. Procurement mechanisms used to purchase digital goods and services in OECD countries**
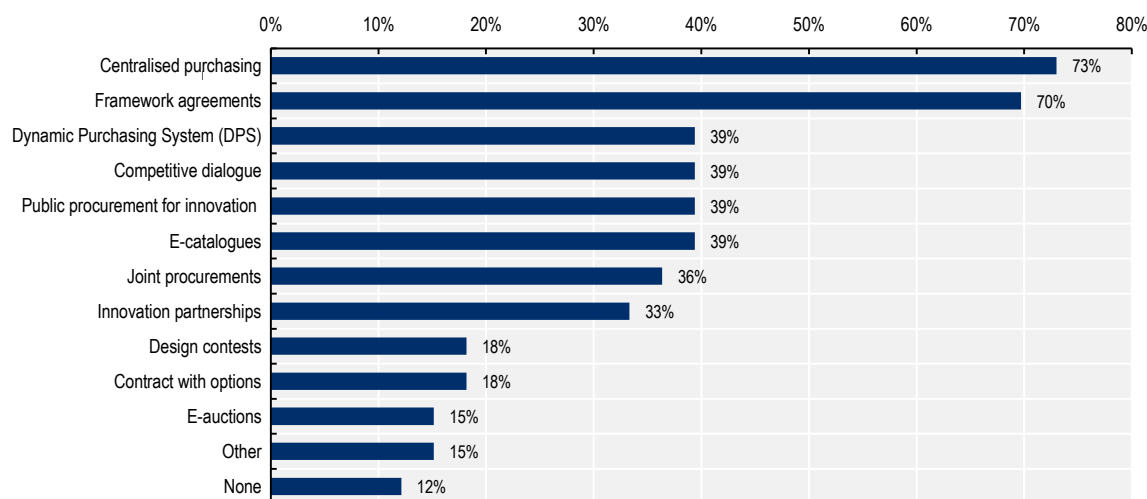


Note: Percentages are based on the 33 OECD member countries that completed the survey. Data are not available for Germany, Greece, the Slovak Republic, Switzerland and the United States.
Source: IDB-OECD (2022[1]), "Survey on the implementation of the 2015 OECD Recommendation on Public Procurement", OECD, Paris.

As described above, there is an evident opportunity in Latin America to leverage the use of innovative public procurement mechanisms such as competitive dialogue, design contests and innovation partnerships when procuring digital goods, including computers. The European Commission, for instance, published guidance on these tools (Box 4.4).

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**Box 4.4. European Commission Guidance on Innovation Procurement**

The European Commission published in 2021 a non-binding notice providing guidance to member countries on innovation public procurement. The notice aims to support public institutions in the use of innovation procurement to contribute better to the economic recovery, the twin green and digital transition and the resilience of the European Union. The guidance provides an overview of the innovation procurement concept, the policy framework required to advance towards a strategic approach, a description of the public procurement procedure to transform public service and the criteria needed to leverage innovation procurement. The notice provides a description of specific innovation procurement mechanisms including:

- **Competitive dialogue**: This two-round procedure allows public institutions to describe needs in a descriptive document or contract notice, setting the minimum requirements for candidates and later defining the contract award criteria based on best price-quality ratio (BPQR).

- **Design contests**: This procedure provides flexibility to propose innovative solutions based on contest needs. An independent jury evaluates designs using criteria outlined in the contest notice. The evaluation should follow an objective and transparent procedure balancing measurable quality criteria and cost-efficiency.

- **Innovation partnerships**: This three-phased procedure applies in cases where there are no available solutions in the market, allowing public institutions to co-create solutions with provider support by identifying a precise need to address. The innovation partnership was specifically designed to allow public buyers to build a partnership to develop and subsequently purchase innovative solutions. Providers and beneficiaries collaborate through the research and development phase by developing prototypes and measuring performance.

Source: OECD/CAF (2023[7]), *Digital Government Review of Latin America and the Caribbean: Building Inclusive and Responsive Public Services*, https://doi.org/10.1787/29f32e64-en (accessed on 3 November 2023).

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In Chile, for example, it was suggested that co-ordinated purchasing be maintained as a specific instrument to generate savings in prices and processes with respect to large volume purchases and to avoid distorting this modality according to purchasers' particular needs. Timing of co-ordinated purchases can be checked and better aligned with the budget cycle and the temporality required by user areas, as well as with market conditions such as international trade closures and version renewal periods. In addition, framework agreements can be developed for computer leasing to offer more flexibility for buyers. In particular, the feasibility of incorporating dynamic purchasing agreements as a procurement modality in public procurement regulations should be re-analysed, mainly because it is recognised as a good practice for purchases in industries such as personal computers.

## *Recommendations*

- While there is certainly a case to leverage framework agreements for the procurement of computers, Chile's experience indicates that other mechanisms can also lead to significant benefits and savings. Hence, contracting authorities in Latin America may also carry out co-ordinated procurement processes and assess the value for money realised.

- In diversifying procurement mechanisms, procurement authorities in Latin America should consider better balancing user needs with regard to the benefits of aggregating demand, particularly in light of very specific institutional needs.

- Contracting authorities in Latin America could pilot and assess different forms of innovative public procurement. For example, in December 2022, Brazil's Ministry of Management and Innovation in Public Services issued Normative Instruction 94/2002, which establishes procurement procedures for ICT, including new modalities such as competitive dialogue.

## Making room for innovative and dynamic approaches

Innovation is critical to procuring the best and most modern computers, as well as to realise value for money. In this sense, the regulatory framework is key to enabling innovation in the procurement of computers and ICT in general. When overly prescribed features are included in tender notices, room for innovation is restricted and the outcomes may not be the intended ones. An outcome-based approach may be better suited to access a variety of solutions. Australia, for example, could provide inspiration on how to encourage innovation in procurement entities in Latin America (Box 4.5).

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**Box 4.5. Innovation-friendly ICT procurement in Australia**

The Digital Transformation Agency developed guidance in Australia to help buyers with ICT procurement. In terms of innovation-friendly ICT procurement, the guidance suggests the following actions for contracting authorities:

- Start by describing the outcome to be achieved rather than starting with a solution. Avoid specifying activities, tasks or assets when describing outcomes.
- Use an outcome-based approach by focusing on the result of the work to be performed (the "what") rather than specifying the way it is to be performed (the "how").
- Use descriptive requirements to promote innovative solutions when describing the desired outcome, such as seeking a 10% increase in user satisfaction or a 5% increase in productivity.
- Avoid overly prescriptive requirements by not specifying the way in which the outcome is to be achieved, such as rolling out specific brands.
- Instead of focusing on a brand or product, prioritise factors like integration, training, efficiency, effectiveness, ease of use and adaptability.
- Avoid custom solutions, which can become expensive and difficult to support and adapt over the life of an investment.

Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

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As part of the exploration of alternative methods to address current challenges in the three countries analysed in Chapter 3, the OECD team discussed the potential to test dynamic purchasing systems (DPS). Indeed, the OECD Recommendation of the Council on Public Procurement (2015[8]) calls for adherents to develop and use tools to improve procurement procedures, reduce duplication and achieve greater value for money, including dynamic purchasing (principle of efficiency).

The most notable difference between a DPS and a framework agreement is that the DPS lets new qualified suppliers join the system throughout its duration. Customers can also join a DPS at any point of its duration. This dynamic feature allows contracting authorities to change suppliers more easily and economic operators to continuously incorporate advances in technology. The DPS is thus very suitable to repeated purchases of standardised items, where technology developments occur fast (OECD, 2022[3]). In contrast, in a framework agreement, suppliers are usually selected for a fixed term and no new suppliers are added during the agreement period unless specific adhesion periods are anticipated. The common practice is that the duration of each DPS is announced at the time of its creation.

DPS are quite common, for example, in Europe. The United Kingdom Crown Commercial Service (CCS) explains that DPS function in a similar way to traditional framework agreements in that they offer a range of searchable goods and services, allowing buyers to filter and engage with suppliers offering relevant products. DPS also offer those products on predefined contractual terms, making the procurement process more efficient. The "dynamic" feature in DPS is what sets them apart from other agreements as it allows suppliers to join at any time, increasing competition and choice, and opening them up to new businesses, innovations and emerging technologies throughout their life cycle. In other words, DPS are a marketplace that can continuously keep up with evolving technology, offering the potential for the public sector to rapidly access new capabilities.

Finland's central purchasing body, Hansel, points out the benefits of leveraging DPS:

- Good and reliable contractual suppliers.
- Mini competition is faster and easier than an open tendering process (see Box 4.6).
- Hansel experts provide support in organising a mini-competition.
- Suitable suppliers for the contracting authority's needs.
- Customer-friendly contractual terms and support for supplier management during the agreement period.

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### Box 4.6. Mini competitions in Hansel's DPS

Hansel's customers carry out mini competitions, i.e. competitions based on a framework agreement, by sending an invitation to tender to all suppliers that are eligible to participate in the DPS in an electronic tendering system, such as Hansel's own digital mini competition assistant (Cloudia). The customer defines the overall economic criteria for the procurement carried out within a DPS in the invitation to tender. Suppliers admitted will have at least ten days after the publication of the invitation to tender to submit a tender. The customer can also specify a longer tendering period. After the tendering period ends, the customer opens and compares the tenders and makes a procurement decision. After this, the customer can conclude a procurement contract and order a product or service.

Source: Hansel (n.d.[9]), *What Is a Dynamic Purchasing System?*, https://www.hansel.fi/en/procurement-info/dynamic-purchasing-system/ (accessed on 8 December 2023).

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Despite the fact that Chile's new legislation provides ChileCompra some flexibility, DPS are not allowed. The same is true in the regulatory framework of Colombia and Mexico. So, there is no experience with DPS and it might be worth running a few pilots to develop experience before fully engaging in a reform to apply DPS more widely. Indeed, one of the main obstacles to applying DPS in Latin America is the level of confidence and capability of contracting authorities. For example, a lack of capacities and expertise in risk management strategies may hinder the mitigation of potential risks created by DPS; coupled with a risk-averse organisational culture, new approaches might be difficult to accept and adopt. In consequence,

raising awareness of the potential benefits of DPS and building capacities to adopt them make up one of the key steps to advance successful implementation. Figure 4.3 shows the evolution of practices to build procurement workforce skills, which could serve as a model for contracting authorities in Latin America.

## Figure 4.3. Evolution of capacity-building practices in OECD countries
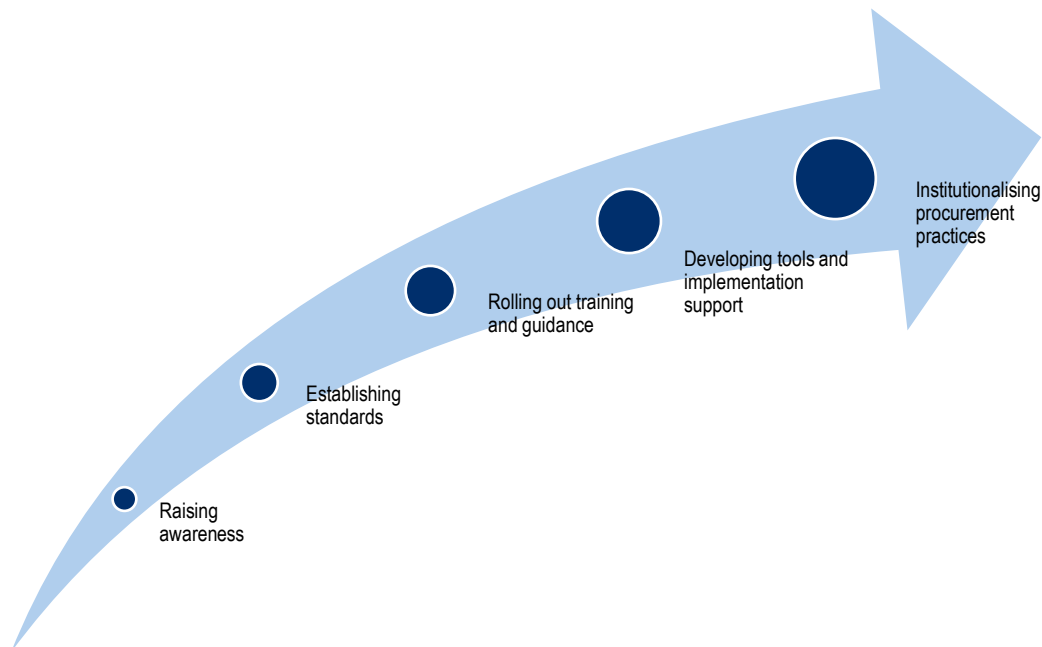
Another strategy that could contribute to the successful implementation of DPS consists of creating safe spaces for experimentation through pilot DPS projects and communicating the results widely, as well as establishing communities of practice to facilitate peer learning and the exchange of knowledge and experiences. This can also contribute to developing confidence in the procurement workforce in going beyond traditional approaches, controlling the risks of DPS and overcoming bureaucratic silos and fragmented structures.

Communities of practice can take different forms. They can be formal, with governance structures and established processes, or rather informal (e.g. working groups, task forces, etc.). Regarding participation, they can engage public officials only or be open to the engagement of the private sector and civil society (Box 4.7 illustrates the experiences of the Netherlands and Portugal).

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**Box 4.7. The experiences of the Netherlands and Portugal with communities of practice to facilitate reform**

**Portugal**

The Common Knowledge Network is a collaborative network built by the Portuguese government to promote the sharing of best practices and information about modernisation, innovation and the simplification of public administration. Membership of the network is open to public bodies, central and local administrations, private entities and any citizen who wishes to participate. Participation involves

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presenting and describing a best practice and its results. The network aims to become a central reference point for the dissemination of good practices and lessons learned. It hosts over 500 examples of best practices documented from all levels of government.

