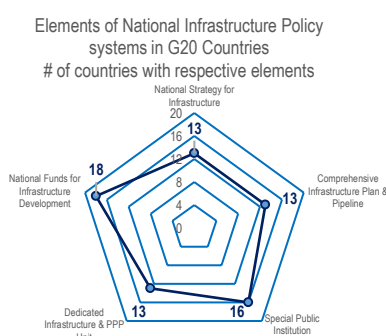


G20 IWG Report on the Results of the Survey on Public-Private Partnership Developments in the G20 Economies



EXECUTIVE SUMMARY

The G20 IWG Survey on PPP Development underlying this Report provides reference on the frameworks for infrastructure financing through Public-Private Partnership in G20 economies, by focusing on systems of infrastructure policy governance (Chapter 1), legal approaches to PPP implementation (Chapter 2), mechanisms facilitating return on private investments in PPPs (Chapter 3), fiscal and other supportive measures, as well as green infrastructure provisions (Chapters 4 and 5) and digitalization trends in infrastructure policy (Chapter 6). The Report aims to provide a better understanding of the countries' strategies and approaches to PPP implementation and facilitate peer-to-peer learning. Examples of possible measures for policy-making are proposed for consideration on a voluntary basis by G20 countries as relevant in view of country-specific conditions and national priorities. In addition to countries' input, this Report also makes use of other public sources, including research by International Financial Institutions (IFI) and relevant line agencies' websites.



The Survey shows that **G20 countries have quite a diverse infrastructure policy systems**. Half of the responding countries have special national strategies and plans for infrastructure, as well as specific public institutions and PPP units. 18 countries have set up national infrastructure funds. According to the Survey, a general trend in G20 countries is the provisioning of a sound and consistent multiannual infrastructure agenda, as well as building the relevant institutional capacity.

Legal Approaches to PPP Implementation in G20 Countries

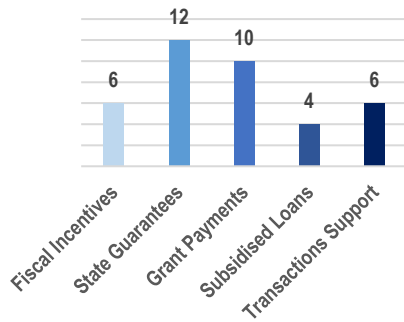


The **G20 respondents fall into 3 groups depending on the legal approaches to PPP implementation**. The majority of countries are of a civil law family with 7 countries having specific PPP legislation and 9 countries without it. 6 countries belong to common-law countries where there is no specific PPP legislation, yet PPP-related guidelines and recommendations may be in place. Responses to the G20 Survey show that countries tend to preserve the distinctive character of PPP regulation, which takes account of country-specific legal and policy practices, as well as often choose to have parallel regulation for both concessions and PPP agreements.



All surveyed countries reported the use of availability payments and user-pays models as mechanisms to facilitate return on private investments in PPP projects. Several countries reported to use the Minimum Revenue Guarantee mechanism to share demand-side risks between parties to a PPP project. Countries' experience shows increased attention to implement systems and tools for comprehensive demand risk assessment and the evaluation of financing models' efficacy.

Types of PPP Support in G20 Countries



The Survey shows that **G20 countries use various measures to support the PPP market**. Half of the respondents provide state guarantees and grant payments. One-third of countries incentivise PPPs with fiscal instruments. Several countries also provide subsidised loans and support private partners in property transactions. G20 countries pay attention to the elimination of duplicative and incoherent supportive measures applied in a specific policy mix. Management of contingent liabilities in PPPs and fiscal monitoring are as well on the prospective policy agenda.

Policy Provisions for Green and Sustainable Infrastructure in G20 Countries
of countries that have the following policy provisions



Many G20 countries have introduced policy provisions related to green infrastructure. According to the Survey, 16 countries have included such provisions into official strategic documents. 8 countries have elaborated green infrastructure guidelines, whereas 9 countries implement green infrastructure projects using a range of innovative financial instruments. As the development and financing of quality infrastructure require the participation of a range of public and private investors, it may be crucial to embed environmental and social assessment of infrastructure projects in a country's policy mix.



Digitalisation is a cross-cutting issue for all spheres of the economy and society, including infrastructure. To date, several international databases on infrastructure and PPP exist, which have been developed by the World Bank, the Global Infrastructure Hub, IJ Global and the Sustainable Infrastructure Foundation. They accumulate practice and evidence from multiple countries. National infrastructure databases and platforms also exist. As shown by the G20 Survey, 7 countries use infrastructure project databases, and several have introduced comprehensive infrastructure platforms. It may be crucial to explore the potential of digitalisation to support closing global infrastructure data gaps while effectively managing data security issues.

INTRODUCTION

This Report is a result of the G20 IWG Survey on PPP development in G20 countries. The Survey aimed to collect country experiences on various aspects of infrastructure policy and public-private partnership in a homogenous manner to allow for cross-country analysis and mapping of policy activities. Examples of possible measures for policy-making are proposed for information only without aiming to determine the best experience.

The report has been prepared by the National PPP Development Center, which is a dedicated PPP unit of **Russia**, jointly with the Ministry of Finance of the Russian Federation and the VEB.RF, **Russia's** State Development Corporation. The Survey relied on G20 countries' responses to the questionnaire that provided relevant data and evidence.

We are grateful to all representatives and organisations from the following countries for their valuable input and participation in the research:

*Argentina
Australia
Brazil
Canada
China
France
Germany
India*

*Indonesia
Italy
Japan
Republic of Korea
Mexico
Netherlands
Russia*

*Saudi Arabia
Singapore
South Africa
Spain
Switzerland
Turkey
United Kingdom*

As the outcome of a collective effort, this report has benefited from the input from the World Bank, OECD, Public-Private Infrastructure Advisory Facility and the European PPP Expertise Centre. We also acknowledge the Global Infrastructure Hub for the statistical and analytical data provided.

Additionally, the questionnaire has collected cases of country experiences in implementing PPP projects. In total, countries have provided over 33 project cases (see Appendix A).

The full list of questions included in the G20 IWG Survey can be found in Appendix B.

However, the information presented further may not be explicit due to the scarcity of information available on some specific subjects. In such cases, we were guided by the countries' responses in the first order. We are looking forward to receiving feedback from countries may they find it necessary to communicate additional information.

Issues related to Traditional Public Investment have not been covered in this report as they were out of the Survey's scope. Nevertheless, many questions raised in the Survey are as well applicable to TPI, notably the ones related to supportive measures and overall infrastructure governance.

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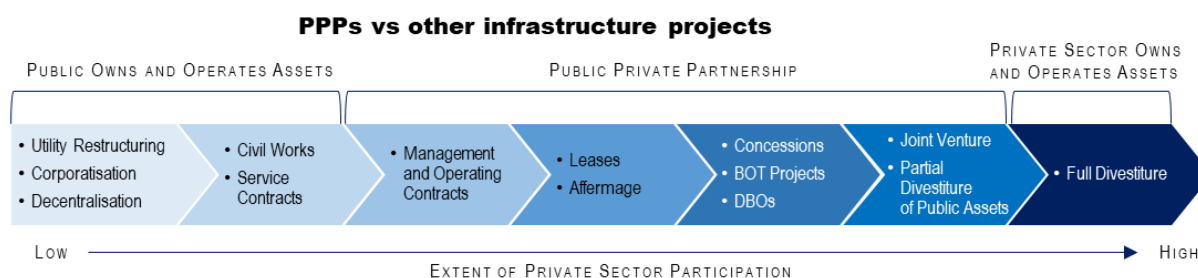
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GLOSSARY

Considering the diversity of country approaches towards infrastructure and PPP projects, here we outline the most general and relevant to many countries notions for mutual understanding. Where the following terms appear in the Report, they are to be understood according to the definitions below:

- Global Infrastructure Gap** refers to a difference between estimated global needs in infrastructure investment and projected global infrastructure investments.
- Green Infrastructure** is a strategically planned network of high quality natural and semi-natural areas with other environmental features, which is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings.
- Public-Private Partnership (PPP)** is a long-term contract between a private party and a public entity, for providing a public asset or service, in which the private party provides financing and bears significant risk and management responsibilities. Privately financed infrastructures are of two types with respect to their funding structure: the concession, in which the end-users bare the core of the payment cost of the infrastructure (user-pays PPPs), and the government-pays PPPs, in which the taxpayers bare the core of the payment cost.ⁱ
- User-pays PPP / Concession** is such form of PPP wherein the government grants the private sector the right to finance, build, operate and charge public users of the public good, infrastructure or service, a fee or tariff which is regulated by public regulators and the concession contract.
- Government-pays PPP** is such form of PPP wherein the government grants the private sector the right to finance, build, operate and provides government funding as a fee for the private partner to compensate for the costs of the latter.



- Infrastructure Financing** financing of a PPP project refers to raising money upfront to pay for the design, construction, and early operational phases of an infrastructure asset, whether through debt or equity instruments of a public or private nature. This responsibility is ideally the role of the private partner, even if the government provides some type of support. The private partner will only provide financing in the expectation that it will be repaid, including a rate of return commensurate with the risks borne.ⁱⁱ
- Infrastructure Funding** funding of a PPP project refers to how investment and operational costs are repaid over time to compensate for the costs of the private partner that provides debt or equity for the project. Ultimately, public infrastructure can only be paid (1) by users of the infrastructure through direct user charges, such as tolls in the case of highways; or (2) by taxpayers through the government's periodic payments to the private partner.ⁱⁱⁱ
- PPP Pipeline** is a list of projects being considered by the government for implementation as PPPs in a specific time frame.
- PPP Unit** is an organisation that has been set up to carry out functions concerning PPPs, including policy guidance, technical support, capacity building, PPP promotion and investment.
- PPP Framework** is a combination of legal, regulatory, institutional and financial provisions that together facilitate the implementation of PPPs.
- PPP Laws** refer to legislation designed to support and regulate PPP transactions and programs.

Civil Law	is a codified system of law which is generally more prescriptive than a common law system, the judge's role is more significant, and the parties to an agreement typically have less freedom to contract.
Common Law	is a system that is based on precedents set by past court decisions. Parties under a common law system typically have more freedom to contract.
Brownfield Project	refers to investments in a project on a site that has previously been used for industrial purposes or has been occupied by significant buildings.
Greenfield Project	refers to investments on sites that have not been previously used for industrial purposes or have not been occupied by significant buildings.
BOT (build–operate–transfer)	In the BOT framework, a third party, for example, the public administration, delegates to a private sector entity to design and build infrastructure and to operate and maintain these facilities for a specified period. During this period, the private party has the responsibility to raise the finance for the project and is entitled to retain all revenues generated by the project and is the owner of the regarded facilities. The facility will be then transferred to the public administration at the end of the project agreement.
BOOT (build–own–operate–transfer)	A BOOT structure differs from BOT in that the private entity owns the works. During the project period, the private company owns and operates the facility with the prime goal to recover the costs of investment and maintenance while trying to achieve a higher margin on the project.
BOO (build–own–operate)	In a BOO project, ownership of the project usually remains with the project company, such as a mobile phone network. Therefore, the private company gets the benefits of any residual value of the project.
BLT (build–lease–transfer)	Under BLT, a private entity builds a complete project and leases it to the government. On this way, the control over the project is transferred from the project owner to a lessee. In other words, the ownership remains by the shareholders, but operation purposes are leased. After the expiry of the leasing, the ownership of the asset and the operational responsibility are transferred to the government at a previously agreed price.
DBFO (design–build–finance–operate)	Design–build–finance–operate is a project delivery method similar to BOOT except that there is no actual ownership transfer. Moreover, the contractor assumes the risk of financing until the end of the contract period. The owner then assumes the responsibility for maintenance and operation.
DBOT (design–build–operate–transfer)	This option is standard when the public party has little knowledge of what the project entails. Hence the public contracts the project to a company to design, build, operate and then transfer the corresponding assets.
DCMF (design–construct–manage–finance)	Under this model, a private entity is entrusted to design, construct, manage, and finance a facility, based on the specifications of the government. Project cash flows result from the government's payment for the rent of the facility.
Availability Payment	refers to a PPP in which the revenue of the Private partner is in the form of budgetary payments that are made when the infrastructure is ready and built in compliance with agreed performance standards.
User Payment	refers to a PPP project in which the revenues for the Private partner are based on user-payments, for example, tolls for a road.
Contingent Liabilities	refer to payment obligations which timing and amount are contingent on the occurrence of a particular discrete/uncertain future event or series of future events. This Report applies this term, especially for those liabilities that affect the government under a PPP contract. The types of contingent liabilities that are relevant to governments in relation to PPP contracts are payment obligations under a PPP contract that are subject to the occurrence of certain events, such as termination.

