Infrastructure Governance in High-Income Countries

The added value of CoST in high-income countries: Concluding report

October 2019

Infrastructure Transparency Initiative

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LIST OF ABBREVIATIONS

CoST	CoST – the Infrastructure Transparency Initiative
CoST IDS	CoST Infrastructure Data Standard
EU	European Union
OC4IDS	Open Contracting for Infrastructure Data Standard
OECD	Organisation for Economic Co-operation and Development
OGP	Open Government Partnership
PPP	Public–private partnership

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EXECUTIVE SUMMARY

A central task of governments at all levels around the world is to invest continuously in building and maintaining public infrastructure, which is essential to sustain well-functioning economies, support the delivery of quality services to citizens and ensure resilience to climate change. But this is not an easy task: infrastructure projects are invariably risky due to relatively high financial costs, potential unforeseen technical challenges, conflicting interests among numerous stakeholders at different levels and implementation in often complex regulatory environments. Managing this kind of risks often falls short due to ineffective governance mechanisms, politicised processes and lack of scrutiny and oversight. The result is typically infrastructure that costs more, gets delivered late or does not perform as well as it should.

National and local governments in high-income countries are not exempt from the challenges, despite being able to rely on advanced economies with competent and competitive markets for tenders, a highly educated work force and strong institutions providing control and oversight of public spending. The International Monetary Fund has estimated that advanced economies have a 13% public-investment efficiency gap which, though lower than gaps faced by emerging (27%) and developing (40%) economies, is still a high figure.

A major reason for public infrastructure projects failing to meet their deadlines, budgets and service delivery objectives is a dated approach to governance in the sector. Improving infrastructure governance relies on fostering innovative and sustainable policies and practices inspired by the principles of transparency, accountability and participation.

CoST – the Infrastructure Transparency Initiative (CoST) is a global infrastructure governance initiative. It focuses on strengthening governance through increased transparency and accountability in the planning and delivery of public infrastructure. It provides tools, standards, expert advice and support in four core areas: disclosure, assurance, multi-stakeholder working and social accountability. Together these can help governments to increase transparency, stakeholder engagement and accountability in public infrastructure delivery.

CoST CORE FEATURES

- **Disclosure** is the publication of data from infrastructure projects. A total of 40 data points are disclosed by procuring entities at key stages throughout the entire project cycle in the CoST Infrastructure Data Standard format.

- **Assurance** is an independent review that highlights the accuracy and completeness of the disclosed data and identifies issues of concern for the public.

- **Multi-stakeholder working** brings together government, industry and civil society in a concerted effort to pursue the common goal of improving transparency and accountability in public infrastructure.

- **Social accountability** refers to efforts made to ensure that the disclosed data and assurance reports are taken up and used by stakeholders, especially civil society and the private sector, to strengthen accountability and deliver practical improvements.

FOUR AREAS OF CONCERN: THE PRINCIPAL FINDINGS OF THE STUDY

This report is the culmination of a research project to assess the potential added value of CoST in high-income countries. It draws on detailed national case studies that have been published separately, cross-country analysis and additional field research at national government level. It also uses primary and secondary sources to assess current levels of disclosure, transparency, stakeholder engagement, participation, oversight and accountability in infrastructure planning and delivery, and to consider the adaptability and potential added value of CoST to high-income countries. The main findings of the research project can be summarised in four main areas.

First, **in most cases, infrastructure planning and delivery tends to be based on a decentralised, sectoral approach**. Even in cases where governments have made progress through preparation of national plans and comprehensive project pipelines, there is still a lack of a comprehensive, long-term, strategic vision across governments for infrastructure development that would assist prioritisation, attract finance and get better value for money. The case studies represent a range from emerging strategic planning which is headed in the right direction to highly compartmentalised and politicised decision-making about investment decisions that will have long-term implications for the countries in question. From an infrastructure governance perspective this represents a missed opportunity. A comprehensive national strategy lends itself to being prepared in a more holistic, open and inclusive manner, based on a broad national debate and stakeholder engagement, and prior to the planning of infrastructure investment. Decisions informed by a strategic vision would be more legitimate and robust in the long term.

Second, **there is significant room to improve the level of data disclosure and infrastructure transparency**. There are significant variations between different contexts both in terms of legal requirements and actual disclosure. In most cases, the authorities disclose more data than what is strictly required in legal terms. Some come quite close to full compliance with the CoST Infrastructure Data Standard (CoST IDS). This encourages proactive disclosure of data covering the identification, preparation, procurement, implementation and completion phases of an infrastructure project cycle. In other cases, the authorities currently only disclose around a third of the data required by CoST IDS. Gaps persist, particularly in relation to variations to price, duration and scope as well as reasons for changes to contracts and projects. Even in cases where compliance with CoST IDS is high, the disclosed data is typically fragmented and difficult to locate as it is spread out over various agencies, sites and formats. There is limited use of the digital technology opportunities offered by digitalisation and provision of open data, for example through online platforms. This is an example

of opaque rather than clear transparency and greatly reduces the practical level of transparency experienced by citizens and other stakeholders. It represents a missed opportunity for procuring entities to have made the effort required to disclose data and then not putting systems or tools in place to make it more easily accessible for users. In cases where the authorities do not yet disclose infrastructure data proactively, freedom-of-information legislation represents a powerful tool to access specific data and information. Responding to freedom-of-information requests requires significant time and resources for the entities affected. Moving towards a proactive disclosure regime represents an opportunity to reduce the workload.

Third, despite stakeholder engagement being taken seriously by authorities, **the level of stakeholder participation is broadly limited to information sharing and consultation**. There tends to be no systematic use of forums for structured and informed discussions about infrastructure planning and delivery, both at strategic and project level. Procuring entities in some cases make significant efforts to consult stakeholders on infrastructure projects, but there are clear boundaries for the levels of stakeholder engagement in terms of the depth of the process and ability to discuss policy options. The absence of a serious engagement process typically lowers the quality of decision making and selection of projects, and results in higher risk and uncertainty. This hampers investments and fuels opposition from groups that could potentially be negatively impacted by specific infrastructure projects. Even progressive, cutting-edge stakeholder engagement processes tend to remain compartmentalised into specific stakeholder groups. They tend to be strictly managed by the project owner rather than benefitting from building trust and mutual understanding of the challenges across sectors. The research showed that, in high-income countries, the regulatory complexity of the context in which projects (especially mega-projects) are implemented means that coordination across different regulatory authorities can be challenging. Creating forums for regular and well-structured discussions about planning and implementation of projects that affect each authority's jurisdiction will potentially bring real benefits.

Fourth, **significant challenges persist in delivering projects on time and budget and realising the expected benefits**. Furthermore, these challenges do not seem to be systematically monitored and reported on by procurement entities. This is an area of concern as it indicates that procuring entities in some cases could be relying on unrealistically optimistic assessments of budget and schedule and have a tendency to reward "aggressive schedules and keen prices". Addressing this shortcoming in project oversight through collection and disclosure of data, and subsequently evaluating and addressing underlying issues systematically, could potentially yield significant dividends. The study indicates that an independent review of projects at the appraisal

stage, such as second-opinion or gateway reviews of project proposals or business cases, is only used sparsely, which suggests that the level of scrutiny of new projects is low. The effectiveness of existing vertical (formal and institutionalised) accountability mechanisms, usually within government through parliament or supreme audit institutions, is questionable. The institutions are strong and competent but do not have the resources to review all spending on infrastructure projects systematically and in detail. The case studies did not find evidence of interest in cultivating horizontal accountability mechanisms through greater involvement of independent experts, civil society organisations or community groups in the planning and delivery of infrastructure.

THE BENEFITS OF CoST

Based on the findings of current levels of transparency, participation and accountability, the report assesses if the application of CoST core features could improve infrastructure governance in high-income countries.