The network also serves as a place to conduct debate on public policies and their implementation at the local, regional and national levels, as well as for participatory decision making with interest groups or communities of practice. It works to strengthen relationships between the various stakeholders and co-ordinate information sharing. Lastly, the network helps participating government organisations obtain a common perspective on public administration activities, with a view to standardising services and identifying similar quality standards in different services.

**The Netherlands**

The Dutch Professional and Innovative Tendering Network for Government Contracting Authorities (PIANOo) was created in 2005 as a network for public procurers with the goal of disseminating knowledge. Since then, the institution's role has expanded. PIANOo now serves as an expertise centre for public procurement, building on a network of 3 500 contracting authorities. These practitioners provide input for PIANOo's work. Its approach combines different activities:

- **Publications**: Based on members' questions and concerns, PIANOo publishes guidance documents that can support procurers in their daily work.
- **Meetings**: PIANOo organises regular fora in which members come together to discuss current challenges and exchange good practices. These meetings are regional, for specific industries or procurement markets, and one overarching annual PIANOo conference.
- **Online portal**: On the organisation's website, tools, publications and guidance are collected, serving as an "encyclopaedia" for public procurement, including an innovation procurement toolbox.
- **Training**: PIANOo provides training on the public procurement legal framework.

Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

*Recommendations*

- Contracting authorities in Latin America could pilot DPS for the procurement of computers to allow for wider supplier participation and the dynamic incorporation of innovations, keeping catalogues up to date with the technology that delivers the best value for money.
- Raising awareness and building capacities is critical for the successful implementation of DPS. In addition to targeted training to build expertise and confidence in managing DPS, the Latin American government could provide safe spaces for experimentation and build communities of practice to exchange experiences.

## Incorporating life cycle costs

A low initial cost for specific computer equipment does not necessarily imply it will represent value for money. Costs incurred after the initial purchase can often change the whole-of-life cost. This means a solution with a low initial cost could have a high whole-of-life cost. Considering such life cycle cost (LCC) is critical to assess value for money. The LCC looks beyond the initial purchase price to other cost elements such as maintenance costs, transition costs, licensing costs, the cost of additional features added after the

initial investment, consumable costs and disposal costs. A comprehensive LCC analysis may also take into consideration the costs of mitigating external environmental impacts. In Mexico, for example, disposal costs are the critical element to opt for leasing instead of purchasing. In Chile, during the OECD fact-finding mission, users suggested analysing logistical costs, as especially buyers with a higher degree of decentralisation reported problems with this variable, and licensing costs, given that buyers reported that the licensing included with the equipment purchased does not cover their needs and leads to investing additional resources to complement what was procured through the co-ordinated purchase. Evidently, such additional costs may alter the value-for-money estimation and change the decision to use one specific procurement method or another.

Several OECD countries have developed supporting tools for the calculation of the LCC. Countries tend to introduce product-specific tools, which simplify the LCC calculation for non-expert users based on select product groups. Common product groups for LCC tools include energy-intensive and frequently purchased products, such as IT equipment. For instance, in Denmark, the Ministry of Environment and the Environmental Protection Agency developed LCC tools for several products and services, including computers (laptops, desktop computers, tablets and thin client computers). In Germany, the Federal Environmental Agency developed product-group-specific Excel tools that assist in calculating the life cycle costs of computers, among other goods. The *Berliner Energieagentur* calculation tools for products such as IT can be used without any comprehensive prior knowledge. They enable fast access to calculating life cycle costs. Italy's Consip, for example, applies LCC (energy consumption) in its framework agreements for computers (Box 4.8).

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**Box 4.8. Consip's incorporation of LCC in framework agreements for computers**

Italy's central purchasing body Consip developed a simplified methodology to consider LCC in some of its framework agreements, such as those relating to ICT. The methodology consists of taking into account the product's energy consumption combined with green criteria and is adjusted on a case-by-case basis depending on the product group.

A simplified yet effective LCC approach is used for the procurement of desktop computers and monitors. The award was based solely on the lowest cost, considering minimum environmental and social requirements, as well as energy consumption during the duration of the contract (three years). Suppliers are now requested to provide data on the energy performance based on specific Calculated Typical Energy Consumption (ETEC) parameters defined by the International Electrotechnical Commission standard IEC 62301:2011. An independent entity certifies the ETEC energy performance. The energy performance is multiplied by the reference price of electricity, as defined by the Authority for Energy Regulation and Environment, and the full cost calculation formula is included in tender documents to ensure transparency and clarity on the rules applied during the procedure.

Source: OECD (2022[10]), *Life-Cycle Costing in Public Procurement in Hungary: Stocktaking of Good Practices*, https://doi.org/10.1787/8d90f627-en (accessed on 30 August 2023).

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Incorporating LCC is not a straightforward task. Overall, the adoption of LCC remains low across OECD countries despite many commitments to sustainable public procurement (SPP). The map of LCC tools concludes that the vast majority of OECD countries have SPP policies in place, while only 48% have introduced LCC tools (OECD, 2022[10]). Time pressures and capacity gaps are major barriers to wider adoption by practitioners. Furthermore, tools are necessary, but not sufficient, conditions for success. They need to be user-friendly and supported by a favourable policy climate. Practitioners need to trust the methodological soundness of tools and have access to specific training.

*Recommendations*

- Procurement authorities in Latin America could set up inter-institutional co-operation mechanisms to enable policy makers, contracting entities and control and audit bodies to discuss plans and challenges in LCC and align relevant practices.
- Given the lack of experience with LCC in Latin American countries, procurement authorities should advance a phased approach to implementation. The first phase focuses on developing LCC practices and methodologies by providing support structures (e.g. guidance and tools, communities of practice, training and pilot projects).

## Developing guidelines and support materials

As mentioned earlier, implementing new approaches to procure computers, including DPS, and addressing common challenges such as vendor lock-in can be facilitated by raising awareness and building capacities. Guidelines and manuals can be effective in illustrating in practice how these new approaches can be adopted and leveraged. Indeed, adherents to the Recommendation of the Council on Digital Government Strategies (OECD, 2014[11]) show a high level of adoption of guidelines for digital procurement. According to the 2022 OECD Digital Government Survey, 55% of OECD countries rely on such guidelines for all types of projects and 24% do so for projects that meet specific financial criteria (IDB-OECD, 2022[1]) (Figure 4.4).