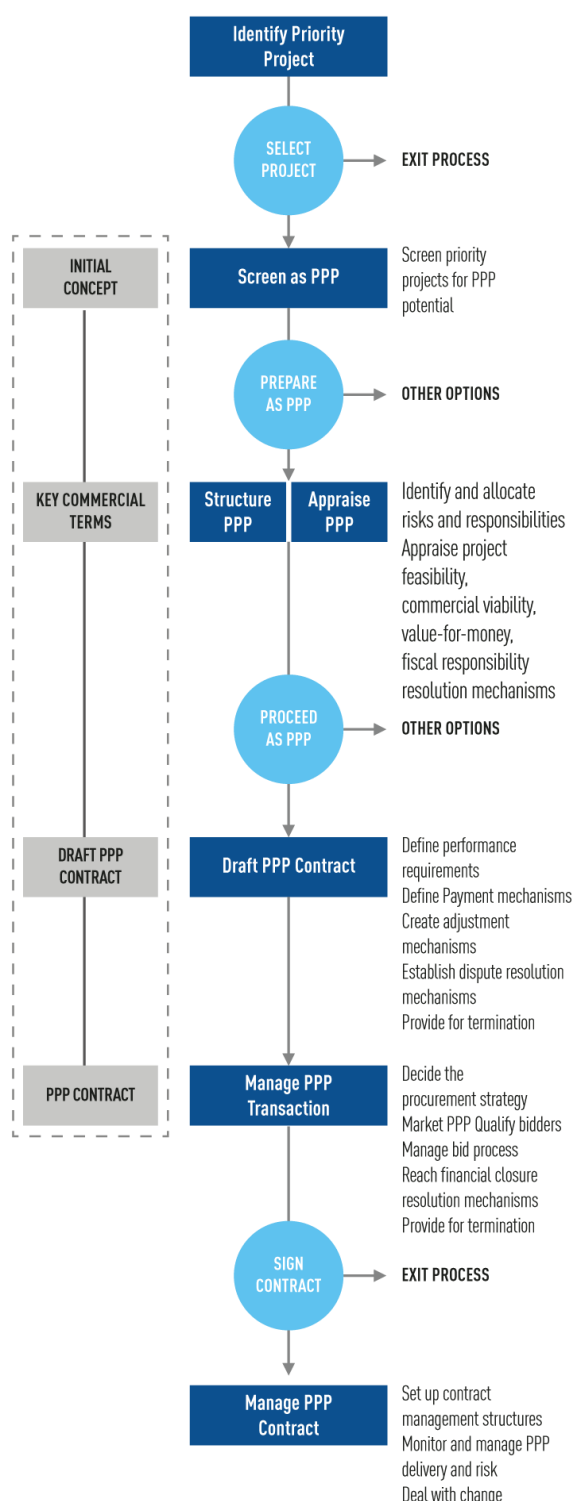
Risk Allocation	refers to arrangements in a PPP contract that determine what risks each party to the contract should be responsible for. Such arrangements have to ensure that a project satisfies the needs of the government, achieves value for money and is financially viable for the private sector.
Guarantee	is an undertaking to fulfil the obligations of a third party in the event of a default. It may be limited in time and amount and may be callable immediately on default or only after the beneficiary has exhausted all other remedies.
Minimum Revenue Guarantee	refers to a provision in a PPP contract when the government agrees to compensate an investor if actual project revenue falls below the specified threshold, thus mitigating the revenue risk taken by the private sector.
Unsolicited Proposal	is a proposal made by a private party to undertake a PPP project, submitted at the initiative of the private firm, rather than in response to a request from the government.

CHAPTER 1

National Infrastructure Development Systems

This chapter reflects the analysis of various types of national modes of infrastructure governance. We present the results in line with the several pillars of governance including national strategies for infrastructure and infrastructure plans & pipelines, dedicated governing bodies and infrastructure & PPP units, as well as domestic funds for infrastructure development. The chapter further elaborates on the selected country experiences and topics of relevance for policy and decision-makers.

Typical PPP Procurement Process



Global Infrastructure Gap

When it comes to developing infrastructure, all countries employ different modes of governance. At the same time, all countries aim at the same outcome, which is to develop infrastructure that lays the foundations for strong, sustainable, balanced and inclusive growth.

Taking into account the infrastructure gap of USD 15 trillion^{iv}, it is essential to pay attention to the level and quality of investments. Although the statistics show that the global infrastructure investment grows steadily,^v this is not enough to close the gap.

Therefore, it might be worth leveraging on the improvement of policies. Thus, the G20 survey suggested looking at country approaches to managing infrastructure development.

Country Strategic Documents

Country strategic approaches to managing infrastructure development are quite diverse. The G20 Survey showed that a comprehensive-level strategy is not the most common option. 9 out of 22 countries do not have such documents, including both developed and emerging markets. However, nearly all of them rely on sectoral infrastructure strategies for priority setting and allocation of budgets in the corresponding sectors of the economy. The other ten countries have comprehensive cross-sectoral infrastructure strategies.

Special Public Institutions and Infrastructure & PPP Units

Given the necessity to coordinate the infrastructure policy, it is not surprising the most countries have charged public bodies or expert institutions with this task. Either a single federal ministry/agency oversees the full spectrum of infrastructure needs, or a group of sectoral public bodies are tasked with their respective duties. Such coordination occurs either at the national or subnational level. In some cases, as in the **UK**, it may not be necessarily linked to infrastructure in a formal order.

As regards infrastructure and PPP units, 9 out of 22 economies surveyed do not have economy-wide infrastructure unit. For example, in **Argentina** and **Spain**, public institutions receive expert support from ministerial and non-ministerial agencies. Still, the majority of countries rely on expertise from a single window. Such infrastructure and PPP units can offer – depending on the capacity of each institution - a wide range of services ranging from market research and consultation to project and seed financing.

The general idea, therefore, is to build capacity in support of infrastructure development in a manner and form that fits each country. Several options are equally feasible to follow. It can be a sectoral PPP unit specialising on particular types of projects or an economy-wide institution. At the same time, it is essential to build inter-agency coordination and performance monitoring. In the case of the sectoral PPP unit, it may be valuable to share efficient operating models of such units with other similar bodies. As regards economy-wide institutions, sound methodology and performance monitoring may be of the top priority.

National Funds for Infrastructure Development

The Survey has revealed several countries, including **Germany**, **Japan**, **Spain** and **Turkey** that do not have formally established national funds for infrastructure. These countries rely mostly on the general state budgets.

Aside from that, resources of state-owned and large private enterprises are another widespread source of infrastructure financing. According to the World Bank, corporations of **Turkey** dominate 5 out of 10 positions in the global ranking of the largest private sponsors of public infrastructure.^{vi} Owing to the extensive resources, such companies outpace some national funds in terms of sums invested in infrastructure.

The proximity of supranational sources of financing, such as the Connecting Europe Facility framework of the European Union, can be an alternative to national funds.^{vii} Multilateral development banks also play an essential role in providing financing for infrastructure.

Nevertheless, the majority of countries rely on the resources of formally established national funds. They offer a variety of instruments including grant payments, long-term loans to central governments, municipalities and public utilities, including senior, equity and subordinated loans. Recently, funds have also started dealing with partial credit guarantees, project and seed financing to support investors at project development and construction phases.

Table 1. Case study countries' models of governance in infrastructure.

COUNTRY	National Strategy for Infrastructure ^a	Comprehensive Infrastructure Plan&Pipeline ^b	Special Public Institution ^c	Dedicated Infrastructure &PPP Unit ^d	National Funds for Infrastructure Development
Argentina					
Australia					
Brazil					
Canada					
China					
France					
Germany					
India					
Indonesia					
Italy					
Japan					
Rep. of Korea					
Mexico					
Netherlands					
Russia					
Saudi Arabia					
Singapore					
South Africa					
Spain					
Switzerland					
Turkey					
United Kingdom					

In place Not in place

Source: country responses to the G20 questionnaire; data from official resources.

Notes: a) **Argentina, Brazil, Germany, France, India, Indonesia, Japan, Republic of Korea, Spain** and the **United Kingdom** have only sectoral strategies that partly cover topics related to infrastructure.

b) **Argentina, Brazil, Germany, France, India, Indonesia, Republic of Korea, Russia, Saudi Arabia** and **Switzerland** have several sectoral plans that cover infrastructure projects.

c) In **Argentina, Brazil, Germany, Republic of Korea, Mexico** and in the **United Kingdom** functions related to the governance of infrastructure development are split across several governmental bodies.

d) In **Argentina**, the role of the PPP unit is delegated to the Infrastructure Division of the BICE (Banco de inversión y comercio exterior - Investment and Foreign Trade Bank). In **Australia** and **Canada**, dedicated PPP units exist at subnational levels. In **Italy**, functions of a PPP unit are delegated to the Department for

Ideas for Policy-Making

- **Apply sound and consistent multiannual approach to infrastructure policy with clear short-term and long-term goals**
- **Build the capacity of public bodies and expert institutions to allow for spillovers and dissemination of best practices**
- **Consolidate and make transparent different sources of financing infrastructure, as well as leverage capacities of multilateral development banks**

Planning and Coordination of Economic Policy under the Presidency of the Council of Ministers. In **Spain**, tasks of a PPP unit are split between the State Society for Land Transport Infrastructure at the Ministry of Transport, Infrastructure and Housing and the National Evaluation Office under the Ministry of Finance.

Germany

Germany is known worldwide for its quality transport infrastructure. Moreover, **Germany** is in the small group of countries that are not projected to have infrastructure gap until 2040.^{viii} At the same time, the country has no single comprehensive strategy in the infrastructure, as well as no dedicated bodies that govern infrastructure *per se*.

The country has several national strategies related to the elements of infrastructure policy that cannot be managed by states (*Länder*) alone. Such elements include transport, cyber-security, IT and 5G. The corresponding strategies have been prepared and are managed by the Federal Ministry of Transport and Digital Infrastructure (*Bundesministerium für Verkehr und digitale Infrastruktur*).

Furthermore, these topics are also covered by specialised departments of other ministries, which contributes to the joint cross-sectoral coordination. For example, the Ministry of economy and energy has departments that deal with the digitalisation of industries and prospective transport technologies.

As regards other types of infrastructure, for instance, schools and hospitals, decisions are made either by states individually or jointly with the federal government.

The United Kingdom

In **the United Kingdom**, Her Majesty's Treasury plays a pivotal role in steering infrastructure policy by allocating public funding and setting strategic priorities.

The National Infrastructure Commission, which is an executive agency sponsored by the Treasury, provides the government with impartial, expert advice on significant long-term infrastructure challenges.

The Infrastructure and Projects Authority, part of the Treasury and the Cabinet Office, provides advice and support on infrastructure delivery to central government and line ministries. Departments, for example, the Department for Transport, are responsible for developing and delivering their projects.

Until recently, **the United Kingdom** had no formal strategic documents to steer the development of infrastructure.

Since 1992, 'Private Finance Initiative' and then 'Private Finance 2' schemes have covered the infrastructure needs of the country.^{ix}

In 2013, the first National Infrastructure Delivery Plan and Pipeline were published.^x They encompass projects of all kinds of infrastructure, including those in the social sphere, agriculture, utility sector and science and technology. Currently, the National Infrastructure Delivery Plan covers the span from 2016 till 2021.

In 2017, the **UK's** Industrial Strategy was rolled out with extensive coverage of infrastructure challenges.^{xi}

In 2018, the National Infrastructure Assessment published by the National Infrastructure Commission presented a 30-year vision for **UK** infrastructure.^{xii} In its turn, the Treasury responded with a pledge for a new comprehensive National Infrastructure Strategy to be developed in 2019-2020.

India

At the national level, **India** aims to build physical and social infrastructure to achieve the goal of becoming a USD 10 trillion economy by 2030.

Regarding strategic documents, there are ministerial-level programmes such as Bharamala Pariyojana (Roads Sector: a Programme to build roads and highways of 35,000 km over 2018-22), Sagarmala (Shipping Sector), Regional Connectivity Scheme for Airports and Power Sector Reforms. Further, states have their priorities in both social and physical infrastructure with several ongoing programs.

In **India**, each ministry details out its comprehensive plan and objectives over the short and medium-term. **India's** infrastructure priorities are also laid out in the Budget Documents, and Budgetary allocations to achieve these objectives are decided in **India's** annual Union Budget. The progress in achieving these objectives is monitored by **India's** Ministry of Finance and the individual ministries as well.

Considering the diverse infrastructure needs, **India** has several dedicated infrastructure ministries at the national level for different sub-sectors including Ministry of Road Transport & Highways, Ministry of Shipping, Ministry of Railways, Ministry of Health and Family Welfare, Ministry of Drinking Water and Sanitation. Additionally, a dedicated PPP Cell is housed in the Ministry of Finance.^{xiii}

Infrastructure projects are financed through budgetary resources of the Central Government and the State Governments as well and through Public-Private Partnerships. Government of **India** has a Viability Gap Funding Scheme to provide support in the form of a capital grant to economically viable projects. National Investment and Infrastructure Fund with 49% Government of **India** equity and an authorised corpus of Rs. 400 bn (USD 6 billion) has been setup with an investment mandate to invest in infrastructure assets and related businesses.

The Netherlands

In the **Netherlands**, the Ministry of Infrastructure and Water Management (MIWM) oversees the policy, implementation and inspection of infrastructure development.^{xiv}

To aid with the development of policies, the MIWM houses separate directorate-generals, responsible for designing overarching policies for development in areas of mobility, water management, aviation and maritime affairs and the environment.

For large infrastructure projects, the MIWM has adopted a unique collaborative approach, namely The Multi-Year Programme for Infrastructure, Spatial Planning and Transport (MIRT) framework.^{xv}

MIRT comprises infrastructure projects and programs in which the national and regional governments collaborate to find a standard solution to specific problems, after analysing different perspectives and development objectives.

MIRT projects can be either implemented through public financing or PPPs on a Design-Build-Finance-Operate-Maintain basis.

Each year, the MIRT is presented to the Lower House as an appendix to the budget of the MIWM, and this provides the necessary political and fiscal commitment to the MIRT.

