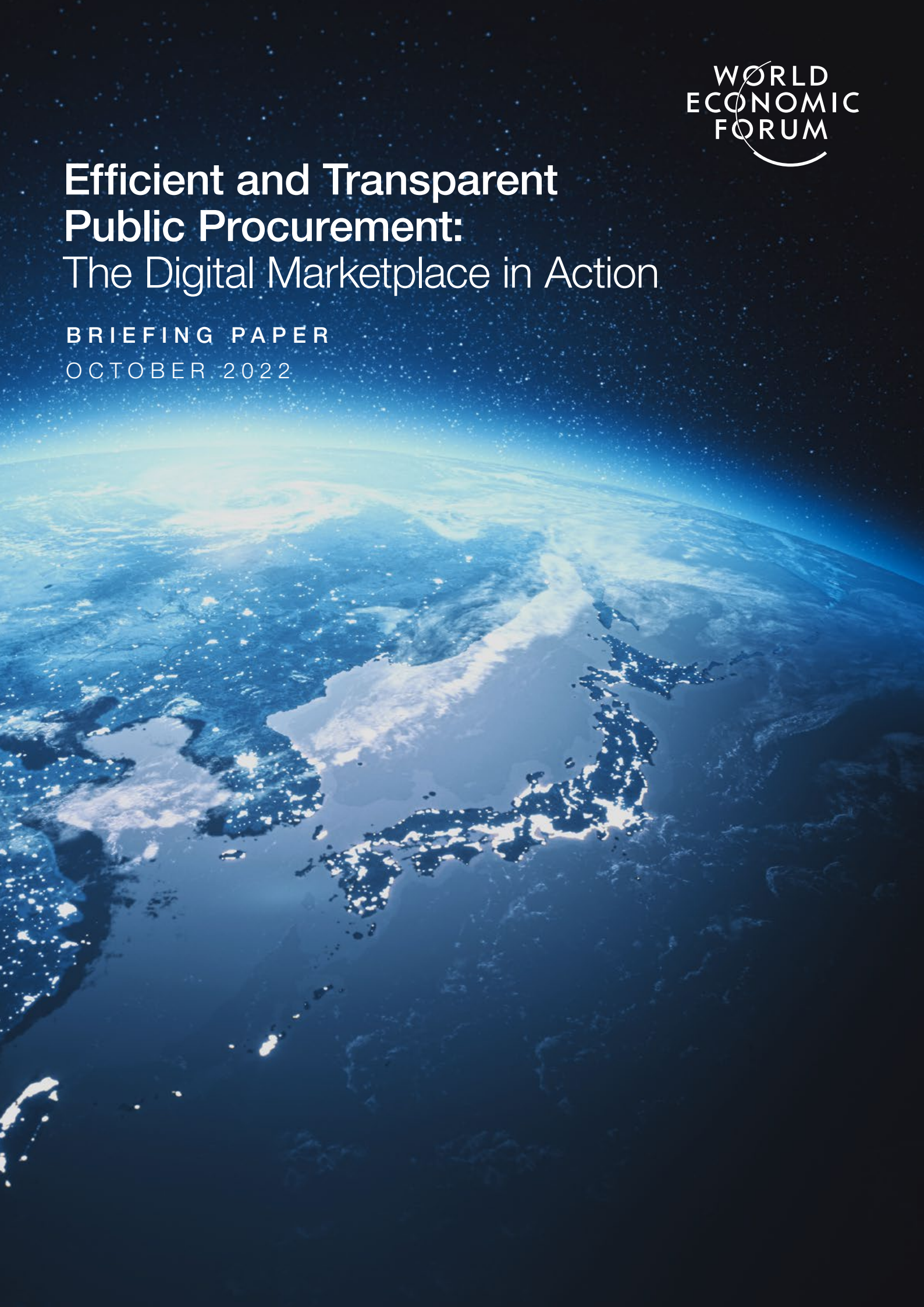


# Efficient and Transparent Public Procurement: The Digital Marketplace in Action

BRIEFING PAPER

OCTOBER 2022



# Contents

Introduction	3
1 Difficulties in IT public procurement in Japan	4
2 DMP: transforming the government into a 'smart buyer'	5
3 Digital marketplace: overview by country	7
3.1 United Kingdom	8
3.2 United States	9
3.3 Brazil	10
3.4 India	11
The DMP today	12
Contributors	13
Endnotes	14

## Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

© 2022 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, or by any information storage and retrieval system.

# Introduction

Streamlined public procurement is an essential driver in making governance agile.