### Figure 4.4. Guidelines for digital procurement in OECD countries

Are there any guidelines that assist public sector institutions when conducting digital procurement?
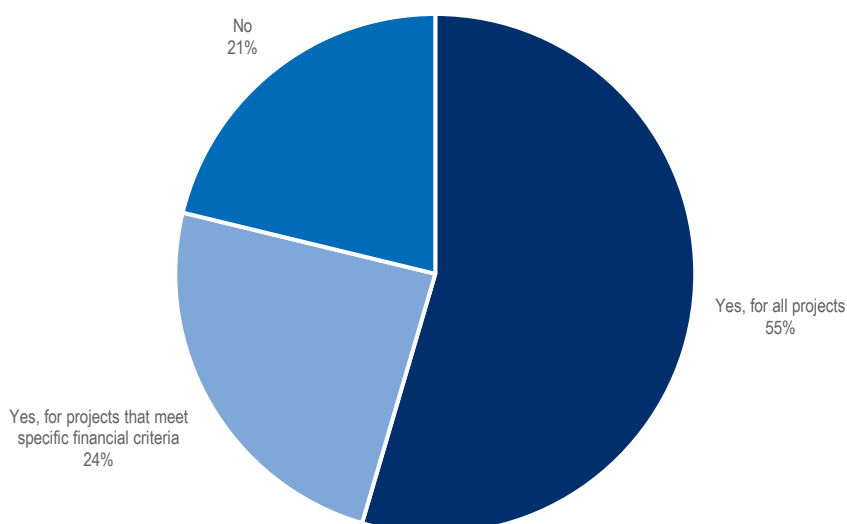


Note: Percentages are based on the 33 OECD member countries that completed the survey. Data are not available for Germany, Greece, the Slovak Republic, Switzerland and, and the United States.
Source: IDB-OECD (2022[1]), "Survey on the implementation of the 2015 OECD Recommendation on Public Procurement", OECD, Paris.

Guidelines and manuals can be particularly useful in contexts where the level of expertise is limited. They complement formal training and provide a practical and accessible resource for procurement officials. These tools can also create important synergies with experimentation and pilots, as the lessons learned can feed into them. Relevant examples include the Slovak Republic's Methodological Document for ICT Procurement, issued by the Working Group on Public Procurement and ICT Contracting, and the United Kingdom's Digital Buying Guide (Box 4.9).

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**Box 4.9. Guidelines on digital procurement in the Slovak Republic and the United Kingdom**

**United Kingdom**

The Digital Buying Guide (DBG) aims to present modern approaches to public procurement that are fair, open, transparent, effective, multidisciplinary and focused on meeting user needs. The DBG is for anyone who buys for the public sector, whether for local, regional or national government organisations. The information is intended to be internationally relevant and not specific to any regulatory environment. Notably, the DBG aligns with the United Nations Sustainable Development Goals (SDGs), and standards and guidelines on corruption prevention and gender equality in public procurement.

The DBG contains practical steps to take, with a collection of illustrative case studies from governments around the world. It evolved from the ICT Commissioning Playbook that the Global Digital Marketplace programme delivered towards the end of 2018, with help from partners and supported by the OECD.

**Slovak Republic**

The Working Group on Public Procurement and ICT Contracting, led by the Ministry of Investment, Regional Development and Informatisation, developed a Methodological Document about ICT Procurement, discussing issues in ICT procurement and providing methodological advice to contracting authorities on challenges such as preventing vendor lock-in, terminating unbalanced contracts from the past, dividing contracts into lots, preliminary market analysis, common availability of goods and services on the market, selection criteria and design contest.

Source: UK Government (2020[12]), "Buying digitally, with social purpose", https://gds.blog.gov.uk/2020/10/19/buying-digitally-with-social-purpose/; OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

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*Recommendations*

- Procurement authorities in Latin American countries could support tackling common challenges and adopting new approaches through practical manuals and guidelines on the procurement of computer equipment.
- Pilots and experimentation exercises, for example relative to DPS, should feed guidelines and manuals to align them more with practical experiences in procuring computers.

## Selecting a commercial model: Purchasing or leasing?

As described in Chapter 2, in Chile, public entities rely on co-ordinated purchasing to lease and purchase computers. In Colombia, the framework agreement also supports purchasing and leasing, while in Mexico it only supports leasing. Usually, leasing includes a purchasing option for the leased equipment at the end of the contract.

There are several factors which may influence the decision to purchase or lease. Mexico, for example, opts for leasing on the grounds that it allows for avoiding obsolescence and the burdensome procedures for disposal. However, there is no evidence-based study justifying the decision, for example, in terms of overall costs and benefits. Colombia did not provide evidence of having carried out such analysis. Out of the three countries included in this study, only Chile carries out such analysis. Indeed, the decision should be based on the procurement policy, which in turn should be supported by feasibility and cost-benefit analyses.

Another factor that may influence the decision is budget availability. Leasing may be cheaper and allow for stage payments to be made according to how the computer equipment is delivered and returned. In contrast, concerns for information security may lead procurement authorities dealing with sensitive information to opt for purchasing. It is also important to reflect on whether the computers should be obtained from one source in the framework of a uniform contractual agreement (bundling) or different providers. Table 4.3 provides some criteria for making the decision.

### Table 4.3. Criteria to decide whether purchasing or leasing computer equipment

|  | Hardware from different providers | Bundling | Financing |
|---|---|---|---|
| Hardware | Purchase | Purchase | Leasing |
| Operating system | Purchase or licensing | Purchase or licensing | Leasing |
| Costs for hardware service (i.e. repair and maintenance) | Borne by the contracting entity | Borne by the contracting entity | Payment includes services |
| Costs for software services (i.e. deployment and updates) | Borne by the contracting entity | Borne by the contracting entity | Payment includes services |
| Ownership of hardware | Contracting entity | Contracting entity | Supplier |

Source: Bitkom (2022[6]), *Product-Neutral Tendering of Desktop PCs: Guideline for Public IT Procurement*, https://www.bitkom.org/sites/main/files/2023-09/ICT-Procurement-Product-Neutral-Tendering-of-Desktop-PCs-2022.pdf (accessed on 12 October 2023).

An additional alternative for procuring entities, currently used in Colombia, is device as a service (DaaS). DaaS is a value proposition presented as an integrated set of solutions that combines supplying devices with layered related services in order to offer the final user an optimal experience. The client pays a periodic subscription to the service, which avoids high initial procurement costs. Other advantages include continuous updates and follow-up from the supplier.

For the supplier of computers, DaaS delivers the following advantages (ANDI, 2021[13]):

- Opening the possibility of refurnishing, repairing and reutilising the equipment, which increases profit margins.
- Obtaining revenue for new services and more predictable revenue flows.
- Decreased costs for guarantees and supply costs through the reuse of equipment.

For procurement authorities, DaaS implies the following advantages:

- Decreased initial costs for using the devices, paying only through subscriptions for the use of complete and updated devices.
- Decreased costs for capital assets, allowing contracting entities to use better quality devices without incurring costly one-off investments.
- Avoiding the need to manage updates, repairs and maintenance, as these are the responsibility of the supplier.
- Higher flexibility and customisation required for the specific needs of the user.