The MIRT program has rules, procedures, and a framework to direct how a project initiative that needs state funding should be developed and how decisions on project initiatives should be made.

South Africa

In 2012, the Government of **South Africa** transferred the advisory functions of the existing Infrastructure Finance Unit that was housed in the Budget Office to the Government Technical Advisory Centre (GTAC).^{xvi}

Since then, GTAC has been providing technical support and advice to national and provincial departments and municipalities in getting a PPP project through all stages of implementation.

The Infrastructure Finance Unit in the Budget Office is now responsible for the regulatory function and for recommending project approvals to the Deputy Director-General of the Budget Office.

Implementation of the pipeline is monitored and reported by the National Treasury and GTAC.

The Project Development Account, which is a revolving fund, is a dedicated project preparation facility under the National Treasury utilised by GTAC to finance technical assistance for all projects including PPPs.

GTAC functions include technical consulting services, specialised procurement support for high impact government initiatives and advice on the feasibility of infrastructure projects.

In all instances of PPP-related financing support, funds are paid to advisors following the terms of the contract between the implementing authority and the advisor.

In non-grant financing instances, disbursed funds are recovered from the successful private party bidder when the PPP reaches financial close, as a 'success fee', which is part of the procurement conditions for the project.

The Evaluation & Investment Committee appointed by the Head of GTAC decides whether the funds allocated to the project are recoverable or not.

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CHAPTER 2

Legal Approaches to PPP Implementation

The Chapter introduces a comparative review covering practical and legislative aspects regarding PPP models and frameworks in the G20 economies, as well as outlines distinctive features and models of PPP legislation. Further, the chapter presents global trends underlying developments in PPP regulation, evidenced in the majority of countries.

Note: The Chapter follows the World Bank definition of PPPsⁱ and applies that definition irrespective of the terminology used in the particular economy or jurisdiction. In economies where generally applicable and separate regimes exist for concessions (often defined as user-pays projects) and PPPs (often defined as government-pays projects), both regimes have been considered.

Facilitating PPPs through Legislation

While the vast majority of traditional public procurement practices are the same in substance, practices in PPP procurement vary across different countries. We, therefore, will further concentrate solely on the latter.

Various types of PPPs have been developed over the years and are commonly used in countries of G20. Specific PPP-related legal and regulatory framework may facilitate investments in long-term infrastructure projects by reducing transaction costs, ensuring appropriate regulatory controls and providing legal and economic mechanisms to enable the resolution of disputes.ⁱⁱ

The Survey has shown that many countries have introduced specific legislation and guidelines to encourage PPP implementation. The main idea behind enshrining PPP models in the legislation is to remove legal obstacles in project implementation and prevent law suits. Furthermore, the PPP model is essential for measuring domestic or international investors' risk as well as ensuring consistency.

Box 1. Pros and Cons of Unsolicited Proposals

An unsolicited proposal (USP) is a proposal made by a private party to undertake a PPP project, submitted at the initiative of the private firm, rather than in response to a request from the government. USPs need to be adequately regulated to prevent nontransparent behaviour.

By managing USPs appropriately, governments may benefit from this approach while reducing potential risks. However, unsolicited proposals may also pose risks of providing poor value for money, particularly if the government chooses to negotiate a PPP directly with the project proponent, as well as risks of diverting scarce financial resources to non-priority projects. Moreover, in case of USPs with a unique investor, a project may stall if the private side goes bankrupt. Hence, the mission to complete a project will fall upon the shoulders of the public funds. The lack of clarity and transparency in the treatment of USPs may lead to projects that yield low value for money.

Common Law and Civil Law jurisdictions

Legislation plays a central role in implementing PPPs. The law embodies a political commitment, provides specific legal rights and represents an essential guarantee of stability of the country legal regime.ⁱⁱⁱ

However, not every country decides to incorporate PPP models in the national legislation. Administrative and legal traditions in the country establish distinctive features for PPP regulation. Common law and civil law jurisdictions have different approaches to many issues relevant to PPPs.^{iv}

In civil law systems, the operations of government are codified through administrative law. This code, combined with other legislation, such as the civil code and the commercial and public contract codes, establishes legal rights and processes that apply to PPP contracts. Common law systems have fewer specific PPP provisions and govern such contracts in general.^v

This section outlines approaches to PPP regulation in common law and civil law jurisdictions. It also elaborates on specific issues and distinctive aspects of PPPs that are intrinsic to civil law countries with specific PPP regulation, general PPP legislation and common law systems, which are formed based on historical, political and practical backgrounds.

Some Civil Law Countries have Specific PPP Laws

The differences also exist within a group of civil law countries, which tend to embody their PPP frameworks in specific laws. Depending on such criteria, civil

Box 1. Pros and Cons of Unsolicited proposals (continued)

In **Brazil**, unsolicited proposals precede the request for proposals. It begins with a formal request by any interested party to the government seeking to assess the feasibility of a specific PPP project. The government reviews the request, and in case of approval, it publishes a notice or announce its intention via digital media. The public notice introducing the request for proposals must also indicate the scope of the project and specify the nature of the relationship between the public and private entities. The notice must establish the term during which interested parties will have to research the proposed project, as well as guidelines governing the use of this procedure by the government entity.

Unsolicited proposals for PPP projects are atypical in **Canada**. This may be due in part to the significant amount of planning that goes into all PPP projects before the procurement process gets underway, and in part to the highly structured approach taken in the procurement process.

In 2011 in **Japan**, the revised PFI Act introduced the unsolicited proposal system through which the private sector may propose a PFI project. Competitive bidding is still required even if the unsolicited proposal induces the relevant authority to start PFI procedures. In **France**, similar approach and process exist.

Source: [Pubdocs.WorldBank.org](https://pubdocs.worldbank.org/), [PPPKnowledgeLab.org](https://pppknowledgeLab.org/), TheLawReviews.co.uk

law countries can be divided into two groups (see Table 2), taking into account the presence of specific laws on PPPs.

PPP laws have been introduced in **Argentina, Brazil, Japan, Mexico, Turkey and Russia**. These particular laws on PPP form the central pillar for PPP regulation in these countries, integrated into the current system of legal regulation. Remarkably, most developing countries like **Argentina, Indonesia and Russia** adopted a special law on PPP over the past five years to reinforce the legal certainty and attract private investment. It is worth noting that many countries from this group also have separate law on concessions. The European Union adopted dedicated EU regulations (Directives) for (i) PPPs as part of public procurement, and (ii) concessions, with the key character of transferring to the private partner the operating risks (i.e. especially the demand risk or traffic risk). For example, as an EU member State, **France** has further developed its concession agreements legal framework, which serves to implement major infrastructure projects such as canals, motorways, water distribution systems and toll bridges with transfer of the operating risk and with a primarily end-user-pays structure. At the same time, in **France**, 'partnership contracts' exist for government-pays PPPs and the corresponding legal framework is outlined as specific elements under the general regulation on public procurement.

Other Civil Law Countries Follow General Regulation

PPP arrangements in many civil law countries are governed by a distinct framework of administrative law, which sets out fundamental principles that, in many cases, cannot be derogated from or overridden by agreement of the parties.^{vi} More specific requirements can be derived from budgetary and public procurement laws and legal provisions concerning specific sectors. For example, **Germany** has no preferred types of PPP or special PPP-related regulation and applies general civil law framework and regulatory requirements to PPP projects.

Sectorial regulation is also widely spread in this group of countries. For example, in **Germany and Italy**, regulation in some industries involves certain PPP aspects.

Often in civil law countries, concession laws or procurement regulation are introduced to enable PPP projects to be carried out and to define the type of services that could be procured under PPPs. Such regulation has been introduced in **Italy, Republic of Korea, China and Spain**.

Common-Law Countries Prefer Guidelines

Common law jurisdictions have a less prescriptive approach to the structuring of PPPs than civil law jurisdictions. Such countries generally have no specific laws that establish PPP frameworks. In many common law countries, policy statements and administrative documents are widely used. Most countries in this group have legislation, aimed at facilitation of PPP projects 'implementation by centralising and streamlining planning approval and land use processes.

Australia and the **UK** exemplify approaches of common-law countries to dealing with PPPs.

The United Kingdom provides a notable example of the widespread and successful implementation of PPPs with no comprehensive PPP regulation. **UK** introduced the Private finance initiative (PFI) in 1992 and standardized the pioneer model for government-pays PPPs through the implementation of numerous PFI-projects.

In **Australia**, the National PPP Policy and Guidelines have been developed to provide a consistent framework that enables public and private sectors to work together to improve service delivery through private sector provision of public infrastructure and related services. This framework has been endorsed and is applied by the Federal Government and all State and Territory governments for

the delivery of PPP projects. Jurisdictions are also encouraged to seek guidance from Infrastructure Australia and the Infrastructure and Project Financing Agency when developing PPP business cases.

Table 2. Surveyed countries' legal frameworks for PPPs

Civil Law Countries. Dedicated Legislation Exists, Including Specific Laws on PPPs	Civil Law Countries without Specific PPP Legislation. General Legislation and Regulation Vastly Cover the Notion of PPPs	Common-Law Countries. Specific Legislation is not Existant, PPP Guidelines may be in Place
Argentina	China	Australia
Brazil	Germany	Canada
France ^a	Indonesia	India
Japan ^b	Italy	Singapore
Mexico	Rep. of Korea	South Africa
Russia	Netherlands	United Kingdom
Turkey ^c	Saudi Arabia ^d	
	Spain	
	Switzerland	

Source: country responses to the G20 questionnaire; data from official resources.

Notes:

- a) In **France**, the newly adopted Public Procurement and Concession Agreements can be considered as the Law on PPP.
- b) In **Japan**, Act on Promotion on Private financing initiatives can be considered as the Law on PPP.
- c) In **Turkey**, the legislative framework dealing with various PPP models and sectors is consolidated under a single umbrella law^{vii}.
- d) In **Saudi Arabia**, the legal system is considered unique, as it does not purely adopt one of the principal legal systems, so its legal system is a combination of civil law, common law and religious law.

Argentina

Argentina was the first country in Latin America to adopt the PPP Law in 2000. Since **Argentina** is a federal country, with both federal and provincial levels of legal organisation, the federal government and each province have a dedicated law on public infrastructure.

In **Argentina**, all PPP contracts are to be designed according to the distinctive features of each project and its financial needs. Entities in charge of the execution and performance of the PPP contract may be organised as a special purpose vehicle (SPV), a trust fund, or any other vehicle or associative organisation.

The new law on PPP set forth two new bodies. First, the Undersecretariat of PPPs within the Secretariat of Budget Evaluation, Public Investment and PPP now assists various public procurement agencies in designing and structuring PPP projects and articulates the legal procedures with the different national agencies and ministries. Second, the Congress bicameral commission is in charge of monitoring the PPP projects' performance and compliance with the PPP legislation.

China

In **China**, most common types of PPP include operations and maintenance (O&M), management contract (MC), BOT, BOO, build-own-operate-transfer (BOOT), TOT, and rehabilitate-operate-transfer (ROT). The specific type of PPP is chosen due to the conditions of a project and the requirements of participating parties.

PPP projects are currently implemented by rules and guidelines regarding PPP and concessions, as well as laws, regulations and rules regarding fixed asset investments, construction and contracts. Neither the Guidelines of the Ministry of Finance of **China** nor other government guidelines prohibit the selection of specific types of PPP.

The Ministry of Finance (MOF) and National Development and Reforming Commission (NDRC) of **China** have separate PPP project libraries. The PPP project library of the MOF provides detailed project information, including the value for money analysis and assessment of fiscal feasibility. The PPP project library

Ideas for Policy-Making

- *Preserve the distinctive character of PPP regulation to make allowance for project specifics, country tradition and political aims*
- *Choose parallel regulation of different PPP models, such as concessions and government-pays PPPs, as a recognised common practice in order to meet the demands of the market*

serves as an instrument for carrying out functions of the MOF associated with information disclosure for overall project life cycle, dynamic monitoring of fiscal expenditures and social supervision. The PPP project library of the NDRC serves as an online approval and supervision platform for investment projects, what means that government has already approved the fixed asset investments for the projects listed in the PPP project library.

The PPP project library is used as an essential basis to arrange government investment, determine and adjust prices, issue corporate bonds and determine entitlement to particular PPP policies. Projects listed in the PPP project library are implemented in batches under the coordination of the line bureaus or departments of the local government.

Canada

In **Canada**, several authorities regulate the PPP market, including the federal government, the provincial governments and dedicated specialised agencies. From a constitutional perspective, the allocation of responsibilities between provinces and the federal government is such that the majority of large-scale infrastructure projects fall under provincial jurisdiction. At the federal level, three following institutions are involved: PPP Canada, a PPP group at Public Works Government Services Canada, and a PPP team at Treasury Board.^{viii}

At the provincial level, Ontario and British Columbia have led the way by developing and adapting to the Canadian market the original PPP documentation from **Australia** and the **UK** at an early stage. As a result, their template documentation often serves as a model for the other provinces, and they play a crucial role in advising on the interpretation of the documentation and in continuous improvement of the templates.

In **Canada**, various types of PPP have been developed over the years as an alternative to the conventional delivery model of design–bid–build (DBB), in the hope of achieving better value for money. PPP models used in **Canada** most commonly include build–finance (BF), design–build–finance (DBF), DBFM and DBFOM. Other models, such as operation and maintenance (O&M) and the design–build–operate–maintain (DBOM) are used less frequently.

