Microsoft

Public sector procurement fit for the digital age

Flexible, collaborative and outcomes-focused

Foreword

Getting policy settings right is a delicate balance. Policies need to be constantly assessed in the context of the current and prospective world in which a country finds itself. They must reflect the needs and climate of today, but at the same time have an eye on the future to ensure that a country is charting a course for success in the years and decades to come. This is no easy task, especially in the context of public sector procurement, which plays such a pivotal role in a country's all-up success.

At Microsoft, we are committed to empowering every person and every organization on the planet to achieve more, and it is in this spirit that we share **Public sector procurement fit for the digital age: Flexible, collaborative and outcomes-focused**. The paper is a discussion on the principles (both current and prospective) that underpin successful public sector procurement, as well as our reflections on current procurement obstacles and importantly, our recommendations on "ways forward" that can best enable governments around the world to more easily procure the digital transformation technologies that are so essential for their future success.

Innovation is at the heart of Microsoft. It is our hope that **Public sector procurement fit for the digital age: Flexible, collaborative and outcomes-focused** serves as a useful resource for global policy stakeholders and procurement teams who wish to assess their current procurement practices, update these practices to reflect the era of digital transformation and, in so doing, navigate a course toward sustainable, resilient innovation for their public sector ecosystem.

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A Introduction

Digital transformation is progressing at pace across the globe as businesses and governments alike strive to meet the demands of increasingly data-dependent societies. Technologies such as cloud computing have become indispensable tools for most businesses in achieving aims of improved efficiency, resilience, functionality, and security. However, governments around the world are also acknowledging the need to embrace the multitude of emerging and innovative technologies that are anchored on cloud platforms to deliver efficient and cost-effective public services, achieve sustainability targets, and continue to progress their wider digital strategies. Recent world events, notably the Covid-19 pandemic, have demonstrated the importance of technology solutions to meet the digital needs of citizens. Such events have led to a greater push by governments, and international organizations such as the International Telecommunication Union (ITU), the main United Nations agency responsible for digital affairs, to step up national and/or international digital transformation initiatives, including in relation to how the public sector procures the technology needed to bring about digital transformation[1].

There has been a rise in countries adopting cloud-first policies and strategies to develop and implement digital transformation within government departments and broader public sector organizations. In our paper, Building Blocks for Successful Digital Transformation Strategy, we observed the importance of a principles-based digital strategy and policy approach in bringing about, as a starting point, meaningful and measurable digital transformation. In the paper, we set out eight building blocks for developing and implementing a successful digital strategy, a key element to such success being how governments procure technologies such as cloud computing. The migration to cloud technology is an opportunity for public sector organizations to enjoy the benefits of digitalization such as streamlining processes, improving how data is managed and kept secure and enabling the public sector to innovate through procuring the latest in technology—all of which may lead to the improved delivery of public services.

In the spirit of our company's mission, to empower every person and every organization on the planet to achieve more, Microsoft's Worldwide Public Sector team has supported thousands of government customers around the globe with their cloud procurement requirements[2]. We have trusted experience dealing with an array of national and supra-national procurement laws, policies and practices, and have assisted public sector customers to harness the power of innovative and scalable cloud technologies to meet their evolving requirements. The valuable insights that Microsoft has gained from its deep sector engagement means it has become a global "sensor network" of public sector procurement best practice.

Since we published our Building Blocks paper in 2022, we have been looking in detail at some of the friction points in procurement policies and practices that may prevent governments from fully embracing the benefits of the latest and most innovative cloud technologies. We have heard from several governments that they both want and need to modernize their approach to technology procurement and to mitigate the risk of the public sector falling behind in the benefits made possible through digital transformation[3]. We see a big part of our role as working together with public sector stakeholders, offering our insight and ideas on effective technology procurement to ensure that acquired solutions continue to match real-world requirements.

To this end, in this paper we identify some common hindrances in procurement practices that result in less-than-optimal outcomes for public sector customers seeking to embrace digital transformation, and which also present challenges for cloud service providers looking to partner with the public sector. Based on our observations from around the globe, we set out some recommendations that governments may wish to consider to overcome these hurdles, including cultivating a more flexible and collaborative approach to procurement that creates a win-win for both public sector customers and the technology sector, whose cloud solutions are critical for bringing about the innovation and efficiency that government strategies seek to achieve.

B Summary of key observations, findings and recommendations

What can governments – regardless of where they are on their digital transformation journey – consider or implement to address the common issues in procuring cloud technology today and in the future?

In responding to this question, we are pleased to share the perspectives we have gained from our engagement and experience of working with various governments across the globe, as well as our recommendations for addressing common public sector procurement challenges through pragmatic and achievable good practice. The following table sets out an executive summary of our key observations and recommendations on common procurement issues, which are set out in more detail in Part D of this paper.

Common issues we have identified

Mandatory requirements that are incompatible with cloud services including:

- Business and technical requirements that fail to account for cloud services being non-customized, shared services that rely upon economies of scale achieved through standardization.
- Adherence to legacy data and security requirements more suited to traditional IT products and services.

Recommended ways forward
- Avoiding inflexible business, technical and security requirements.
- Identifying desired outcomes at the start of the procurement process and providing latitude to vendors to propose solutions to match those outcomes.
- Collaborating with vendors, through meaningful dialogue, on what outcomes the government aims to achieve and departing from a tendency to mandate requirements (some of which may not be commercially beneficial and/or technologically feasible).

Inflexible procurement processes including:

- Adherence to legacy contractual terms more suited to traditional outsourcing or acquisitions of hardware or on-premises software.
- Resistance and reluctance to adopt vendor terms, including terms of use or data protection addenda that provide critical information about how a cloud service is delivered and related commitments.

Recommended ways forward
- Recognizing that a vendor's terms form an integral part of their products and services.
- Accepting a vendor's terms, with a limited "layer" or "wrapper" of government terms.
- Issuing procurements with more "rated" and fewer "mandatory" requirements.
- Being open to negotiating terms and conditions with vendors.
- Drawing inspiration from the private sector, including highly regulated industries, and their approach to cloud and digital transformation procurement.
- Using flexible framework agreements, reinforced by the issuance of practical guidance as to how framework agreements are operationalized so governments can "contract once, procure continually".
- Encouraging agility in cloud procurement that anticipates and supports the benefits of cloud technology and digital transformation strategies. This includes embracing a flexible approach to contracting and the benefits of standardized vendor terms for commercially available products.

No centralized procurement function/purchasing entity.

Recommended ways forward

Taking a whole-of-government approach to procurement that fosters good procurement principles, whether through policy or a single procurement function, is likely to be a more efficient and agile way of procuring cloud solutions, rather than disparate processes across government departments. Coupling this approach with the use of flexible framework agreements and procurement catalogs, enabling streamlined agency and departmental purchasing.

A disconnect between how cloud technology is architected and delivered (and contracted) and legacy government policies and procurement practices.