The Fourth Industrial Revolution marks a major shift in the structure of society: technologies such as artificial intelligence (AI) and blockchain make it possible to create value without the need for human intervention. One characteristic of this shift is the transition from a “static” society, in which change is gradual, to a “dynamic” one, in which change is rapid and constant. A second factor is the movement from a “system” society, in which individual entities such as companies build their own systems, to one in which “systems of systems” (SoS) are the norm. In SoS, multiple systems are combined in a single larger, overarching system to deliver services and respond to uncertainty in a more flexible manner.

In order for companies and governments to respond to risks and maintain users’ and citizens’ trust, the governance of the services they provide must also be updated to become more “agile”. To respond to the changes that result from becoming SoS, a wide range of stakeholders should be engaged in the governance process, creating a more open and transparent environment that is able to respond quickly to change. To improve governance capacity, governments need to actively incorporate technologies such as AI and blockchain.

The need for agile governance is already being recognized within Japan and internationally, but existing, rigid systems of public procurement present a hurdle to achieving it.

For example, the emergence of COVID-19 obliged governments to respond quickly, including with online technology. But procurement rules such as the requirement for fixed periods of public notice made rapid responses difficult. Existing contracting methods also made it challenging to respond flexibly after contracts were signed.

Shifting to the latest technology requires companies of all sizes to become actively involved in the procurement market – not just large companies but start-ups and small and medium-sized companies (SMCs) as well. In some cases, however, the complexity of procurement processes and the lack of an appropriate scope of responsibility have made it difficult to involve such businesses.

The digital marketplace (DMP) is attracting attention as a means of overcoming these challenges and ensuring procurement systems are more responsive to social needs. This report provides an overview of the background to Japan’s need for a DMP, an outline of the DMP process, and the status of DMP implementation in four other countries.

1

# Difficulties in IT public procurement in Japan

In Japan, the government, as a buyer, and businesses, as suppliers, face a host of difficulties in the public procurement of information technology.

The structural challenges facing Japan's information technology (IT) public procurement system arise from institutional and commercial practices. They include rigid budgeting and procurement contracts, the use of multiple layers of subcontractors for software development, and vendor lock-in.

Japanese accounting law operates on the "single fiscal year" principle, which requires allocated budgets to be used up within the designated fiscal year. In addition, procurement contracts that assign

overall responsibility to a single primary contractor (system integrator) contribute to the multilayer subcontracting structures and vendor lock-in. The same can be said for fixed-budget contracts (as opposed to pay-as-you-go arrangements, such as those for cloud-based services).

Procurement officers in both the public and private sectors face the difficulties identified in Table 1. Implementing procurement through the DMP offers hope of resolving these issues.

TABLE 1 Existing IT procurement challenges (in the case of public tenders)

	1. Business channel-building	2. Formulating specification	3. Public offering	4. Selection	5. Evaluation
Administration (client)	<p>Suppliers have to be listed <b>individually</b> as there is no shared list of suppliers</p> <p>The number and quality of lists vary according to <b>the individual in charge</b></p> <p>Procurement officers tend to rely on the <b>same suppliers</b></p>	<p><b>Few personnel have sufficient knowledge and capabilities</b> to prepare detailed specifications</p> <p>Not suitable for <b>agile development</b></p>	<p><b>Requires 50 days of public solicitation</b> for specifications (World Trade Organization agreements in Japan normally require 40 days' public notice)</p> <p>Unable to respond with the <b>speed</b> modern societies require</p>	<p>Suppliers are mainly selected on <b>price</b></p> <p>Selection of low-cost proposals makes it <b>difficult to ensure quality</b></p>	<p>Evaluation of procurement is <b>not shared</b> among organizations</p> <p>Problematic suppliers remain active and issues in procurement are <b>reproduced</b></p>
Company (supplier)	<p>It is very difficult for suppliers without a <b>proven track record of transactions with government to enter the market</b></p> <p><b>Individual sales</b> to each ministry and municipality are required, which is an enormous amount of work, as different standards apply</p>	<p>Contracts and specifications are <b>not suitable for AI, cloud services and other new technologies</b></p> <p>Procurement is not separated by function, which <b>impedes modular system building</b> (systems cannot be loosely coupled)</p>	<p>Large <b>shortfall</b> in terms of the speed demanded by the private sector</p>	<p>Due to the focus on costs, quality proposals <b>may be overlooked</b></p>	<p>Companies that provide poor-quality services are <b>not being weeded out</b></p> <p>The system creates a <b>barrier to entry</b> into the public procurement market</p>

A third procurement method is needed to ensure quality while achieving speed and competitiveness

