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BUILDING A JUST WORLD AND A SUSTAINABLE PLANET

# G20 Compendium on Data Access and Sharing Across the Public Sector and with the Private Sector for Public Interest

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# Table of contents

Acknowledgements 2

Executive summary 5

Glossary 6

1 Introduction 7

2 Data access and sharing in the public sector 8
- Data for public service delivery 8
- Data to inform decision making 11
- Data to improve internal government operations 13

3 Data access and sharing with the private sector for public interest 16
- Open data arrangements 16
- Conditioned data access and sharing 18

4 Challenges and enablers to data access and sharing 24
- Challenges to data access and sharing 24
- Overcoming challenges: data governance in the public sector 25

5 Conclusion 27

References 28

Annex A. List of examples from G20 members and guest countries 29

Annex B. Questionnaire 36

Notes 38

## BOXES

Box 1. Building proactive public services with data in France 8
Box 2. Brazil: Enabling targeted services for vulnerable people with Cadastro Único 9
Box 3. Better Outcomes through Linked Data (BOLD) in the UK 9
Box 4. European Data Space for eGovernment (Once Only Technical System) 10

Box 5. Italy's National Digital Data Platform, Spain's National Data Intermediation Platform, and Japan's Cooperation Network System for Personal Information 10
Box 6. European Digital Identity Wallet (EUDIW) 11
Box 7. My Overview ("Mit Overblik") in Denmark 11
Box 8. Data sharing to support crisis response in Nigeria and Australia 12
Box 9. Solutions for data-driven decision making in UAE and Türkiye 12
Box 10. Conecta GOV.br and CAR – linking government data for greater impact in Brazil 13
Box 11. Saudi Arabia's Data Marketplace 14
Box 12. Real-time sharing of supervisory data in Norway 14
Box 13. Reducing bureaucracy and supporting SMEs through data sharing in Türkiye 15
Box 14. Integrated personnel and payroll information system (IPPIS) in Nigeria 15
Box 15. Digital Atlas of Australia 16
Box 16. Mexico's National Transparency Platform and Datos.gob.mx 17
Box 17. One Data Indonesia and data.go.id 17
Box 18. Korea's National Priority Data Releasing Project 18
Box 19. The Danish Data Portal ("Datavejviser") 18
Box 20 Consent-based sharing of tax data to simplify credit loan applications in Norway 19
Box 21. Singapore Financial Data Exchange (SGFinDex) 19
Box 22. India Urban Data Exchange (IUDX) 20
Box 23. Data sharing to reduce the energy bills for low-income households in Portugal 20
Box 24. Common European Data Spaces 21
Box 25. IndiaAI Datasets Platform (IDP) 21
Box 26. The UK's National Underground Asset Register (NUAR) 22
Box 27. Health data sharing in Uruguay and France 22
Box 28. ResearchDataGov.org of the United States 23

# Executive summary

Data are critical assets for digital governments. Access to relevant and high-quality data, with appropriate safeguards, can enable governments to respond adeptly to crises, make data-driven decisions, enact informed policies, improve public services, and promote digital inclusion. As a result, governments can become more transparent and proactive while reducing administrative burdens. In addition, where aligned with the public interest, sharing data between the public and private sector, as well as with academia and researchers, can drive innovation and the development of a data-driven economy that provides business opportunities. It is therefore essential to develop policies and frameworks that facilitate data access and sharing, with full and effective data protection guarantees, which can be a key component of digital public infrastructure (DPI).

Building on the achievements of previous G20 Presidencies[1] and existing international standards[2], the OECD, in co-ordination with the Brazilian Ministry of Management and Innovation in Public Services, has prepared this *G20 Compendium of Data Access and Sharing Across the Public Sector and with the Private Sector for Public Interest* at the request of the Brazilian 2024 G20 Presidency. The compendium showcases practical experiences from G20 members and guest countries and aims to support discussions on data access and sharing within the DEWG.

The Compendium highlights the wide range of initiatives among G20 members and guest countries to enhance data access and sharing within the public sector and with the private sector for public interest. It further demonstrates that G20 members face similar opportunities and challenges regarding data sharing within their national contexts. These challenges include organisational and cultural barriers, legal barriers, semantic and technical barriers, and efforts to prevent breaches of data privacy and security. In response, most G20 members and guest countries are already strengthening their public sector data governance, including by establishing a strategic vision and leadership for data in government, ensuring co-ordination within the public sector, building partnerships with private sector entities, setting up regulatory frameworks and standards with an emphasis on privacy protection, enhancing data literacy and skills, and designing data infrastructure and architecture.

Moving forward, G20 members could consider using this compendium during future presidencies to develop a guide for improving data access and sharing across public sectors and between the public and private sector for public benefit. Such a guide could also draw upon existing work developed by the G20, international organisations, and knowledge partners such as the OECD.

# Glossary

**Conditioned data access and sharing arrangements*:** data access and sharing arrangements that permit data access and sharing subject to agreed terms that may include limitations on the users authorised to access the data (conditional arrangements), conditions for data use including the purposes for which the data can be used, security measures, and requirements on data access control mechanisms through which data access is granted.

**Data access or access to data*:** the act of querying or retrieving data with appropriate safeguards, subject to applicable technical, financial, legal, or organisational access requirements.

**Data access control mechanisms*:** technical and organisational measures that enable safe and secure access to data with appropriate safeguards by approved users including data subjects, within and across organisational borders, including across sectors, while protecting the rights and interests of stakeholders, and complying with existing data governance regimes and applicable legal and regulatory frameworks.

**Data sharing or sharing of data*:** the act of providing data access for use by others, subject to applicable technical, financial, legal, or organisational use requirements.

**Once-only principle:** A concept where individuals and organisations should only have to provide certain information to public authorities once. This means that different government departments and agencies should share and reuse this information internally, rather than repeatedly asking for the same data.

**Open data arrangements*:** non-discriminatory data access and sharing arrangements, where data is machine readable and can be accessed and shared, free of charge, and used by anyone for any purpose subject, at most, to requirements that preserve integrity, provenance, attribution, and openness.

**Public interest**: Aspects that contribute to the overall betterment of society, depending on national context and priorities, including but not limited to public health, environmental protection, poverty reduction, and access to justice, education, the financial system, and public services.

* Source: OECD (2021[1]) *Recommendation on Enhancing Access to and Sharing of Data*. Some definitions have been slightly modified for the purposes of this Compendium, following suggestions from G20 members.

# 1 Introduction

Enabling trusted data access and sharing is essential to support digital government transformation and broader social and economic benefits among G20 members. This compendium was developed with the support of the OECD to inform discussions on data access and sharing by the G20 Digital Economy Working Group (DEWG) under the 2024 Brazilian Presidency. The compendium was informed by a short Questionnaire shared with members and guest countries of the DEWG in March-April 2024. Responses were collected from eighteen G20 members[3] and seven guest countries (Denmark, Nigeria, Norway, Portugal, Singapore, United Arab Emirates, and Uruguay).

The report is divided into four main chapters: Chapters 2 and 3 provide an overview of data-sharing examples gathered from G20 members and guest countries, with Chapter 2 focusing on data-sharing initiatives within the public sector and Chapter 3 focusing on data sharing between the public and private sectors for public interest. Chapter 4 provides an overview of the challenges and enablers to data access and sharing reported by G20 members and guest countries, including challenges such as cultural barriers, legal barriers, and concerns about data privacy and security, and enablers such as a robust regulatory framework, a strategic government vision for data, and data literacy and skills. The concluding chapter 5 summarises the findings of the compendium and explores discussions and work that the G20 may want to consider in the future as a follow-up to this activity. A full list of the examples gathered from G20 members and guest countries is available in the Annex.

# 2 Data access and sharing in the public sector

This chapter presents use cases from G20 members and guest countries where data have been shared and accessed within the public sector, leading to, or expected to lead to, tangible impacts. The examples are categorised across three principal areas: data used to support public service delivery, data used to inform decision-making, and data used to improve internal government operations. A full list of examples is available in the Annex.

## Data for public service delivery

Data are essential for designing and delivering human-centred public services in the digital age. By integrating data from various sources, public services can become more targeted and proactive, addressing needs and issues before they arise. Additionally, they can become more inclusive, ensuring that all segments of the population benefit equitably. The French government, through the Inter-Ministerial Directorate for Digital Affairs (DINUM), has been collaborating with public institutions to facilitate more effective data sharing and reuse. This collaboration aims to deliver proactive public services that better support people and businesses (see Box 1).