Recommended ways forward

- Update legacy policies, including policies in respect of the classification and security of data, to align with modern security controls and independent, third-party verification implemented by cloud services.
- Deliver meaningful, regular dialogue between procurement agencies and cloud service providers, including to enhance understanding of how certain procurement requirements are incompatible with some or all cloud services.
- Upskill procurement officers to better understand the cloud providers' design and delivery models in the context of government requirements, and how best to contract with providers to effectively meet those needs.

Outdated financing requirements that do not optimally reflect the reality of how cloud and digital transformation technologies are delivered and consumed.

Recommended ways forward

Embracing flexible financing options; for example, rethinking subscription-based cloud procurement as an operating cost as opposed to capital expenditure, as well as providing flexibility to make multi-year commitments.

Applying traditional procurement principles when assessing and procuring digital transformation technologies.

Recommended ways forward

- Taking an expansive, forward-looking, principles-based approach to procurement, including incorporating "established" and necessary principles such as integrity, accountability, efficiency and transparency – but recognizing that innovation and sustainability (as examples) are also important principles in driving forward a successful digital strategy.
- Moving toward a more holistic, "more advantageous tender" rather than the narrower "most economically advantageous tender" to ensure innovation is considered, fostered and achieved.

A lack of alignment between procurement agencies and cloud service providers.

Recommended ways forward

- Understand that trust is key to a successful long-term partnership. Cloud providers have built up long-term, trusted relationships in the private sector through regular dialogue and mutual understanding.
- Recognize that a flexible approach to procurement doesn't mean a risky approach; rather, it can result in better products, solutions and outcomes for all concerned.
- Offer meaningful dialogue between procurement agencies and cloud providers to identify and discuss perceived risk that is likely to result in a better understanding for the procurement agencies of the functionalities of the relevant cloud product being procured and, through customer feedback, lead to better products being brought to the market.

C Public sector procurement and digital transformation

Public procurement: An overview

Public procurement refers to the process by which public authorities, such as government departments or local authorities, purchase goods or services from suppliers. Most countries have enshrined in law the basic tenets under which their governments are required to purchase goods and services and most also have in place a raft of policies and procedures to support the practical aspects of the procurement process. These measures, as well as various international laws and standards, are there to ensure that public bodies act fairly, transparently and with integrity and accountability[4].

There is a perception that public procurement is different from private sector procurement—not least because government agencies provide essential services and deal with vast quantities of sensitive information—and they must therefore necessarily act with a higher degree of fairness and accountability in acquiring goods and services. However, in certain private sectors, especially those subject to specialized regulatory regimes such as banking, healthcare and energy, these considerations are equally relevant, and it is worth comparing how businesses navigate risk mitigation in their procurement strategies. The commercial and contractual flexibility with which the private sector procures cloud services has allowed it to upgrade its technology and to innovate—and generally at a faster rate than the public sector. The private and public sectors' end users of the cloud may differ (i.e., paying consumers as opposed to the general public), but their basic risks, and requirements for efficient, resilient, sustainable and secure cloud solutions, are on par.

There is no question that, to remain relevant and effective, and to achieve their digital transformation goals, governments around the world will need to embrace the benefits of cloud technology. Cloud services offer governments innovative solutions, cost savings, agility of scale, advanced security features and access to powerful data analytics tools[5]. Some governments, such as those of the UK and Canada, have gone so far as to implement cloud-first policies to encourage public sector organizations to consider and fully evaluate potential cloud solutions first before considering any other options. Organizations such as the European Union also have ambitious digital strategies, including the promotion of the public cloud and its uptake by private and public sector customers. For instance, the European Commission last year launched an alliance, the European Alliance for Industrial Data, Edge and Cloud, which is composed of over 40 companies (including large manufacturers and telecommunications companies) with the aim of assisting in the implementation of the European Commission's cloud priorities in its European Data Strategy. An objective of this alliance is to increase the percentage of European companies using advanced cloud computing to 75% by 2030[6]. It also aims to enhance "the digitalization of public authorities"[7].

Prioritizing the procurement of cloud technology, and the innovation that drives it, means rethinking traditional public procurement practices that have generally focused on prescriptive mandatory requirements and fixed-price, fixed-term contracts to enable easy comparisons between vendor offerings and certainty on expenditure. The traditional approach has worked well for the acquisition of goods and on-premises software, but it is generally not a good fit for the acquisition of Software-as-a-Service (SaaS), and even less so for Infrastructure-as-a-Service (IaaS) or Platform-as-a-Service (PaaS) solutions.

As governments look to move services to the cloud, rather than grappling with how to acquire cloud services based on existing procurement methodologies, they will need to step boldly away from the trusted approaches of the past and consider instead how cloud services are different from traditional IT products and services and acknowledge that cloud services are non-customized, shared services that rely upon economies of scale achieved through standardization and how cloud adoption differs from traditional IT procurement, including that:

- Existing financing rules tend to focus on capital expenditure for easily defined fixed assets and projects and are not necessarily suitable for the flexible, subscription pricing that is typical in cloud services.

- Rigid framework agreements may not be appropriate for the deployment of flexible cloud solutions to meet rapidly evolving requirements.

- Current procurement regulations may prompt a disproportionate focus on cost when assessing tender responses, but many other factors differentiate cloud services. These include security capabilities, business reputation, evolution of function, innovation, sustainability and other service capabilities.

We look at some of these ideas in more detail below, including how the private sector has been more successful in overcoming procurement and risk concerns to embrace cloud technology and drive forward sector innovation and environmental, social and governance ("ESG") agendas in the process.

Supporting an effective digital strategy

A principles-based approach

Certain well-understood key principles underpin and inform most public procurement laws, policies, and approaches. For most countries, these include a combination of some or all of the following: (a) value for money; (b) economy; (c) integrity; (d) fitness for purpose; (e) efficiency; (f) transparency; and (g) fairness. In the UK currently, for example, the overriding principle in public procurement is "value for money". The UK Government's recently published Green Paper, 'Transforming Public Procurement', discusses a potential widening of the interpretation of "value for money" to include "a whole-life blend of economy, efficiency and effectiveness" or moving from "most economically advantageous" to "most advantageous".

Our observations are that two less-understood principles are becoming increasingly relevant to public sector procurement; namely, innovation and sustainability. These principles are particularly relevant to the procurement of cloud services where they challenge the status quo and require a new mindset and approach. Governments need to understand that the migration from analogue to digital will require a bold and pioneering approach, focused on the inherent characteristics of cloud services, the critical importance of innovation and the need for alignment with wider environmental aspirations. Similarly, the private sector, including cloud service providers themselves[8],are increasingly cognizant of the importance of meeting their corporate social responsibility objectives, such as the sustainability elements of their supply chains and sourcing practices.

Microsoft wholeheartedly endorses a more holistic view of the principles driving procurement to the end goal of achieving the most fit-for-purpose solution that also drives social value. However, it will be important not to prioritize certain principles at the expense of others so that, for example, prioritizing value for money doesn't compromise a commitment to innovation, the latter of which is more likely to encourage a more appropriate longer-term result. Focusing on authentic incorporation of traditional principles into an outcome-focused procurement process that keeps in mind a broader view of public good is likely to lead to better outcomes for all parties concerned.