Source: Created by the project team

2

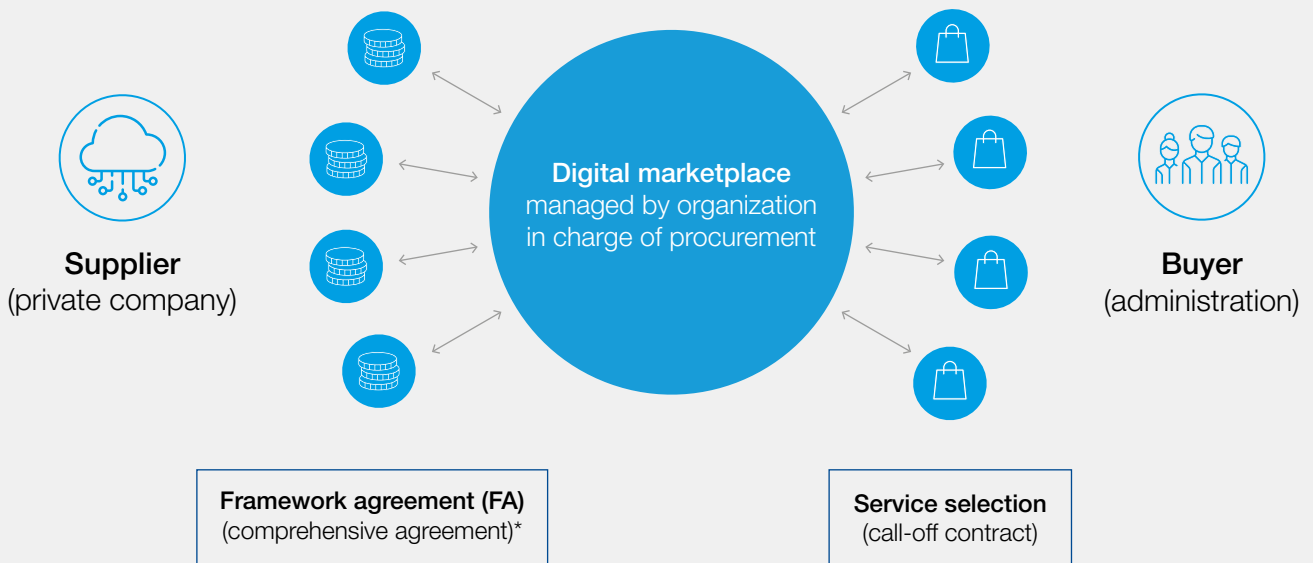
# DMP: transforming the government into a ‘smart buyer’

Government officers can buy digital services and hire IT professionals quickly, easily and efficiently using the DMP.

The digital marketplace (DMP) system registers multiple vendors and services, enabling any government agency to procure registered services/ companies in a simple manner without the need

for additional bidding. When national and local governments need digital services, IT engineers or other expert personnel, they can procure them easily, quickly and efficiently using the DMP.

FIGURE 1 Overview of the DMP



\* Minimum requirements (qualifications to bid)