As robust disclosure systems or procedures for proactive disclosure have not yet been established in any of the countries studied, there seems to be a clear need for a standard such as the CoST IDS enabling data to be disclosed systematically, in real time and throughout the project cycle. It offers a standard and template that countries could use to put in place disclosure systems that enable systematic and measurable disclosure of open data through electronic means, and potentially in an automated manner. Regular disclosure by a high-income-country government would also be beneficial in helping CoST sustain a larger database of high-income-country projects to measure the impacts of increased transparency. This would help to refine the standard and increase its added value for users internationally.

CoST has experience in supporting the use of online, open-source platforms to make disclosed data easily available in a user-friendly format for citizens and other interested stakeholders. In April 2019, CoST and the Open Contracting Partnership launched the Open Contracting for Infrastructure Data Standard (OC4IDS), which brings together the CoST IDS of what should be disclosed at each stage of the project cycle with the Open Contracting Data Standard of how data should be disclosed. Creating this type of platform represents "low-hanging fruit" for authorities in high-income countries, both at a national and sub-national level, in terms of boosting disclosure and citizens' perception of transparency in the management of public infrastructure.

Multi-stakeholder working as a feature also has significant potential to address the relatively modest levels of participation in infrastructure governance in high-income countries. This would require adaptation

of the way CoST supports these processes in lower-income countries. While efforts to ensure public participation in infrastructure projects are taken seriously by most authorities, the level of engagement rarely goes beyond consultation. There are signs however that by building on experience and adding innovative elements, countries could deepen public participation and benefit from some of the advantages of multi-stakeholder working. It would be challenging and perhaps even counterproductive for authorities in high-income countries to establish multi-stakeholder groups as an isolated infrastructure-governance mechanism. Other approaches to multi-stakeholder working should be explored and piloted with the aim of strengthening coordination, building trust, mitigating risks associated with disengagement, and ultimately improving outcomes.

Two potential approaches to moving forward and adapting multi-stakeholder working as a principle were identified through the research. The first relates to the strategic level that deals with visioning, policy design and planning of infrastructure investments. Here a multi-stakeholder approach could strengthen the credibility and legitimacy of the responsible institutions by broadening the composition their membership to include representatives of civil society and the private sector respectively. The second relates to relates to applying multi-stakeholder working at project level as a template for structuring engagement and ensuring a constructive dialogue, from an early stage in planning a specific infrastructure project through to its completion.

Addressing the significant shortcomings identified in monitoring of and reporting on overdue project delivery and overrun budgets is an area where the CoST approach could yield significant dividends, combining systematic disclosure with assurance and social accountability. These are the CoST features most directly associated with strengthening accountability. Given their arms-length nature, drawing on independent experts and concerned citizens, they both have added value as horizontal accountability mechanisms with potential to reinforce existing vertical accountability mechanisms based on internal controls and audits carried out by formal oversight institutions, such as national audit offices. The latter do not have the resources to conduct audits of investment programmes or major projects on a frequent basis. Assurance based on disclosed data can complement their activities through a lighter review (not to be confused with an audit), conducted on an ongoing basis in a cost-effective manner. Internal ex-post controls can be complemented through an independent review at the appraisal stage of the infra-structure project cycle, providing additional scrutiny. This would add a dimension of "preventive" accountability to the infrastructure project cycle, increasing the scrutiny of business cases.

Social accountability has links to the proposed greater involvement of community groups as stakeholders in the planning and delivery

of infrastructure projects. Especially at this level, and combined with disclosure and assurance features, social accountability could strengthen evidence-based discussions about infrastructure policy choices, both at strategic and project level. This would increase the public awareness of potential issues that need to be addressed, which in turn would increase the pressure on parliamentary committees and ultimately politicians to respond effectively to issues arising from the assurance process.

Lastly, CoST has potential to add value as an integrated part of broader reform efforts to strengthen infrastructure governance and public investment management in high-income countries. The CoST approach can add value here as it helps to select the right projects to begin with and increases scrutiny throughout the project cycle. This creates incentives for procuring entities to deliver projects on time, on budget and with expected benefits, contributing towards efficiency gains in public investment management and fiscal discipline more broadly.

Taking a strategic approach to infrastructure planning will benefit all stakeholders and deter the influence of vested interests. The private sector in particular will have an easier time planning when a strategy and project pipeline is published and adhered to. Applying CoST core features to a more strategic approach would enable a strong push for transparency and accountability top-down and uniformly across all projects included in plans and pipelines. This would help de-risk and improve the quality of projects, which is vital for mobilising additional finance for investments in infrastructure. OC4IDS includes a project identifier that could be linked to the project pipelines and public investment management programmes. This would overcome difficulties in current public investment management systems with associating transactions easily to a specific project and, for example, to reconcile budget appropriations with final costs.

CoST is by no means a panacea that will resolve challenges associated with delivering infrastructure projects on time, on budget and with the expected outcomes overnight. However, there is a need for a paradigm shift in the current way of doing business that relies on dramatically increased transparency, more meaningful stakeholder engagement, and strengthened vertical and horizontal accountability mechanisms. The overall conclusion of the research project is that if adapted in a relatively flexible manner, the CoST core features have a high degree of applicability to high-income countries. They have the potential to improve infrastructure governance and obtain more value for money from investment in public infrastructure. ■

1. INTRODUCTION

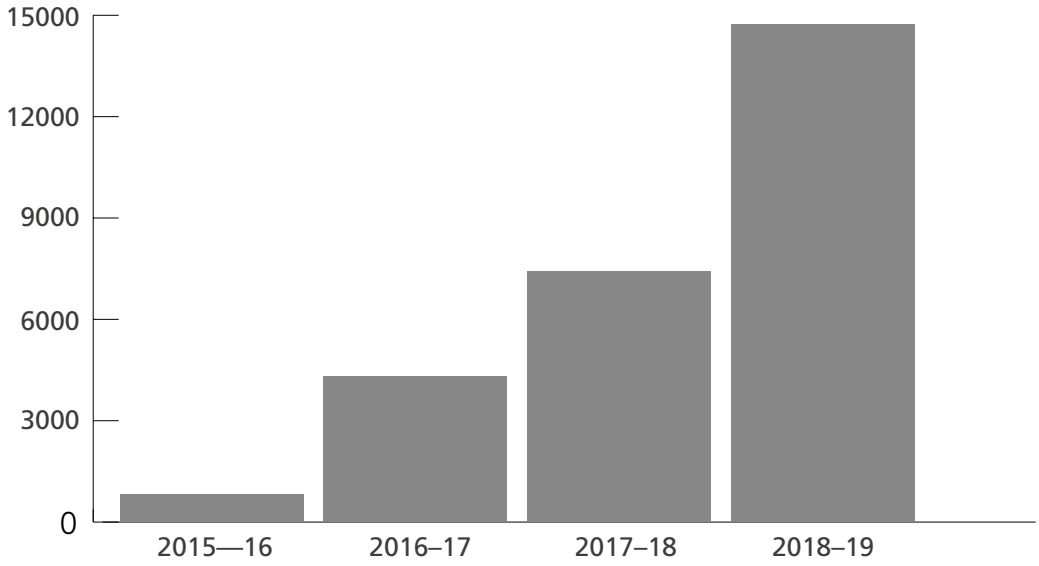
The world faces an unprecedented challenge in delivering high-quality infrastructure that can satisfy rapidly expanding demand for transport, water, power, telecommunications, housing, education and health services; contribute towards reduced greenhouse gas emissions; and support climate change adaptation. Investment in infrastructure is also needed as a driver of growth, job creation and increased productivity through potential multiplier effects. This rising demand requires increased investment of trillions of dollars compared to current levels of investment, resulting in a growing financing gap. It has been argued that, to close this gap, infrastructure investments must increasingly draw on the mobilisation of private capital managed by banks and institutional investors.