Innovation as a procurement principle

In critical areas of government such as defense and health, it has long been challenging to move from proof of concept to deployment of innovative solutions due to slow and overly bureaucratic approaches to procurement. Too many good projects become stuck in limbo for want of a clear decision on the most appropriate procurement path for achieving enduring capability. However, as accelerator programs such as the Defence and Security Accelerator (DASA) and Strategic Command 'JHub' in the UK have proved, it is possible to test new solutions on digital cloud platforms and move rapidly through failure and refining stages to achieve scalable, enterprise-ready solutions in a fast time frame.

With innovation as a principal focus and cloud as a tool, public authorities have the capability to accelerate the deployment of ground-breaking technology to deal with issues in real time. We believe that embedding innovation as a principle in procurement alongside well-established principles such as accountability and efficiency is a forward-looking way of approaching procurement that will facilitate a government's digital transformation, provided that this principle is applied and measured in a concrete and meaningful way such as having a skilled procurement workforce to understand what innovation in technology means and how to assess which cloud solutions will be most capable of innovating over time. We also consider that the recognition of innovation as a principle of technology procurement is happening now: for instance, in response to the UK Cabinet Office's Green Paper on 'Transforming Public Procurement', respondents consistently commented on the importance of changes in procurement practices as a way of encouraging innovation[9].

Sustainability as a procurement principle

Like innovation, we believe that including sustainability as a key principle in the technology procurement process is not only appropriate and important but is an unavoidable trend. This trend has grown as more than 70 countries, including China, the US and the EU, have set net-zero targets covering about 76% of global emissions[10]. In the private sector, businesses are following the trend toward sustainable practices and taking measures that align with the wider goals set by their governments through the adoption of ESG strategies. The rise in sustainable finance and green investment has also acted as a driver for the private sector to take ESG seriously—including as a consideration in the way it procures goods and services[11]. There is a move, at a governmental and enterprise level, toward environmental sustainability policies with a wider scope that goes beyond a singular focus on improving the sustainability of internal operations and instead fostering a green sector, sustainability in the supplier chain—and sustainability as a central element in procurement decision-making[12].

Operationalizing the principles

It is our experience that, although many governments have healthy principles-based expectations for cloud procurement, there are real challenges to operationalizing these aspirations, not least because of internal culture and policy considerations and a generally low appetite for risk across government bodies. We consider in Part D below some of the common issues faced by government bodies procuring cloud services and offer some suggested ways to move past these barriers.
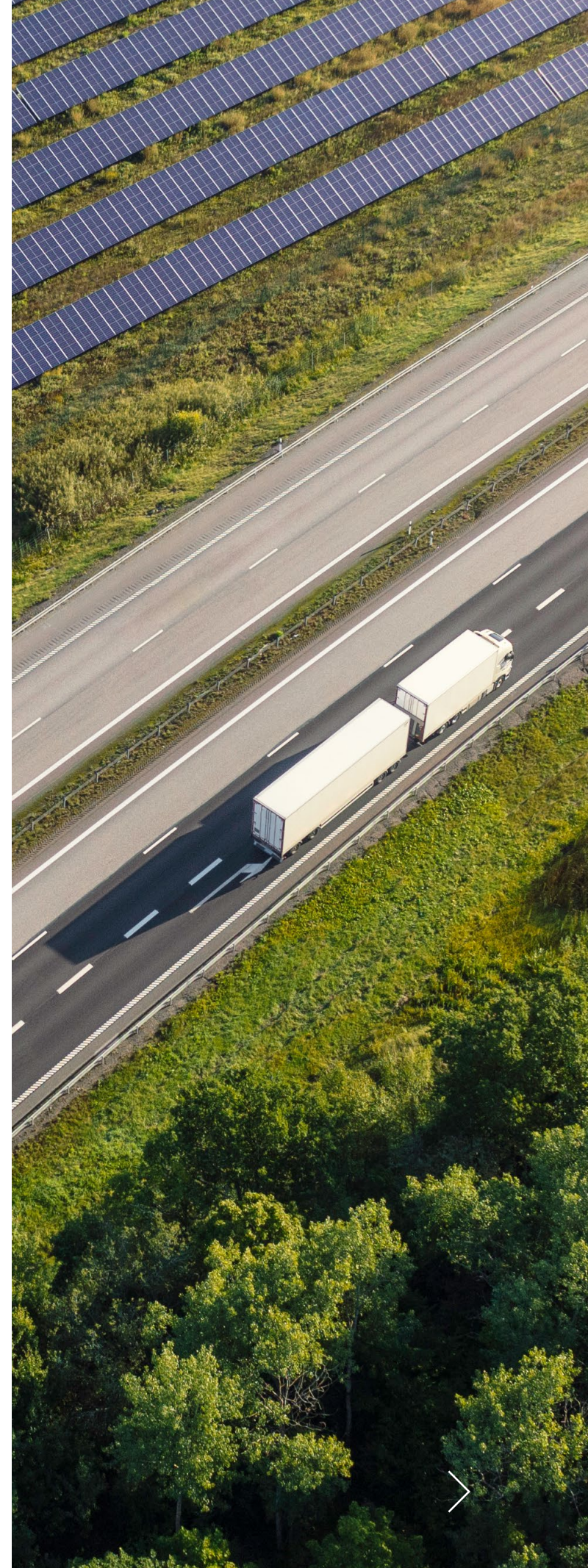
Successful digital transformation:
Moving from principles to practice

Some of the recommendations for good procurement practices set out in this paper are not new but they are, in our experience, key factors for achieving optimal outcomes. The benefits of cloud solutions to the public sector and third or voluntary sector organizations who procure these solutions are clear: high availability, lower IT solution risks (when compared to bespoke solutions), reduced implementation times (again when compared to bespoke solutions), service efficiency, productivity, innovation, flexibility and agility, scalability, resilience, data security improvements, and cost savings. As a wider point, research has shown that there is a clear correlation between governments' use of digital technologies and higher growth in Gross Domestic Product (GDP)[13]. We see a role as a global supplier to the public sector to encourage

governments to benefit from the best products available to meet their requirements—and this starts in adopting good practice in technology procurement.

Our recommendations apply not only to governments at an advanced stage of digital transformation but also to governments at earlier stages in their digital journeys. The lessons learned elsewhere in the world can become strong starting blocks for setting a cloud or digital strategy.

The conversations we have had with governments who recognize the importance of modernizing their technology procurement practices, some of whom have also been effective in adopting one or more of these recommendations, leads us to anticipate that best practice is likely to give rise to:

Lower solution risks

By leveraging stable, broadly used solutions with large user bases, the risks and significant costs and delays of developing, implementing and maintaining bespoke solutions can be avoided.

Improved efficiencies in how government departments procure

While the success of a whole-of-government approach will depend on various factors (size of country, culture within civil service and government, procurement needs and budgets), we have observed that some key benefits of this approach are a reduction in bureaucracy and greater efficiency, both in time and the quality of vendors who are encouraged by a more streamlined relationship with a single central procurement function.