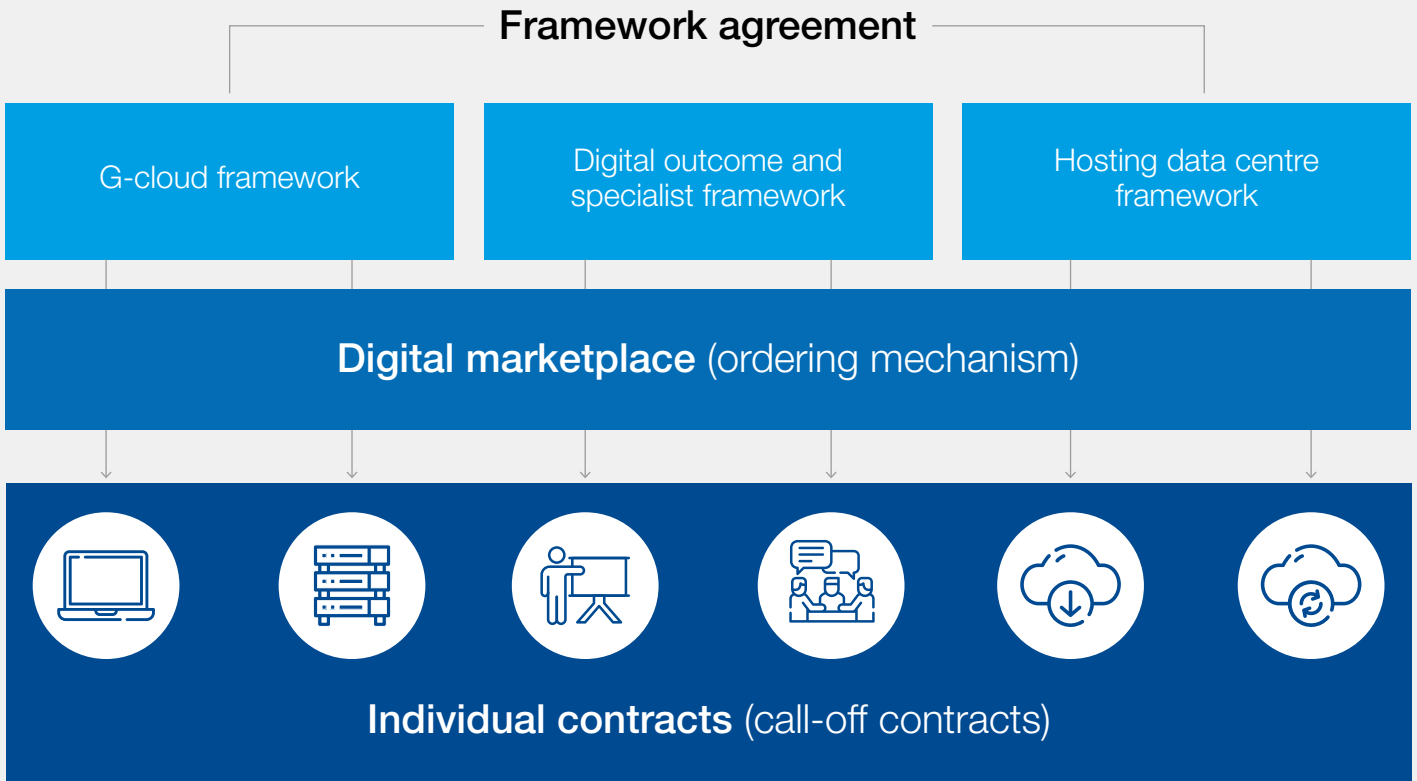
Source: Created by the project team

The term “digital marketplace” originated in the United Kingdom, but other countries operate similar systems under different names, with varying functions and scopes of procurement. In this document, “DMP” refers to a public procurement scheme that is based on a framework agreement (FA) and provides functions such as online listing and matching of services.

An FA is a basic contract that registers multiple vendors at the same time; it is not a final contract

that enables the provision of services. Administrative agencies need only follow the procedures for placing an order, which allows for quick procurement without the requirement for additional bidding.

In principle, services registered with the FA offer market prices and publicly available specifications. Some countries have a system in which, for greater efficiency, the least expensive service that meets the requirements at the time of procurement can be selected.



**Note:** The service categories of the framework agreement in the diagram show the case in the UK.

**Source:** Institute for Administrative Information Systems, "Research and Study on Procurement of Cloud Services and Agile Development in Public Administration, 'IT Procurement Scheme in the Digital Age' Research Report", 2020

FAs are used in a variety of service categories, including goods, but this report focuses on cloud services in particular. This is because, despite the adoption of cloud-by-default in many countries, including Japan, existing procurement contracts and systems do not allow for the prompt and

efficient procurement of cloud services, which hinders the government's use of cloud computing.

The benefits of DMPs for multistakeholders are summarized in Table 2.

TABLE 2 **Benefits of DMPs for multiple stakeholders**

<p><b>Buyers</b> (government agency)</p>	<ul style="list-style-type: none"> <li>- Businesses can be searched easily with the DMP</li> <li>- The DMP simplifies the procurement process, reducing the burden on personnel</li> <li>- Services that already meet security, interoperability and other requirements can be purchased</li> <li>- The DMP allows faster and more efficient procurement</li> </ul>
<p><b>Suppliers</b> (e.g. private companies)</p>	<ul style="list-style-type: none"> <li>- Regardless of the size of the company, once audited and registered, it can acquire sales channels to all government agencies and local government bodies</li> <li>- The burden of registration, screening and other process costs for procurement can be reduced</li> <li>- Investment decisions are easier to make because requirements for security support, interoperability etc. are more transparent</li> </ul>
<p><b>Society</b></p>	<ul style="list-style-type: none"> <li>- Opportunities for SMEs and start-ups in new technologies will promote innovation</li> <li>- Increased transparency and efficiency in procurement will lead to better and faster delivery of public services</li> </ul>

**Source:** Created by the project team





3

# Digital marketplace: overview by country

Many countries use DMP procurement schemes. How do they work?

DMPs were started about 10 years ago in various countries and are now reaching full development stage, with updates as appropriate. This report provides an overview of DMPs in the United Kingdom, the United States, Brazil and India.