While there is a need for more and better infrastructure worldwide, it is questionable whether a financing gap can be accurately quantified or if more financing alone will resolve the pending infrastructure challenge. Other efforts can be made to enable governments get more "bang for their buck" from public investments at the same time as maintaining fiscal discipline. Significant efficiency gains can be achieved by addressing losses associated with poor management of public investment programmes and projects. This often expresses itself in infrastructure projects that are delivered late, over budget and unable to meet expected outcomes.

The International Monetary Fund has estimated that advanced economies have a 13% public investment efficiency gap, which is significant despite being lower than gaps faced by emerging (27%) and developing (40%) economies. If the issues underlying these losses can be addressed through improved governance then it will help to improve the performance, efficiency and quality of infrastructure. This in turn will lead to better value for money and public services from current and future investments.

The broader public governance agenda emphasises the positive impact of transparency, citizen participation and accountability on public policy. It is closely related to the open government agenda, which the Organisation for Economic Co-operation and Development defines as, "a culture of governance based on innovative and sustainable public policies and practices inspired by the principles of transparency, accountability, and participation that fosters democracy and

Figure 1. **Number of projects disclosed**



OPTIONS FOR APPLYING THE CoST APPROACH TO INFRASTRUCTURE

- **A government with its private sector and civil society partners can join CoST as a member.** This membership category is aimed at those who are committed to improving transparency and accountability in public infrastructure investment and see CoST as being central to that reform effort.
- **A government can join CoST as an affiliate.** This membership category is aimed at those who are committed to improving transparency and accountability in public infrastructure investment and see CoST as a source of help and advice that can support that reform effort.
- **Anyone can use the freely available range of tools and resources from the CoST website**, without becoming a member, to aid their efforts to improve transparency and accountability in public and public/private infrastructure investment.

inclusive growth." In recent years the relevance of strengthening the governance agenda has gained ground internationally, with a number of governance-oriented initiatives such as the Open Government Partnership, the Extractive Industry Transparency Initiative and the Open Contracting Partnership specialising in promoting openness and transparency across government and in specific sectors.

CoST – the Infrastructure Transparency Initiative (CoST) is the leading global initiative for improving transparency and accountability in the planning and delivery of public infrastructure. CoST works with government, civil society and the private sector to disclose, validate and use infrastructure data, empowering citizens to hold decision makers to account. The initiative has been applied successfully worldwide, building a robust track record of achievement. This includes disclosure of data from over 25,000 infrastructure projects between 2015 and 2018 (Figure 1), a growing number of government actions to improve specific projects and introduction of broader sector reforms. The CoST approach is based on four core features: disclosure, assurance, multi-stakeholder working and social accountability (p2). These are adapted to suit the political, economic and social context in each country.

To date the initiative has been applied more extensively in low- and middle-income countries. This report outlines the findings and recommendations of a research project that assesses the potential for high-income economies to benefit from increased transparency and accountability in infrastructure delivery through adopting or adapting the four CoST core features. The potential for CoST and its members (see p10 for membership options) is to learn from experiences and practices in high-income countries through a collaborative approach, including improving the initiative and its tools and standards, has been recognised and taken into account in the study. ■

2. FRAMING OF THE RESEARCH

The research project by CoST – the Infrastructure Transparency Initiative (CoST) focused on countries classified as "high-income" by the World Bank. Other selection criteria were taken into consideration, such as the International Monetary Fund's advanced economies classification and membership of the Group of Twenty and the Organisation for Economic Co-operation and Development (OECD).

The main outputs of the research to date are CoST case studies on infrastructure governance in Argentina, Lithuania and Scotland. Additional research has been carried out in the UK and Denmark. This report summarises, compares and takes the analysis to the next level in terms of the potential added value of CoST in high-income countries.

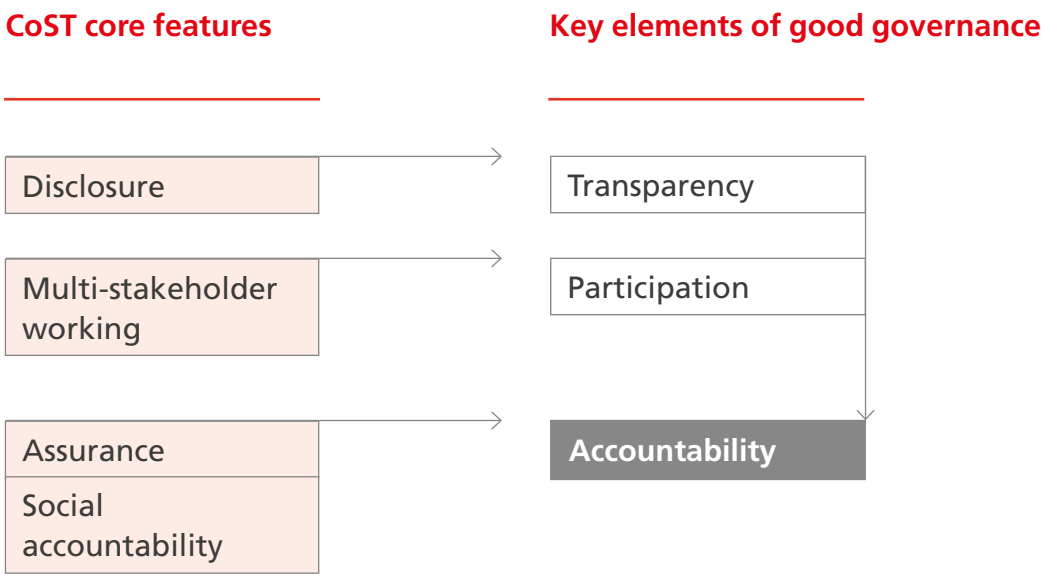
The starting point of the three case studies was to map out existing practices governing infrastructure planning and delivery. The aim was to understand the extent to which existing infrastructure governance mechanisms embrace transparency, participation and accountability as central building blocks for good infrastructure governance. Assessment of the potential value added by CoST core features and the possibility of their adoption or adaption was based on this initial mapping.

A conceptual framework was developed to illustrate the connection between the central building blocks of good governance and the CoST core features (p2). While the link between disclosure and transparency in this conceptual framework is the most obvious, multi-stakeholder working is an advanced form of participation, where relevant stakeholders are engaged in an ongoing, structured and systematic dialogue. It builds trust and enables collective decision making on key issues.

Assurance and social accountability are most directly connected with strengthening accountability as they relate to using the disclosed data, empowering stakeholders to hold decision makers to account. Uptake by the public and other stakeholders strengthens accountability and leads to government action that delivers practical improvements.

One of the key challenges for governments is establishing a viable strategy for assessing and prioritising infrastructure needs across sectors and regions. While not explicitly part of the CoST framework, the case studies mapped existing approaches to strategic planning or visioning in setting out how to identify and meet needs in the medium to

Figure 2. **Conceptual framework for the added value of CoST**



long term as a starting point for the analysis. They also reviewed the regulatory framework for the sector, the management of the infrastructure project cycle and mapped the stakeholders in the infrastructure project cycle.

The three case studies measured the level of transparency, participation and accountability in the planning and delivery of infrastructure projects. The measure of transparency was done by quantifying the level of disclosure against the internationally recognised CoST Infrastructure Data Standard (CoST IDS) from a sample of projects. While the CoST IDS captures data only until completion of a project, including reference to audit and evaluation reports, this does not imply the maintenance phase is ignored. Within the CoST approach, data from maintenance work can be disclosed as a unique set of project and contract data.

The extent to which participation is used in infrastructure planning and delivery was measured qualitatively through interviews and information requests. In this report the evidence from the case studies is used to rank the countries according to a scale classifying stakeholder engagement as:

- information sharing
- consultation
- active participation
- systematic and structured discussions about policy options.