Greater participation in tenders and greater choice for procurement agencies

A more agile approach to contracting, including a greater willingness in public sector contracts to adopt key vendor commercial terms and reassess unworkable and irrelevant legacy terms, is likely to encourage greater participation by vendors in requests for proposals (RFPs). We have observed RFPs having to be canceled and reopened (with the associated costs of doing so) because the proposed contractual terms or mandatory business, technical or security requirements were simply impossible for vendors to accept. A big upside of easier access to market for vendors is improved participation—driving wider market competition and innovation and ultimately leading to greater product choice for purchasers.

Cost savings

A solid technical understanding of what outcome the solution is expected to deliver and a realistic approach to pricing and contracting on market terms is likely to result in cost savings, not only for the procurement process itself but also over the life of the relevant contract. Early dialogue between potential RFP respondents and procurement agencies is likely to reduce the time and expense in responding to tender queries and in the ultimate selection process. Governments who have coordinated purchasing strategies are likely to also achieve cost savings through greater volume purchases.

Procurement of better and more products

Modernizing how governments procure, such as through a better understanding of technology and how cloud products work in practice and taking a more solution-oriented approach. There is also benefit in being more flexible in adopting vendor terms, a practice exhibited by the private sector, which will enable governments to have access to the best technology on the market, including the most innovative and resilient products. In addition, the elastic nature of cloud services means that volume requirements can be adjusted up and down at short notice, resulting in greater productivity and service efficiency for government departments.

Aligning digital transformation and true sustainability strategies and goals

Environmentally sustainable public procurement is growing as governments seek to meet ambitious climate targets and reduce their adverse environmental impact[14]. Providers too are set on meeting their environmental objectives; Microsoft, for instance, has been carbon neutral since 2012 and has committed to being carbon negative by 2030. Digital transformation strategies must align with environmental strategies. Embedding sustainability as a central principle in the technology procurement process is desirable, necessary and, in our assessment, an inevitable trend.

Building trusted, long-term relationships

We see in the private sector uptake of cloud technology a move away from a "vendor-customer" relationship to a partnership of trust. Take the example of a large data-heavy financial services company that requires significant cloud capacity to deliver its services: the criticality of cloud to this company's service, long-term success, regulatory compliance, and accountability to its customers requires sustained open dialogue and collaboration with its technology supplier, which in turn results in a better service all round.

The transition from software and hardware that resides within a user's facilities to cloud services that are delivered remotely requires a careful assessment of all mandatory requirements. Requirements that were compatible with traditional software and hardware procurements may create insurmountable barriers to successfully procuring cloud services. For example, requirements in respect of data residency, security clearances and data breach reporting may be out of step with how a vendor delivers and operationalizes cloud services. Regardless of how strategic a procurement may be, or how valued a vendor views its relationship with its customer, a misalignment on requirements can prevent a vendor from participating in a procurement. In effect, a cloud vendor can sell only what it has on its virtual delivery truck. Given that cloud services are by their nature standardized, creating a customized version for a specific customer is not an option. This means that a cloud-first policy is not enough to ensure a successful transition to cloud services. A cloud-first policy must be matched with a commitment to ensure that mandatory requirements are compatible with cloud services.

D Cloud procurement practices: Deep dive on common issues and recommendations

Inflexible procurement practices (legacy contractual terms and resistance to vendor terms)

Whole-of-government framework agreements are widespread across digitally mature governments. Seventy percent of the Organisation for Economic Co-operation and Development (OECD) countries, including Australia, Ireland, New Zealand, Sweden, the UK and the US, have some form of framework agreement relating to cloud-based technologies[15]. These agreements are usually structured as a main framework agreement between the entity representing the government and the supplier, with the possibility of call-off terms for individual government departments.

We have observed the benefits of using framework agreements, such as simplified procurement processes, the potential for better-suited technical and commercial terms and greater transparency and access for vendors. As we noted in the Building Blocks paper, we consider that this type of centralized approach to contracting is an important contribution to the effective implementation of a digital transformation strategy. However, our observation on the ground is that a strict reliance on a single framework agreement can also engender a degree of inflexibility and a one-size-fits-all approach to contracting that is not compatible with the acquisition of innovative technologies. We consider that avoidable challenges may arise in the government migrating to cloud-based services where the government fails to consider the inherent attributes of cloud solutions and is fixed on adhering to or replicating the mandatory requirements used for bespoke outsourcing solutions.

Government customers using public cloud cannot expect bespoke terms to be negotiated for standard 'off-the-shelf' cloud solutions that are, by definition, non-customized, shared services that rely upon economies of scale achieved through standardization.

This means that all customers receive the same product and related service levels. Although 'as-a-service' solutions can to an extent be configured to meet a customer's particular needs, it is often not possible to add bespoke features and/or services that are not already part of the specification 'menu'. Contractual terms designed for either non-digital transformation projects or traditional outsourcing deals are therefore usually fundamentally incompatible with cloud 'as-a-service' solutions.

Government-mandated commercial terms that are not compatible with the product being procured can create insurmountable barriers to participating in a procurement process by vendors who would otherwise have participated and may lead to the relevant government customer acquiring an inferior product from what may otherwise have been possible through greater flexibility in the procurement process. Alternatively, where the terms of a framework agreement do not permit sufficient commercial flexibility, a vendor may choose to "no bid", back-off the increased risk through other means; for example, putting in place third-party arrangements that are likely to increase costs for the purchaser and, at times, risk.

While the centralized aspect of a framework agreement is appealing, we have identified that there remains an insistence, including among the 70% of OECD countries that have adopted cloud-focused framework agreements, on providers accepting inappropriate and outdated legacy contractual terms. The following are some common examples of such terms:

Data privacy and security

Providers to ensure compliance with government-mandated data privacy and security requirements. A government's responsibility for the security of data and its accountability for the same can lead to inflexible requirements for vendors in relation to data handling and an inflexibility to accept a vendor's own analysis and interpretation of its obligations in respect to data privacy and security. Our observation is that this has, not infrequently, led to situations where government-mandated contractual terms (especially in relation to privacy and security, which can vary across government agencies) are incompatible with the cloud solution's functionality or are out of step with the high standard of vendor compliance accepted in even the most regulated private sectors. Encouragingly, in recent years, there has been some shift away from this prescriptive approach by government customers toward increased flexibility in accepting the incorporation of a vendor's data privacy and security terms in framework agreements. As well, in the UK, the government has replaced prescriptive security requirements with 14 "Cloud Security Principles[16]" that serve as the foundation on which individual government ministries and agencies choose a cloud provider that meets their needs. There is a more ready acknowledgment that vendors will prioritize providing secure and legally compliant data-processing services, if nothing else, because their reputation and therefore, revenue stream, is heavily dependent getting this right.