FIGURE 3 DMP overview by country

	United Kingdom	United States	Brazil	India
<b>Online platform</b>	 Digital Marketplace	 GSA Advantage! etc.	 Compras.gov.br	 Government e Marketplace (GeM)
<b>Framework agreement</b>	G-Cloud	Multiple Award Schedule (MAS)	Sistema de Registro de Preços (SRP)	Government e Marketplace
<b>Security requirements</b>	<ul style="list-style-type: none"> <li>– Cyber Essentials scheme certification required</li> <li>– Must prepare a cloud security policy</li> </ul>	<ul style="list-style-type: none"> <li>– Essentially, must follow the contractor's wishes</li> <li>– Prepare FedRAMP</li> </ul>	<ul style="list-style-type: none"> <li>– SICAF (proof of identity) registration is needed</li> <li>– SRP has various contract requirements, including identity and data security</li> </ul>	<ul style="list-style-type: none"> <li>– The boundaries of responsibility between vendors and government are set out within the guidelines</li> <li>– Vendors must comply with ISO international standards</li> </ul>
<b>Operational entities</b>	<ul style="list-style-type: none"> <li>– <b>Government Digital Service (GDS):</b> responsible for operations</li> <li>– <b>Crown Commercial Service (CCS):</b> responsible for FA creation and management</li> </ul>	<ul style="list-style-type: none"> <li>– <b>GSA (General Procurement Agency):</b> operates MAS IT</li> </ul>	<ul style="list-style-type: none"> <li>– Operated by the <b>Bureau of Standards and Logistics Systems</b> within the federal <b>Ministry of Economy, Trade and Industry</b></li> </ul>	<ul style="list-style-type: none"> <li>– Operated by GeM SPV (<b>special purpose vehicle</b>) funded by the Ministry of Commerce and Industry</li> <li>– Ensures its financial sustainability through <b>commission revenue</b></li> </ul>
	<div style="border: 1px solid black; padding: 5px; background-color: #0070C0; color: white; margin: 10px auto; width: fit-content;">           Cooperation between the procurement agency and the digital promotion organization         </div>		<div style="border: 1px solid black; padding: 5px; background-color: #0070C0; color: white; margin: 10px auto; width: fit-content;">           Initiative by government economic office         </div>	

Source: Created by the project team

## 3.1 United Kingdom

FIGURE 4 Web page of the UK Digital Marketplace

The screenshot shows the GOV.UK Digital Marketplace interface. At the top, there is a navigation bar with 'GOV.UK Digital Marketplace' on the left and 'Guidance Help Log in' on the right. Below this is a blue banner with 'BETA Help us improve the Digital Marketplace - [send your feedback](#)'. The main content area has a breadcrumb trail: 'Digital Marketplace > Cloud hosting, software and support'. The title 'Search results' is prominently displayed. A search bar contains the text 'Keyword search' and a magnifying glass icon. To the left of the search results, there is a 'Choose a category' section with a list of categories: 'All categories', 'Cloud hosting (4078)', 'Cloud software (11860)', and 'Cloud support (21944)'. Below this is an 'Apply filters' section with a 'Clear filters' link and four filter options: 'Supplier type', 'User support', 'Staff security clearance', and 'Minimum government security clearance'. The search results are displayed in a grid. The first result is for 'Physical and Environmental Security' by Michael Page International, with a description: 'We can conduct a thorough review of existing IT landscape, suggesting areas for improvement and ensuring resilience of physical and environmental systems to ensure any external threats are minimised.' The second result is for 'BMC Helix Capacity Optimization (Helix Optimize)' by Fusion Business Solutions, with a description: 'BMC Helix Optimize helps IT organizations effectively plan for changes in business demand and continuously optimize both IT cost and capacity. Fusion GBS is a Platinum Partner of BMC, reselling BMC Helix.' Both results show 'Cloud support' and 'G-Cloud 12' tags. A large green button 'Save your search' is positioned above the first result.

**Note:** Screenshot of the UK DMP. Requirements are published in a comparable form so that buyers can choose the right service.

**Source:** GOV.UK Digital Marketplace, "Cloud Hosting, Software and Support": <https://www.digitalmarketplace.service.gov.uk/g-cloud/search>

Since 2015, G-Cloud, an FA for cloud services, has been in use in the UK. The online platform that enables buyers to search and purchase services registered in G-Cloud is a DMP.