### Box 1. Building proactive public services with data in France

The Inter-Ministerial Directorate for Digital Affairs (DINUM) offers a service to French public institutions to help them transform and automate services by data sharing, with the aim of making it easier for citizens. For more than two years, DINUM has been assisting the French mobility organising authorities (AOMs) in automatically gathering supporting information (e.g. proof of student status or grant holder) for the allocation of social or solidarity fares on public transport. The purpose is to test a method for automatically notifying people of their eligibility for these fares.

Enabling the design of policies and public services that consider the needs of vulnerable or underserved groups is another area where data play a significant role. In Brazil, the federal, state, and local governments use a dedicated database called Cadastro Único to identify households and individuals with specific needs and facilitate the distribution of social benefits (see Box 2).

### Box 2. Brazil: Enabling targeted services for vulnerable people with Cadastro Único

Cadastro Único is a government database used to support low-income households in Brazil. It enables federal and local governments to better understand the country's vulnerable population by recording information such as address, family composition, education, employment, income status, disability, among other details. The registry is the main instrument used by the Brazilian State to select and include low-income families in federal programmes, granting benefits from initiatives such as the Bolsa Família Programme (conditional cash transfer), Pé de Meia (educational incentive), Tarifa Social de Energia Elétrica (electricity), Auxílio Gás (cooking gas), Minha Casa Minha Vida Programme (housing), among others. Additionally, it serves as a criterion for selecting beneficiaries of programmes offered by state and municipal governments. Currently, more than 40 federal programmes and more than 2,000 municipal and state programmes and policies use information from the registry.

Another relevant initiative is found in the United Kingdom, where the Ministry of Justice is leading a programme to enhance data connectivity across government to support people with complex needs (Box 3). The programme initially focuses on pilot projects aimed at reducing homelessness, supporting victims of crime, reducing substance misuse, and decreasing reoffending.

### Box 3. Better Outcomes through Linked Data (BOLD) in the UK

The Better Outcomes through Linked Data (BOLD) is a government data-linking programme in the UK, which aims to demonstrate how the connectedness of government data can support people with complex needs. The programme initially focuses on four pilot projects:

- The Homelessness Pilot project aims at linking data to better understand why some people repeatedly become homeless, which services are most effective in preventing prison leavers from becoming homeless, and what role drug treatment services can play in preventing homelessness.
- The Victim Pathways Pilot project aims to better understand how government and third sector services can most effectively support victims of crime to cope and recover and to confidently seek justice.
- The Substance Misuse Pilot project aims to better understand what factors drive successful rehabilitations from addiction for particular groups, such as prison leavers or rough sleepers.
- The Reducing Reoffending Pilot project will link data to better understand the impact of specific interventions to help offenders turn their backs on crime, particularly in terms of their linked outcomes (employment, health, housing and family).

The pilots use pseudonymised data from the Ministry of Justice, Department of Health, and Social Care, the Department of Levelling Up, Housing and Communities, Public Heath Wales, and the Welsh Government. Given the sensitive data involved, robust legal safeguards and restrictions on data access are in place.

Data sharing can also enhance public service delivery by enabling public authorities to share and reuse data that individuals and organisations have already submitted. This approach, known as the 'once-only' principle, eliminates the need for repeated submissions, thereby reducing the burden on citizens and businesses. It also empowers citizens to more easily manage and oversee the personal data processed by public authorities. Reusing existing data, with appropriate data protection safeguards, makes

administration processes more efficient and faster, reducing the time and effort required from both public authorities and the public.

An example of this principle in action is the European Union's (EU) *Once Only Technical System,* a project that will enable citizens from one EU member state to ask that data from their home country be retrieved, instead of having to resubmit information or data to public sector institutions in another EU member state (Box 4).

### Box 4. European Data Space for eGovernment (Once Only Technical System)

The Once Only Technical System (OOTS) enables the sharing of information between public administrations across borders between EU countries. It is cross-sectorial and can be expanded beyond the current scope of life events set out in the Single Digital Gateway Regulation. It puts into practice the Once-Only Principle, which says that citizens should not be forced to provide information to authorities if another authority already holds that information in electronic format.

As of 2024, thanks to the OOTS, it will be easier for citizens to study, move, work, retire or do business across the EU. The OOTS will connect public authorities across the European Union, so they can exchange official data and documents at the citizen's request.

Similarly, Italy, Spain, and Japan have each developed systems to implement the once-only principle in their national context by ensuring semantic and technical interoperability and the exchange of data from base registries[4] (Box 5). These systems are key building blocks that support the delivery of a wide range of public services and form part of their government data infrastructure (later discussed in Chapter 4).

### Box 5. Italy's National Digital Data Platform, Spain's National Data Intermediation Platform, and Japan's Co-operation Network System for Personal Information

***Italy's National Digital Data Platform (PDND)***

The National Digital Data Platform is managed by the state-owned company PagoPA for the Italian Department for Digital Transformation. The platform guarantees that public administrations no longer need to ask citizens for information they already have. Every public administration involved can reuse and share data and documents through machine-to-machine communication, upon the user's approval.

***Spain's National Data Intermediation Platform (PID)***

The National Data Intermediation Platform, known as the PID, is a brokerage system enabling competent authorities in Spain to access data services from authoritative sources, thereby obtaining relevant information related to public service users. The platform includes an authorisation process to verify that there is a public interest and lawful basis for an authority to access the data, in compliance with the GDPR. The PID is provided by the Secretariat-General for Digital Administration of the Ministry for Digital Transformation and Public Function.

***Japan's Co-operation Network System for Personal Information***

Japan's Digital Agency is responsible for the Co-operation Network System for Personal Information. The system enables the exchange of personal information between administrative bodies and other organisations in Japan based on Japan's Individual Number Act. This allows, for example, citizens to avoid resubmitting various documents (Certificates of Residence etc.) when performing administrative procedures.

For the European Union, the European Digital Identity Wallet (EUDIW) is emerging as an alternative or complementary solution to the once-only principle, offering secure and easy sharing of verified information attributes based on legal, organisational, and semantic agreements within and across EU Members states (see Box 6). This wallet will also give individuals and organisations greater control over what attributes and credentials they share, when, and with whom.

### Box 6. European Digital Identity Wallet (EUDIW)

The European Digital Identity Wallet (EUDIW) will include the possibility for users, such as citizens or residents in the EU, to store and share a wide range of attributes held by public bodies, for example name, address, tax information, the right to apply for social benefits, student qualifications, and the right to drive. Users will be able to locate and store the attributes they need in their personal digital wallet and share them directly to any requesting authority or service provider when required. As the information is stored as information attributes, the user can select what data to submit in each case, and the wallet will also enable users to electronically sign and seal documents. Each Member State will offer at least one version of the EU Digital Identity Wallet by 2026, built to the same common specifications.

Other dedicated solutions are also being developed that enable citizens and businesses to know what data the government holds about them, and how this data is shared and processed as part of public service delivery. One example is the My Overview citizen page in Denmark (Box 7).

### Box 7. My Overview in Denmark

My Overview is the personal page for Danish citizens on the national citizen portal, borger.dk. Here, citizens can log in using their digital identity to access some of the personal information public authorities have registered, such as information on tax, debt, student grants or housing, as well as the status of benefits, ongoing cases with public authorities, and upcoming appointments. The overview is personalised and only the citizen has access to the data on the page.

The development of My Overview is part of a joint public political vision for creating transparency for citizens and better and more coherent provision of digital services across the public sector. The aim is for citizens to become more digitally self-reliant and for the authorities to make savings due to, for example, fewer support requests. My Overview is a supplement to existing websites or self-services by offering a digital overview for each citizen about their data and interactions with the public sector as well as links to relevant public websites. The purpose of My Overview is to offer citizens a single platform where they can access the most relevant information public authorities hold on them. Consequently, the establishment of the platform contributes to more transparent and user-friendly digital interactions between citizens and public authorities.