Japan

In **Japan**, several models of infrastructure and PPP projects' implementation exist, notably PFI model and concessions.

Under the PFI model, public entities give a call for proposals from private companies to carry out design, construction, and operation. Further, the private enterprise, which brings the best proposal, is granted the right to fulfil the proposed obligations.

In Japan, PFI projects are implemented, not only by the central government but also by the municipal government at the prefecture, city, town and village level. The Private Finance Initiative Promotion Office within the Cabinet Office plays a principal role in the PFI market in Japan, setting the general policy on PFI projects by issuing bills and guidelines and establishing action plans, among others, to support the promotion of the implementation of PPP/PFI projects.

As regards concessions, a public entity gives private enterprises the operating right of the existing public facility, enabling a private operator to collect service fees while the public entity keeps ownership of the facility.

Turkey

Turkey started to use the concept of PPP in infrastructure during the 1980s as an alternative to traditional public procurement. The first law in this area was the Law on Electricity put in force in 1984. It was a sector specific law for the participation

of the private sector in energy supply infrastructure. In 1994 the BOT law which covers all sectors has been enacted.

Specific legislation regarding PPPs currently in force is in the form of laws and secondary legislation that are adopted according to specific PPP models including Build-Operate-Transfer (BOT), Build-Lease-Transfer (BLT), Build-Operate (BO), Transfer of Operating Rights (TOR) and concessions in various sectors such as transport, energy, mining, health and environment. Besides, a draft framework law on PPPs is under consideration, coordinated by the Presidency of Strategy and Budget.

With over 30 years of experience and an ambitious PPP pipeline, the PPP legislation in Turkey is evolving in accordance with the current needs of the projects to increase private sector involvement. There are specific provisions within the legislation on tender procedures and contracts.

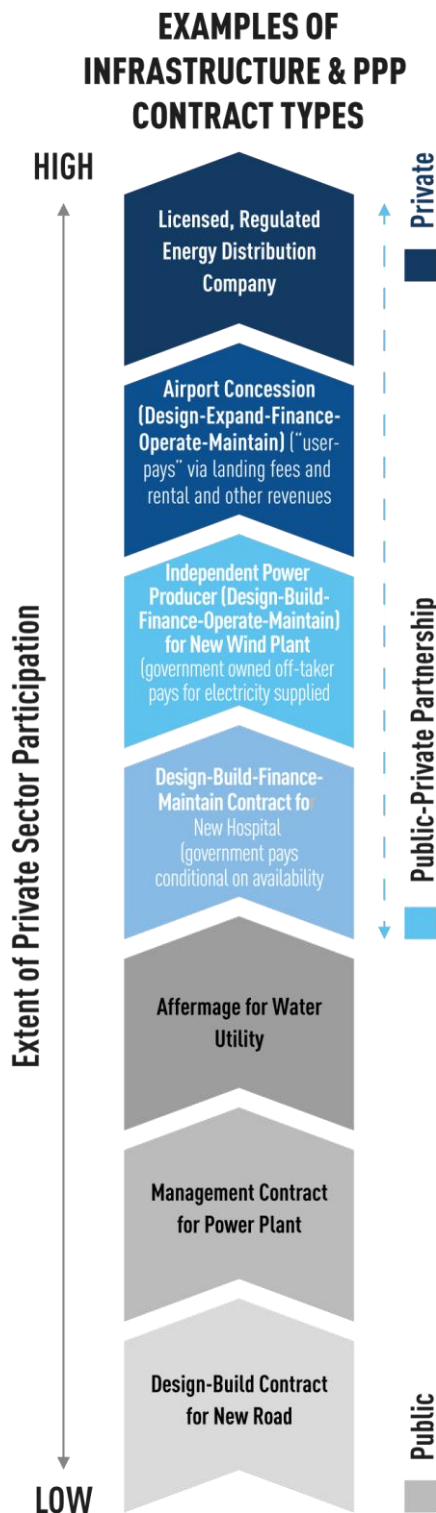
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CHAPTER 3

Mechanisms Facilitating Return on Private Investments in PPP Projects

This chapter focuses on the primary forms of payment mechanisms used to finance PPPs. The essential characteristics of models are described in order to estimate their respective advantages and disadvantages. The comparison reveals areas where each mechanism might be the most efficient. The research findings show that the most popular mechanisms are public and users' payments. The criterion for classification is the source of remuneration. The selected examples of finance mechanisms are demonstrated at the end of the chapter.



Choice of Payment Mechanisms Depends on Demand Risk Management

Payment mechanisms define how the private party is remunerated.ⁱ Generally, PPP payment mechanisms, as the principal means for allocating risks and providing incentives, can be divided into two groups, focusing on the source of income – from public partner or users.

The two primary forms of payment mechanisms in PPPs include *availability payment* when costs of the private partner are covered from the budget and revenue-based *user payments* when the private partner's income stems from commercial activities. The Survey has shown that both of them are used in all G20 countries.

The choice of the payment mechanism for a particular PPP project is a form of risk transfer because the payment mechanism allocates “demand risk” – risk that the infrastructure asset does not generate enough user fees to pay for its design, construction and maintenance.ⁱⁱ

Availability Payment

Since the 1980s, the availability payment mechanism has become prominent in **the United Kingdom, Canada and Australia**, as these countries executed PPPs for social facilities, such as hospitals and schools. According to the Survey, availability payment is among the most common payment mechanisms. Majority of PPP projects in **Canada** use the availability payment mechanism, regardless of whether the asset can generate sustainable revenue.

An availability payment mechanism means that public partner makes recurring payments to a private one for making the PPP asset available for useⁱⁱⁱ, regardless of whether the public partner uses the PPP asset. In order to receive payment, the private partner must ensure that the asset meets specific performance standards and is “available” for use by the public.

With an availability payment mechanism, the public partner covers the demand risk for the PPP project.^{iv} It is widely used in social infrastructure, where demand-side risks are usually high. Additionally, in some transport sub-sectors, this practice is becoming increasingly common (toll-free roads, rail, and water transportation).^v

The natural structure of a PPP payment mechanism is unitary, as the public partner is paying for services, and if there is no service, there should be no payment. By using the availability payment mechanism, the public partner can limit the profit of the private partner.^{vi}

User Payments

The private partner collects user charges directly from users to recoup project implementation costs. Such revenue regime is simplified for public partners due to the practically neutral budgetary impact of such projects. By charging users, the

Box 2. Project Bond Initiative

Project Bond initiative (PBI) was developed by the European Commission and the European Investment Bank (EIB) as a means of encouraging new financial instruments to make infrastructure projects more attractive to investors. The PBI aims to promote the development of capital markets for financing European infrastructure projects for transport, energy and information technology and communication. Institutional investors have a high potential to invest in large-scale infrastructure projects through the capital markets.

Thus, project bonds are an alternative source to bank loans and public financing. The PBI intends to reduce the dominance of commercial banks in infrastructure financing in Europe, and promote the contribution of alternative investors.

Project bonds are not a new phenomenon; they have been used for financing projects in the USA, **Canada** and Asia for more than 15 years. Although project bond financing has always played a minimal role in project finance globally, its importance is increasing.

The first financing operation in **Germany** with EU project bonds closed in late August 2014. The project A7 concerns the extension of the motorway between the Bordsesholm junction in Schleswig-Holstein and the Hamburg Northwest junction. During the construction period, traffic will keep on flowing. The project company is paid based on availability payments. The total financing is up to €770 million. The duration of the concession is 30 years. The EIB is providing a subordinated loan of around €90 million for the project, representing about 20% of the volume of the senior debt through the issuance of capital market instruments. The bond investors were EIB, AXA, KfW IPEX, MassMutual, Aegon, ING and Sun Life. The pilot phase of the PBI plays a significant role in the future of the initiative. Overall, the pilot experiences have proved that project bonds may be a working instrument to finance infrastructure facilities. Institutional investors such as pension funds and insurance companies have shown their interest given that project bonds can perfectly match long-term liabilities with long-term assets and increase their yields.

Source: Journals.vgtu.lt

approach of setting and adjusting tariffs becomes a vital risk allocation mechanism.

In some PPPs, the private party may set tariffs and the tariff structure at its discretion. However, in many countries, user-pays PPPs are implemented in monopolistic sectors, and tariffs are typically regulated by the government (along with service standards), to protect users. The demand risk is on the private partner, but it also allows for a potentially higher profit.

At the same time, demand risks can be hard to estimate. Many factors may affect the continued use of a toll road, for example, the significant deviation in mass transit, fluctuation of fuel prices and the relocation of people from a particular area^{vii}. Thus, it often can be hard to reach a return on investment without any public support, which leads to the use of mixed payment models where public and private partners share risks of demand.

Minimum Revenue Guarantee

The mechanism of minimum revenue guarantee (MRG) is a common practice in several countries, such as **Brazil**, **Russia** and **Turkey**, which allows for sharing the risks of project profitability between parties. In the face of significant revenue risk in PPPs, MRG is an instrument that can be used by governments in order to attract private investors.^{viii} By offering MRG, the public partner agrees to mitigate the revenue risk taken by the private sector. However, the practice of legal regulation of MRG in countries evidences different approaches to the conditions for compensation to the private partner.

MRG appeals to governments due to its ability to induce more private investment without any immediate increase in reported government spending or debt.^{ix} However, PPP practices indicate that public partners are not always sure of the thresholds of guarantees that should be offered, which sometimes leads to over-guarantees.^x

MRG is a valuable instrument to enhance private partners' confidence through public partner's commitment. However, it may give rise to significant challenges to long-term fiscal management. The process of evaluating and designing MRG is comprehensive and requires transparency in accounting, reporting and budgeting.

Australia

In **Australia**, the National PPP Policy and Guidelines outline the broad commercial principles that jurisdictions apply to manage PPP financing. As these principles are a high level guide, each jurisdiction has developed supplementary policies and guidance to manage PPP financing consistent with the national principles.

In the Australian Capital Territory, the availability payment is calculated monthly with abatements (deductions from payments) based on "unavailability" of the required services. Performance abatements typically only apply after the expiry of a rectification period and for performance failures above a monthly threshold. The abatements are applied in constructions, transportation, road projects, BOOT and output-based projects.

In the Northern Territory, availability payments have been used to facilitate PPP projects. Options for user charges and other concession arrangements may have more limited applicability in the Northern Territory due to its small and widely dispersed population.

In New South Wales, the Government pays the project company in return for making the assets available for use. For specific availability PPPs, the Government will make capital contributions during construction, in order to reduce the private financing requirements. The capital contributions are typically linked to the achievement of KPIs.

Ideas for Policy-Making

- **Introduce the system for comprehensive demand risk assessment as a way of promoting the efficiency of PPPs that rely on user payments**
- **Implement mechanisms, facilitating return on private partner's investment, focusing on all vital aspects of the PPP project**
- **Create assessment tools for calculation of the sufficient volume of MRG, appropriate for public and private partners**

Queensland has adopted availability payment mechanisms in PPP procurement to achieve optimal risk allocation and correct incentives to the private proponent. The appropriateness of a payment mechanism in achieving quality service outcomes is considered on a project-by-project basis.

In Victoria, the private party is paid for making the facility available to specified standards over the contract term, especially in social infrastructure. Abatements are applied for any availability and quality failures (when key performance indicators are not met), or the private party is paid through the collection of toll revenue over the contract term.

In Western Australia, both availability payments and user payments have been used as appropriate.

The Republic of Korea

With a 15-year experience in PPP program, **the Republic of Korea** has an established institutional framework and mature PPP market.

The financial crisis that hit **the Republic of Korea** in late 1997 was a drag on the growth of the PPP projects.^{xi} In 1998, the government introduced the «Act on Private Participation in Infrastructure», which called for reinvigorating PPPs through various government measures, including the introduction of minimum revenue guarantee.

The Republic of Korea modified this law in January 2005, expanding the range of facilities covered from economic infrastructures, such as transport facilities – roads, railways, seaports, and environmental facilities – to social infrastructures, such as schools, military residences, housing and welfare facilities for the aged, and cultural facilities.

In October 2009, the minimum revenue guarantee was abolished and replaced by another government support measure – compensation of base cost – where the government shares investment risk within the set limit.^{xii}

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CHAPTER 4

Fiscal and Other Measures in Support for PPPs

The G20 members use various and country-specific policy approaches and tools to support the procurement of PPPs. In this chapter, we present the respective practices and further explore variations of country experience through several cases.

Box 3. Contingent Liabilities. Ensuring Fiscal Stability of Local Budgets.

Although PPP procurement has many benefits over traditional public investment, it certainly has its risks. Arguably, the most noticeable of them are risks of contingent liabilities. While conventional public procurement allows for clear reflection of obligations in budget accounts, PPP procurement creates both explicit and implicit contingent liabilities. The latter stems from guarantees on particular risk variables, compensation clauses, termination payment commitments, debt guarantees and other credit enhancements, litigation, as well as general obligations of governments reflecting the public interest.

Occurrence, timing, and magnitude of such commitments depend on some uncertain future event. That is why they are called contingent. Originating from the very nature of PPP contracts and if not appropriately managed, such liabilities may grow up to enormous amounts and pose a real threat to the fiscal stability of a state. Given the popularity of various state guarantees as a means to attract private investments, it is no wonder that countries have started to pay increased attention to contingent liabilities in PPPs.

To date, global experience hints to four essential elements of managing contingent liabilities.