Audit rights

Government agencies requiring levels of access to providers' systems at frequent intervals to conduct audits, penetration testing and vulnerability scans. These requirements present logistical, security and technical difficulties and are often wholly disproportionate to the service being provided to the government (which in many cases is the same as that provided to customers in the private sector) and unnecessary when (as is often the case) a cloud service provider has its security controls audited by an independent third-party auditor against internationally recognized standards (such as ISO or SOC 2).

Service levels

Government-mandated service levels and penalties for non-compliance that are incompatible with commercially available cloud solutions offered with standardized service level commitments and remedies for failure to meet such commitments. It is not feasible to create bespoke service level commitments for standardized services. The same terms are available to all customers and the same levels apply, at a technical level, to all purchasers of the commercially available cloud solution (including public sector purchasers) and a cloud provider should be expected to meet the published service levels that it makes available to all users of its services. By way of contrast, performance measures, such as project management KPIs and related SLAs, as well as earn-backs and termination based on availability levels, are vendor management concepts that are often applied to system integrators or other providers of managed services.

Ownership of software and intellectual property rights (IPR)

Insistence on any IPR provided or created pursuant to the framework agreement vesting in the government customer. This insistence is incompatible with the acquisition of standardized services that rely on economies of scale (meaning that enhancements to products and services must be available for use by all customers) and represents a disconnect of what, in practice, the customer actually requires, which is usually only a broad license to use the IPR.

Most favored customer pricing

An expectation that the cloud provider will offer globally preferential pricing to the relevant government purchaser. Instead, governments may wish to focus on centralized procurement to take advantage of lower per-unit prices for larger volumes.

Supply chain due diligence

In some cases, a procurement agency may mandate prior approval of a provider's hardware, software, sub-processors and subcontractors as a contractual requirement, as opposed to being required as part of a provider's own due diligence. Again, seeking the prior consent of all customers before using a third-party supplier, sub-processor or subcontractor is incompatible with the acquisition of standardized services that rely on economies of scale.

Duration of certain contractual terms

Terms in framework or other procurement agreements requiring, for instance, that the solution is provided on the same terms and pricing for long periods (such as 20 years) do not take into account the reality of product roadmaps for cloud services. In the rapidly changing digital world, technology is continually evolving, often in ways that upend current product offerings. Making a commitment to maintain a cloud service for years or decades beyond the time frame covered by the product roadmap for a service is not viable, as doing so would, in effect, require committing to maintaining a bespoke solution. More broadly, governments would not necessarily want to be stuck with legacy technology two decades on and should ensure that contracts are flexible enough to consider technology replacements or upgrades, changes in the customer's requirements and the inevitable pricing adjustments that such changes will bring.

Our observation is that an insistence on government-mandated terms and/or non-acceptance of vendor commercial terms is often culture or policy driven and often has little to do with actual risk. The inclusion of vendor terms in framework agreements does not increase the risk profile for public sector customers; in fact, it may decrease risk as the vendor terms will most accurately reflect how the actual cloud services are operationalized and delivered by the vendor. That is to say, the vendor terms will provide for the most appropriate or innovative outcome, reflecting what is being provided rather than a manipulated reality based on rigid constraints. We note that the procurement agencies in some countries have been open to considering the adoption of vendor terms (e.g., on data protection, SLAs, etc.) as part of their framework contracting, though we believe there is an opportunity for government customers to accommodate vendor terms more readily. For example:

- **Australia:** The DTA has made available various forms of cloud-sourcing contract templates to be used in different types of procurement, including procurements that take a flexible approach to incorporating vendor terms[17].

- **UK:** The Cloud Compute framework agreement does allow for limited flexibility in including certain terms, such as data protection terms, which helpfully shows an understanding from the Crown Commercial Service that vendors cannot reasonably modify standardized terms such as data protection for individual customers[18].

We do not think that there is, or at least ought to be, such a wide gulf between the considerations of a government customer and a private company when seeking cloud solutions to address their requirements. Taking the example of transparency and accountability, both the government and private companies who provide regulated services are subject to some form of public scrutiny—whether that is government oversight, for public agencies or regulatory intervention for private companies.

When it comes to contracting, however, the big difference between customers in both sectors is flexibility: private customers generally have exhibited greater flexibility and willingness to negotiate terms and make vendor-standardized terms work for them to deliver to them the solution they require; government customers are more minded to mandate terms and the contracting process is as a result less smooth and may lead to an inferior result.

Our discussions lead us to believe that government customers can learn from the approach the private sector has taken to procuring cloud technology—a useful example being companies in regulated sectors, such as financial services, who rely largely on cloud-based solutions to provide their services while navigating regulatory considerations akin to the public accountability and transparency concerns that underpin the oftentimes rigid framework agreements required by public sector customers.

Financial services, including institutions such as banks, are heavily regulated services in most jurisdictions and regions (e.g., EU rules and recommendations on outsourcing to cloud providers)[19]. Migration to the cloud is increasing in the financial services sector. According to a recent McKinsey report, 54% of financial services respondents indicated that they expect to shift at least half of their workloads to the public cloud over the next five years[20].

Financial services companies are also a useful example in demonstrating that flexibility in procuring cloud is a two-way street: while regulated companies have had to demonstrate some flexibility in contracting with vendors to achieve the solution they seek, cloud providers too have had to be flexible in understanding that these companies are subject to certain overarching regulatory requirements.

We have observed, however, that there has been an increase in the uptake of cloud-based services within the financial services sector—in part driven by the demand, accelerated during the Covid-19 pandemic, to make new services available online. Cloud-based solutions have also enabled financial service providers to be flexible and build resilience in the face of such emergency events by ensuring data security, backup and continuity of service.

Summary

- We encourage the continued use of framework agreements, but with a change of approach to encourage greater flexibility through collaborative dialogue with the relevant technology providers, a focus on the desired outcome of the procurement and departing from a tendency to simply mandate requirements (some of which may not be commercially beneficial and/or technologically feasible).

- Having a flexible approach to contracting (such as accepting vendor terms that reflect the evolution of cloud technology and maintain quality/continuity of service) will enable government customers to take the maximum benefit from the most innovative products on the market. It is critical that framework agreements remain agile and adapt along with the advancements in technology.

No centralized procurement function or central purchasing entity

Different government departments or agencies will have different views on digitalization, different budget constraints, their own range of existing individual vendors, different procurement practices and different technology needs. These challenges are often cited as reasons for maintaining a decentralized procurement approach that places the procurement function closer to the needs of the final user. However, this decentralized approach has downsides in that it limits the efficiency possible with a central decision-making purchasing agency, increases bureaucracy and may result in more expensive, less transparent and less accessible tenders. These factors, in turn, can limit the government's access to the technology it needs.

A centralized, "whole-of-government" procurement model has several benefits, including:

Economies of scale

Coordinated budget approval and volume purchases make it possible to obtain significant cost savings and/or receive better services at lower cost.