However, as described in Box 2.1, the implementation of DaaS may imply important challenges, including regulatory frameworks that do not anticipate this alternative, lack of awareness by control authorities, data protection issues and the prevalence of price in awarding criteria, which may lead to procuring poor quality equipment, hindering the potential advantages of DaaS.

*Recommendations*

- The decision to purchase and/or lease computers in a procurement process should be based on evidence and cost-benefit analysis, according to each procedure's conditions and the market's capacities. Hence, the recommendation is to keep both options open so that contracting authorities can decide according to the prevailing situation and the needs to be addressed.

- Contracting authorities in Latin America could also run DaaS pilots to analyse its costs and benefits and identify the conditions under which this option is optimal. Above all, DaaS may facilitate keeping access to updated equipment, staged payment conditions and avoid disposal costs.

## Developing user profiles and engaging users

An important challenge in the procurement of computers is reducing the requests for very specific computing equipment and accepting more standardised solutions. Indeed, the OECD heard about this problem in the three countries under analysis. Users may want to ensure that what is requested will do exactly what they need. Nonetheless, being too prescriptive entails risks and disadvantages. For example, customised computers will generally be more expensive than standard options and more difficult to reuse. Furthermore, providers that manage custom-made equipment will retain all of the information about it, creating lock-in risks and making it difficult and costly to migrate to different alternatives. Excessive customisation may then lead to supplier dependence (OECD, 2022[5]).

The OECD found that ChileCompra's co-ordinated purchases, which are the main procedure used by government buyers to procure computers, involved standardising equipment and grouping it into ranges (*gamas*), from which buyers categorise their needs and submit them to the Budget Directorate (*Dirección de Presupuestos*, DIPRES). Such *gamas* provide some alternatives for users, without disregarding the benefits from standardisation. In Colombia, contracting entities identify the fiches of the products in the virtual catalogue that better meet their requirements, on the understanding that there may be minimal variations that do not impact performance and observing the principle of neutrality with respect to the available brands in the market.

Bitkom's guidelines recommend categorising user requirements into performance classes to ensure the procurement of computers is based on needs. Such performance classes can be based on usage scenarios in the public administration. Under this approach, user profiles describe which computers must be available at all times and determine the basis for specifying configurations (Table 4.4).

## Table 4.4.Defining requirements based on user profiles

| User profile | Typical applications | Classification |
|---|---|---|
| Office worker | i) E-mail; ii) Web browser; iii) Word processor; iv) PDF reader; v) Virus scanner; vi) Specialist applications (e.g. time tracking, directory enquiries); vii) Browser-based specialist applications; and viii) Video conferencing. | Standard system |
| Clerks and executives | i) E-mail; ii) Web browser; iii) Word processor; iv) Desktop publishing software; v) Spreadsheet software; vi) Presentation software; vii) Visualisation software; viii) Project planning software; ix) Desktop database; x) PDF reader; xi) Virus scanner; xii) Specialist applications (e.g. time tracking, directory enquiries); xiii) Browser-based specialist applications; xiv) Complex client-based/server-based specialist applications; xv) Graphics software. | High-performance system |

Source: Bitkom (2022[6]), *Product-Neutral Tendering of Desktop PCs: Guideline for Public IT Procurement*, https://www.bitkom.org/sites/main/files/2023-09/ICT-Procurement-Product-Neutral-Tendering-of-Desktop-PCs-2022.pdf (accessed on 12 October 2023).

With this information, procuring authorities can then define minimum technical requirements for purchasing computers. Table 4.5 provides an example.

**Table 4.5. Definition of minimum technical requirements**

| Components | Standard system | High-performance system |
|---|---|---|
| Chassis | Small form factor (SFF) | Midi tower |
| Motherboard | Corresponding chassis | Corresponding chassis |
| CPU | x86 architecture (64 bit) | x86 architecture (64 bit) |
| Memory RAM | 8 GB | 16 GB |
| SSD | 250 GB SATA | 512 GB SATA |
| Graphics card | Onboard | Onboard or dedicated (Direct X12 support for Microsoft Windows users, otherwise OpenGL 4.4) |
| Network connection | RJ45 and possibly WLAN | RJ45 and possibly WLAN |
| Interfaces | 2 digital display interfaces | 2 digital display interfaces |
| | 4 x USB 2.0 | 4 x USB 2.0 |
| | 2 x USB 3x | 2 x USB 3x |
| | Audio | Audio |

Source: Bitkom (2022[6]), *Product-Neutral Tendering of Desktop PCs: Guideline for Public IT Procurement*, https://www.bitkom.org/sites/main/files/2023-09/ICT-Procurement-Product-Neutral-Tendering-of-Desktop-PCs-2022.pdf (accessed on 12 October 2023).

In the United States, as part of the National Association of State Procurement Officials (NASPO) ValuePoint initiative, the request for proposals (RFP) for the master agreement for computer equipment (i.e. desktops, laptops, tablets, servers and storage), carried out during 2021, was divided into three hardware product bands to account for user needs (Box 4.10).

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**Box 4.10. Hardware product bands in NASPO's RFP for the master agreement for computer equipment**

- **Band 1: Personal computing devices – Windows operating systems: desktops, laptops, tablets**. Only products utilising Windows operating systems for these devices are allowed. Zero client computers, thin client computers, all-in-one PCs, workstations, notebooks and mobile thin client computers are included in this band. Ruggedised equipment may also be included in the Product and Service Schedule for this band. Responders do not need to manufacture all three types of devices to be considered for an award.

- **Band 2: Personal computing devices – Non-Windows operating systems: desktops, laptops, tablets**. Only products utilising operating systems that are not Windows operating systems for these devices are allowed. Zero client computers, thin client computers, all-in-one PCs, workstations, notebooks and mobile thin client computers are included in this band. Ruggedised equipment may also be included in the Product and Service Schedule for this band. Responders do not need to manufacture all three types of devices to be considered for an award.

- **Band 3: Servers and storage**. A server is a physical or virtual computer dedicated to running one or more services or applications (as a host) to serve the needs of the users of other computers on a network. This band also includes server appliances. Server appliances have their hardware and software preconfigured by the manufacturer. It also includes embedded networking components such as those found in blade chassis systems. Storage is hardware or a virtual appliance with the ability to store large amounts of data. This band includes SAN

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> (storage area network) switching, which is necessary for the proper functioning of the storage environment. All operating systems for these devices are allowed. Ruggedised equipment may also be included in the Product and Service Schedule for this band. Responders do not need to manufacture both types of devices to be considered for an award.
>
> Source: NASPO ValuePoint (n.d.[14]), *Computer Equipment, Peripherals & Related Services*, https://www.naspovaluepoint.org/portfolio/computer-equipment-peripherals-related-services-2023-2028/# (accessed on 18 December 2023).