## Data to inform decision making

Data sharing is essential to support informed government decision making in the digital age, whether it is to design a policy, predict future scenarios, or respond to a crisis. Several of the G20 initiatives gathered for this compendium show the relevance of data-driven decision-making to deliver impact. For example, in Nigeria, the government has partnered with the United Nations Office for Co-ordination of Humanitarian Affairs to develop the Humanitarian Forum on Flood Response in Nigeria (Box 8). This initiative combines

relevant data on a shared platform that can be used by decision-makers to design actions or policies to mitigate the effects of floods on citizens. Like Nigeria, Australia also has experience with leveraging data sharing to inform crisis response, as shown during the 2019-2020 Black Summer Forest fires (Box 8).

### Box 8. Data sharing to support crisis response in Nigeria and Australia

***Nigeria's Humanitarian Forum on Flood Response***

The Humanitarian Forum on Flood Response in Nigeria is a collaboration between the National Emergency Management Agency (NEMA) and United Nations Office for Co-ordination of Humanitarian Affairs (UN-OCHA). The initiative is featured on the UN-OCHA's Humanitarian Data Exchange Platform and provides data on floods and flood affected areas in Nigeria from 2022 to 2023, with yearly updates. The aim of the project is to strengthen and enhance information sharing and updates on the current flood impact and provide an information sharing platform on the flood response and overall humanitarian impact.

***Data sharing in Australia during the Black Summer Forest fires***

A similar need for data to inform crisis response and preparedness was experienced by the Australian Government during the Black Summer Forest fires of 2019-2020, when the benefits of having easy and agile access to relevant data in real-time was critical. Several types of data were crucial for managing the immediate crisis and direct impact on citizens and businesses but also for understanding its long-term consequences and planning future mitigation strategies. This experience has led to increased public support for data collection and management among the public in the country.

Beyond crisis response, data can also guide day-to-day decision-making in the public sector. For this to be effective, access to data from various sources, presented in real-time and easily understandable formats, is often essential. One example is in the United Arab Emirates, where the National Statistical Office has developed a data dashboard aimed at supporting decision-makers. A similar initiative is led by the Turkish Statistical Institute, which has developed a single platform to integrate and more easily digest statistical data to better inform decision making (Box 9).

### Box 9. Solutions for data-driven decision making in UAE and Türkiye

***UAE Numbers (UAE Executive Decision-Making Dashboard)***

The National Statistic Office and Federal Competitiveness and Statistic Centre of UAE have developed UAE Number – a data dashboard with real-time statistical data to support executive decision making in government.

Dashboards can offer a dynamic and visually appealing way to present complex data sets, allowing executives to quickly grasp key insights and make informed decisions. They can provide real-time updates, interactive elements, and customizable views that cater to the specific needs of decision-makers. This not only enhances data accessibility but also improves the accuracy and timeliness of decision-making processes. Furthermore, dashboards can integrate data from multiple sources, offering a comprehensive and holistic view of organisational performance.

***Türkiye's Central Data Distribution System (MEDAS)***

The Turkish Statistical Institute (TurkSTAT) has developed MEDAS to collect, manage, and provide access to statistical data in a single platform. The aim is to facilitate data access, ensure data consistency and security, and promote data sharing.

MEDAS includes statistical data from surveys, administrative records, and other relevant data sources. The storage of data in a central system facilitates data sharing between public institutions and provides an open platform accessible to governments, the private sector, researchers, and civil society to make data-driven decisions. By selecting indicators, time, and level of measurement with multiple themes and subcategories, the platform enables evidence-based reporting. The platform contributes to better decision-making through more efficient use of public resources thanks to data analysis and research.

## Data to improve internal government operations

Improving the efficiency of internal government operations has long been a key aim of public management reforms, to reduce bureaucracy and red tape. Core systems such as human resource management, budget and financial management, information and document management, or internal communication are necessary to keep the public sector running, while continuing to deliver high quality public services. In Brazil, the Digital Government Secretariat of the Federal Government is responsible for the Conecta GOV.br programme, aimed at linking government data to support better internal operations and service delivery. Another relevant programme is the CAR data access initiative used widely by public entities across federal, state and municipal level (Box 10). Similar to Brazil, the Saudi Data and Artificial Intelligence Authority has invested in the development of a data marketplace aimed at linking government data through APIs (Box 11).

### Box 10. Conecta GOV.br and CAR – linking government data for greater impact in Brazil

***Conecta GOV.br***

The Conecta GOV.br programme started as a means of data sharing between Brazilian government bodies of the Federal Executive Branch (approximately 250 different agencies, of which 85 have already joined the programme). In the next phase, access to the shared data will be extended to agencies at the state and city level, raising the scope of the project significantly. The key aspect of the programme has been turning the Digital Government Secretariat into a data broker between data owners and data consumers, with the following responsibilities:

- finding most important data sets to be shared.
- financing API development and access.
- fostering the use of developed APIs among government agencies.
- monitoring results.

There are one thousand different public services using at least one of the available datasets, with 300 million transactions per year being handled through the programme. Conecta Gov.br mainly provides access to data considered reference records, which consist of mandatory data standards on the main data used in public services. The programme has already had major impact and is estimated to have saved Brazilian taxpayers up to $500 million in 2023 by reducing the time required for manual data input and information checks.

To improve its data governance, Brazil is committed to the development of its National Data Infrastructure, which aims to enable the governance, discovery, interoperability, quality, strategic use, privacy, security, and protection of data that is in the government's possession. The infrastructure consists of a set of norms, policies, architectures, standards, technological tools, information assets, and human talent.

***Rural Environmental Registry (CAR) data access management***

Brazil's Rural Environmental Registry (CAR) has played a key role in improving government data sharing by offering a secure environment for public institutions to access its data while maintaining its integrity and security. Currently, there are 4.234 registered users accessing information from 7.5 million properties in Brazil under different profiles and access permissions. These users include 29 state institutions, 10 federal institutions, and 5 municipal institutions, such as state or district governments, municipal or state environmental agency information managers, federal agencies for agrarian reform and land ordinance, state or federal district public prosecutor's offices, and state and federal environmental control agencies. CAR is managed by the Ministry of Environment and Climate Change, and by the Ministry of Management and Innovation in Public Services, through the Secretariats of State Transformation and Digital Government.

The CAR data access initiative has significantly contributed to the effective implementation of public policies and the promotion of transparency and accountability around land management and environmental policies. It has also facilitated better planning and decision-making in rural areas, demonstrating the power of shared data in enhancing public policy implementation and promoting sustainable development.

### Box 11. Saudi Arabia's Data Marketplace

Saudi Arabia's Data Marketplace is a platform where government entities can access and share data through Application Programming Interfaces offered by other entities. The platform is managed by the Saudi Data and Artificial Intelligence Authority (SDAIA) and aims to automate all data sharing processes between government entities. So far more than 100 government entities have registered to the platform, and more than 400 APIs have been made available. The portal also includes more than a hundred mechanisms dedicated to enhancing the user experience of the platform.

Improving government operations through data sharing can help break down siloes and ensure more co-ordinated action, leading to a more joined up experience of government for citizens and businesses, as well as cost savings. This often requires real-time sharing of data directly from their source, as exemplified by the sharing of supervisory data in Norway (Box 12).

### Box 12. Real-time sharing of supervisory data in Norway

Tilda is a data sharing service from the Norwegian Brønnøysund Registers designed for the approximately 80 supervisory authorities in Norway and selected professional system suppliers. Tilda makes relevant information from supervisory authorities available in digital, machine-readable format, making it quick and easy to get an overview of what kind of actions other supervisory authorities have carried out and planned in terms of supervisory activities. Tilda retrieves data from the respective

supervisory authorities' professional systems and various registers via a common standard interface. The system is based on real-time information directly from the data sources.

The main benefits of the Tilda system are that Norwegian supervisory authorities gain access to information about others' supervisory activities; supervisions become efficient and targeted; private enterprises are less likely to experience supervision as an unnecessary burden; and information is displayed in real-time, thus supervision can be co-ordinated. Tilda has been developed in collaboration between various regulatory authorities and the Brønnøysund Registers, with support from the Norwegian Digitalisation Agency.

In Türkiye, the government, together with non-government organisations, has been exploring the sharing and use of data to reduce bureaucracy and simplify administrative procedures for small and medium sized businesses in the country (Box 13). Making administrative processes simpler and more effective can raise trust in public institutions while promoting economic growth as running a business becomes easier.