The introduction of the DMP is also intended to break the oligopoly of major vendors (just 18 major IT companies accounted for 80% of IT spending, about £16 billion pounds of government money [equivalent to JPY 2,600 billion/\$18 billion],<sup>1</sup> in 2009) and promote innovation. As of 2018, 92% of registered services in the DMP come from small and medium-

sized enterprises (SMEs).<sup>2</sup> The DMP could promote the diversification of procurement sources.

In addition, the introduction of the DMP is expected to improve the efficiency of government IT procurement, saving £521 million in 2015/2016 (JPY 85 billion/\$590 million).<sup>3</sup> The main reason is that barriers to entry such as complex bidding procedures have been eliminated, allowing more suppliers, including SMCs and venture businesses, to participate in public procurement. Currently more than 30,000 services are registered.



## 3.2 United States

In 1994, indefinite delivery/indefinite quantity (IDIQ), a United States FA, became the type of contract required by law. Among several forms of IDIQ contracts, the most common is the Multiple Award Schedule (MAS). In 2019, the MAS contract was reviewed and classified into 12 product and service categories under which services can be provided. For cloud services, the subject of this report, one of the 12 MAS categories is MAS Information Technology (MAS IT).<sup>5</sup>

The purpose of MAS is to streamline the way government agencies purchase services and sell to the government. Its eTool<sup>6</sup> programme provides for a holistic view of suppliers and services, allowing market research and requests for quotes to be exchanged on the MAS platform.

In particular, MAS IT offers FAST Lane,<sup>7</sup> a programme to further shorten turnaround times and special measures for start-ups that have been up and running for less than two years.

TABLE 3 Summary of tools on MAS IT

The specific tools used by users to perform MAS contracts (including MAS IT) are called eTools:

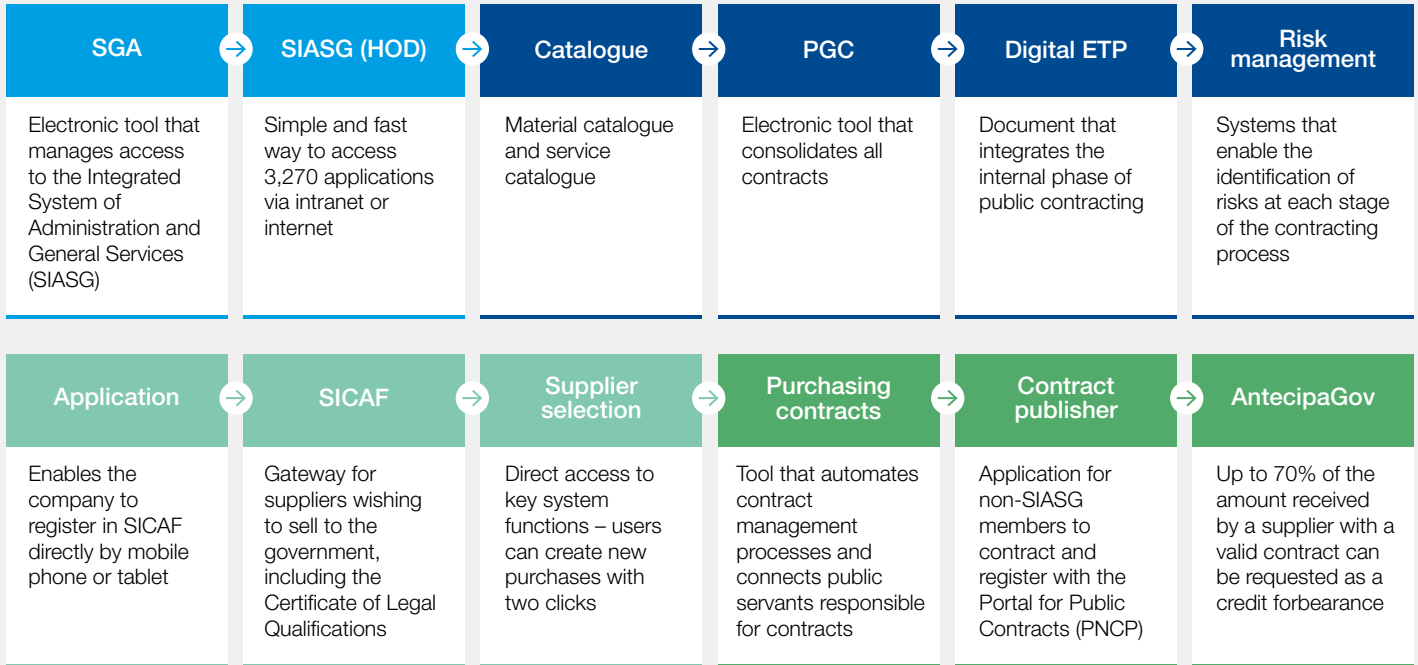
<b>GSA Advantage! ®</b>	<b>Online catalogue available to anyone, but primarily for federal government use</b> Like Amazon for the federal government
<b>GSA eLibrary</b>	<b>Platform on which information on contract signings is compiled</b> Users can look up who signed which contracts
<b>GSA eBuy</b>	<b>Platform for the exchange of documents prior to signing a contract</b> Buyers post a request for quotation (RFQ) or request for proposal (RFP) through eBuy. GSA contractors may respond to posted quotes or proposals
<b>GSA eOffer/eMod</b>	<b>Website on which companies can create and submit proposals and MAS contract amendments to the Federal Acquisition Service (FAS)</b> eOffer is used to provide a proposal for a MAS contract; eMod is used to modify a contract
<b>Vendor Support Center (VSC)</b>	<b>GSA website providing support and information on GSA contracts</b> Provides tools such as eBuy, newsletters and step-by-step information to aid success