Standardization of terms across government

This not only contributes to cost reduction but also allows a greater use of shared resources on the government side to manage those terms. The prospect of contracting with a single entity, with the potential to provide services across government, is more appealing to suppliers than having to navigate the requirements of complex and disparate procurement processes.
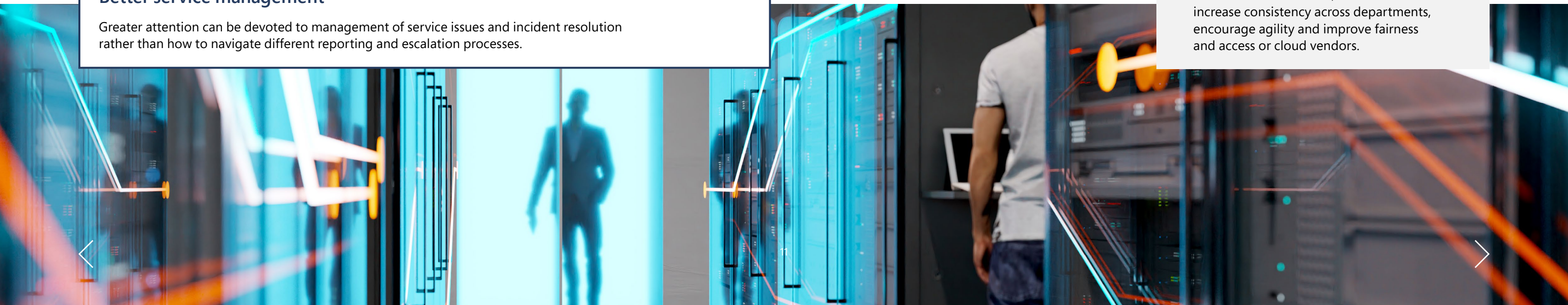
Technology harmonization

Enable the use of compatible technologies across departments and the ability to establish a single set of technical and environmental standards.

Better service management

Greater attention can be devoted to management of service issues and incident resolution rather than how to navigate different reporting and escalation processes.

We consider that the inclusion of a centralized procurement function is fundamental in developing and implementing a digital strategy[21]. While no centralized procurement function will be perfect (e.g. processes such as renewals and enrollments can be time-consuming and the procurement function may still be impeded by legacy approaches to procurement), our view is that a centralized approach has the potential to improve transparency and efficiency and be more attractive to a wider range of potential technology suppliers for government, therefore increasing the quality of products available to governments, and ultimately to the citizens they serve.

A further benefit of wider access for vendors to public sector purchasers is the cycle of economic growth and innovation that it supports in the market more generally. Two examples are Australia and the UK:

- **Australia:** Australia's Digital Transformation Agency (DTA) has streamlined its digital sourcing process by consolidating its Digital Marketplace with the BuyICT platform, so all types of ICT procurement are now in one place. The DTA is responsible for whole-of-government IT contracts, with the possibility of centralized enrollments for the benefit of all agencies as well as individual enrollments to be signed by individual agencies for specific needs they may have leveraging the same framework. This approach has the effect of reducing the risk of inter-departmental friction and inconsistency in the approach to procurement.

- **UK:** The UK has a centralized procurement function (Crown Commercial Services) that is responsible for managing procurement (including the central government framework agreements). Public sector employees have access to a Digital Marketplace (managed by the Government Digital Services), which, depending on the relevant framework agreement (between government and supplier), is used by the public sector organization to purchase various digital services. One example is the G-Cloud program. After completing an internal approval process, government officials can procure short-term, pay-as-you-go, cloud services—IaaS, PaaS, or SaaS.

We also see merits in the creation of an oversight body with the powers of both review and intervention to increase consistency across departments, encourage agility and improve fairness and access for cloud vendors. However, it is important that such centralization simplifies the procurement of cloud services through policy and practice rather than increases the complexity of procedural layers that officials need to work through to deliver innovation.

Summary

- Governments should consider centralizing their approach to cloud technology procurement, whether through policy or a single function.

- We see merits in the creation of an oversight body with the powers of both review and intervention, in order to increase consistency across departments, encourage agility and improve fairness and access or cloud vendors.

Rethinking the skillset

Public procurement on standard framework agreements can sometimes be seen as a scale exercise and therefore is often carried out by staff who may not be fully aware of the intricacies of what they are procuring, the practical application of the technology or the legal terms they are seeking to impose. In our experience, officials can sometimes be more focused on the procedural aspects of procurement rather than on the outcomes it should drive for future public policy and services. At times, this makes it challenging for providers to engage in meaningful discussion concerning what they perceive as unreasonable or unnecessary requirements. A lack of outcome-focused practice can also lead to a tendency for officials to focus on mandating requirements rather than embracing innovative solutions. In our observation, there is also at times a tendency to think flexibility in approach to procurement equates to an increase in risk when, as outlined above, a flexible approach may more accurately memorialize what is being sought.

Empowering officials to use procurement to innovate is as much an issue of culture, organization and skills as it is of policy and procedure. As we discussed in our Building Blocks paper, employee communication, engagement, and transition strategies are key. Governments must implement communication plans that help employees understand the changes and approaches that may need to be made to implement technology. An understanding of the cloud and other digital technologies is not only important for the use of such technologies but is also necessary to ensure stakeholders across government can collaborate on the policies and strategies associated with a government's digital transformation objectives[22]. In other words, it is critical that procurement officials understand the technology solutions they require and how to contract appropriately for the best outcomes.

To truly embrace all the digital economy has to offer, government agencies will need talented and inspired officials who feel supported by leadership when they take decisions that break new ground and find new opportunities. These officials will require different skills from those of their predecessors and there should be an increased focus on building digital skills in procurement professionals as well as growing an awareness of the emerging technologies and their impact. Governments should consider performing an analysis of skill gaps, including a review of the current state of the government IT workforce and projection of future skill requirements. Training should not be constrained to technical but also to contracting and procurement

(i.e., procurement teams having the knowledge and empowerment to keep up with the growing list of technology solutions). A workplace training program (akin to the scheme launched by Microsoft with the UK Cabinet Office in 2017[23]) should enable the government to attract, train and support workers with the skills needed for the next stage of digital growth.

As a practical step, and as set out in our Building Blocks paper, governments should consider implementing a Cloud or Digital Transformation Center of Excellence (CoE), being a team of people dedicated to the creation, spread and institutionalization of best practices, structures and governance for the evolution of cloud and digital transformation technology. Some of the functions of a CoE include promoting cross-government collaboration, identifying training needs, providing customized training and influencing cultural change.

Summary

- Governments need to encourage a change in culture within the public sector to fully embrace the use of procurement as a tool for innovation, including by attracting, training and supporting workers with the skills needed for the next stage of digital growth.

- Governments should consider performing an analysis of skill gaps, including a review of the current state of the government IT workforce and projection of future skill requirements.

- As a next step, governments should consider implementing a Cloud or Digital Transformation Center of Excellence.

A principles-based approach in need of an update

As discussed above, the rise in public cloud services has led to a rethinking of traditional procurement principles to take into account wider societal values such as sustainability and to keep pace with digital innovation. Governments will need to actively engage in ensuring that the concepts of innovation and transformation are embedded both in principles (that procurement agencies should consider when tendering) and practices (developing internal practices to ensure that the procurement itself seeks to be sustainable and innovative). This may require governments to consider internal barriers such as culture and lack of consistency in approach across agencies. Public procurement will need to be supported by sound digital strategies and policies but allow flexibility for departmental decision making.