The scale was designed for the purpose of this study drawing extensively on publications from the Organisation for Economic Co-operation and Development (OECD). A case study on open and inclusive policy making in Lithuania defined the first three steps on the scale as the "OECD approach to citizens' engagement". The fourth step of the scale that goes beyond active participation was inspired by other OECD publications and the Open Government Partnership's Participation & Co-creation Standards. The specific formulation of the fourth level in the scale used here was inspired by the discussion of stakeholder engagement in a report on the political economy of infrastructure in the UK.

The level of accountability was also measured qualitatively by looking at issues such as the extent to which projects are completed on time, on budget and with the expected benefits; existing accountability measures; and institutions in charge of overseeing the sector.

In the final chapters of the case studies, an assessment was made of the extent to which adoption or adaptation of CoST in the case study countries could add value to existing practices. This included reflections on how existing approaches could be modified by directly applying or capturing the essence of CoST core features, either incrementally or as principles, and how key stakeholders, including existing institutions, could innovate their approaches or set-ups to strengthen infrastructure governance.

This overarching report follows the structure of the case studies, drawing on findings and recommendations to make a broader set of recommendations for high-income countries that are interested in and willing to innovate their approach to infrastructure governance. Some aspects of CoST are discussed based on potential lessons the initiative can learn from existing practices.

Overall, the study relies on restricted data as it is based on information from primary and secondary sources presented and referenced in the

case studies and additional research. Each of the case studies describe their methodological approaches and limitations but, due to time and resource constraints, they do not rely on a randomised selection of all infrastructure projects in those countries (except for a sample of projects identified to assess the level of stakeholder participation in Lithuania). The findings of the study should therefore be seen as case-based and indicative rather than representative and conclusive.

The strength of the method applied is that it offers a degree of "conceptual validity". The study clearly identifies and attempts to measure aspects of infrastructure governance that are difficult to measure quantitatively, especially participation and accountability. This report attempts to make a "contextualised comparison" of key governance features across a number of very different contexts and draw conclusions for further reflection on this background. Although including a number of suggestions and ideas on how high-income countries could benefit from implementing CoST, it does not present a set of firm recommendations. ■

3. CURRENT POLICY AND PRACTICE IN INFRASTRUCTURE GOVERNANCE

The broad consensus about the need for better and more open infrastructure governance is gaining momentum. Authoritative international institutions such as the Organisation for Economic Co-operation and Development (OECD), Group of Twenty (G20) and the International Monetary Fund (IMF) are highlighting its importance for improving performance, efficiency and quality.

As noted by the OECD, "Poor governance is a major reason why infrastructure projects fail to meet their timeframe, budget, and service delivery objectives." The role of the private sector is growing through financing, design, construction, operation, maintenance of infrastructure and businesses, and institutional investors alike highlight the need for good governance if large and complex infrastructure projects are to be successful.

Citizen and community groups are increasingly seeking to influence infrastructure decision making through formal or informal channels and by using social media platforms. This represents a shift away from the traditional state-dominated infrastructure planning and delivery that has prevailed for decades. Governments (at national and local level) need to embrace this change and identify innovative ways to manage the new complexity in an open and inclusive manner. That will ultimately improve value for money and infrastructure outcomes.

The planning and delivery of infrastructure projects typically happens through several phases (see Table 1). Broadly speaking they involve:

- a prioritisation and planning phase, which can be needs based and strategic
- a project preparation phase, where design, cost–benefit and value-for-money issues are considered
- a tendering and procurement phase, where contractors are selected
- a project management and construction phase, which involves overseeing the implementation and completion of the project

- an operations and maintenance stage
- an evaluation stage, with post-project assessment of the extent to which objectives were met.

The planning and delivery of infrastructure and management of the process is also closely associated with public investment management. This is because most public infrastructure projects are financed through national budgets and procured and managed by government agencies. Even in public–private partnerships, a common infrastructure financing and delivery modality based on private sector construction and operation of the facility based on long-term contracts, are based on regular transfers from government budgets. In privatised sectors the government does not have a direct financing role but will often retain significant regulatory oversight. The connection between infrastructure governance and public investment management hence extends to efforts to make government budgets, and especially capital expenditure programmes, more transparent and accountable.

Table 1. **Comparison of Rajaram and OECD characterisation of the infrastructure project cycle**

Rajaram 2010 (public investment cycle)	OECD 2015 (infrastructure project cycle)
	1. Strategic planning (identify relevant needs across sectors and regions)
1. Investment guidance, project development, preliminary screening	2. Prioritisation of needs (aggregation and stakeholder preferences)
2. Formal project appraisal (pre-feasibility, feasibility, cost-effectiveness, cost–benefit analysis, regulatory requirements)	3. Project preparation (technical design, affordability and value for money)
3. Independent review of appraisal	
4. Project selection and budgeting (detailed project design)	
5. Project implementation	4. Construction (monitoring of delivery and scrutiny of changes)
6. Project adjustment	
7. Facility operation (service delivery)	5. Operation (monitoring asset performance, maintenance and mechanisms for reflection)
8. Basic completion review and evaluation	

STRATEGIC PLANNING

Part of the consensus on infrastructure governance is an emphasis on the importance of developing a vision and comprehensive strategic approach for infrastructure development. This helps to improve evidence-based needs assessment and project prioritisation, leading to the creation of project pipelines that can attract financing and get better value for money. Such an approach lends itself to being done in a more holistic, open and inclusive manner based on a broad national debate and stakeholder engagement, and prior to the planning of infrastructure investment.

Governments often have shorter lives than the identification, planning and delivery of large infrastructure projects, which sometimes takes decades. A rolling national strategy based on a broad political deal as well as direct participation would help to overcome different political priorities and objectives. It has the potential to reduce the level of political influence on which projects are initiated as more objective criteria are applied to project prioritisation. In contexts where decision making on infrastructure project selection is highly decentralised, a robust strategy can help avoid sector biases or regional discrepancies and facilitate interaction and coordination between different procurement entities at national and subnational level.

In the case studies, mapping existing needs assessments and strategic planning exercises represented a starting point of the analyses. The extent to which the three governments take a strategic approach to infrastructure planning and delivery is mixed (p18).

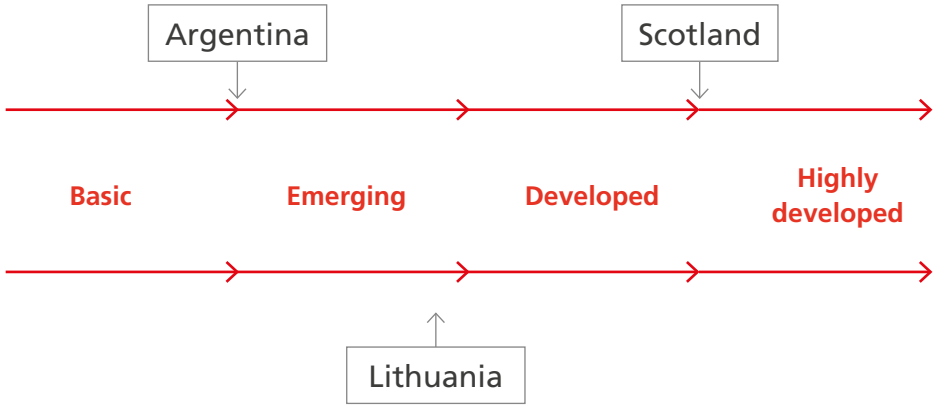
Overall, the extent to which strategic planning is used in the three cases is fairly limited, which suggests that the governments have not yet fully embraced the recommendations made by OECD and others. It also underlines that, although crucial, developing a strategic vision is not an easy task and it might be challenging to convince stakeholders within governments that have historically relied on sectoral plans of its merits. The benefits, however, potentially extend to efficiency gains and the possibility of attracting finance in addition to getting more value for money through infrastructure that is developed in a more open, holistic and inclusive manner.