Source: US General Services Administration, "How to Order from MAS Information Technology": <https://www.gsa.gov/technology/technology-purchasing-programs/mas-information-technology/buy-from-mas-information-technology/how-to-order-from-mas-information-technology>

### 3.3 | Brazil

FIGURE 5 | Modules introduced in Brazilian procurement

In order to make the system operational under the new bidding law and administrative contracts, **Compras.gov.br** has undergone several redesigns to allow Brazilian public administration to access technology, tools and functionalities.



**Note:** SGA is the Sistema de Gestão de Acesso (Access Management System); SIASG is the Sistema Integrado de Administração de Serviços Gerais (Integrated System of General Services Administration); HOD is Host-On-Demand; PGC is the Planejamento e Gerenciamento de Contratações (Contract Planning and Management); ETP is the Estudos Técnicos Preliminares (Preliminary Technical Studies); SICAF is the Sistema de Cadastramento

Unificado de Fornecedores (Unified Suppliers Registration System); AntecipaGov is the federal government's receivables anticipation programme.

**Source:** Created by the project team based on: Federal Government Procurement Portal: <https://www.gov.br/compras/pt-br/sistemas/conheca-o-compras>

In Brazil, public procurement reforms implemented in 1994 introduced the Compras.gov.br portal, which centralized approximately 1,600 federal government websites. Maintenance and development costs were reduced by BRL 100 million per year (equivalent to JPY 2.8 billion/\$19.5 million). Compras.gov.br features the modules detailed in Figure 5.<sup>8</sup>

The Brazilian FA, the price registration system (Sistema de Registro de Preços [SRP]), was introduced in 2013 to speed up contracting, improve inventory management and control, improve procurement budget cost-cutting and

streamline the bidding process. The introduction of this price registration system has resulted in cost savings of approximately BRL 60 million (equivalent to JPY 1.6 billion/\$11.7 million), approximately 8% of the total cost of information and communication technology infrastructure in Brazil.

The SRP for cloud computing services specifies in detail the requirements for implementing cloud services, including security aspects. Currently, the main function of the SRP is centralized purchasing of standard products based on unified prices and requirements, with plans to expand that function and establish a bidding-free mechanism by the end of 2022.

## 3.4 | India

In 2014, the government of the Bharatiya Janata Party (BJP) led by Prime Minister Narendra Modi came to power, advocating corruption-free government. Innovation in procurement became an urgent priority.<sup>9</sup> The new administration introduced Government eMarketplace (GeM), an easy-to-use and highly transparent framework for public procurement. The introduction of GeM began with goods and services such as printing paper, laptops, security, etc., and now covers a wide range of services, including IT. The final goal is to use GeM to procure goods and services equal to 5% of India's GDP.

Procurement of cloud services started in 2019, and the Ministry of Electronics and Information Technology has established guidelines for handling cloud services on GeM. In addition, the operation of GeM is managed by a special purpose vehicle (SPV) funded by the Ministry of Commerce and Industry; its financial sustainability is ensured through commission fees. In addition, the GeM portal uses the latest technology, such as AI, to make procurement more effective and efficient.

FIGURE 6 Use of AI and other technologies in GeM in India



Source: World Bank Group, "Guidebook for Setting-up and Operating Framework Agreements", p. 63: <https://documents1.worldbank.org/curated/en/958921624026529503/pdf/Guidebook-for-Setting-up-and-Operating-Framework-Agreements.pdf>

# The DMP today

The Digital Agency of Japan was launched in September 2021 as a headquarters to promote the digitalization of Japanese government and society. Through the Digital Agency, the Japanese government has accelerated its transformation process, including that of procurement reform.