Embedding the principle of innovation into procurement processes will encourage bolder decisions by procurement agencies, moving them away from unnecessary risk aversion and toward better and more inventive cloud solutions. The procurement of large-scale cloud services holds open the door to the vast partner ecosystems that operate on such platforms and who might not otherwise have access to public projects, thus driving further market competition and innovation.

In addition, meaningful collaboration between vendors and governments actively seeking innovative solutions is likely to result in the former creating or adapting solutions to meet government demand. We believe that governments can more effectively utilize and share data to foster more effective innovation in the procurement process itself.

Government customers looking to modernize their procurement practices may find it helpful to consider the principles other sectors, with more developed approaches to using and sharing data, have used to innovate. In the case of open banking within the financial sector, for example, the data-sharing practices and the way companies within this sector procure cloud solutions have led to innovation in the delivery of customer services, engagement with customers and improvement in internal processes through data management and advanced analytics. The particular advantage of data analytics for public procurement is that it has the potential to enable procurement officials to derive insights that would not otherwise be available to them, the result being new approaches to how to procure.

We recognize the move toward sustainable procurement (such as embedding sustainability in supply chains to meet ESG goals)[24] across all sectors, both public and private. Cloud service providers can play a role in being an example of how sustainability can be embedded within procurement practices. Microsoft seeks to incorporate sustainability in its own procurement functions and how it provides services to customers. We also see a role in being able to offer innovative products to assist customers (including public sector customers) to monitor their own sustainability goals, such as the Microsoft Sustainability Manager cloud function[25].

Alongside IDC, Microsoft has studied how sustainability as a principle may be embedded in public sector technology procurement[26]. For example:

- **UK:** The UK adopted a cross-government set of criteria in the form of the Technology Code of Practice[27] with the aim of setting the standard "for how government should design, build and buy technology". Sustainability is one of the major points of this Code and considers sustainability across the life cycle of technology. Sustainability in this respect is assessed not only regarding the technology itself, but also in how it is procured. This Code is implemented by the Crown Commercial Service.

- **US:** In our study with IDC, we considered the sustainability procurement practices of the US Department of Defense (DoD), the largest military in the world with a discretionary budget in financial year 2022 of over $770 billion. Its IT spending alone in 2021 was estimated at over $36 billion. In July 2021, the DoD issued a request for information (RFI) on sustainability initiatives, which led to further developments in the DoD considering sustainability issues such as greenhouse gas emissions, as part of the federal procurement process. The DoD RFI is an example of a best practice and supports the view of sustainability becoming a more prominent element and an important consideration in public technology procurement.

The new openness by some governments to take a more holistic approach to procurement, such as moving toward a "most advantageous tender" approach, allows for new, non-traditional economic principles such as innovation and sustainability to become meaningfully and seriously included in procurement processes. As both governments and the private sector seek to meet their national or corporate ESG objectives, we think that it is welcome, and inevitable, that sustainability will become a standard principle in technology procurement. Governments should be willing to set an example in taking the lead in embracing sustainability in its procurement practices.

Summary

- Looking to the future, it is critical that the principles used in the procurement process remain up to date and fit for purpose – for instance, embedding innovation and sustainability as principles in the procurement process.

- Considering innovation and sustainability also means seeking to ensure that the deliverables provided as a result of the procurement are themselves innovative and sustainable.

- Procuring the most innovative or sustainable digital solution may not be the cheapest option but we see the move toward a more holistic approach (most advantageous versus most economically advantageous) as both positive and inevitable.

Lack of alignment between public sector customers and providers of cloud services

As discussed above, there is often a lean by governments toward not trusting vendor terms and a tendency instead to try to impose the relevant agency's mandatory requirements onto the relevant cloud vendor, whether they are suitable for the solution being procured. This creates friction between the government and cloud vendors and can ultimately exclude some vendors from participating in an RFP process altogether. It can also mean that contracting agencies may end up with sub-standard products that don't fulfill their expectations (resulting in animosity and further distrust).

One of the stickiest areas of relationship friction between governments and cloud providers is that of data protection and cyber-security—governments have traditionally been very wary of trusting providers to take full accountability for how they deal with customer data. The private sector, on the other hand, has shown a greater propensity to work collaboratively with cloud providers in this area, agreeing to embrace vendor terms and practices to address regulatory risk. The UK Government's 'Open Banking' initiative is a good example of the financial-services sector getting comfortable with the use of cloud technology to access and transfer regulated financial information. The Open Banking initiative empowers customers to easily access their data at one financial services institution and to share it securely with other financial services providers using cloud technology. This provides greater democratization and flexibility for customers, but it also creates new opportunities for innovative products and services in the market and the potential for better customer engagement by financial services institutions.

Regular, meaningful discussion between industry providers and government is key to successful long-term partnerships that will ultimately drive wider participation by vendors and result in better end products.

Summary

- Trusted relationships between industry and government have enormous potential to drive product improvement and innovation. Ideally, contracting authorities and cloud providers should be engaging in meaningful dialogue at every stage of the tender process to identify and discuss perceived risks and to ensure the authority fully understands the technology being procured.

- Where the authority can trust the vendor, they are likely to be more accepting of vendor terms, which likely best reflect the solution and services being provided. Likewise, close engagement and feedback from agencies enable vendors to take into consideration government needs, leading to a positive cycle of innovation.

# Rethinking financing options

We know that although governments are spending more on IT, both in absolute terms and as a percentage of total government spending, inflexible financing options can still be a barrier to successful cloud procurement. This is partly because of the way in which funding for IT has traditionally been allocated and partly because IT budgets often don't include spending on the support services and the general upskilling of civil servants required to optimize cloud deployment.

To make the most of cloud technology, public sector organizations will need to intentionally and thoughtfully address rigid financing rules that can inhibit successful digital transformation and innovation. The traditional financing model, which is based on a yearly allocation of a fixed sum of money for IT spend, encourages a tendency toward shorter-term individual projects with pre-set requirements that are not easy to adjust down the line. The acquisition of cloud solutions requires a more holistic, flexible view that reflects the reality of how cloud services are consumed today (i.e., standardized, scalable subscription-based services). Digitalization strategies and budgets should, in our view, be reconsidered in the context of digital expansion to: (a) facilitate multi-year commitments to consumption; (b) allow for rapid deployment of extra funds to scale up existing services or provide access to new services as required; (c) cover not just the acquisition of technology but also the upskilling and support services required to optimize the benefit of such technology[28]; and (d) take into account not just the acquisition of a cloud platform itself, but potentially also the costs of smaller projects that could take advantage of cloud technology[29].