First, it is necessary to assess the affordability of financial commitments to PPPs either by forecasting budget limits or by introducing budget rules. For example, In **Brazil**, project studies must include a fiscal analysis for the next ten years. In the **UK**, procuring authorities must demonstrate the affordability of a PPP project based on agreed departmental spending figures for the years available, and on cautious assumptions of spending envelopes after that. As regards budget rules, Colombia's law on contingent liabilities (CO 1998, Article 6) requires implementing agencies to make a cash transfer to a contingency fund when a PPP project is signed. The cash transfer is set equal to the expected cost of programs, including any guarantees provided. The payments may be spaced out over several years, meaning that the decision to accept a liability has an immediate budget impact to be considered.

PPPs Require Special Policy Approach

To date, a wide range of supportive measures exists to facilitate launching and implementation of infrastructure and other investment projects, including PPPs. The latter substantially differ from traditional public investment in the areas of procurement and tenders, defining the form of project financing, as well as the distribution of risks between the public and the private partner.ⁱ

In this chapter, we describe commonly used measures in support for PPPs such as fiscal incentives, state guarantees, grant payments, subsidised loans and support for property transactions. At the same time, we do not distinguish between who provides such measures for it can be either governmental bodies or dedicated PPP units, as well as various development institutions, including banks and national funds.

Designing a Policy Mix Takes Evidence-Based Approach

As seen from the G20 Survey responses, there are a few types of supportive measures that countries apply. All of them pursue the same goal — to attract private investments in infrastructure. The risk, therefore, is in possible duplication and lack of coherence in a chosen policy mix. It is even more important if we take into account the fact that every measure has its pros and cons. Obviously, 'one size fits all' does not work here.

Country experience shows that successful choice in policy tools is often based on the regulatory impact analysis. The latter, among other things, implies taking into account both current and prospective conjuncture, local governance institutions and a broader economy and political context. By elimination of duplicative or incoherent measures, it is possible to improve the policy mix.

Fiscal Incentives

The G20 countries use various fiscal incentives, including those referring to VAT, tax on credits and debits in bank accounts and other financial operations, as well as corporate acquisition, income, registration and property taxes. The majority of countries offer investors fiscal incentives at the stage of construction.

The Survey identified at least 6 out of 22 countries covered that use fiscal measures to incentivise investments via PPP. For example, **Argentina** allows for creating individual PPP Trusts.ⁱⁱ All transactions made via a PPP Trust are exempt from all national taxes, fees and contributions, both existing and to be introduced in the future. A wide range of fiscal incentives is also available in **the Republic of Korea**. In **Italy**, special tax relief measures are widely used to spur the implementation of PPPs in the motorway sector.

State Guarantees

As reflected in country responses to the Survey, state guarantees are a widely used measure, and half of the countries rely on it. There are at least three kinds of warranties that protect PPP contracts.

The first group refer to overall force majeure conditions when a private party is unable to stay in the project. The government then may compensate for some

Box 3. Contingent Liabilities. Ensuring Fiscal Stability of Local Budgets (continued).

Second, controlling aggregate exposure to PPPs may prove worthwhile. In this respect, **Brazil's** Federal PPP Law (BR 2004a, Law 11079) limits the total financial commitments of all PPP contracts to a maximum of five per cent of annual net current revenue. In Peru, Legislative Decree No. 410-2015-EF (PE 2015) states that the present value of the total public commitments to PPPs, excluding governmental finance entities, shall not exceed 12 per cent of GDP. However, every three years, the President may issue a decree to revise this limit, depending on the infrastructure needs of the country.

Furthermore, budgeting for government commitments to PPPs is critical for success and involves making sure money is appropriated and available to pay for whatever cost the government has agreed to bear under its PPP projects. In **Indonesia**, the Infrastructure Guarantee Fund (IGF) fulfils such a task. IIGF is a state-owned enterprise established by government regulation and a 2009 Ministry of Finance decree. As one of the fiscal tools of the government, IIGF is under the direct supervision of the Ministry of Finance and has the mandate to provide guarantees for infrastructure projects under PPP schemes. IIGF operates as a single window for appraising, structuring, and providing guarantees for PPP infrastructure projects. Such a configuration ensures a consistent policy for evaluating commitments and a singular process for claims. It introduces transparency and consistency in the process, which is critical for market confidence. IIGF provides guarantees against specific risks based on private-sector demand in a variety of sectors—including power, water, toll roads, railways, bridges, ports, and others.

Finally, governments need to account for and report on their financial commitments, including those under PPP contracts, which calls for consistent fiscal monitoring and evaluation of PPP projects. In **China**, both the Ministry of Finance (MOF) and the National Development and Reform Commission (NDRC) of China have recently demanded tighter scrutiny over PPPs as the government seeks to boost infrastructure funding while containing fiscal risks. The MOF has recently issued several guidelines to standardize PPP development and forestall new off-budget debt risks of local governments. Till now, Chinese authorities have vastly explored funding infrastructure and public works through PPP models since late 2013. A total of 8,654 PPP projects had been registered in a national data bank by the end of 2018, according to official data. Now, all PPPs are required to go through a thorough feasibility study, including the project cycle and cost, operation efficiency as well as risk management. Projects that will increase local governments' off-budget debt might then be stopped or transferred in other legal ways for continued construction.

proportion of private investments and even take on the project to ensure the delivery of a particular public service.

The second group of guarantees deal with banking. The state ensures that if private partner defaults on its credit obligations, the budget will step in.

Also, foreign exchange and other risks may be approached by the state.

By de-risking PPP projects, public guarantees may significantly contribute to their bankability and attract additional financing. On the other hand, contingent liabilities is a comprehensive instrument that is not always easy to manage and evaluate in terms of risk. As a separate issue, we discuss contingent liabilities in Box 4 further.

Grant Payments

Grant payments are the second most frequently reported measure that is used in ten G20 countries. Public funding directly supports the project to cover the capital expenditures of a private party. In **India**, for example, capital grants are provided to PPPs in the amount of up to 20% of the total project cost.ⁱⁱⁱ Furthermore, the state body that runs the project may provide an additional grant of 20% of the total project cost. In **France**, public subsidies provided to some projects account for 18% of total CAPEX amount. Grant payments may also come through the issue of public bonds, which is the case of **Korea**.

Subsidised Loans

Just 4 countries reported to use subsidised loans. The essence of loan subsidy is to lower the interest rate by (partially) paying it from the budget. In some rare cases the state may be ready to provide completely interest-free repayable loans, as was reported for example by **Switzerland**. The attractiveness of the measure lies in the opportunity not only to support a project but also to stimulate debt markets.

Support for Transactions

Supporting an investor in concluding critical deals is often used in such PPP initiatives that are highly dependent on the cost of property transactions implied. The public authority might wish to assist the investor in acquiring the needed property so that the user's tariff remains reasonable. A few countries provide such option in respect to land transactions including **Korea**, **South Africa** and **Turkey**.

Supporting investor's transactions may as well include deals with various types of immovable and intangible assets such as buildings, related infrastructure and intellectual property. Such options are in place in **China**^{iv} and **India**^v.

Table 3. Measures in support for PPPs available in G20 and partner countries

COUNTRY	Fiscal Incentives	State Guarantees	Grant Payments	Subsidised Loans	Transactions Support
Argentina					
Australia					
Brazil					
Canada					
China					
France					
Germany					
India					
Indonesia					
Italy					
Japan					
Rep. of Korea					
Mexico					
Netherlands					
Russia					
Saudi Arabia					
Singapore					
South Africa					
Spain					
Switzerland					
Turkey					
United Kingdom					

In place Not in place

Source: countries' responses to the G20 questionnaire; data from official resources.
 Notes: practices of some countries may not be reflected explicitly due to the scarcity of information available.

Box 3. Contingent Liabilities. Ensuring Fiscal Stability of Local Budgets (continued).

As regards fiscal monitoring, central contingent liability management units may be established specifically for that purpose. For instance, the Ministry of Finance of Chile has a Contingent Liabilities and Concessions Unit established in 2006 as part of the Budget Department. Although it has considerable expertise in concessions, the unit is also responsible for monitoring a wide range of contingent liabilities, not just those associated with concession agreements. The government's primary source of expertise on concessions is the much larger Concessions Department in the Ministry of Public Works.

Source: PPPKnowledgeLab.org, ADB.org; countries' responses to the G20 questionnaire.

Brazil

To ensure government payments under PPP contracts, **Brazil** has created a special guarantee fund.^{vi} The federal government, either directly or through independent agencies or public foundations, is authorised to contribute up to 6 billion Reais to the fund (USD 1.5 billion). The fund's assets are explicitly dedicated to the PPP program, and cannot go to general public spending. Although the fund is technically a "private" entity, the PPP statute mandates that a financial institution controlled by the federal government managed the fund and has the authority to represent it in legal proceedings.

In 2012, the law was enacted, authorising the Federal Government to participate as a shareholder to the limit of 11 billion Reais in the guarantee fund to cover risks related to infrastructure projects.^{vii} Thus, the infrastructure guarantee fund was established under private law to guarantee projects resulting from public-private partnerships, including those organised by states, federal district and municipalities.

Also in 2012, the Brazilian Guarantees Agency was created to manage the infrastructure guarantee fund and represent it judicially and extrajudicially.

Italy

The Italian Government continues to support implementation of PPP operations, as underlined in the National Reform Programme^{viii}.

In **Italy**, special tax relief measures for the implementation of PPP infrastructure projects are operational in the motorway sector only.^{ix} Implemented in line with the corresponding guidelines, they allow a public entity to substitute the immediate payment of a grant owned to an SPV with reductions of future tax payments. Only new strategic infrastructure projects may apply for the measure.

As regards organisational aspects, the maximum extent of public assistance, including tax relief measures expressed in present value terms, may not exceed 50% of the investment cost. Supportive measures are assigned by the Interministerial Committee for Economic Planning, after consulting the Public Infrastructure Regulation Unit that operates in the Department for the Planning and Coordination of Economic Policy.

Ideas for Policy-Making

- **Conduct an evidence-based regulatory impact analysis before enacting any supportive measures**
- **Eliminate duplicative or incoherent measures that undermine policy efficiency**
- **Ensure that adequate management of contingent liabilities is in place including through fiscal monitoring and other respective provisions**

Public grants are also provided to maintain the economic and financial balance in PPPs. Additional financial support is available for specific infrastructure projects, mainly from Cassa Depositi e Prestiti, which is the National Promotional Institution.^x It includes corporate loans and project finance for long-term projects, as well as contributions to infrastructure equity funds that invest in innovative and responsible service sectors.

Turkey

In **Turkey**, state guarantees are commonly used in airport sector PPP projects.^{xi} Also motorway PPPs and urban transportation projects such as Eurasia Tunnel rely on state guarantees. In case of airports, guarantees amounting to a certain number of passengers in a given contract year are key subsidies in the Turkish context. If the actual number of passengers using the airport falls below the guaranteed number within the relevant year, the government party provides specific incentives accordingly. For motorways and tunnels, traffic guarantees are provided. If the car equivalent of all the vehicles which used the motorway/tunnel falls below the guaranteed level, the government pays for the remaining gap. Most of these projects have revenue sharing mechanism which requires the private sector to share a certain proportion of the revenue exceeding the guaranteed level with the government.

Equally, direct revenue guarantees are also seen in the airport sector. The mechanism typically works both ways: if the actual revenues in the relevant year are below the guaranteed total revenue for the relevant year, the government party pays the difference. Conversely, if the private partner generates more than the guaranteed revenue amount, the surplus revenue is shared with the government party.

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CHAPTER 5

Green Infrastructure

In this chapter, based on the G20 Survey responses, we present approaches that are evidenced in G20 countries towards the development of green infrastructure. The Chapter also presents examples of the corresponding provisions' implementation into domestic regulation.

Box 4. Quality Infrastructure Investment

Quality Infrastructure Investment is a driver of economic growth and prosperity. G20 countries introduced principles for Quality Infrastructure Investment as a prevailing strategic direction and high aspiration at the G20 Osaka Leaders' Summit in Fukuoka, **Japan** on 9 June 2019.

The QII principles promote an infrastructure development approach expected to deliver high benefits at low cost in the long-run in terms of contribution to well-being, human lives saved, environment and ecosystems services conserved, enhanced economic activity, as well as financial sustainability. The longevity of infrastructure and long-run cost-effectiveness matter as well: both social and economic returns on investment should be maximised through QII in the long term. Given that QII's positive impacts create favourable investment opportunities, alignment with QII principles is also deemed necessary in mobilising capital and narrowing the infrastructure gap.

It is worth noting that the G20 Osaka Leaders' Summit also recognised the Quality Infrastructure Investment Database (QII Database) and its ability to help to implement quality infrastructure investment. The QII Database was developed in collaboration with the GI Hub, the OECD and the World Bank and comprises resources and facilities relevant to Quality Infrastructure Investment under the Principles for Quality Infrastructure Investment including sustainable growth and development, economic efficiency, environmental considerations, climate resilience, social considerations and infrastructure governance.

Source: [MoF.go.jp](https://www.mof.go.jp), [GIHub.org](https://www.gihub.org)

G20 Countries' Regulation for Green Infrastructure

The Survey shows that most countries have already integrated the principles of green infrastructure into national strategic documents.

For example, the Investing Plan in **Canada** is set to improve the resilience of communities and spur the transition to a clean growth economy. The Plan emphasises that climate change considerations should be incorporated into infrastructure planning, design and investment decisions. Under the Investing in Canada Infrastructure Program, the 'climate lens' applies an eligibility test for climate-related green infrastructure projects.