### Box 13. Reducing bureaucracy and supporting SMEs through data sharing in Türkiye

The Government of the Republic of Türkiye aims to reduce bureaucracy and simplify legislation to help Small and Medium Sized Enterprises (SMEs) thanks to increased data sharing in government, led by the Small and Medium Sized Enterprises Development Organization (KOSGEB) together with Ministry of Industry and Technology, Ministry of Trade, Ministry of Interior, Ministry of Health, Ministry of National Education, Social Security Institution, Revenue Administration, Scientific and Technological Research Council of Türkiye (TUBITAK), Confederation of Tradesmen and Craftsmen, and the Public Procurement Authority. To date, data sharing protocols have been signed with relevant parties and efforts have been made to help streamline processes in electronic services to reduce the number of documents needed in service delivery. The aim is to enable automated control and confirmation of administrative documents via web services for SMEs and KOSGEB, by reducing the number of documents to be sent by SMEs in their administrative application and payment procedures.

Robust and integrated information management systems are another aspect of supporting internal government efficiency, including systems for HR and personnel management, as well as the management of administrative files and information resources. In Nigeria, the government has developed an integrated system for personnel and payroll information. This system helps ensure that personnel and payroll is managed efficiently and avoiding risks associated with manual or analogue processing (Box 14).

### Box 14. Integrated personnel and payroll information system (IPPIS) in Nigeria

IPPIS is part of the transformation agenda of the Federal Government of Nigeria with the aim of creating a centralised database system for Nigerian Public Service as a single, correct source of employee information that provides integration with other business application.

Thanks to this unified system, Nigeria is able to improve manpower planning and decision making, facilitate automation and storage of personnel records to support monitoring of staff emolument payments against budget, prevent wastage and leakages by ensuring staff remuneration is based on factually correct information, and ensure prompt payment of salaries directly to employees accounts with appropriate deductions and remittances of third party payments (e.g. Tax, Pension, Co-operatives, Union Dues and Bank Loans).

# 3 Data access and sharing with the private sector for public interest

Facilitating data sharing between the public and private sectors, as well as with academia and researchers, can foster innovation, transparency, and deliver public value. G20 members are actively engaged in sharing government data with various stakeholders across different policy domains to achieve concrete goals that serve the public interest. These goals range from environmental protection and public health to ensuring access to financial services, covering diverse policy areas such as urban planning and construction, energy, mobility, and cultural heritage. This chapter provides and overview of examples gathered from G20 members and guest countries, including both open data arrangements and conditioned data access and sharing.

## Open data arrangements

Sharing government data as open data is a key driver of innovation across society and economies by enabling citizens and businesses to access data more easily without incurring costs. To maximize these benefits, governments should promote data access and sharing arrangements that make government data as open as possible, while ensuring it remains as restricted as necessary to protect legitimate public and private interests (OECD, 2021[1]).

One example of a successful open data initiative among G20 members is the Digital Atlas of Australia. This platform brings together open geospatial data with information on people, the economy, and the environment, making it easily accessible and visualized by various users, including the public (see Box 15).

### Box 15. Digital Atlas of Australia

The Digital Atlas of Australia brings together, curates, and connects trusted national datasets from across the Australian government into an interactive, secure, and easy-to-use online platform. By visualising data by location, the Digital Atlas can help people better understand and respond to shared challenges at the local, regional, and national levels.

The Digital Atlas was introduced as part of the Digital Economy Strategy and Australian Data Strategy in the Federal Budget 2021-22. These strategies aim to transform Australia into a modern and leading digital economy and focus on improving the accessibility and discoverability of the wealth of data held by Commonwealth organisations. They also recognise the importance of up-to-date, meaningful data and the tools needed to enable governments, businesses, and citizens to make informed decisions to grow Australia's economy and keep its communities safe.

Open data can also support government transparency by making information on internal processes and operations, such as budgets and public procurement, available in open data formats for public scrutiny. G20 initiatives in this area include Mexico's National Transparency Platform and datos.gob.mx (Box 16), and Indonesia's One Data Policy and open data portal data.go.id (Box 17).

### Box 16. Mexico's National Transparency Platform and Datos.gob.mx

***Mexico's National Transparency Platform (PNT)***

Mexico's National Transparency Platform (PNT) is an online tool designed to facilitate access to public information and protect personal data in Mexico. Its scope is broad, allowing any citizen to request information from federal, state, and municipal government entities, as well as any entity that receives public funds. The results of the PNT have been significant in terms of promoting transparency and accountability. It has increased the number of information requests processed and improved the quality of responses provided by public institutions. In addition, it has strengthened citizen participation by allowing greater scrutiny of government activities.

***Datos.gob.mx***

Datos.gob.mx is Mexico's national open data portal. It currently features up to 10.500 datasets including APIs from across various public institutions and on a wide range of categories including energy and environment, health, education, local government, economy, infrastructure, and finances and public contracts.

### Box 17. One Data Indonesia and data.go.id

One Data Indonesia (SDI) is a government data management policy that aims to create quality data that is easy to access and can be shared between central and local government agencies. This policy is contained in Presidential Regulation no. 39 of 2019 concerning One Indonesian Data. Thanks to SDI, all government data and other related agency data will be available on the One Data Indonesia Portal.

The One Data Indonesia Portal is the official Indonesian open data portal managed by the One Data Indonesia Secretariat under the Ministry of National Development Planning. Through the One Data Indonesia Portal, the Indonesian government is making full efforts to improve data governance to promote government transparency and accountability, as well as support national development.

An important aspect of mature open government data policies is emphasising the quality of data over the quantity made available. This involves investing in the preparation and maintenance of high-demand open data that have significant reuse potential across society and the economy, particularly for clear use cases such as the green transition. Prioritising data quality is essential since creating value with data depends on having high-quality data, the ability to combine datasets, clear and understandable terms of use, relevant technical interfaces (often standardised APIs), and that data is easy to find.

Examples of how countries are approaching purposeful data publishing includes Korea's National Priority Data Releasing Project, which focuses on the release of high value datasets as open data on the national portal (Box 18). Similarly, the Danish Data Portal (Box 19) offers users an overview of various public datasets available for re-use by companies, researchers, public authorities, and citizens, prioritising descriptions (metadata) of key government datasets.

### Box 18. Korea's National Priority Data Releasing Project

The National Priority Data Releasing Project, managed by the Ministry of Interior and Safety (MOIS), is a government initiative designed to support the dissemination of impactful open data. From the outset, the project has identified data for release based on private sector demand through comprehensive surveys aimed at uncovering new and relevant data sources.

To ensure effective data dissemination, a collaborative body has been established comprising citizens, public institutions, data companies, experts, and other stakeholders. This collaboration focuses on meeting the private sector's needs and demands.

The initiative has made significant strides in improving citizens' quality of life by releasing open data related to everyday concerns, such as real estate, weather, and transportation. This data is also easily accessible to companies for use in private applications and in enhancing public services. To date, over 1,400 Open APIs and 1,600 datasets of National Priority Data have been made available through the National Data Portal. Additionally, more than 500 mobile applications and web services leveraging this data have been developed and are currently in operation.

### Box 19. The Danish Data Portal ("Datavejviser")

The Danish Data Portal, launched in 2022, provides descriptions (metadata) of key government datasets. It will continue to expand by adding more valuable datasets, focusing on those most requested by users and those important for addressing societal challenges like the green transition.

The portal's name, which can be translated as "a data guide" or "a data roadmap", reflects its main task: to guide users in finding the right data. Denmark has long invested in many different data distribution platforms, creating a decentralised system with specialised platforms that collect, store, and share data while interacting with users in their specific fields. Some of this data is open to everyone, while other data, such as personal information, is restricted and only available to researchers after an application process.

## Conditioned data access and sharing

Conditioned data access and sharing agreements allow for data access and sharing under specific terms, which may include restrictions on authorised users (conditional arrangements), conditions for data usage such as permissible purposes, security protocols, and criteria for granting data access (OECD, 2021[1]). Such arrangements are especially important for initiatives involving personal or sensitive data sharing and are one of the key elements of Digital Public Infrastructure (DPI).

One type of this data sharing can be found in Norway, where the government has partnered with financial service providers to simplify the loan application process. Through a consent-based data sharing mechanism, individuals can authorise the direct transfer of their information from the tax authority to financial service providers, making the loan application process more efficient (Box 20). A similar consent-driven approach to support citizens in using financial services is the Singapore Financial Data Exchange (SGFinDex) (see Box 21).