THE INFRASTRUCTURE PROJECT CYCLE

A defining feature of CoST – the Infrastructure Transparency Initiative (CoST) is the focus on transparency and accountability throughout the infrastructure project cycle. The case studies therefore mapped how the governments manage their infrastructure projects using the comparable project cycles set out on p18. This was an entry point to understand

OVERVIEW OF LEVEL OF STRATEGIC PLANNING IN CASE STUDIES

Scotland has the more advanced approach, with an Infrastructure Investment Plan covering a 20-year span, updated on a rolling basis every three to four years, and an institutional setup to support and oversee its implementation. In comparison, Lithuania has had a State Investment Programme for 20 years but without any dedicated institution associated with it. Decision making is in reality decentralised and highly dependent on political cycles. In Argentina there is an absence of coherent planning despite a history of using national public investment planning and project banks. Recent efforts have focused on developing comprehensive regional infrastructure investment plans.



For more details see the individual high-income country case studies.

some of the existing governance challenges and how countries embrace transparency, participation and accountability in the planning and delivery of infrastructure.

While Rajaram's public investment framework[1] has a very clear and detailed focus on the project level, the more recent OECD framework[2] has additional focus on the strategic planning of how to meet the identified needs across sectors and regions. Rajaram operates with a more detailed breakdown of project preparation than the OECD, spelling out for example the key stage of independent review of project appraisals.

The project cycles identified in the case studies follow the same broad stages but with slight variations (see Table 2).

It should be noted that the Lithuanian case study had a focus on its State Investment Programme and the description of the project cycle in this case is somewhat broader than the other two cases. This is reflected in the specific roles of the Ministry of Finance, Parliament and National Audit Office, which is not captured in the other case studies.

In the case of Scotland there is a clear distinction between when funds are committed and when they are not. Funds are only committed after the tender process has been completed and contracts awarded. The Scottish National Audit Office, in one of its occasional evaluations, has used this to distinguish between budget and time overruns from the original business case and overruns agreed at the time of contract awards, where it had an actual impact on the committed funding. Scotland also highlights the procurement phase as a separate stage between inception and delivery. This corresponds to the preparation stage in Argentina, while procurement is seen as part of the implementation stage in Lithuania.

There were no references to independent review of appraisals in any of the three project-cycle descriptions, indicating that this is an element of infrastructure project management that is not highly prioritised in any of the case study countries. This is despite it being recognised as an element of infrastructure project management that is of crucial importance to prevent cost and time overruns. It also reduces the risk of inappropriate and inefficient projects getting added to the portfolio of projects with political support, despite falling short of meeting objective success

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1 Rajaram A, Le T, Biletska N and Brumby J, A diagnostic framework for assessing public investment management, Policy Research Working Paper 5397, The World Bank, August 2010, available at: documents.worldbank.org/curated/en/396891468330305148/A-diagnostic-framework-for-assessing-public-investment-management

2 Organisation for Economic Co-operation and Development, Towards a Framework for the Governance of Infrastructure, September 2015, available at: oecd.org/gov/budgeting/Towards-a-Framework-for-the-Governance-of-Infrastructure.pdf

Table 2. **Comparison of case country project cycles**

Argentina	Scotland	Lithuania
Identification stage	Inception	Identification stage
Project idea	Develop outline business case	Call for project proposals
Project assignment	Initial approval	Project selection by public entities
	Procurement	
Pre-project stage	Develop full business case	Review by Ministry of Finance
Preparation stage		
Project approval stage	Pre-contract approval	Approval by Parliament
	Tender contracts	
		Implementation stage
Implementation stage	Delivery	Procurement by public entities
Project implementation	Award and manage contracts	Award and manage contracts
		Budgetary amendments
		Progress reporting
		Delivery, monitoring and evaluation
	Accept completed project	Project completion
Evaluation stage	Completion and operation	Final reporting
Project evaluation	Post-project evaluation and benefits realisation	Audit by National Audit Office (part of audit of state budget)

criteria. In some countries, procuring entities are understood to make use of external second-opinion assessments or gateway reviews, but it is not clear how this is regulated and it is seemingly not implemented systematically.

REGULATORY FRAMEWORKS

Only limited legislation instructing public entities to disclose information, engage stakeholders from multiple sectors or introduce accountability mechanisms specifically in relation to infrastructure projects was found in the case studies. Nevertheless, they did identify three legislative drivers of transparency and participation in infrastructure projects.

The first relates mainly to the case countries within the European Union (EU), where the Treaty of Rome introduced the principles of free movement of goods, services, capital and labour, all of which have an impact on procurement. EU case law builds on these and frequently uses general principles on non-discrimination, transparency, mutual recognition and proportionality in cases related to procurement.

Three specific procurement directives issued in 2014 constitute the current EU legal framework for procurement. They provide strong drivers for disclosure of infrastructure data, especially in the project identification, preparation and contract procurement stages. The directives aim at ensuring the principles of non-discrimination and transparency are upheld by procuring entities and had to be transposed into national law by April 2016. The three directives are:

- 2014/24/EU on public procurement
- 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors
- 2014/23/EU on the award of concession contracts.

These EU directives have been adopted both in Lithuania and Scotland. It is clear from the transparency measures in both countries that most of the data points where there is a legal obligation to disclose is related to procurement. In Lithuania, 10 out of 14 of the procurement data points required by the CoST Infrastructure Data Standard (CoST IDS) are disclosed while in Scotland it is 11 out of 14. In Lithuania, only data related to procurement are legally required to be disclosed, which underlines the impact of the EU procurement rules on transparency.

In contrast the extent to which procurement regulation drives transparency is much more limited in Argentina. Currently only three of the 14 data points on procurement in the CoST IDS are disclosed.

Another area where EU legislation has been a driver of reform concerns public participation in infrastructure projects. The environmental impact assessment directive requires public participation in environmental impact assessments based on concerns related to meeting citizens' needs, increasing the legitimacy of projects, addressing conflicts before decisions are made and ensuring better implementation after the decision point. People need to be given effective opportunities to participate through mechanisms such as public meetings, advisory panels, open houses, surgeries, interviews, questionnaires and participatory appraisal techniques. The information gathered then needs to be taken into consideration in the development consent procedure.

The second major legislative driver of transparency is the emergence of so-called freedom-of-information laws. These have been enacted in all three case study countries and, although they do not relate exclusively to infrastructure, they represent an important legal instrument to be used in pushing for infrastructure transparency.

A shortcoming of freedom of information as a driver of transparency is that it is limited in scope and does not cover private providers of public infrastructure through public–private partnerships (PPP) or infrastructure of national strategic interest but not publicly owned. One example of this is the expansion of London's Heathrow airport in the UK, which is under private ownership and therefore not subject to freedom-of-information legislation despite very significant public interest in the project. There is scope to update the law in this respect. A further limitation of this driver is that it enables only reactive disclosure, though authorities responding to freedom-of-information laws are exploring ways to make more data available proactively. The CoST IDS can be used as a template for the data to be disclosed proactively by procuring entities, thereby instantly boosting infrastructure transparency.

In Argentina, freedom-of-information laws both at federal and city level have recently been updated and reinforced. The country improved its score from 66 to 91 out of 150 points on the Global Rights to Information Ratings, ranking it as 48th out of 111 countries in the 2017 version. The freedom-of-information law in Lithuania appears as the weakest of the three case study countries although it was successfully used to get information for the research. Compared with Argentina, the country scores much lower on the Global Rights to Information rating as 97th out of 111 countries, with a score of 64 out of 150 points. Scotland is not ranked in the Global Rights to Information Ratings although it has its own legislation in place through the Freedom of Information (Scotland) Act 2002. This came into force in 2005 and is generally perceived as far-reaching and robust. The case study found that 100% of the CoST IDS 40 proactive data points and 26 reactive data points are accessible upon request through a freedom-of-information request.