There are some major advantages to the shift away from the traditional funding model for IT development as a capital expenditure to a model where the pay-as-you-go charges for cloud services become operating costs. As we set out in our Building Blocks paper, we believe that it is advantageous for governments to have a clear financial plan that sets out technology spending in a targeted and controlled manner. Central budget authorities should take on the responsibility of coordinating the requirements of individual departments and agencies to set a cohesive strategy for digitalization that doesn't leave individual agencies behind due to their separate budget constraints.

Summary

- Maximizing the advantages of cloud technology requires a funding model that facilitates multi-year commitments to consumption, allows for rapid scaling of services, and covers upskilling of staff, support services and the costs of related projects.

- Governments should have a clear financial plan that sets out technology spending in a targeted and controlled manner.

- Central budget authorities should set and coordinate a cohesive strategy for digitalization that can optimize solutions across multiple agencies.
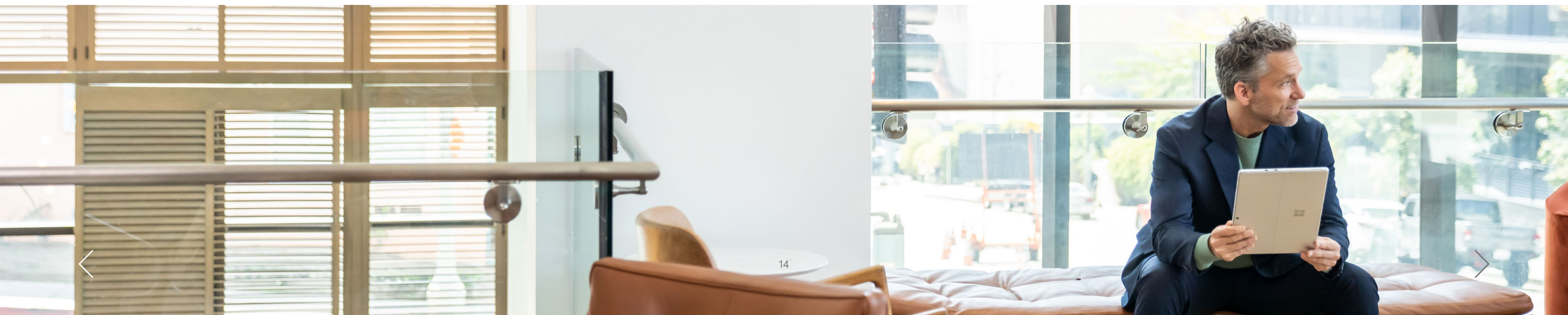
E Next steps

In this paper, we have provided a view of what modern public sector procurement principles and practices can look like, based on our experience of engaging with the world's public sector community over many years. There is undoubtedly a need to maintain many of the existing principles of procurement, but aided by new principles that recognize and facilitate innovation and sustainability. We further believe that the public sector can benefit from taking a more flexible approach to procurement, which can be achieved without assuming unnecessary risk—a practice embraced by some of the most important industry sectors in our economy. That said, we also believe that the journey to digital transformation is a constantly evolving one, punctuated by pivots and altered by individual national responses to an ever-changing global policy climate. That is why continued dialogue and collaboration with industry is so very important. It is our aim to follow up this paper with a series of workshops with our public sector community of customers, during which we will engage in deeper discussions on each of the key recommendations, and in the spirit of true collaboration, continue to seek feedback on how we can do better to serve governments around the world. Through our in-country teams and Microsoft's Worldwide Public Sector Global Market Development (GMD) team, we look forward to continuing the cloud and digital transformation conversation with the public sector community in the months and years to come.

Microsoft's Worldwide Public Sector Global Market Development (GMD) Team engagement

As a team, GMD is primed to continue to provide the sorts of insights and collaboration identified as so very important throughout this paper. GMD is by design an incredibly diverse group, made up of former senior civil servants, technologists, regulatory and policy experts, development professionals, and technology consultants. Our team is diverse in experience and geographical spread whose knowledge we activate as we engage with the public sector community to help empower it to maximize opportunities for cloud and digital transformation technologies, co-creating demand for technology that will benefit all market ecosystem players so that all participants—government, citizens, and the community—benefit in a true "win-win-win" situation. At Microsoft, our commitment to ensuring that our product and service offerings respond to the explicit needs of our public sector clients, informed by our focused and concerted partnership with public sector elites across the globe, has created a powerful incentive to adopt an informed and strategic approach to policy engagement.

We have demonstrated this commitment to targeted engagement through the delivery of on-demand policy assets, like our Building Blocks paper, and expert analyses that are currently leveraged by our public sector partners across the globe. Through our Public Sector Center of Expertise, we curate this research and thought leadership and highlight the impact of public servants who are leading the charge toward digital transformation and innovation in the public sector. The continued exploration of the policy and procurement building blocks through workshops and publications that will follow this paper will further expand this body of knowledge and ensure that we make good on our commitment to continually share our voice and perspective on the future of successful digitalization across the globe.

F References

1 The ITU plays a vital role in bringing countries together to develop key initiatives to enable countries to develop and implement digital strategies. See here for an overview of its Digital Government initiatives.

2 Microsoft has published support for public sector organizations in navigating the procurement of technology. See Procurement and sourcing in the public sector (22 September 2022)

3 There is a digital transformation underway in the public sector, though we observe that adapting to this transformation is generally slower in the public sector than in the flexibility with which private organizations have procured cloud services: Why must the public sector move to cloud services?, Open Access Government, 14 November 2022 (last accessed 15 April 2023).

4 Certain governments and regulators too have published practical guidelines aimed at public sector organizations on how to procure cloud services through their respective procurement frameworks. As an example, see the UK Government's G-Cloud Buyers' Guide (last accessed 15 April 2023) and the UK Information Commissioner's Office (ICO) guidance on the data privacy aspects on the use of cloud computing here (last accessed 15 April 2023).

5 'Cloud Services Advance Digital Transformation for Governments'. The World Bank (10 June 2022).

6 European data alliance to tackle public procurement of cloud services. Global Government Fintech, 7 January 2022).

7 Further details on this Alliance can be found on the European Commission's website here (last accessed 17 April 2023). For further information on cloud procurement across the EU, see Public Procurement and Cloud Service Providers in the European Union by Access Partnership, 21 June 2018

8 By way of example, Microsoft is committed to responsible supply chain management with its own procurement. See here for further details on how we are striving to achieve our corporate social responsibility goals in this regard, and here for Microsoft's Code of Conduct for suppliers relating to responsible sourcing, including for environmental protection and compliance.

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16 The cloud security principles - NCSC.GOV.UK

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18 Microsoft entered into a three-year memorandum of understanding (Digital Transformation Arrangement 2021) with the Crown Commercial Service that came into effect on 1 May 2021 (until April 2021). See here for further information.

19 See for instance the European Securities and Markets Authority (ESMA) Guidelines on outsourcing to cloud service providers, which came into effect since 31 July 2021

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23 Microsoft, Microsoft launches digital skills programme for the UK (26 January 2017)

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25 Microsoft Cloud for Sustainability | Microsoft

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27 The Technology Code of Practice. GOV.UK (www.gov.uk)

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