### Box 20 Consent-based sharing of tax data to simplify credit loan applications in Norway

In early 2016 the financial sector in Norway and some public sector actors decided to expand on the productivity benefits realised through digitalisation within their respective sectors – by exploring possibilities of sharing data across sectors. The programme *Digital Samhandling Offentlig Privat (DSOP)* – has since then worked on several projects, all of which include collaboration and sharing of data.

The first joint project completed was the "consent-based loan application." The principal idea was to convert a paper-based/analogue process to a fully automated digital process for deciding a loan applicant's credit rating. This is done by giving loan applicants the opportunity to give his/her consent to the bank to retrieve updated salary- and tax data directly from the Norwegian Tax Authority (on their behalf – digitally and fully automated), rather than providing the information manually.

### Box 21. Singapore Financial Data Exchange (SGFinDex)

The Singapore Financial Data Exchange (SGFinDex) is a public digital infrastructure system enabling individuals in Singapore to access financial information held across various government agencies and financial institutions. Jointly initiated by the Monetary Authority of Singapore (MAS) and the Smart Nation and Digital Government Group (SNDGG) and supported by the Ministry of Manpower (MOM), SGFinDex collaborates with The Association of Banks in Singapore (ABS), Life Insurance Association Singapore (LIA Singapore), and 15 financial institutions. Implemented in three phases from 2020 to 2022, SGFinDex uses a consent-driven approach, requiring users to log in via Singpass to link their financial accounts and retrieve personal financial data securely.

SGFinDex empowers citizens to consolidate their financial information for a comprehensive portfolio view, aiding in holistic financial planning. At the same time, financial institutions can leverage SGFinDex to offer enhanced financial planning services. Finally, SGFinDex supports the government's goal of promoting retirement adequacy by providing a consolidated financial view on MyMoneySense, the government's digital financial planning service, thus improving financial planning and services for citizens.

The benefits of secure data sharing across sectors are evident in other initiatives too, such as the India Urban Data Exchange, a platform focused on enabling secure data exchange between city departments, government agencies, citizens, and the private sector (Box 22). While some datasets are available as open data, most have access policies defined by the data providers. Another relevant example is Portugal's automated process for identifying individuals eligible for reduced energy bills. By sharing data effectively and securely between government authorities, Portugal saw over a 400% increase in the adoption of the reduced tariff by citizens (Box 23).

### Box 22. India Urban Data Exchange (IUDX)

India Urban Data Exchange (IUDX) is a new-age data platform to provide streamlined access to quality, real-time, and dynamic datasets from Indian smart cities. IUDX helps the cities in using the data intelligently to address complex urban challenges, establish integrated development across various aspects of the urban sector and catapult them to the next stage of innovation. IUDX is completely open source, based on an underlying framework of open standard APIs, data models, and the security, privacy and accounting mechanisms that will facilitate its easy adoption across the digital ecosystem.

The data exchange currently involves 50 cities and has 15 industry engagements, 8 dedicated use cases and 776 data resources.

### Box 23. Data sharing to reduce the energy bills for low-income households in Portugal

In 2010, to lighten the burden of energy bills for low-income families, the Portuguese Government launched the "Social Energy Fare" initiative, offering reduced fees for those most in need. However, the uptake was lower than expected since citizens had to actively request the support.

In 2016 the Directorate-General for Energy and Geology (DGEG) developed an information system that automatically processes around 4 million records from every energy supplier in Portugal. Through the national interoperability platform managed by the Administrative Modernization Agency (AMA), the Social Security and the Tax Authority check the eligibility criteria (e.g., annual income, social benefits, etc.) through a completely automated and anonymised process. A binary reply is then sent to the energy suppliers, informing them if their client is entitled to the discount and mandating them to change the tariff.

This process automation brought an increase of 400% in the number of households receiving help from the Social Energy Fare (around 750.000, today). The visibility and impact of this project have been such that the overall process has already been implemented in other areas such as gas, water supply and wastewater management.

Establishing a controlled and secure environment for data sharing between government and private sector actors is a priority among G20 members to enable secure and privacy-preserving sharing of sensitive data. A data space is a concept used to describe a shared digital environment where multiple organisations can securely share and collaborate on data. The idea is to create a decentralised infrastructure that eases data exchange while ensuring data protection and interoperability. These types of platforms or environments can also go by other names, such as data marketplaces, data trusts, data exchange, data commons, or data hubs. Each of these terms may have slightly different connotations and use cases, but they all relate to the overarching concept of creating environments where data can be shared securely, efficiently, and in a controlled manner.

In the European Union, member states are actively collaborating with different stakeholders, including private sector actors, to develop and operationalise common data spaces across various policy domains, including energy, mobility, and agriculture (Box 24). A related initiative outside of Europe is the IndiaAI Datasets Platform (IDP) led by the Ministry of Electronics and IT (MeitY) (Box 25).

### Box 24. Common European Data Spaces

The purpose of the Common European Data Spaces is to make more data available for access and reuse across the EU in a trustworthy and secure environment for the benefit of European businesses and citizens.

The European strategy for data of February 2020 set out the path to the creation of Common European Data Spaces in several strategic fields: health, agriculture, manufacturing, energy, mobility, financial, public administration, skills, the European Open Science Cloud. The green deal data space also stresses meeting the Green Deal's objectives as a key priority.

Since then, data spaces in other key areas such as media and cultural heritage have also emerged. Together, the data spaces will gradually be interconnected to form the single market for data.

Stakeholders drive the evolution of data spaces. Users within each distinct sector contribute to shaping these spaces, resulting in the emergence of unique forms and characteristics. Yet, what underpins all European data spaces is common *data infrastructure* and *governance frameworks*, which eases data pooling, access and sharing. In addition, the Common European Data Spaces:

- are open for the participation of all organisations and individuals.
- have a secure and privacy-preserving infrastructure to pool, access, share, process, and use data.
- are a clear and practical structure for accessing and using data: common European data space have fair, transparent, proportionate, and non-discriminatory access rules, due to well-defined and trustworthy data governance mechanisms.
- respect EU rules and values, especially personal data and consumer protection, and competition law.
- enable data holders to grant access to or to share certain personal or non-personal data.
- empower data holders to make their data available for reuse for free or against compensation.

### Box 25. IndiaAI Datasets Platform (IDP)

India (Ministry of Electronics and IT (MeitY)) is currently developing a modern, sector-agnostic data platform centred around the requirements of the AI innovation ecosystem under the broader IndiaAI Mission.

The IndiaAI Datasets Platform (IDP) will function as a one-stop solution for providing access to all resources critical for AI Innovation including datasets, compute, and AI models. It will also enable the creation of a robust open-AI community and provide new-age AI-centric features. IDP will maintain a separate module for inter-government data sharing. This initiative is currently under development.

Some categories of public sector data are more relevant than others for creating value-added services, offering important benefits for society, the environment, and the economy[56]. Among the specific types of data shared between the public and private sectors, geospatial data is often considered one of the most valuable. One example of this is the UK's National Underground Register developed by the UK Geospatial Commission (Box 26), which provides access to location data of underground pipes and cables.

### Box 26. The UK's National Underground Asset Register (NUAR)

The Geospatial Commission, part of the UK Department for Science, Innovation and Technology, is building a digital map of underground pipes and cables - the National Underground Asset Register (NUAR).

Once operational, NUAR is envisaged to deliver £490 million per year of economic growth through increased efficiency, reduced asset strikes (when underground pipes and cables are accidentally damaged) and reduced disruptions for the public and businesses.

The emerging service is improving the efficiency and safety of underground works by providing secure access to privately and publicly owned location data about the pipes and cables beneath our feet. The digital map gives planners and excavators standardised access to the data they need, when they need it, to carry out their work effectively and safely. It also includes features to keep data secure and improve its quality over time.

A first private BETA version of NUAR, also called the 'minimum viable product' (MVP), is live across England and Wales. The MVP includes all core functionality to meet the 'safe dig' use case, allowing users to both plan for future adoption and provide valuable feedback to enhance the service further. It includes data from all the major energy and water providers, such as Welsh Water, Cadent Gas and UK Power Networks, several major telecommunications companies, including CityFibre and Virgin Media O2, as well as smaller providers of these services, transport organisations and local authorities.