The Digital Agency's Committee on Reform of Information System Procurement began work in June 2022, with a remit to introduce the DMP. This reflects the country's increasing expectations regarding the impact of the DMP.

Matters under consideration as part of this process include: the use of FAs in Japan; and ensuring

consistency between the FA system and related domestic laws, regulations and management systems.

The Centre for the Fourth Industrial Revolution, Japan will proceed with progressing these items in cooperation with Japan's Digital Agency. It will promote the introduction of the DMP in Japan, with reference to global case studies and cooperation with other countries.

The DMP has already been introduced or is under consideration in several jurisdictions; sharing knowledge could lead to the development of a more efficient and transparent public procurement market in Japan and beyond.



# Contributors

## Lead authors

### **Satoshi Hashimoto**

Chief Operating Officer/Director (Consultant for Public Affairs/Government Relations), Poliflect

### **Teruka Sumiya**

Agile Governance Project Specialist, Centre for the Fourth Industrial Revolution, Japan

## Acknowledgements

### **Keishin Doino**

Intern, Centre for the Fourth Industrial Revolution, Japan

### **Ryu Ito**

Intern, Centre for the Fourth Industrial Revolution, Japan (2021–2022)

### **Yuhei Kotani**

Intern, Centre for the Fourth Industrial Revolution, Japan

### **Megumi Mizutani**

Intern, Centre for the Fourth Industrial Revolution, Japan

### **Yuki Nakano**

Intern, Centre for the Fourth Industrial Revolution, Japan

### **Moeka Sato**

Intern, Centre for the Fourth Industrial Revolution, Japan (2021–2022)

### **Natsumi Togo**

Intern, Centre for the Fourth Industrial Revolution, Japan

# Endnotes

1. "Digital Government Toolkit", Organisation for Economic Cooperation and Development: <https://www.oecd.org/governance/digital-government/toolkit/goodpractices/united-kingdom-p8-global-digital-marketplace.pdf>.
2. "Global Digital MarketPlace", Observatory of Public Sector Innovation: <https://oecd-opsi.org/innovations/global-digital-marketplace/>.
3. "Digital Government Factsheet 2019: The United Kingdom", European Commission: [https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital\\_Government\\_Factsheets\\_UK\\_2019.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Government_Factsheets_UK_2019.pdf).
4. "GSA Multiple Award Schedule (MAS) Consolidation Resources", Winvale: <https://info.winvale.com/gsa-mas-consolidation-resources>.
5. "Information Technology", FEDSched (The Authority in Government Contracts): [https://gsa.federschedules.com/industries/category-f-information-technology/#:~:text=Information%20Technology%20\(IT\)%20is%20one,hardware%2C%20software%2C%20and%20services](https://gsa.federschedules.com/industries/category-f-information-technology/#:~:text=Information%20Technology%20(IT)%20is%20one,hardware%2C%20software%2C%20and%20services).
6. Chantel Rutland, "GSA eTools Overview", US General Services Administration, 29 July 2021: <https://www.dla.mil/Portals/104/Documents/SmallBusiness/DIA%20SB%20GSA%20eTools%20Overview%2029JUL21.pdf?ver=kvtqKsXVproNRSIp6j6XsA%3D%3D>.
7. "FAStLane: Making It Easier", U.S. General Services Administration: <https://www.gsa.gov/technology/technology-purchasing-programs/mas-information-technology/sell-through-mas-information-technology/fast-lane-making-it-easier>.
8. "Número do Estudo Técnico Preliminar no Sistema ETP Digital: 33/2021, Anexado Neste Processo Pelo Documento SEI-ME 20037663" ("Preliminary Technical Study: Number of the Preliminary Technical Study in the ETP Digital System: 33/2021", Attached in This Process by Document SEI-ME 20037663: <https://www.gov.br/economia/pt-br/aceso-a-informacao/licitacoes-e-contratos/licitacoes/pregoes/2022/arquivos/pe-02-2022-sms/6-estudo-tecnico-preliminar.pdf>.
9. "Government e-Marketplace: GeM of an Idea", JETIR, April 2019: <https://www.jetir.org/papers/JETIRBH06027.pdf>.



---

COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

---

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

---

**World Economic Forum**  
91–93 route de la Capite  
CH-1223 Cologny/Geneva  
Switzerland

Tel.: +41 (0) 22 869 1212  
Fax: +41 (0) 22 786 2744  
[contact@weforum.org](mailto:contact@weforum.org)  
[www.weforum.org](http://www.weforum.org)