A third legislative driver is related to requirements for community engagement as a potential driver of participation in infrastructure projects. Legislation in the case studies is quite mixed. Scotland has the Community Empowerment (Scotland) Act 2015, which gives community bodies new rights, and public-sector authorities new duties, to boost community empowerment and engagement. In Lithuania the Law of Public Administration regulates public involvement and possible consultation processes. Public sector institutions are required to consult interest groups and affected communities before taking decisions of public interest. Argentinean law does not require stakeholder participation in public infrastructure projects, though Decree 1172/2003 introduces the possibility of participation in unspecified decision-making processes through "public audiences".

A legislative driver specifically for increasing accountability in relation to infrastructure projects was not identified in any of the case studies but the legal set-up, especially in terms of mandate and level of independence of oversight institutions, is clearly relevant.

STAKEHOLDER MAPPING

The infrastructure sector is more than any other sector characterised by the direct involvement of a vast range of stakeholders. This can be explained by the nature of public infrastructure which, compared to provision of social services, is very tangible. It has a physical (geographic and spatial) location and economic, social and environmental impacts that are often unevenly distributed. This results in the involvement of a range of statutory bodies across sectors, jurisdictions and levels of government (especially for major projects) and increases the attention of affected communities and civil society organisations.

At the same time, the planning and delivery of infrastructure is done in ways that in almost all countries involve some level of collaboration between the public and private sector. The public sector is most often the owner or at least has significant regulatory powers and is ultimately responsible for the cost, scope and quality of the project. Private companies can be engaged in many different aspects of project planning, management, delivery, operation and maintenance, based on contractual relationships with the owner and sometimes, in large and complex consortia, across value and supply chains at different levels.

The different impacts, roles and responsibilities of the wide array of actors adds to the complexity of successfully managing both individual projects and the sector as a whole. At the same time, a recognition of the need to engage stakeholders specifically in infrastructure planning and delivery is gaining ground (see "Stakeholder engagement and participation" in Chapter 4). For these reasons the case studies mapped

the stakeholders most relevant to the infrastructure sectors in the respective countries.

Based on the mapping, it became clear that infrastructure stakeholders can generally be divided into three overarching groups: state institutions, private sector and civil society.

State institutions

A range of different actors within the state are involved in financing, planning, delivering and overseeing public infrastructure as this involves spending public resources.

It is a generally accepted practice that public spending (of taxpayers' money) through proposed budgets by a government (the executive, typically the finance ministry or equivalent) must be approved by the legislature (e.g. parliament or congress). For public investments in infrastructure, this can be done through the budget or specific capital or investment programmes. Finance ministries, treasuries and either separate planning ministries or planning departments within the finance ministry play a key role in: strategic planning, investment guidance, setting budget ceilings, appraising projects or investment programmes, accepting completed projects and undertaking basic reviews.

Once a budget or investment programme has been enacted, procuring entities authorised to spend money plan and deliver the specific projects. This involves project preparation and appraisal, procurement, implementation (managing contracts) and completion. In some cases, the procuring entity is also responsible for operation of the facility. Procuring entities represent a very broad category of actors, involving line or sector ministries at different levels of government, public agencies, directorates or institutes. The most important procuring entities are typically those responsible for delivering public works such as: roads, railways, bridges and other large-scale public infrastructure. Sometimes specific legislation authorising development of a project must be enacted, which means the legislature is involved again.

Another set of actors provide external oversight of infrastructure spending. This is typically done by autonomous or semi-autonomous institutions, such as national audit offices or other types of supreme audit institutions. In some systems these are part of the judiciary branch of the state, such as the francophone cour des comptes (court of audit), and in others they have their independence from the executive asserted by reporting their audit findings and recommendations to a public accounts committee (or equivalent) in parliament. Most audits are done after completion and then reported to parliament.

A host of other statutory bodies can also be relevant, such as environmental, competition and consumer agencies, plus agencies that regulate specific sectors or spatial dimensions of a project as well as internal-controls and anti-corruption agencies. This also includes different levels of government (e.g. state, province, municipal) as an infrastructure project can influence various levels of government simultaneously. Given the inherent political nature of infrastructure planning and delivery, the office of the head of government (e.g. president or prime minister) can also sometimes be a key actor.

In this report, the term "procuring entities" is used specifically for actors authorised to spend public money and deliver projects, while the term "authorities" is used when referring more broadly to state institutions.

Private sector / industry

The private sector is involved in almost all infrastructure delivery modalities. Traditionally the role of private companies has been in the construction of assets but they are also now increasingly involved in designing, managing, operating and financing infrastructure projects.

Consultancies are often engaged to develop pre-feasibility studies and undertake various types of appraisals of cost-effectiveness or value for money. Project management can also be a role assigned to a private company. Private finance initiatives and PPPs have seen the involvement of private companies in the operation of public infrastructure assets, essentially undertaking the provision of services that result from the investment. Financing happens via institutional investors that have the opportunity to assign part of their portfolio to bonds (or other financial instruments) issued specifically for infrastructure projects (e.g. the new airport of Mexico City) or arms-length companies charged with mobilising private finance.

There is also a range of actors which represent the interests of the private sector to governments. These include professional bodies and private-sector associations such as industrial and business confederations, chambers of construction and chambers of commerce.

Civil society

Civil society is another highly diverse group of stakeholders, ranging from individuals or community groups affected by infrastructure projects (both in positive and negative ways) to highly specialised associations (for example regional, environmental, social or governance issues), interest groups (focusing for example on a particular infrastructure project) and thought leaders. This group of stakeholders are the ones that typically stand to win or lose from infrastructure

projects, and who can generate public debate about local or broader impacts from specific projects. In democracies, they are also voters who can eventually punish governments (national or local) through the ballot. But they are also increasingly able to use other democratic means to influence or advocate for or against certain projects and hold decision makers to account.

The media and politicians are two specific types of actors that fall between the private sector, civil society and state institutions. Media outlets, which can be either for or not-for profit companies, are crucial for information sharing and journalistic investigation, while politicians are from the community but can be elected to the legislature.

The three case studies all identified a broad range of active stakeholders within the groups outlined in this taxonomy, which underlines the incredible variety of actors that have a stake in infrastructure projects. The complexity of constructively managing the multiple relations resulting from all these stakeholders engaging is a key topic of this overarching report. ■

4. CURRENT LEVELS OF TRANSPARENCY, PARTICIPATION AND ACCOUNTABILITY IN THE CASE STUDY COUNTRIES

This chapter presents findings from the case studies on levels of transparency, participation and accountability in infrastructure projects.

DISCLOSURE AND TRANSPARENCY

Transparency is at the forefront of efforts to strengthen governance, not only within the infrastructure sector but also in extractives, public finance and government in general as reflected by the leading transparency and anti-corruption initiatives. In democratic societies transparency is recognised both as a right in itself (access to information) and a starting point, especially for horizontal accountability mechanisms that rely on external scrutiny.

The importance assigned to transparency in infrastructure provision by governments and international institutions has been invested first and foremost in procurement regulation, particularly when governed by European Union directives, World Trade Organization agreements, the United Nations Commission on International Trade Law, International Organization for Standardisation standards and a host of anti-corruption conventions.

CoST — the Infrastructure Transparency Initiative (CoST)
CoST has pioneered the development of a standard, the CoST Infrastructure Data Standard (CoST IDS), that encourages the disclosure of data from all phases of an infrastructure project cycle, both from a project and a contractual perspective (Table 3). It comprises one set of 40 data points and one set of 26 information points covering the identification, preparation, procurement, implementation and completion phases of an infrastructure project cycle.