The NUAR service will continue to be iteratively enhanced in line with user feedback, the MVP coverage will be expanded to Northern Ireland by spring 2024, and the platform will be fully operational by the end of 2025

Another important data category is the sharing of personal health data, which became even more essential during the COVID-19 pandemic. Health data plays a vital role in enhancing healthcare services, supporting scientific innovation, and discovering new treatments (OECD, 2022[2]). Given the sensitive nature of personal health data, it requires a particularly high level of protection. In Uruguay, the HCEN platform enables health service providers to exchange health information in a standard, secure, and timely manner, whereas France has developed a national Health Data Hub that hosts pseudonymised health data, which can be accessed and reused for research purposes following a robust approval process (Box 27).

### Box 27. Health data sharing in Uruguay and France

***Health Data Sharing Platform HCEN in Uruguay***

Uruguay's health data sharing platform HCEN allows different health providers (public and private) to exchange health information in a standardised, secure, and timely manner. As of today, more than 200 million clinical records have been registered on the HCEN Platform and more than 3 million clinical documents have been exchanged between different health providers.

Furthermore, and since 2020, driven by the pandemic caused by the SARS-CoV-2 virus, and having a health ecosystem aligned with the three pillars of HCEN, work began on health data analytics. As a result, today Uruguay has projects that allow the Ministry of Health (governing body) to have visibility on health issues of interest. Some examples are the *Vaccine Monitoring of the Expanded Programme on Immunizations (EPI)*, which allows monitoring of the level of vaccination at the country level based on previously defined vaccinations.

***France's Health Data Hub***

The French Health Data Hub is a public resource enabling project co-ordinators to easily access non-nominative data hosted on a secure platform, in compliance with regulations and citizens' rights. Users are able to cross-reference and analyse the data in order to improve the quality of care and patient support.

The Health Data Hub covers the National Health Data System (SNDS) in France, including all the health data associated with a health insurance reimbursement, whether collected during a hospital treatment, a doctor's visit, participation in a research cohort or an epidemiological or practice register, etc. The Health Data Hub collect copies of already existing databases in which directly identifying personal information has been removed.

The data on the Hub, within a well-defined scope, is accessible to project co-ordinators contributing to the public interest, following an approval process involving an independent committee (CESREES) and the National Commission for Data Protection and Liberties (CNIL).

The sharing of micro-level statistical data is another priority data category, often restricted to scientific research use only[7]. The US initiative, ResearchDataGov.org, makes over 1,000 datasets from across 16 federal agencies easily discoverable and accessible for research purposes (Box 28). By streamlining access to these diverse datasets, the initiative aims to foster innovative research, inform evidence-based policymaking, and drive advancements in various fields.

### Box 28. ResearchDataGov.org of the United States

ResearchDataGov (RDG) is a portal for discovering and requesting access to restricted microdata from federal statistical agencies in the United States. The site was created in response to Section 3583 of the Foundations for Evidence-based Policymaking Act of 2018. Participating agencies have provided detailed descriptions of each data asset listed in the portal's data catalogue. Users can search for data by topic, agency, and keywords. The portal currently hosts over 1000 datasets from 16 federal agencies, including the Census Bureau, U.S. Energy Information Administration, SAMHSA Center for Behavorial Health Statistics and Quality, and the USDA Economic Research Service.

The portal was built by and hosted at ICPSR at the University of Michigan, under contract and direction from the National Center for Science and Engineering Statistics within the National Science Foundation.

# 4 Challenges and enablers to data access and sharing

## Challenges to data access and sharing

There are several challenges that governments need to address to effectively share and access data with trust. While developing this compendium, G20 members and guest countries highlighted four categories as particularly relevant:

- **Organisational and cultural barriers:** Organisational and cultural barriers to data sharing in government include challenges with the federated nature of government, siloed departments, complex governance around data sharing, as well as cultural resistance, including a lack of awareness of the benefits of data sharing for the public sector itself. Given that data sharing is a horizontal policy issue ensuring solid data governance in the public sector should be a priority. This can enable the co-ordination processes needed to implement data-sharing initiatives, that often require many iterations with relevant administrations across government and outside of government, which may present challenges. Several G20 members and guest countries also raise the issue of constrained human and financial resources for preparing, analysing, and sharing data, including requirements in terms of formats, quality conditions, and licensing arrangements.
- **Legal barriers:** Many existing legal frameworks were established before the digital age and do not account for the complexities of modern data sharing. These laws may lack provisions for electronic data exchange, cloud storage, and other contemporary practices, making it difficult for government entities to share data legally. Ambiguities in the law about what data can be shared, with whom, and under what circumstances can also lead to hesitance and confusion among public sector entities.
- **Semantic and technical barriers:** A majority of G20 members and guest countries find standardisation, technical infrastructure, and data quality significant challenges for data access and sharing, both within government and when sharing data with non-government actors. These issues limit the seamless integration and interoperability of datasets needed to implement the once-only principle, as well as reduce the overall value of the data assets. Variations in data quality also affect the utility of publicly accessible data assets, such as open data. These challenges are connected to the traditional setup of government, where siloed departments and agencies each 'own their own data' to support their individual missions.
- **Breaches of data privacy and security**: Lastly, data privacy and security are baseline trust factors to consider when working to enhance data access and sharing. Data access and sharing in the public sector and beyond should be based on privacy-by-design and by default approaches[8]. This requires implementing stringent data protection measures as part of data governance frameworks and continually updating them to counter evolving cyber threats, while ensuring that data can be shared and used to its full potential if there is a public interest. For data containing personal information, this can also include leveraging privacy-enhancing technologies[9], such as data anonymisation and pseudonymisation.

## Overcoming challenges: data governance in the public sector

Data governance in the public sector is a foundation to address challenges and overcome barriers to trustworthy data access, sharing, and use (OECD, 2019[3]). Data governance refers to diverse arrangements, including technical, policy, regulatory or institutional provisions, that affect data and their cycle (creation, collection, storage, use, protection, access, sharing and deletion) across policy domains and organisational and national borders (OECD, 2022[4]). Examples of existing elements of public sector data governance implemented by G20 members and guest countries include:

- **A strategic vision and leadership for data:** Developing a whole-of-government strategy and securing leadership and political commitment is important for driving change and promoting responsible and effective data sharing in the public sector and with the private sector (OECD, 2019[3]; OECD, 2021[1]). Examples include:
  - *United Kingdom's National Data Strategy*
  - *Australia's Data and Digital Government Strategy*
  - *Brazil's National Digital Government Strategy*
  - *Canada's 2023–2026 Data Strategy for the Federal Public Service*
  - *Türkiye's Twelfth Development Plan*
  - *Saudi Arabia's Data Sharing Policy*
  - *Spain's Data Office*
- **Co-ordination and partnerships:** Trusted collaborations, co-ordination and partnerships between central government and subnational governments, as well as with non-government actors are critical for breaking down data siloes, building trust, integrating data assets, and encouraging re-use. Examples include:
  - *Denmark's longstanding trusted collaboration between the central government and subnational governments around data sharing*
  - *Saudi Arabia's Data Lab*
  - *UAE's Emirates Data Network*
- **Regulatory frameworks, including standards:** Robust data governance includes having an enabling regulatory framework that ensures data privacy and security and is adapted to modern data sharing conditions. Examples include:
  - *European Union's General Data Protection Regulation, Data Act, Data Governance Act and Open Data Directive*
  - *Norway's Digitalisation Circular*
  - *Singapore's Public Sector Governance Act (PSGA)*
  - *Korea's Act on the Promotion of Data-Based Administration and Act on Promotion of the Provision and Use of Public Data (Open Data Law)*
  - *Uruguay's Law No. 18,719 of December 27, 2010*
  - *Nigeria's e-Government Interoperability Framework (Ne-GIF)*
  - *Russia's Federal Law on Amendments to the Federal Law on Personal Data (Law No. 233-FZ)*
  - *Türkiye's Personal Data Protection Law No. 6698 and Regulation on Procedures and Principles on Data Privacy and Confidential Data Security in Official Statistics*
- **Data literacy and skills:** Developing data skills and literacy in government to manage and share data responsibly and in line with regulations and standards is important, and often requires dedicated programmes and initiatives. Examples include:

- *Argentina's National Programme for Enhancing the Protection of Personal Data*
- *Brazil's Capacita gov.br*
- *UK's One Big Thing, annual initiative focused on data upskilling of civil servants*
- *United Arab Emirates Data Maturity Index*