Japan has the Fundamental Plan for National Resilience, and **Saudi Arabia** has included 'green infrastructure' provisions in the National Spatial Strategy, National integrated infrastructure strategic plan and National Transport strategy. Under the Road map on circular economy, **France** is moving towards a new type of economy, where consumption is moderate, products have a longer lifetime, and waste is limited and can be transformed into new resources.ⁱ

Green Bonds and Related Financial Instruments Facilitate Investment in Green Infrastructure

In order to raise capital, it is necessary to ensure that growing concerns about environmental conditions and climate change interventions were combined with sustained economic returns.ⁱⁱ Many governments and international organisations are taking steps to stimulate green finance.

The green bond is an instrument intended to encourage sustainability and to support climate-related or other types of special environmental projects.ⁱⁱⁱ Green bonds represent a small but growing share of the total bond market.^{iv} The World Bank is a major issuer of green bonds. Like any other bond, a green bond is a fixed-income financial instrument for raising capital from investors through the debt capital market.^v

There are some other types of 'green' instruments — for example, Climate Bonds. Climate bonds are intended to achieve a specific environment or energy outcome.^{vi} Additional measures may include loans discount interest, green funds, tax relief measures or "green" insurance and "green" public procurement.

Typically, green bonds have the same regulatory status as conventional "non-green" bonds. However, there are some voluntary regulation and principles of issuing.

The International Capital Market Association (ICMA) issued the Green Bond Principles (GBP) in January 2014, shortly after the issuance of the first corporate green bonds in 2013. GBP, developed by ICMA, are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond.

In June 2015, the London Stock Exchange launched its dedicated green bond segments, establishing strict admission criteria aligned with ICMA's Green Bonds Principles. London Stock Exchange has introduced its guidelines such as the GBPs that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a

Green Bond. Meeting the requirements of the London Stock Exchange's green bonds requires providing the Exchange with the relevant "second opinion" document that certifies the 'green' nature of the bonds.

In June 2018, the European Commission set up a Technical Expert Group on Sustainable Finance to assist in developing the European Green Bond Standard.^{vii} In August 2019, Moscow Exchange updated Listing Rules to create a Sustainability Sector for financing projects in the fields of environmental and social sustainability.^{viii}

Table 4. Measures in support of green infrastructure investments in G20 and partner countries

COUNTRY	Strategic priorities for developing green infrastructure	Guidelines issued to encourage capital raising for green projects	Financial instruments relevant to green projects' funding
Argentina			
Australia			
Brazil			
Canada			
China			
France			
Germany			
India			
Indonesia			
Italy			
Japan			
Rep. of Korea			
Mexico			
Netherlands			
Russia			
Saudi Arabia			
Singapore			
South Africa			
Spain			
Switzerland			
Turkey			
United Kingdom			

In place Not in place

Source: countries' responses to the G20 questionnaire; data from official resources.
Notes: practices of some countries may not be reflected explicitly due to the scarcity of information available.

Canada

Infrastructure Canada has developed a federal requirement related to the consideration of GHG emissions reduction and climate resiliency. Under the Investing in Canada Infrastructure Program, this 'climate lens' applies eligibility test for climate-related green infrastructure projects and to any projects with total eligible costs of \$10 million or above.

The lens is also applied to the Disaster Mitigation and Adaptation Fund, and climate-related Smart Cities Challenge finalists. The climate lens provides insight into the climate impacts associated with individual projects, and encourage project planners to make choices consistent with shared federal, provincial and territorial objectives articulated in the Pan-Canadian Framework for Clean Growth and Climate Change — including a commitment to reduce Canada's GHG emissions by 30% below 2005 levels by 2030.

To support this target, the Investing in Canada Infrastructure Program Integrated Bilateral Agreements with provinces and territories have established a national reduction target of 10 Megatonnes (Mt) per year in 2030.

France

According to the Climate Bonds Initiative, since 2019, **France** has been the leading issuer of green bonds with \$15.3 billion (around €13.4 billion).

At the beginning of 2017, **France** launched its first green bond, backed by expenditures related to energy and ecological transition, for an initial amount of €7 billion over 22 years. Thus, **France** has confirmed its commitment to implement the provisions of the Paris Climate Agreement. By September 2019, the value of **France's** green bonds has reached €20.7 billion.

As regards budgeting green bonds, **France** exploits the following method. The Treasury browses through the expenditures agreed by the Parliament, sums up all “green” expenditures and defines the maximum amount of green debt than can be issued for the year. The allocation is checked ex-post, as green expenditures constitute the basis for a statement of the use of proceeds. So far, infrastructure represents a limited fraction of expenditures eligible for green financing and mostly refers to the “Invest for the future programme” (Programme d'investissements d'avenir) and to the financing of satellites for Earth observation.

Indonesia

The Government of **Indonesia** through the Ministry of Finance and PT Sarana Multi Infrastruktur, which is a company engaged in infrastructure project financing, have established an integrated platform called “SDG Indonesia One” which combines public and private funds through blended finance schemes to be channelled into infrastructure projects related to the achievement of SDGs.

SDG Indonesia One is a platform that includes four types of pillars that are tailored to all types of donors and investors, namely, Development Facilities, De-Risking Facilities, Financing Facilities, and Equity Fund. The platform aims to attract financing from investors and donors to aid the projects in **Indonesia** that contribute to the achievement of Sustainable Development Goals.

Singapore

As regards strategic priorities, the Singapore Sustainable Blueprint (SSB) 2015^{ix} was launched in November 2014 with a vision for a Liveable and Endearing Home, a Vibrant and Sustainable City, and an Active and Gracious Community. The 2030 targets laid out in the SSB show **Singapore's** ambition in practising sustainable development.

Also, **Singapore** has launched a Green Bond Grant Scheme in 2017 to encourage the issuance of green bonds^x. The scheme leverages existing international green bond standards, such as the International Capital Markets Association Green Bond Principles.

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CHAPTER 6

The Digitalisation of Infrastructure and PPP Policy

The digitalisation of Infrastructure policy is evidenced in the development of both national and international databases and platforms related to infrastructure and PPP projects, as well as in using big data for designing and maintaining infrastructure assets. In this chapter, we make emphasis on databases by comparing them, as well as by presenting recent developments in the field. Additionally, several cases highlight the most sophisticated examples of digital products for infrastructure governance.

Note: This Chapter was not included in the original G20 Survey questionnaire. Nevertheless, given the importance of issues of digitalisation, as stated in the G20 Osaka Leaders' Declarationⁱ, we have also covered the G20 trends related to digitalisation of infrastructure policy.

Digitalisation in Infrastructure is Marked by the Development of Project Databases and Platforms

Digitalisation is a cross-cutting issue for all spheres of economy and society, including infrastructure. Luckily, in this specific case, digitalisation yields benefits at both the national and international level.

On the national level, it dramatically enhances the monitoring of infrastructure development performance and resources and provides evidence for decision-making. Also, digital products support the development of the PPP market by communicating policy signals, raising awareness of business and public community, providing for a virtual marketplace of infrastructure-related services and know-how.

On the global scale, spillovers resulting from digitalisation are also tangible. Efforts in closing global data gaps help governments worldwide to share practice and experience while investors may determine attractive projects, as well as showcase their initiatives in search for additional resources and backup.

Not being able to provide an exhaustive overview of all existing aspects of digitalisation in infrastructure, this chapter, however, outlines common trends of developing digital products, namely project databases and platforms.

International Digital Products Contribute to Global Development of Infrastructure

International infrastructure and PPP databases contribute significantly to global infrastructure development as they accumulate practice from multiple countries. Though not explicitly detailed as a consequence of the scarcity and locally conditioned inconsistency of information, they are an indispensable tool for a comparative cross-country analysis.

To date, four large international products exist, each with exceptional characteristics and mission.

World Bank's PPP Project Database is the largest with over 7 thousand infrastructure projects available for free access.ⁱⁱ Users can visualise this data through a set of interactive tools including maps, plots and diagrams.

IJ Global PPP Projects and Transactions Database not only contains detailed information on many projects but also features a unique base of financial transactions related to PPPs, including the data on bank credits and project bonds.ⁱⁱⁱ

Global Infrastructure Hub, the G20-backed initiative, offers a group of digital products.^{iv} Among them are a pipeline and a showcase of countries' infrastructure and PPP projects, historical and forecasted figures on global infrastructure needs and investment, country risk profiles and guides to aid investors in launching and

implementing infrastructure projects, as well as dozens of analytical publications, blog posts and news.

SIF SOURCE is a multilateral digital platform specifically designed for an ERP-inspired manner of infrastructure and PPP project management. ERP approach is used to integrate and organize the data necessary for all tasks from front office to back office operations. The platform envisages a dashboard of tools especially fit for steering complex international endeavours. For instance, it is possible to assign specific tasks to various subcontractors and monitor their work using the same project profile. In other words, each subcontractor will be granted rights to modify certain restricted parts of the project, thus contributing to the project's transparency and visibility. SOURCE is led and financed by a consort of multilateral development banks including World Bank, ADB, EBRD, IDB, and EIB.

Infrastructure Data Initiative

In 2017, the Infrastructure Data Initiative (IDI), was introduced jointly by the European Investment Bank, the Global Infrastructure Hub, the Long-Term Infrastructure Investors Association and the OECD in the context of G20 activities on infrastructure.

IDI was launched to address the issue of establishing infrastructure as an asset class through data collection and improving the availability of infrastructure investment data.

The initiative, therefore, targets several priority areas: financial performance benchmarks, economic and impact analysis and ESG performance.

The initiative aims to improve the availability and quality of data and information on infrastructure investment, particularly at granular project and cash flow level, to identify the critical data that is needed to develop infrastructure investment standards and benchmark.

The IDI has established a background approach presented to the G20 based on building up from the two existing MDB data repositories SOURCE and GEMs. These two platforms are in the process of being inter-connected so as to serve as IDI data central basis. In implementing G20 Roadmap on data, the IDI process will add up to this basis and interface further complementary infrastructure data systems.

National Databases and Platforms

National products tend to offer data accustomed to specific country regulations and practice. Their main call is to facilitate market growth and attract investments.

Nowadays, we are witnessing rapid evolution of domestically developed databases into full-featured digital ecosystems consisting of several groups of data and functional modules:

- pipeline and database of ongoing infrastructure and PPP projects;
- characteristics of infrastructure governance and measures government support;
- expert marketplace and 'Facebook' of market actors;
- ERP project management;
- interactive analytical and other tools.

As shown by the G20 Survey, seven countries use infrastructure project databases, and several have already moved on to introduce comprehensive infrastructure platforms with **Canada, Mexico and Russia** being the pioneers of transformation.

Table 5. Existing Digital Products in Support of Infrastructure Policy and Market Development

Digital Product Developer	Projects and Pipeline	PPP Projects' Transactions	Institutional and Law Framework	Pages of Companies & Organisations	Expert Communication and Marketplace	ERP Module for Project Management	Interactive Analytical Tools
Global	WB						
	GIH						
	SOURCE						
	IJ Global						
National	Australia						
	Canada						
	Colombia						
	Mexico						
	Peru						
	Russia						
	S. Africa						
	UK						

In place Not in place

Source: countries' responses to the G20 questionnaire; data from official resources: [World Bank](#), [Global Infrastructure Hub](#), [IJ Global](#), [SIF SOURCE](#), [Australia](#), [Canada](#), [Colombia](#), [Mexico](#), [Peru](#), [Russia](#), [South Africa](#), [United Kingdom](#).

Notes: practices of some countries may not be reflected explicitly due to the scarcity of information available.

Global Infrastructure Hub

The GI Hub works with public and private sectors globally to increase the flow and quality of infrastructure projects around the world. It shares data, knowledge and leading practices, and help the public and private sectors work more closely to deliver public infrastructure projects.

To date, GIH offers several interactive infrastructure tools to support local policies and beacon infrastructure investments. We present the most prominent as follows.

Global Investor Survey Reports provide new investor insights on changing infrastructure markets. The latest survey reveals vital insights to help policy leaders better understand investor perceptions and challenges. In 2019, over 300 respondents participated, representing USD10 trillion in assets under management.

InfraCompass is a tool for exploring a country's capability to deliver infrastructure projects. It encompasses the performance and potential of 56 countries to deliver infrastructure projects, identify priority reforms and pinpoint leading practices across infrastructure governance & institutions, regulatory frameworks, permits, planning, procurement and delivery.

Global Infrastructure Outlook is aiming at forecasting infrastructure investment needs and gaps globally. It forecasts a global infrastructure need of USD 97 trillion and a projected investment gap of around 16%. The world's electricity, water, communications, and transport investment needs are outlined by country over the next two decades.

PPP Risk Allocation Tool is a searchable guide on typical risk allocation in PPP transactions. This tool provides a set of annotated risk allocation matrices for PPP transactions, across the transport, energy and water and waste sectors. The PPP Risk Allocation Tool should be used to provide additional guidance to countries that wish to develop a programme of bankable PPP transactions.

Global Infrastructure Project Pipeline is a comprehensive, open-source project pipeline database connected to national and multilateral development bank databases, to help match potential investors with projects. Being a free digital platform, it allows governments to promote public infrastructure projects to a global investor network.