The 40 data points in the CoST IDS constitutes what CoST recommends as the standard for proactive disclosure. It should be disclosed automatically (not based on a request) through a public medium that is open and accessible. For the purpose of this study, a country's level of infrastructure transparency is measured by the percentage of the 40 data points that

can be identified as proactively disclosed to the public. If the data is only available upon request it is not considered to be proactively disclosed.

The CoST IDS has also identified 26 information points that should be made available upon request or disclosed reactively by the relevant authorities. The list of information is for the most part documents rather than concise facts, and is connected to official and technical tasks during project implementation.

In countries with high levels of infrastructure transparency, data and information recommended for reactive disclosure is sometimes disclosed proactively. Procuring entities are required to disclosure infrastructure data in accordance with a legal framework. However, these requirements are sometimes either not met (compliance gap) or exceeded, when they disclose more than what is legally required.

Compliance gaps are often due to a lack of capacity or awareness of the disclosure requirements. It can then be difficult to hold the procuring entity to account for this, which poses a limitation to what can be achieved through legal means only. When procuring entities exceed the legal requirements for disclosure, it is often a result of political will and effective policy-driven approaches. They have a commitment to increase openness generally to address reputational risk or increase credibility in a way that goes beyond legal requirements. Once data and information are being regularly disclosed it is hard to reverse the policy, particularly if the data is being used to inform the public and increase visibility of government commitments.

Levels of transparency in case study countries

Figure 3 illustrates the level of infrastructure transparency from the three case study countries and the UK. The figure shows two measures of transparency: the level of data legally required for disclosure and the level of data commonly disclosed. For Scotland and the UK, the level of data commonly disclosed is split into large projects (above £20 million) and medium-sized projects, defined as projects with a value between £4.5 million and £20 million.

The levels of infrastructure transparency are clearly mixed. The legal requirements for disclosure likewise fluctuate significantly but, in most cases, the level of actual disclosure is higher than what is legally required, with Argentina as the most notable exception. This tendency could be explained by the significance of policy as a driver of transparency compared to legislative drivers based on mandatory disclosure, indicating this is a central issue to keep in mind when designing a disclosure process. The Lithuanian level of disclosure is significantly higher than the legal requirement. Interestingly, it could easily be even higher as the case

study showed that procuring entities are obliged to report almost all CoST IDS data to their respective ministry or oversight institution

The marked differences between the level of disclosure at national and devolved government level in the UK and Scotland stands out. The biggest factual explanation to this is that significant amounts of data required by CoST IDS is on public service contract portals, such as Contracts Finder, which are inaccessible to non-subscribers in the UK. The Scottish equivalent, Public Contracts Scotland, is freely accessible without a requirement to create an account. It would be a very quick win for the UK government to address this issue and make this information open to non-subscribers. Still, the level of transparency in the UK is concerning in comparison to the other cases and to a baseline study carried out in 2010. It suggests that initiatives such as the searchable geo-referenced platform for planning applications, which currently under consideration by the Planning Inspectorate, are important and would benefit from aligning with the CoST IDS.

Looking across the case studies it is evident that the data tends to be front-loaded, with project completion and contract implementation presenting the biggest gaps. This illustrates that there is no tradition for sharing the difficult data with the public (except when they convey success stories) and that no drivers (such as European Union procurement directives) have focused on these aspects of infrastructure transparency. It is unclear if this data can be obtained upon request through freedom-of-information requests. This varies both across and within the case studies, as for example in Lithuania where different procuring entities have differing policies in this regard.

Both Scotland and the UK proactively disclose some information that is included in the CoST IDS list of information for reactive disclosure. Of the 26 information points recommended by CoST for reactive disclosure, nine are disclosed proactively for large UK infrastructure projects This is similar to the level of disclosure in Scotland, where 10 of the 26 data points are disclosed proactively.

In all cases (except for Argentina, where this type of legislation has only recently come into effect) freedom-of-information legislation represents a powerful tool to obtain infrastructure data reactively. In Scotland, research deemed that all the CoST IDS data could be obtained in this manner, while in Lithuania the figure was 90% (corresponding exactly with the data that exists for internal consumption).

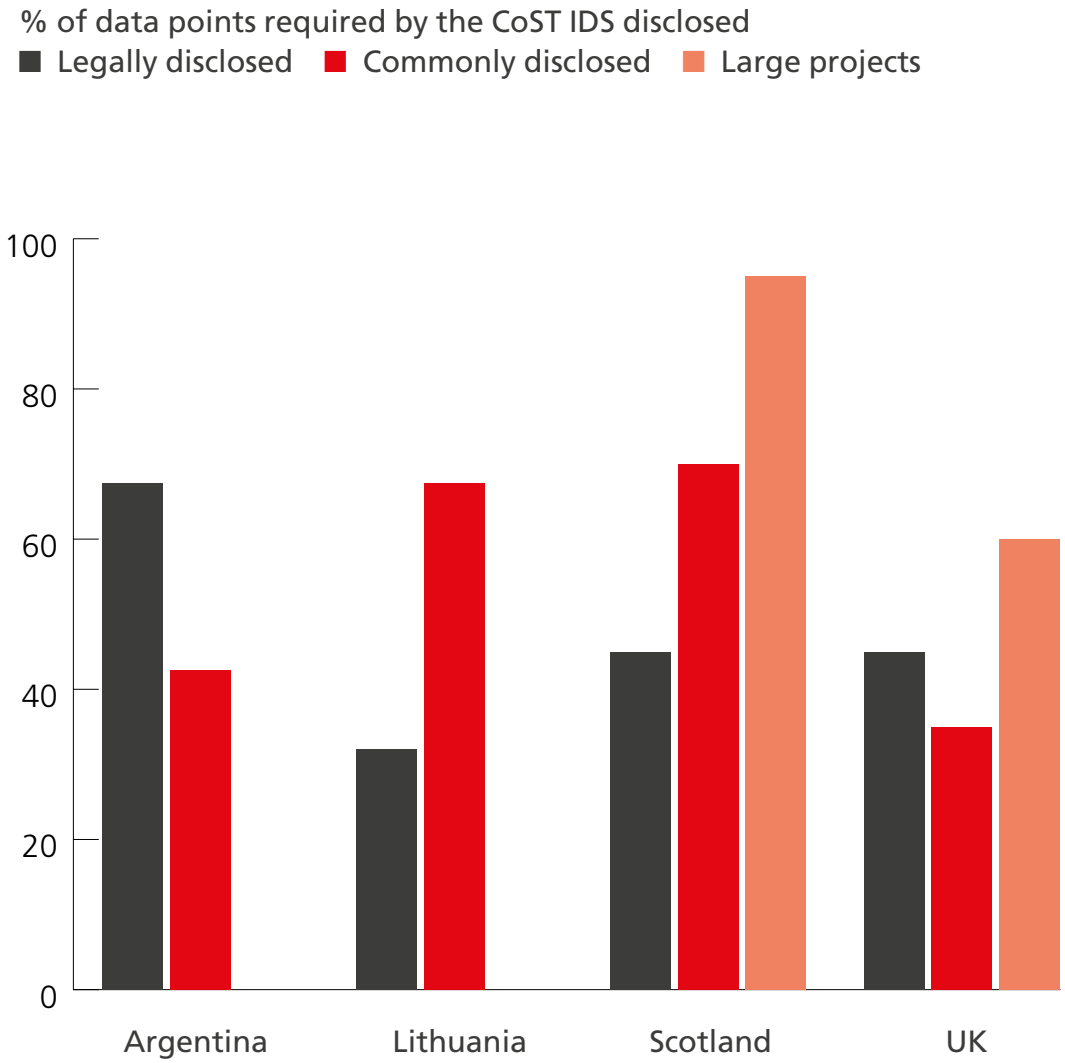
Although it is not possible to reach any firm conclusion the case studies suggest that data may be more readily available in local or devolved governments than at national level. The large difference between Scotland and the UK can also be seen in Argentina, where the City Government of Buenos Aires is more inclined towards transparency