- **Data infrastructure and architecture:** Data infrastructure and architecture are key building blocks and enablers of interoperability and data sharing. They include elements such as base registries, semantic rules and data architecture frameworks, metadata management, data catalogues, data platforms, data marketplaces, data spaces, and data lakes. Examples include:
  - *UK Cross-Government Data Marketplace and Beta policy and guidance on Essential Shared Data Assets (ESDAs)*
  - *India's Data Empowerment & Protection Architecture (DEPA)*
  - *The modernisation of base registries and internal use of identification number in Germany*
  - *Portugal's Interoperability Platform of the Public Administration (iAP)*
  - *Indonesia's E-Government Architecture*
  - *Saudi Arabia's government data lake*
  - *Singapore's Government Data Architecture (GDA)*
  - *Türkiye's Government Data Space*

# 5 Conclusion

This compendium highlights the wide range of initiatives across G20 members and guest countries to enhance data access and sharing within the public sector and with the private sector for public interest. Whether the aim is to enable more proactive and inclusive public services, inform decision-making, or improve internal government operations, data sharing in the public sector is, and will continue to be, an essential digital government activity. Likewise, sharing data between the public and private sectors provides essential benefits to businesses and organisations across sectors and an opportunity for public-private collaboration in designing services or solving pressing challenges that serve the public interest.

However, there are challenges to achieving these aims, including organisational and cultural barriers, legal barriers, semantic and technical barriers, and breaches of data privacy and security. These can be addressed by establishing robust data governance in the public sector. This involves having a strategic vision and leadership for data in government, ensuring effective co-ordination and partnerships, implementing regulatory frameworks and standards, fostering data literacy and skills, and developing robust data infrastructure and architecture. Many G20 members are already advanced in many of these aspects.

Still, further work could be explored by future G20 presidencies to build on these efforts. Given that G20 members face many common challenges to data sharing in the public sector and with the private sector, this work could include developing guidelines for enhanced public sector data governance, drawing upon existing resources developed by the G20, international organisations, and knowledge partners such as the OECD.

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# Annex A. List of examples from G20 members and guest countries

| | Initiative | Category | Sub-category |
|---|---|---|---|
| Argentina | National Transparency website | Government data sharing | Open data |
| | National Programme for Enhancing the Protection of Personal Data | Enabler | Data literacy and skills |
| | Personal Data Protection Module of the Register of Integrity and Transparency of Enterprises and Entities (RITE) | Enabler | Data literacy and skills |
| Australia | Digital Atlas | Government data sharing | Open data |
| | Data.gov.au | Government data sharing | Open data |
| | Australian Government Data Catalogue/Data Inventories Pilot project | Enabler | Data infrastructure and architecture |
| | Data and Digital Government Strategy | Enabler | Strategic vision and leadership |
| | Data Availability and Transparency Act 2022 (DATA) Scheme | Enabler | Regulatory framework |
| Brazil | National Digital Government Strategy | Enabler | Strategic vision and leadership |
| | Conecta Gov.br | Government data sharing | Conditioned data access and sharing |
| | Capacita Gov.br | Enabler | Data literacy and skills |
| | Rural Environmental Registry (CAR) data access initiative | Government data sharing | Conditioned data access and sharing |
| | Cadstro Único | Government data sharing | Conditioned data access and sharing |

| | | | |
|---|---|---|---|
| Canada | 2023–2026 Data Strategy for the Federal Public Service | Enabler | Strategic vision and leadership |
| | Open.canada.ca | Government data sharing | Open data |
| | Trust and Transparency Strategy | Enabler | Strategic vision and leadership |
| Denmark | Danish Data Portal | Government data sharing | Open data / Conditioned data access and sharing |
| | My Overview | Government data sharing | Conditioned data access and sharing |
| European Union | Common European Data Spaces | Public-private data sharing | Conditioned data access and sharing |
| | Once Only Technical System (eGovernment) | Government data sharing | Conditioned data access and sharing |
| | Data Act (Regulation (EU) 2023/2854) | Enabler | Regulatory framework, including standards |
| | Directive (EU) 2019/1024 (“Open Data Directive”) | Enabler | Regulatory framework, including standards |
| | Data Governance Act (Regulation (EU) 2022/868) | Enabler | Regulatory framework, including standards |
| France | Proactive administration | Government data sharing | Conditioned data access and sharing |
| | Health Data Hub | Data sharing for research | Conditioned data access and sharing |
| | API.gouv.fr | Government data sharing | Open data / Conditioned data access and sharing |
| | Strong legal framework for data access and sharing | Enabler | Regulatory framework, including standards |
| | Anticipated access to archives | Enabler | Regulatory framework, including standards |
| | Secured data access center (CASD) | Enabler | Data infrastructure and architecture |
| Germany | Modernisation of registers | Enabler | Data infrastructure and architecture |

| | | | |
|---|---|---|---|
| | Personal identity number for internal authority use only | Enabler | Data infrastructure and architecture |
| | National once-only technical system (NOOTS) | Government data sharing | Conditioned data access and sharing |
| India | IndiaAI Datasets Platform (IDP) | Government data sharing | Conditioned data access and sharing |
| | India Urban Data Exchange | Public-private data sharing | Conditioned data access and sharing |
| | Data Empowerment & Protection Architecture (DEPA) | Enabler | Data infrastructure and architecture |
| | Policy on Open APIs for Government of India | Enabler | Regulatory framework, including standards |
| | Policy on Open Standards for e-governance | Enabler | Regulatory framework, including standards |
| | Technical Standards on Interoperability Framework for e-Governance | Enabler | Regulatory framework, including standards |
| Indonesia | One Data Indonesia – data.go.id | Government data sharing | Open data |
| | SATUSEHAT platform | Public-private data sharing | Conditioned data access and sharing |
| | Regulatory sandbox for health innovation | Enabler | Data infrastructure and architecture |
| | E-Government Architecture | Enabler | Data infrastructure and architecture |
| | E-Government policy | Enabler | Strategic vision and leadership |
| Italy | National Digital Data Platform - PDND | Government data sharing | Conditioned data access and sharing |
| | ANIS (National Register of Tertiary Education) | Government data sharing | Conditioned data access and sharing |
| Japan | Co-operation Network System for Personal Information | Government data sharing | Conditioned data access and sharing |
| | Mynaportal API | Government data sharing | Conditioned data access and sharing |

| | | | |
|---|---|---|---|
| Korea | Pan Governmental Data Analysis System | Government data sharing | Conditioned data access and sharing |
| | Act on the Promotion of Data-Based Administration | Enabler | Regulatory framework, including standards |
| | The National Priority Data Releasing Project | Government data sharing | Open data |
| Mexico | National Transparency Platform (PNT) | Government data sharing | Open data |
| | Datos.gob.mx | Government data sharing | Open data |
| | AGREEMENT approving the minimum essential data on final beneficiaries that will serve as a criterion for their publicity. | Enabler | Regulatory framework, including standards |
| | AGREEMENT approving the Guidelines that establish the parameters, modalities, and procedures for the portability of personal data. | Enabler | Regulatory framework, including standards |
| | Mexico's participation in the Open Government Partnership | Enabler | Co-ordination and partnerships |
| | Privacy Impact Assessments (PIAs) | Enabler | Regulatory framework, including standards |
| Nigeria | Nigerian Humanitarian Forum on Flood Response in Nigeria | Government data sharing | Open data |
| | National Open Data Initiative (NODI) | Government data sharing | Open data |
| | Preparedness for, and ongoing response to the COVID-19 Pandemic | Government data sharing | Open data |
| | Nigeria e-Government Interoperability Framework (Ne-GIF) | Enabler | Regulatory framework, including standards |
| | National Data Strategy | Enabler | Strategic vision and leadership |
| | Central Bank of Nigeria (CBN) Regulatory Sandbox | Enabler | Data infrastructure and architecture |
| Norway | A-krim samarbeidet (Labour-crime co-operation) | Government data sharing | Conditioned data access and sharing |