The development of user profiles should be based on consultation and user engagement. This is important as, in the three countries analysed, users suggested the need for feedback loops to improve the procurement strategies for computers and better adapt them to their needs. Indeed, developing a good understanding of user needs is a critical step in the pre-tendering phase. End users are one of the most important considerations in achieving the intended procurement outcome. The procured computers should be easy to use and consistent with user experience and tasks. Establishing feedback loops can be the means to better understand user needs and support the development of user profiles. Box 4.11 describes good practices regarding user feedback loops in the United Kingdom.

### Box 4.11. Incorporating user needs in the United Kingdom

In 2015, the technology transformation team in the United Kingdom Cabinet Office used Civil Service Live as an opportunity to understand the problem with government IT from the perspective of users across government. They ran a session called "Can Government IT be faster, smarter, better – and cheaper?", designed to showcase changes being put in place for users. The teams used these sessions to ask civil servants from different locations and departments what they see as the problem with government IT. The issues reported were recurrent across the country, from desperately slow printers and computers to an inability to access the Internet and ageing mobile phone technology. Some people also mentioned that new IT systems had actually made their jobs harder, reflecting a failure to speak to users before design, procurement and implementation.

The recommendations for change directly supported some of the principles of agile IT procurement. Crucially, they said they wanted to be involved in the purchasing process from the beginning to avoid buying the wrong thing. They also expressed their confusion at the government signing long IT contracts, assuming it was for cost reasons and which caused bureaucratic delays. Finally, when IT equipment arrived, it was frequently outdated and less easy to use than personal laptops, smartphones, etc. Engaging users this way led to an effective technology transformation programme and several other departments followed the cabinet's lead. Reflecting on the insights from these sessions, the technology transformation programme introduced faster, more modern and more adaptable solutions to user needs. More flexible contracts were introduced, making procurement more adaptable to rapidly evolving user needs.

Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

Co-design is another strategy used in OECD countries to consider user needs. It implies designing solutions with users, not just for them, as well as respecting, valuing and understanding their experiences and insights, sustaining meaningful discussions and experimenting. Co-design is based on interconnected principles and approaches, as illustrated in Figure 4.5.

**Figure 4.5. Co-design principles and approaches**

| Co-design: | 1. | Define the outcome |
|---|---|---|
| Designing things with users, not just for them | 2. | Understand users |
| | 3. | Test assumptions |
| Respecting, valuing and understanding users' lived experiences and insights | 4. | Involve users |
| Meaningful discussion, not just formal consultation | 5. | Observe actual behaviour |
| Many experiments, rather than formal pilots | 6. | Deliver, test, learn, adapt |

Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.17 87/b0a5d50f-en (accessed on 22 August 2023).

User feedback can be critical to advance towards better results. In Chile, for example, it could be useful to strengthen the model with the necessary technical capabilities to support agencies with a lower level of maturity in the design and implementation of elements related to purchasing and contracting in technological projects. It is also important to clarify the problems solved by the model and the impacts or externalities it generates, as well as ensure that there are no hidden costs currently being covered by each buyer, such as licensing or logistics costs. It was recommended, for instance, that ChileCompra deepen the analysis and, with the information it has already managed to collect from the different iterations of the bidding processes and with different users, determine the hidden costs that are being afforded by buyers in order to meet their needs. Specifically, it was recommended to analyse logistical costs, as especially buyers with a higher degree of decentralisation reported problems with this variable, and licensing costs, given that buyers reported that the licensing included with the equipment purchased does not cover their needs and leads to investing additional resources to complement what was procured through the co-ordinated purchase.

### *Recommendations*

- When procuring computers, contracting authorities should apply user-centred processes. This implies understanding user needs and tasks, and standardising requirements along such characteristics. Co-design can also be a useful strategy to incorporate user needs.
- Permanent feedback loops should be set up for procurement authorities to understand user needs and for users to know the limitations and objectives of procurement authorities. Feedback should flow in both ways, leading to better governance in the procurement of computers.
- Contracting authorities can develop user profiles to advance standardisation while also incorporating the flexibility specific users need.

## Strengthening and diversifying market engagement strategies

The OECD Recommendation of the Council on Public Procurement (2015[8]) calls for adherents to engage in transparent and regular dialogues with suppliers and business associations to present public procurement objectives and to ensure a correct understanding of markets. Effective communication should be conducted to provide potential vendors with a better understanding of the country's needs and provide government buyers with information to develop more realistic and effective tender specifications by better understanding market capabilities. Such interactions should be subject to due fairness, transparency and integrity safeguards, which vary depending on whether an active procurement process is ongoing.

As illustrated in Chapter 3, market engagement is quite weak in the Latin American context. Integrity risks, scandals and bad experiences from the past have led to excessive controls that not only have proved ineffective in deterring corrupt behaviour but also limit the flexibility of procurement authorities to innovate and reach out to the market.

However, market engagement is a key activity in understanding the corresponding industries and tailoring procurement processes accordingly to promote competition and avoid situations such as vendor lock-in. For the specific case of the procurement of computer equipment, contracting authorities need to understand the composition, size and nature of the supply market and, quite importantly, keep up to date with new ideas, trends and emerging technologies that can deliver superior performance and improved outcomes.

Market engagement can be understood as a process that allows procurement entities, at all times of the contracting process, to (New Zealand Government, 2015[15]):

- Communicate its needs and requirements to the supplier community.
- Discuss potential solutions openly and transparently.
- Promote innovation in the design and delivery of solutions.
- Understand market capacities and trends.

While market engagement certainly entails integrity risks that must be mitigated, if used appropriately, it can deliver multiple benefits such as: i) improving procurement planning and management; ii) better understanding the market; iii) increasing trust and credibility among suppliers, iv) breeding the conditions for the market to offer better solutions; v) allowing the market to understand the needs of the public sector; vi) getting feedback on requirements; vii) testing the feasibility of the needs to be addressed; viii) promoting competition; and ix) identifying opportunities for innovation. The bottom line is that the information collected through market engagement could help procurement authorities become smarter customers and design tailored processes according to objectives and market conditions.

Market engagement can happen during the procurement cycle (Table 4.6). However, in order to mitigate integrity risks, some basic rules should be followed (New Zealand Government, 2015[15]):

- Engagement should take place openly, transparently and fairly.
- The same information should be provided to all suppliers.
- Equal access should be given to all suppliers and they should be treated equally.

## Table 4.6. Market engagement strategies throughout the procurement cycle

| Pre-tendering | Tendering | Post-tendering |
|---|---|---|
| - Annual procurement plan<br>- Trade shows<br>- Meet-the-buyer events<br>- Requests for information/requests for proposals<br>- "Show-and-tell" events to allow suppliers to present their solutions<br>- Meeting with business/industry chambers<br>- Pre-tender briefings to suppliers<br>- Workshops with the supplier community | - Briefing suppliers who submitted a bid<br>- Question and answer sessions (including electronic sessions) | - Contract award notices<br>- Debriefing suppliers<br>- Supplier management |

Source: OECD (2021[16]), *Public Procurement in the State of Mexico: Enhancing Efficiency and Competition,* https://doi.org/10.1787/cc1da607-en (accessed on 28 July 2023).