PPP Contract Management is a reference tool informed by an in-depth analysis of 250 PPP projects globally that reached financial close between 2005 and 2015

Box 5. Data Privacy Issues in the Development of Digital Platforms in Infrastructure.

As the digitalisation of infrastructure governance occurs with today's databases evolving into full-featured platforms and ERP systems, the issues of cybersecurity and digital risks become more important. Theft of confidential corporate data, various data breaches and DoS attacks, as well as creative workarounds employed by power users to avoid paying subscription fees – all this is equally harmful to the future of digital infrastructure policy.

At the same time, infrastructure is hardly the first sphere to face digital risks. Social networks, Internet banking and companies developing engineered systems and enterprise software products have already been struggling to overcome them. Every digital enterprise using either IaaS, PaaS or SaaS model is at risk. Luckily for infrastructure, it is possible to take into account previous experiences.

Authentication and biometrics technologies, including SMS codes, IP registration, security tokens and fingerprint sensors, are widely used to ensure users' data security while maintaining the desired user behaviour in line with company's business model.

Multilayeredness of user access, data protection-driven terms of use, peer review and blockchain may also prove sufficient to protect valuable data in normal circumstances. In the case of dedicated cyber-attacks, server-level security measures should be observed.

Source: MMC.com, Deloitte.com, Insights.sei.cmu.edu

(inclusive) to understand the core issues that arise during the construction and operations phases of a PPP project. From those projects, 25 projects were selected to develop detailed showcases.

Project Preparation Reference Tool offers useful aid for policy-makers and practitioners in their quest to improve project preparation practices and their capacity for preparing quality infrastructure projects, building upon the G20 Principles for the Infrastructure Project Preparation Phase. The tool seeks to help address challenges faced by governments in early-stage project preparation through providing guidance and lessons learned in the enabling environment for project preparation; financing project preparation; infrastructure planning and project prioritisation; project feasibility, reviews and approvals; and project communication.

Detailed information about the GIH and its recent activities is available at the official website here: www.gihub.org/about/about

SIF SOURCE

SOURCE is the multilateral platform for quality infrastructure-led and funded by the Multilateral Development Banks. It brings about systemic change in the way governments prepare, procure and implement their infrastructure projects.

The Sustainable Infrastructure Foundation (SIF), a not-for-profit Swiss foundation headquartered in Geneva, coordinates the provision of SOURCE platform. SIF is led and financed by the MDBs members of SOURCE Council including World Bank, ADB, EBRD, EIB and IDB.

On their behalf, SOURCE is being developed and implemented in countries by SIF and serves as the MDB data repository. In the context of the G20, the multilateral platform SOURCE is identified with the following functions:

- the provision of a standardised and comprehensive map of aspects to take into account whilst the developing of quality infrastructure;
- deliver MDB tools, reference notes and best practices to project managers at the right juncture in the decision process;
- monitor whether projects meet the intended outcomes and benefits during the implementation period; and
- collect structured and standardised project data at global scale to assess performance of projects against standards, generate analytics, and benchmarks (for example, unit costs).

To date, SOURCE helps in managing over 260 projects in 50 countries, operates in 9 languages and is used by more than 2,600 users.

Mexico Projects Hub

Mexico Projects Hub^{vi} (MPH) is an initiative of the Mexican Government to create an Infrastructure Promotion Office to link investment projects with domestic and foreign investors, encouraging long term financing for infrastructure. The Office was created under the Mexican Government development bank's corporate structure (currently in BANOBRAS), in close coordination with entities and agencies of the public and private sectors.

MPH strives to consolidate an investment projects portfolio of greenfields and brownfields, providing domestic and foreign investors with exceptional visibility of projects sponsored by government entities, transparency regarding projects performance, and comparability in investment opportunities. Also, the platform links projects with domestic and foreign investors to expand long term financing alternatives, contributing to the fulfilment of the objectives of Mexico's National Infrastructure Program, and related sectorial programs.

At the moment, MPH is responsible for disseminating investment opportunities through the hub of projects and promoting a knowledge hub, including best

Ideas for Policy-Making

- ***Embrace persistent evolution of digital tools and instruments used to govern infrastructure development***
- ***Support closing global infrastructure data gaps by contributing to international databases and platforms***
- ***Pay profound attention to data security issues to curb reputation risks***

practices to facilitate projects execution. It also offers one-stop-window assistance to investors and provides follow-up to investment projects, in order to learn from experiences of all involved participants in the investment ecosystem.

The projects hub is built on a web platform, allowing the user to browse information according to own needs, and access a factsheet of every project in the platform, including its status and additional data provided by the sponsors. Likewise, the user can access additional information to have a broader understanding regarding the way projects are implemented in **Mexico**, as well as domestic and foreign documents related to planning, procurement and execution procedures of infrastructure projects and their legal framework.

Russia's Infrastructure Project Support Platform "ROSINFRA"

Created and managed by **Russia's** National Center for PPP Development, ROSINFRA provides a comprehensive digital solution for developing and launching infrastructure and PPP projects.^{vii}

Its mission is to overcome such innate obstacles of the Russian infrastructure market as lack of experience and low awareness of public and private actors, difficulties and high costs of attracting qualified experts, as well as the shortage of comprehensive data reflecting current state and trends of infrastructure and PPP market.

ROSINFRA's logic of design focuses on facilitating effective communication between parties in investment projects. Its products and services based on various databases form a single digital solution.

Expert Advisory Service allows for online consultations with experts, pre-evaluation of project initiatives and participation in lawmaking by drafting legislative proposals.

Qualified Customer Service provides access to the bank of public project initiatives and helps to navigate through regions and public authorities that showcase their investment projects.

Marketplace Service acts as a 'Facebook' of companies and a tender platform for suppliers in infrastructure projects. It aggregates information about companies' experience and expertise, as well as a range of services and terms and conditions.

Project Constructor Tools allows for quick search of projects satisfying the predefined set of criteria.

Interactive Analytical Digest features over 15 clickable diagrams that show the evolution and current state of the Russian infrastructure and PPP market. Also, there is a base of law enforcement practice, including PPP-related court decisions and rulings of the antimonopoly authority.

Online Center of Education works as a constructor of online learning courses and a tool for online assessment of employees' competences in PPPs.

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APPENDIX A – Cases of Countries’ Infrastructure and PPP Projects



Transport

ARGENTINA - Reactivation of Freight Train Roca Line (Norpatagonico Tren)

Summary	The project aims at enabling the development of the Vaca Muerta shale gas fields, which are an essential natural resource. The train redevelopment will allow more efficient transportation
Current Stage	Feasibility study
Duration	14 Years
Greenfield or Brownfield Project?	Brownfield
Type of PPP	Design-Build-Finance-Maintain (DBFM)
Source of Revenues	Payments from Users Minimum Revenue Guarantee Neuquen Province’s Oil Royalties
Governmental Support	State Guarantees Equity from the Provincial Government

AUSTRALIA - Capital Metro Light Rail

Summary	Delivery of 12 km light rail track, 13 stops and 14 light rail vehicles
Current stage	Construction
Duration	3 Years Delivery; 20 Years Operations
Estimated project cost	\$939M
Greenfield or Brownfield project?	Greenfield
Source of revenues	Availability Payments
Governmental support	Territory Contribution of \$375M payable upon achievement of completion

CANADA - Southwest Transitway Project

Summary	The project integrates maintenance of an existing 3.6km transit corridor with design, construction and maintenance of a 7.6km transitway from the central business district to the University of Manitoba, widening of an existing highway (Pembina) and the relocation of a Canadian National Railway Bridge
Current stage	Construction
Duration	30 Year Concession
Estimated project cost	\$590M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Design-Build-Finance-Maintain (DBFM)
Source of revenues	Availability Payments
Governmental support	Federal grant

GERMANY - “A 10/A 24, Neuruppin – Pankow”

Summary	The project comprises the widening from four to six lanes between Havelland and Pankow (29.6 km) as well as the full depth reconstruction of the four-lane motorway between Neuruppin and Kremmen (29.2 km)
Current stage	Construction
Duration	30 Years
Estimated project cost	€1,4 bn
Greenfield or Brownfield project?	Brownfield
Source of revenues	Initial Public Financing and Availability Payments

FRANCE - High speed rail Tours – Bordeaux (LGV SEA)

Summary	The project aims at bringing high-speed rail service to southwestern France and connecting the regions of Nouvelle-Aquitaine and Occitanie with the high-speed rail service of Northern Europe (Paris-London-Brussels-Amsterdam)
Current stage	Operational
Duration	50 years
Estimated project cost	€7,800M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Concession
Source of revenues	User Payment
Governmental support	Public subsidies State guarantees

INDIA - Widening of Jaipur-Kishangarh Road

Summary	The project aims at strengthening 2-lane highway from km 273 to km 364 on the Jaipur-Kishangarh section of national highway № 8 in Rajasthan, which connects Mumbai to Delhi and serves as the major artery connecting the ports in Maharashtra / Gujarat to the landlocked northern hinterland
Current stage	Operational
Duration	20 Years
Estimated project cost	INR 7,284M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	User Payment
Governmental support	Capital Grant in the form of Equity Support

INDONESIA - Makassar Parepare Railway Project

Summary	The project is part of Trans Sulawesi Railway Development and is guaranteed by Indonesia Infrastructure Guarantee Fund
Current stage	Contract Award
Duration	18.5 Years
Estimated project cost	\$70M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Government Payment
Governmental support	Project Development Facility, Guarantees

MEXICO - “Ferrocarril Suburbano Cuautitlán-Buenavista”

Summary	26 km railroad (double track), seven stations, 20 electric trains
Current stage	Operation
Duration	50 Years
Estimated project cost	\$560M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	User Payment
Governmental support	Subsidies, Equity, Guarantees, Mezzanine Debt, Senior Debt

NETHERLANDS - Lock Extension in Eefden

Summary	The project aims at constructing a second lock chamber to connect the river IJssel with the Twente canal
Current stage	Construction
Estimated project cost	€115M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Design-Build-Finance-Maintain-Operate (DBFMO)
Source of revenues	Availability Payments

NETHERLANDS - “The Afsluitdijk (Cut-off Dike) Project”

Summary	The project aims at strengthening the Afsluitdijk - Major Causeway in the Netherlands stretching from Den Oever on Wieringen in the North Holland province to the village of Zurich in the Friesland Province
Current stage	Pre-construction
Duration	25 Years
Estimated project cost	\$1785M
Type of PPP	Design-Build-Finance-Maintain (DBFM)
Governmental support	Federal grant

RUSSIA - “Western High-Speed Diameter” in St. Petersburg

Summary	Intracity toll motorway in St. Petersburg. The road is 46.6 km long and connects the Big Sea Port and the Ring Road of St. Petersburg providing exits to the Baltic countries, Scandinavia and other regions of Russia
Current stage	Operation
Duration	42 Years
Estimated project cost	RUB 212 720 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	User Payment along with Commercial Operations
Governmental support	General guarantees Compensation of Private Partner’s Expenses

RUSSIA - “Obskaya-Salekhard-Nadym” Public Rail

Summary	The project is an integral part of the comprehensive investment initiative “Creation of the Northern Latitudinal Railway “Obskaya – Salekhard – Nadym – Pangody - Novy Urengoy - Korotchaevo” and will result in the creation of the railway transport infrastructure, which is necessary to integrate economic and territorial subjects in the Arctic zone to the rest of Russia
Current stage	Pre-investment
Duration	35 Years
Estimated project cost	RUB 113 857 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment along with Commercial Operations
Governmental support	General guarantees Compensation of Private Partner’s Expenses

SPAIN - “Autovía de la Plata “A-66 Benavente Zamora””

Summary	Construction, operation and maintenance of Highway A-66 Benavente Zamora
Current stage	Operational and Maintenance
Duration	30 Years
Estimated project cost	€205M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment

TURKEY - “Eurasia Tunnel”

Summary	The project connects the Asian and European sides of İstanbul via 5.4 km long two-storey tunnel going underneath the seabed. The project also includes construction of 14.6 km long linking roads
Current stage	Operation
Duration	25 Years, 11 months
Estimated project cost	\$1,2 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)

Source of revenues	User Payment
Governmental support	Minimum Demand Guarantee Exchange Rate Guarantee for Minimum Demand Guarantee Assumption of Debt in Case of a Default

TURKEY - “Gebze-Orhangazi-Izmir Motorway”

Summary	The project consists of 384 km motorway, 49 km linking roads and a 2,7 km. bridge (Osmangazi Bridge which is the fourth longest suspension bridge in the world with mid-span of 1.550 m), 3 tunnels, 38 viaducts
Current stage	Operation
Duration	15 Years and 4 months
Estimated project cost	\$6,3 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	User Payment
Governmental support	Minimum Demand Guarantee Exchange Rate Guarantee for Minimum Demand Guarantee Assumption of Debt in Case of a Default



Public Utilities

CANADA - City of Regina Wastewater Treatment Plant

Summary	The project involves the expansion and upgrade of an existing wastewater treatment plant, which will increase capacity to accommodate future population growth.
Current stage	Operational
Duration	27.3 Year Concession
Estimated project cost	\$242M
Greenfield or Brownfield project?	Mix greenfield, brownfield
Type of PPP	Design-Build-Finance-Maintain-Operate (DBFMO)
Source of revenues	Availability Payments
Governmental support	Federal grant