| | | | |
|---|---|---|---|
| | Simplified sharing of supervisory data with Tilda | Government data sharing | Conditioned data access and sharing |
| | Beredskapsregister for Covid-19 (emergency registry for Covid-19) | Enabler | Data infrastructure and architecture |
| | Digital Samhandling Offentlig Privat (DSOP) programme | Public-private data sharing | Conditioned data access and sharing |
| | E-bevis (eDocumentation) | Public-private data sharing | Conditioned data access and sharing |
| | Making government student loan information visible in online banking systems | Public-private data sharing | Conditioned data access and sharing |
| Portugal | Interoperability Platform of the Public Administration (iAP) | Enabler | Data infrastructure and architecture |
| | National Data Catalogue | Enabler | Data infrastructure and architecture |
| | gIAp - Intelligent Management of Services Interactions | Government data sharing | Conditioned data access and sharing |
| | Automated Social Energy Fare | Government data sharing | Conditioned data access and sharing |
| | Dematerialised bank account opening | Government data sharing | Conditioned data access and sharing |
| Russia | Information system for monitoring phishing websites | Enabler | Data infrastructure and architecture |
| | Federal Law on Amendments to the Federal Law on Personal Data (Law No. 233-FZ) | Enabler | Regulatory framework, including standards |
| Saudi Arabia | Data sharing policy | Enabler | Strategic vision and leadership |
| | Data lake | Government data sharing | Conditioned data access and sharing |
| | Data sharing interoperability standards | Enabler | Regulatory framework, including standards |
| | Data marketplace | Public-private data sharing | Conditioned data access and sharing |
| | Data Lab | Enabler | Co-ordination and partnerships |

| | | | |
|---|---|---|---|
| | National data catalogue | Enabler | Data infrastructure and architecture |
| Singapore | Government Data Architecture (GDA) | Enabler | Data infrastructure and architecture |
| | API Exchange (APEX) | Government data sharing | Conditioned data access and sharing |
| | MOH TRUST ("Trusted Research and Real-world data Utilisation and Sharing Tech") | Public-private data sharing | Conditioned data access and sharing |
| | Singapore Financial Data Exchange (SGFinDex) | Public-private data sharing | Conditioned data access and sharing |
| Spain | National Data Intermediation Platform | Government data sharing | Conditioned data access and sharing |
| | Health data lake | Government data sharing | Conditioned data access and sharing |
| | Data Office | Enabler | Strategic vision and leadership |
| | APORTA Initiative | Enabler | Strategic vision and leadership |
| | Datos.gob.es | Government data sharing | Open data |
| Türkiye | Türkiye National Geographic Information System (TUCBS) Infrastructure | Enabler | Data infrastructure and architecture |
| | Reducing Bureaucracy & Simplifying Legislation | Government data sharing | Conditioned data access and sharing |
| | Government Data Space | Enabler | Data infrastructure and architecture |
| | Regulation on Procedures and Principles on Data Privacy and Confidential Data Security in Official Statistics | Enabler | Regulatory framework |
| | Twelfth Development Plan | Enabler | Strategic vision and leadership |
| | MEDAS | Government data sharing | Conditioned data access and sharing |
| | Data Maturity Index (Data Access) | Enabler | Data literacy and skills |
| | Emirates Data Network | Enabler | Co-ordination and partnerships |

| | | | |
|---|---|---|---|
| United Arab Emirates | UAE Numbers (UAE Executive Decision-Making Dashboard) | Government data sharing | Conditioned data access and sharing |
| | SDMX (Statistical Data and Metadata exchange) | Enabler | Data infrastructure and architecture |
| | Data for Good – Collaboration with Private Sector | Enabler | Co-ordination and partnerships |
| United Kingdom | Transforming for a Digital Future 2022-2025 Roadmap | Enabler | Strategic vision and leadership |
| | Better Outcomes through Linked Data (BOLD) | Government data sharing | Conditioned data access and sharing |
| | One Big Thing | Enabler | Data literacy and skills |
| | Data Sharing Network of Experts and the Data Sharing Playbook | Enabler | Strategic vision and leadership / Data literacy and skills |
| | Cross-Government Data Marketplace | Government data sharing | Conditioned data access and sharing |
| | National Underground Asset Register (NUAR) | Public-private data sharing | Conditioned data access and sharing |
| United States | Federal Statistical Research Data Centers | Government data sharing | Conditioned data access and sharing |
| | Researchdatagov.org | Government data sharing | Conditioned data access and sharing |
| | Data.gov | Government data sharing | Open data |
| Uruguay | Platform HCEN | Public-private data sharing | Conditioned data access and sharing |
| | Interoperability Platform | Enabler | Data infrastructure and architecture |
| | Document Exchange Format for Electronic Records | Enabler | Data infrastructure and architecture |
| | Digital Document Management Administration | Public-private data sharing | Conditioned data access and sharing |

# Annex B. Questionnaire

**Q.1. Please describe any relevant initiatives that have supported data access and sharing within the public sector in your country:**

*Answers to this question may be presented as examples in the compendium with reference to the country. Please list no more than 3 initiatives.*

| | |
|---|---|
| Name of the initiative: | |
| Organisations/actors involved: | |
| URL (if available): | |
| Brief description of the initiative, including objective, scope, and outcomes: | |

**Q.2. Have there been any challenges in implementing the above initiatives (Q.1) or more generally to improve data access and sharing within the public sector in your country?**

**If yes, briefly explain these challenges:**

*Examples of challenges include resource constraints, privacy concerns, regulatory barriers, legacy systems, data quality and standardisation, and complex governance structure and interagency collaboration. Responses to this question are summarised and not presented at country level.*

**Q.3. Have there been any enablers to support the above initiatives (Q.1) or more generally to improve data access and sharing within the public sector in your country?**

**If yes, briefly explain these enablers:**

*Examples of enablers include institutional arrangements, strategies, legal frameworks, funding mechanisms, partnerships, data access and control mechanisms, including consent mechanisms and other safeguards for data sharing. Responses to this question are summarised and not presented at country level.*

**Q.4. Please describe any relevant initiatives that have supported data access and sharing with the private sector for public interest in your country:**

*Answers to this question may be presented as examples in the compendium with reference to the country. Please list no more than 3 initiatives.*

| | |
|---|---|
| Name of initiative: | |
| Organisations/actors involved: | |
| URL (if available): | |
| Brief description of the initiative, including objective, scope, and outcomes: | |

**Q.5. Have there been any challenges in implementing the above initiatives (Q.4) or more generally in improving data access and sharing with the private sector for public interest in your country?**

**If yes, briefly explain these challenges:**

*Examples of challenges include privacy concerns, data ownership and control, competitive concerns, legal and regulatory compliance, and data quality and standardisation. Responses to this question are summarised and not presented at country level.*

**Q.6. Have there been any enablers to support the above initiatives (Q.4) or more generally to improve data access and sharing with the private sector for public interest in your country?**

**If yes, briefly explain these enablers:**

*Examples of enablers include institutional arrangements, strategies, legal frameworks, funding mechanisms, partnerships, data access and control mechanisms, including consent mechanisms and other safeguards for data sharing. Responses to this question are summarised and not presented at country level.*

# Notes

[1] Including the G20 Principles on Digital Government (2018) and discussions on digital tools for public service continuity (2021), digital public infrastructure (2023), and data free flow with trust (2019, 2022).

[2] Including the OECD Recommendation on Enhancing Access to and Sharing of Data (2021)

[3] All G20 members except the African Union, China, and South Africa.

[4] Base registries represent authoritative databases and a trusted source of basic information on data items such as people, companies, vehicles, licenses, buildings, locations and roads. Source: https://joinup.ec.europa.eu/collection/access-base-registries

[5] https://digital-strategy.ec.europa.eu/en/news/commission-defines-high-value-datasets-be-made-available-re-use

[6] The OECD OURdata Index assesses the availability of 10 categories of government data as open data, which are considered to be "high-value data": company information, earth observation and environment, geospatial data, meteorological data, mobility data, statistics, government finances and accountability, education, health and social welfare, and crime and justice: https://www.oecd.org/publications/2023-oecd-open-useful-and-re-usable-data-ourdata-index-a37f51c3-en.htm

[7] See also the OECD Recommendation on Access to Research Data form Public Funding https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0347

[8] See also the OECD Privacy Guidelines https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0188

[9] See also OECD (2023), “Emerging privacy-enhancing technologies: Current regulatory and policy approaches”, OECD Digital Economy Papers, No. 351, OECD Publishing, Paris, https://doi.org/10.1787/bf121be4-en.

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