In Mexico, for example, the Protocol on the behaviour relative to public procurement, granting and extending licenses, permits, authorisations and concessions (*Protocolo de actuación en materia de contrataciones públicas, otorgamiento y prórroga de licencias, permisos, autorizaciones y concesiones*) mandates communication between individual suppliers and procurement officials to take place in written form and official places, with the presence of officials from the corresponding Control and Audit Body (*Órgano de Control y FIscalización*, OCF) officials.

Other risks that market engagement may entail include unfairly advantaging one supplier, accusations of favouritism, failing to protect intellectual property rights; creating unreasonable expectations and breeding mistrust, among others.

The objectives of market engagement vary according to the stage of the procurement cycle in which it takes place. Table 4.7 provides examples. In the case of the computer industry, engagement at an early stage facilitates the planning of investments. One effective and controlled way to do this is by capturing supplier feedback on procurement issues (see Box 4.12 on techUK and Figure 4.6 on the steps of early market engagement).

## Table 4.7. Objectives of market engagement by stage of the procurement cycle

| Pre-tendering | Tendering | Post-tendering |
|---|---|---|
| Collecting information on:<br>• Number of suppliers and size of the market<br>• Key suppliers and market shares<br>• Number of buyers and influence in the market<br>• Level of competition intensity<br>• Prices and pricing methods<br>• Market trends<br>• Availability of alternatives<br>• Developments, innovations and emerging technologies | Contracting authorities provide information on:<br>• Needs and specification of requirements<br>• Outcomes to be achieved<br>• Allowing questions and answers<br>• Identifying efficiencies in the design and delivery of the procured object<br>• Opportunities to develop alternative solutions<br>• Finetuning solutions to address needs | • Educating the supplier community on how to participate successfully in the public market<br>• Building trust among the supplier community<br>• Promoting the participation of suppliers in future procurement processes |

Source: New Zealand Government (2015[15]), *Constructive Market Engagement: A Guide to Engaging Effectively with Suppliers*, New Zealand's Government Procurement Branch, Wellington.

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### Box 4.12. Engaging suppliers at an early stage: techUK

TechUK is the trade association which brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. With over 800 members (the majority of which are SMEs) across the United Kingdom, techUK creates a network for innovation and collaboration across business, government and stakeholders to provide a better future. The fundamental principle of techUK's engagement is to support those working in the public procurement process and help develop policy with technical expertise. Their support includes innovative market engagement across central and local governments. This included the launch of the NHS Digital-techUK strategic partnership, a programme of concept viability sessions across government departments, the Public Services 2030 Network conference and a wide range of innovative market engagement sessions between the technology industry and local governments. Central government departments and the wider public

sector take a broader and strategic approach to communicating with the technology sector on planned procurement activities and take advantage of the market access provided by techUK.

Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

**Figure 4.6. Steps for early market engagement**
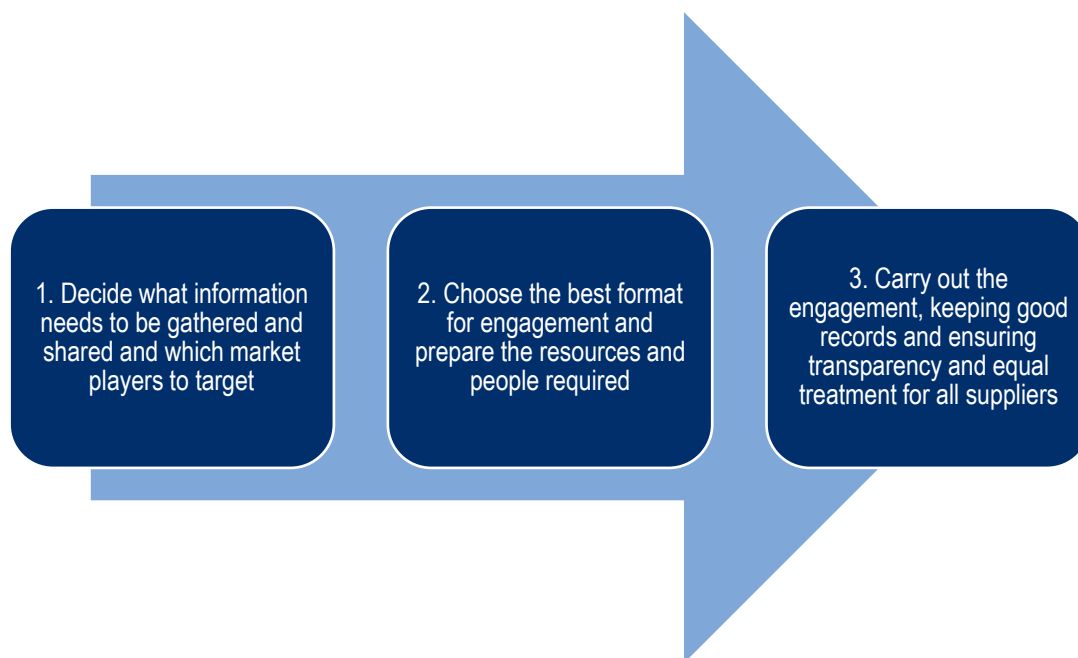


Source: OECD (2022[5]), *Towards Agile ICT Procurement in the Slovak Republic: Good Practices and Recommendations*, https://doi.org/10.1787/b0a5d50f-en (accessed on 22 August 2023).

One example of a market engagement strategy that may be advanced is debriefing suppliers. In some contexts, it can be common for bidders to be disqualified for failing to comply with specific formalities (i.e. a missing signature, document, etc.). Debriefing suppliers in the post-tendering stage can be a way to educate them so that they can be better prepared the next time and not lose their motivation to participate in the public market (see Box 4.13 on the benefits of debriefing suppliers).

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**Box 4.13. The benefits of debriefing suppliers**

Debriefing is beneficial to bidders because it:

- Helps them to rethink their approach in order to make future bids more successful.
- Offers targeted guidance to new or smaller companies to improve their chances of doing business in the public sector.
- Provides reassurance about the process and suppliers' contribution or role.
- Provides a better understanding of what differentiates public sector procurement from private procurement.

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Debriefing may help contracting authorities by:

- Identifying ways to improve subsequent solicitation processes, including associated communications.
- Making sure best practices and guidance are updated to reflect any relevant issues that have been highlighted.
- Encouraging better bids from suppliers in the future.
- Getting a better understanding of how that segment of the market thinks, enhancing the organisation's market intelligence.
- Helping establish a reputation as a fair, open and ethical buyer with whom suppliers will want to do business in the future.
- Potentially reducing the number of challenges.

Source: OECD (2021[16]), *Public Procurement in the State of Mexico: Enhancing Efficiency and Competition*, https://doi.org/10.1787/cc1da607-en (accessed on 28 July 2023).