CHINA - Waste Interception around Erhai Lake PPP Project in Dali

Summary	The project includes building a 235.38-km-long sewage pipeline (drainage) along the Eastern, Northern and Western Lakeshores, a 21.97-kilometre-long water delivery pipeline and 17 new pump stations.
Current stage	Operational
Duration	30 Years
Estimated project cost	RMB 3.49 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Sewage treatment plant: Build-Operate-Transfer (BOT) Intercepting sewage pipeline: Design-Build-Finance-Operate-Maintain (DBFOM)
Source of revenues	Availability Payment Performance Payment Payment for Wastewater Treatment.
Governmental support	Local Government Share in Equity

INDONESIA - West Semarang Water Supply Project

Summary	The project is planned to provide output capacity of 1000 litre per sec to fulfil drinking water demand in 5 zones within three districts in Semarang City, namely District of West Semarang, Ngaliyan, and Tugu, with 24-hour service availability
Current stage	Operational

Duration	25 Years
Estimated project cost	\$79M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	User Payments
Governmental support	Guarantees

INDIA - PPP in Power Distribution in Delhi

Summary	Delhi, power distribution segment, was privatised in July 2002 by carving the city into three zones and by giving majority shareholding (51%) to Tata Power and BSES Rajdhani Power Limited, BRPL and BSES Yamuna Power Limited, BYPL.
Current stage	Operational
Estimated project cost	\$3 bn
Greenfield or Brownfield project?	Brownfield
Type of PPP	Rehabilitation-Development-Operations & Maintenance (RDOM)
Source of revenues	User charges along with Commercial Operations Return on the Issued and Paid Up Capital and Free Reserves
Governmental support	Delhi Government committed a subsidy in the first five years of operations to avoid a tariff shock

MEXICO - Project for Management and Usage of Organic Waste through Energetic Valorisation in Naucalpan Municipality

Summary	The project consists of building and operation of energy generation plant utilising biogas processing at a waste landfill
Current stage	Feasibility Studies
Duration	20 Years
Estimated project cost	\$69M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Building-Operation
Source of revenues	Waste Disposal Fees from Municipality Government and Revenue from Electricity Production.
Governmental support	Monetary Contributions from the National Infrastructure Fund

RUSSIA - Modernization of Heat Supply Facilities in Kashira, Moscow Region

Summary	The project involves the renovation of the heating system in the municipality given the decommissioning of the Kashirskaya Regional Hydro-Electric Power Plant
Current stage	Operation
Duration	25 Years
Estimated project cost	RUB 1 567 M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Tariff Earnings and Guaranteed Minimum Income
Governmental support	State Guarantees

RUSSIA - Radiological building of the East-Siberian Oncological Center in Irkutsk

Summary	The project aimed at creating new objects, including a radiotherapy department for 120 beds and an operating unit, as well as departments of nuclear medicine, topometry, medical physics, engineering and education.
Current stage	Pre-investment
Duration	16 years
Estimated project cost	RUB 5 195 M
Greenfield or Brownfield project?	Partly Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment
Governmental support	State Guarantees

SINGAPORE - Keppel Seghers Tuas Waste-To-Energy Plant (KSTP)

Summary	KSTP is a PPP plant, which provides an incineration capacity of 800 tonnes per day
Current stage	Operation
Duration	25 Years
Estimated project cost	\$450M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Incineration services contract
Source of revenues	Availability fees Service Payment Electricity generation Payment Deductions/Incentives



Social Infrastructure

AUSTRALIA - ACT Law Courts

Summary	The construction of a new supreme court facility on the site of the existing supreme court and magistrates court buildings. The new construction links the two existing buildings and includes full reconfiguration and refurbishment of the existing, heritage-listed supreme court building
Current stage	Construction
Duration	25 Years
Estimated project cost	\$160M
Greenfield or Brownfield project?	Brownfield
Source of revenues	Availability Payments Volume-based Payments for Some Specific Services

CHINA - Educational Facilities, Equipment and Logistics Outsourcing in Wudang District

Summary	The project consists of the construction and operation of a new nine-year school, a middle school and a kindergarten. The project is the first PPP project in the provincial education system
Current stage	Operational
Duration	13 Years
Estimated project cost	RMB 393.37M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Own-Operate-Transfer (BOOT)
Source of revenues	Availability Payment Performance Payment
Governmental support	Share of Local Government in Equity Structure

FRANCE - “Projet Biologie-Pharmacie-Chimie”

Summary	The construction of one building of about 60.000 m ² and one building of 15.000 m ² both dedicated to research and education in the fields of biology, pharmacy and chemistry and maintenance of these buildings
Current stage	Construction
Duration	29 Years
Estimated project cost	€300M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Design-Build-Finance-Maintain-Operate (DBFMO)
Source of revenues	Availability Payments
Governmental support	Grant payment Subsidies State Guarantees

INDONESIA - Expansion of Dharmais Cancer Hospital

Summary	Located at West Jakarta, the project plans to build with a total area covering 4,400 m ² with 3 Basement, 11 Floors and 194 Beds
Current stage	Feasibility Study
Duration	22 Years
Estimated project cost	\$153M
Greenfield or Brownfield project?	Brownfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment
Governmental support	State Guarantees

MEXICO - Substitution of General Hospital “Aguiles Calles Ramirez” in Tepic, Nayarit

Summary	The project implies building a new general hospital. The private partner will provide operational services
Current stage	Construction
Duration	25 years
Estimated project cost	\$72M
Planned procurement method	Open tender
Governmental support	Guarantees on service payments
Type of PPP	Build-Operate-Transfer (BOT)
Greenfield or Brownfield project?	Greenfield
Source of revenues	Availability Payment

TURKEY - “Elazığ City Hospital”

Summary	The project includes hospital construction, consisting of a 355,000 square meter facility that will serve up to 20,000 patients and house 1,038 new beds. First green and social bond certified PPP hospital in Turkey
Estimated project cost	\$391M
Duration	25 Years
Current stage	Operational
Planned procurement method	PPP
Governmental support	Permission for the Use of Publicly Owned Lands Exchange Rate Guarantee for Availability Payments
Type of PPP	Built-Lease-Transfer (BLT)
Greenfield or Brownfield project?	Greenfield
Source of revenues	Availability Payment Guaranteed Minimum Income Rental income from Commercial Areas
Governmental support	Permission for the Use of Publicly Owned Lands



Telecommunications and IT

BRAZIL - Integrated Communications Network “COMAER”

Summary	The contract includes the responsibilities of designing, installing, upgrading, expanding, operating, managing and maintaining communications, control and management infrastructure for COMAER. The project follows the model of similar projects, such as the European Organization for the Safety of Air Navigation (Eurocontrol) and the United States Federal Aviation Administration (FAA)
Current stage	Procurement
Duration	25 Years
Estimated project cost	R\$ 4.9 bn
Greenfield or Brownfield project?	Brownfield
Type of PPP	Designing-Installing-Updating-Expanding-Operating-Managing-Maintaining
Source of revenues	Public Payment through Air Navigation Tariffs
Governmental support	Governmental Payments as Guarantee during all 25 Years.

FRANCE - “Nord Pas de Calais” broadband

Summary	The Project aims at deploying and operating an ultrafast broadband network in the less dense areas of the Nord-Pas de Calais region which won't be covered by private operators' Fiber to the Home (FttH) rollouts. The Project is implemented under the Plan France Très Haut Débit, which aims to cover 100% of French households to fibre optic high-speed broadband by 2022
Current stage	Deployment
Duration	25 Years
Estimated project cost	€700M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Concession
Source of revenues	Telecom Operators Fees Income from Commercial Activity
Governmental support	Grant Payment Subsidies

INDONESIA - “Palapa Ring” (include 3 Packages)

Summary	The Project is the development of a backbone network project designed and implemented using a submarine fibre-optic cable system to cover 57 cities and district. This project has become the first PPP project in telecommunication using availability payment
Current stage	Western and Central Package: Operation Eastern Package: Construction
Duration	15 Years
Estimated project cost	West Package \$85M Central Package \$92M East Package \$340M
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment
Governmental support	State Guarantee through Indonesia Infrastructure Guarantee Fund

MEXICO - Shared Network

Summary	The Project aims at creating a public shared telecommunications network using 4G
Current stage	Construction
Duration	20 Years
Estimated project cost	\$7 bn
Greenfield or Brownfield project?	Greenfield
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Rental Income

RUSSIA - “Smart Stops” in Nizhny Novgorod

Summary	The Project aims at installing next-generation passenger shelters with touch screen information boards. More than 334 “smart stops” are planned to be installed
Current stage	Operation
Duration	10 Years
Estimated project cost	RUB 1 600 M
Type of PPP	Build-Operate-Transfer (BOT)
Source of revenues	Availability Payment
Governmental support	General Guarantees

APPENDIX B – G20 IWG Survey Questionnaire

INFRASTRUCTURE DEVELOPMENT

Q.1 National Strategy(ies) for Infrastructure Development?

Is there a national strategy for infrastructure development? If no, please specify if you have sub-national strategies or industry strategies?	<i>Response</i>
What is the name of the strategy?	<i>Name and year of the latest strategy, weblink</i>

Q.2 Comprehensive Plan for Infrastructure Development

Is there a national comprehensive plan for infrastructure development? Does it include prospective infrastructure projects (project pipeline)?	<i>Response</i>
What is the name of the plan?	<i>Name and year of the latest plan, weblink</i>

Q.3 Governmental Structure in Charge of Infrastructure Development

Is there a national governmental structure (ministry, agency, etc.) in charge of infrastructure development?	<i>Response</i>
What is the name of such a governmental structure?	<i>Name and year of the structure, weblink</i>

Q.4 Dedicated PPP Unit for Infrastructure and PPP Development

Is there a dedicated PPP unit, which provides expert, informational and analytical support for government policy elaboration in the sphere of infrastructure and PPP development?	<i>Response</i>
What is the name of the PPP unit?	<i>Name of the dedicated PPP unit, weblink</i>

Q.5 Infrastructure Development Funds

Are there any special funds or financial mechanisms that	<i>Response</i>
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provide financing for infrastructure projects?	
Please name such funds specifying the distinctive aspects of their functioning including terms and strands of financing	⏏ <i>Funds and their distinctive aspects, weblink</i>

Q.6 Models of Infrastructure and PPP Projects' Implementation

Please name all types of infrastructure and PPP projects' implementation models allowed by your national legislation specifying their distinctive aspects	1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.
	9.
	10.

Q.7 Procedures for Procurement Decisions of Infrastructure Projects

Is there an obligatory procurement decision procedure in place, which 1) aims to determine what model is the best to implement the prospective project and 2) whether the PPP procurement offers better Value for Money than the best practicable public sector delivery model?	<i>Response</i>
What is the name of the procedure?	⏏ <i>Name of the procedure</i>
Please specify the distinctive aspects of such a procedure	⏏ <i>Distinctive aspects of the procedure</i>

Q.8 Fiscal and other Supportive Measures for PPPs

Please name all available fiscal and other supportive measures for infrastructure projects (including state guarantees) specifying their distinctive aspects.	1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.
	9.
	10.

Q.9 PPP Payment Mechanisms Facilitating Return on Private Investments

Please name all available payment mechanisms specifying their distinctive aspects	1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.
	9.
	10.

Q.10 International Financial Institutions for Infrastructure Development

Please indicate international financial institutions that work in your country (by the largest total volume of projects) in infrastructure development and indicate the industries that they concentrate on.	Response		
	IFI	Industry (ies)	Type(s) of support

PPP PROJECT IMPLEMENTATION PRACTICES

Q.11 Project Identification Form

Please, provide at least 1 example of your jurisdiction's *best PPP practices* in each of the following sectors by completing the form below (if you do not intend to share this information with third parties, please indicate so):

- transport
- utilities (energy, water etc.)
- social (healthcare, education etc.)
- telecommunications

Project name	
The sector of infrastructure (as listed above)	
Estimated project cost	
Source of funding or financing	
Planned duration	
Project implementing the public authority	

Private partner (the scope of work: provision of infrastructure/services or both)	
A summary of the project	
Barriers and challenges of implementation	
Benefits and expected outcomes of the project	
Current stage (pipeline, feasibility study, procurement, financial closure, construction, operational)	
Planned procurement method	
Planned allocation of risks	
Governmental support (guarantees, subsidies, equity etc.)	
Type of PPP (e.g. BOT, facility management, service contracts, other)	
Greenfield or Brownfield project?	
Ownership of (please indicate private or public): <ul style="list-style-type: none"> - the land - the building - other facilities (please specify) 	
Source of revenues: <ul style="list-style-type: none"> - availability fees - guaranteed minimum income - payments from users - rental income - other (please specify) 	

QUALITY INFRASTRUCTURE FOR SUSTAINABLE DEVELOPMENT

Q.12 Strategic Priorities in Infrastructural Planning

Are there any strategic documents in the sphere of infrastructural planning, e.g. roadmaps, strategies, plans, that address such priorities as quality/sustainable infrastructure development?	<i>Response</i>
What is the name of such strategic documents?	<p align="center">⇓ Names of strategic documents, year, weblink</p>

Q.13 Green Bond Guidelines

Are there any green, social impact or sustainability bond guidelines issued by the regulators in your country to encourage capital raising for green/sustainable/social projects?	<i>Response</i>
What are the names of the guidelines?	☞ <i>Name of guidelines, year</i>

Q.14 Financial Instruments & Mechanisms for “Green” PPP Projects

Please specify financial instruments and mechanisms that are most relevant for “green”, social impact and sustainable PPP projects’ financing in your country	1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.
	9.
	10.