### *Recommendations*

- Procurement authorities in Latin America should promote the review of their respective regulatory frameworks to provide greater flexibility for market engagement while establishing proportionate measures to control the risks entailed by this activity.
- Procurement authorities in Latin America should devote greater investments in the pre-tender stage to better understand the computer market and communicate their needs. The information collected will be useful in making important decisions on the commercial model (i.e. purchasing or leasing), procurement method (i.e. framework agreement, co-ordinated purchasing, etc.) and the convenience of adopting new procurement methods (i.e. DPS), which will impact the attractiveness of tenders, competition for contracts and the price of acquisition.
- Procurement authorities in Latin America could also promote the practice of debriefing suppliers in the post-tendering stage as a way to educate the business community on how to participate effectively in the public procurement market and encourage greater bidder participation.

## Strategic project management approach and pre-screening investments

The OECD Recommendation of the Council on Digital Government Strategies (2014[11]) calls adherents to procure digital technologies based on the assessment of existing assets, including digital skills, job profiles, technologies, contracts and inter-agency agreements to increase efficiency, support innovation and best sustain objectives stated in the overall public sector modernisation agenda.

In order to advance the digital transformation of the public sector and provide more seamless services, governments face the challenge of ensuring consistency and coherence of digital investments, including the procurement of computer equipment. In this context, OECD countries have established project management approaches and approval (pre-screening) mechanisms, such as EvalTIC in Chile and POTIC in Mexico (see Chapter 1).

Such pre-screening processes refer to the analysis and selection of digital projects cleared for implementation by ensuring financial feasibility, adequate risk management and alignment with strategic governmental priorities. Furthermore, sound project approval processes ensure alignment with digital policies and a coherent adoption of technology in the public sector. In many Latin American countries, such

pre-screening analyses have had limited impact given that they are isolated from budgetary decisions. This is not the case of EvalTIC, which is attached to the annual budgetary process. Indeed, line ministries and agencies must submit their digital project proposals before the annual budget discussions, based on joint efforts by chief information officers, digital experts and financial managers (OECD/CAF, 2023[7]).

In fact, in Chile's computer procurement policy, the alliance between ChileCompra, DIPRES and the Digital Government Division (*División de Gobierno Digital*, DGD) has been fundamental. This has allowed guidelines from the procurement agency to respond to broader criteria that are part of the government's agenda and have fundamental normative support for the development of co-ordinated purchasing, as their use is included in the public sector budget law. This has supported the transition to Chile's policy in this area.

The implementation of EvalTIC has been particularly relevant, as it allowed for early monitoring of computer purchase needs, verifying whether they align with institutional policies and projects. EvalTIC has also made it possible to analyse the relevance of the requirements and validate possible biases or conditions that could negatively impact competition in the market and technological neutrality in computer purchases. In addition, it has been important to establish clear objectives that made possible to follow up on policy results with respect to price savings achieved in each co-ordinated process.

OECD best practices also suggest that a project management approach supports the successful implementation of digital investments by advancing coherent and standardised management. However, Latin American governments do not always have common approaches to managing digital projects in the public sector (Figure 4.7). Brazil, Peru and Uruguay provide good examples relative to the adoption of a project management approach for digital investments (Box 4.14).

## Figure 4.7. Standardised project management for digital investments in Latin America

Is there a standardised model for data, digital and technology project management at the central/federal government level?
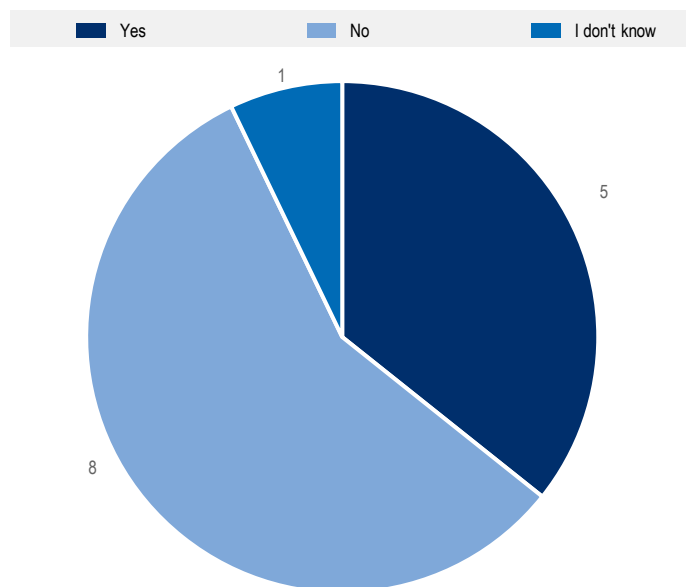


Note: The 14 participant countries in the survey are Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Jamaica, Mexico, Panama, Paraguay, Peru and Uruguay.
Source: OECD/CAF (2021[17]), "Going Digital Government in LAC Survey", OECD, Paris.

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**Box 4.14. Project management in digital government investments in selected Latin American countries**

**Brazil**

The Secretariat for Digital Government at the Ministry of Management and Innovation in Public Services elaborated in 2020 a portfolio project management methodology providing a set of good practices in the development and management of digital projects in the public sector.

**Peru**

The Secretariat for Digital Government of the Presidency of the Council of Ministers published in 2021 a dedicated guide for agile development of government digital services. Based on the guidelines for digital services and the experience of countries such as the United Kingdom, the Secretariat for Digital Government developed this guide with the recommended pillars, principles, phases and frameworks for the agile development of digital projects in the public sector.

**Uruguay**

The Agency for Electronic Government and the Information and Knowledge Society (*Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento*, AGESIC) developed a manual in 2019 to guide the design of digital government projects with recommendations, methods and tools that are publicly and freely available to support the development of digital transformation projects in the public sector. The document contains information and examples developed by consultants and officials working in AGESIC's Project Management Office to support the design and implementation of projects.

Source: OECD/CAF (2023[7]), *Digital Government Review of Latin America and the Caribbean: Building Inclusive and Responsive Public Services*, https://doi.org/10.1787/29f32e64-en (accessed on 3 November 2023).
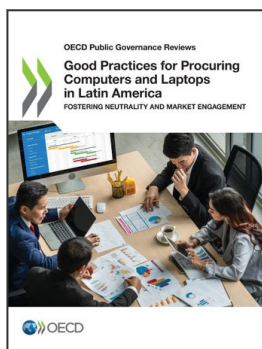
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*Recommendations*

- Latin American countries could further leverage value proposition and approval processes for digital investments, including the procurement of computers, as a way to ensure alignment, co-ordination and compliance with digital government policies and standards.

- Pre-screening processes should always be linked to budgetary decisions to encourage compliance by line ministries.

- Procurement authorities in Latin America could advance coherent and standardise management of projects relative to the procurement of computers by adopting a project management approach.

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