Table 3. **The CoST infrastructure data standard**

Project phase		
Project identification	**Project preparation**	**Project completion**
1. Project reference number	7. Project description	15. Project status (current)
2. Project owner	8. Project scope (main output)	16. Completion cost (projected)
3. Sector, subsector	9. Environmental impact	17. Completion date (projected)
4. Project name	10. Land and settlement impact	18. Completion scope (projected)
5. Project location	11. Contact details	19. Reasons for project changes
6. Purpose	12. Funding sources	20. Reference to audit and evaluation reports
	13. Project budget	
	14. Project budget approval date	

Contract phase	
Contract	**Contract implementation**
21. Procuring entity	35. Variation to contract price
22. Procuring entity, contract details	36. Escalation of contract price
23. Contract administration entity	37. Variation to contract scope
24. Contract status	38 variation to contract duration
25. Procurement process	39. Reasons for price changes
26. Contract type	40. Reasons for scope and duration changes
27. Number of firms tendering	
28. Cost estimate	
29. Contract title	
30. Contrator(s)	
31. Contract price	
32. Contract scope of work	
33. Contract start date	
34. Contract duration	

Figure 3. **Level of transparency in high-income countries**



than the national government. One explanation could be the proximity to citizens and relatively smaller scale of projects. Further research would be required however to establish a difference in the level of disclosure at different levels of government.

Fragmented and scattered disclosure

It should be noted that while it was possible for researchers to obtain reasonable amounts of data in the case studies, it was often hard to find or it was located in several places. This complicates using and make sense of the data in a meaningful way. It has been referred to as "opaque" transparency, "allowing institutions to claim the badge of transparency, without a genuine commitment to independent scrutiny of their operations." The difficulty of uncovering the data that exists in the public domain reduces the practical level of transparency as experienced by citizens more broadly. It represents a missed opportunity for procuring entities to have made the effort required to disclose data and then not putting systems or tools in place to make it more easily accessible for users.

Fragmented and scattered information presents a challenge however, not only for actors outside public entities but also within the public system. There are typically data discrepancies for different areas of public services between different agencies, or partial data held by different agencies or different levels of government that, if pieced together, would provide more clarity. This complicates planning, monitoring, control and evaluation, which becomes less informed and more costly and time consuming.

Some governments have started using online platforms that make vast amounts of data on planned and ongoing infrastructure projects available to the public in an easy and very user-friendly format. A good example of this is the City Government of Buenos Aires' Observatory of Urban Works, which is an online platform with information on ongoing and planned infrastructure projects in the city in real time. This represents a homegrown, highly innovative approach to making information available in an accessible format that should be reasonably easy to replicate in other contexts. This is further discussed in Chapter 5 on the potential of CoST to add value to disclosure in high-income countries.

Stakeholder engagement and participation

As illustrated in Chapter 3, the number of stakeholders that have specific interest in infrastructure projects is significant, which contributes to the complexity of infrastructure governance. Engaging these stakeholders in ways that are considered participatory and inclusive is not straightforward. Opening up sensitive issues for discussion that can be difficult to manage and may slow down the planning process poses

THE FOUR LEVELS OF STAKEHOLDER ENGAGEMENT

Information sharing
A one-way relationship in which government produces and delivers information to be used by citizens. It covers both "passive" and "active" measures by government to disseminate information reaching them.

Consultation
A two-way relationship in which citizens provide feedback to government. It is based on the prior definition by government of the issues on which citizens' views are being sought and require provision of information. Governments define the issues for consultation, set the questions and manage the process, while citizens are invited to contribute their views and opinions.

Active participation
A relationship based on a partnership with government, in which citizens actively engage in defining the process and content of policy making. It acknowledges equal standing for citizens in setting the agenda, proposing policy options and shaping the policy dialogue – although the responsibility for the final decision or policy formulation rests with the government.

Systematic and structured discussion
Systematic and structured discussions about policy options characterises a situation in which policy forums are created with regular meetings within an agreed timeframe, where representatives from government (including statutory bodies that have a stake in the issue), civil society and the private sector are able to have informed discussions of the evidence on the effects of alternative policy options and of the trade-offs they involve. Decisions are made collectively.

a challenge for governments. Prolonging what is already perceived as an extensive timeframe for delivering an infrastructure project can run counter to the aspirations of governments that want to deliver results quickly. However, it is becoming increasingly evident that good planning can reduce time spent in the project implementation phase, and that not ensuring opportunities for meaningful engagement in this type of process can be highly counterproductive.

A number of international institutions, with the Organisation for Economic Co-operation and Development at the forefront, and a growing body of evidence, suggest that engaging citizens and other stakeholders is important for successful infrastructure outcomes. An instructive study from 2014 on the political economy of infrastructure in the UK published by the UK-based Institute for Government pointed to the lack of, "adequate forums where politicians, experts, interest groups, and representatives of local communities may engage in structured, informed discussions about policy options for infrastructure investment". It presented evidence on how this situation harms infrastructure investment decisions in many ways, such as lowering the quality of decision making and selection of projects. This also leads to higher risk and uncertainty, which hampers investments and fuels opposition from groups that suffer (or believe they will eventually suffer) from specific infrastructure projects.

If stakeholders are not informed and engaged through formal processes they will find alternative and more disruptive ways of being heard. This type of resistance can in some cases be boiled down stakeholders not being adequately informed about the real reason why infrastructure projects are being planned. By explaining the benefits and opening up to stakeholder engagement, resistance can be reduced. Exploring approaches to managing stakeholder engagement in ways that are as informative, inclusive and constructive as possible therefore seems paramount.

CoST concurs with the need for a broad range of stakeholders to be part of the decision-making process. This is reflected through the CoST core feature of multi-stakeholder working, which has its roots in concerns about how to make public participation more meaningful through mechanisms that level the playing field and facilitate policy discussions (sometimes referred to as "having a seat at the policy table"). Traditionally CoST has recommended that multi-stakeholder working is pursued through the creation of a multi-stakeholder group overseeing implementation of the CoST programme in a member country. However, this approach to achieving the benefits of multi-stakeholder working is not set in stone and can be adapted to different contexts through alternative approaches. The important point is that it is organised in a way that ensures different sectors have an equal voice.

Table 4. **Key findings from measure of participation in the case studies**

Argentina	Scotland	Lithuania
Public hearings legal requirement in Argentina but used to "gather views." Instead citizens opt for litigation, seriously delaying projects (e.g. Buenos Aires metro). BA elige is an interesting online approach to broad-based participation: 21,000 project proposals, voting, 230 selected, US$29 million.	Scottish Government adopted a set of national standards for community engagement. Not compulsory, no standard procedure for stakeholder engagement and each procuring body follows its own procedures. Stakeholder participation considered to be more about keeping people informed, rather than being a genuine engagement with the opportunity to influence decisions.	Lithuanian citizens not usually involved in infrastructure projects at any stage. Public institutions admit they do not know how to engage effectively with local residents. Two thirds of a sample of six large infrastructure projects in Lithuania relied on information sharing only. One third ranked as consultation and none were considered to achieve active participation.

Such considerations have been perceived as particularly relevant for high-income countries.

Levels of stakeholder engagement in case studies

The case studies looked into the question by assessing the level of stakeholder engagement and participation, both at a broader strategic or policy-oriented level and more directly in infrastructure projects. The level was measured qualitatively through reviews of primary and secondary data as well as interviews and specific probes about the level of stakeholder engagement in specific projects.

In this report the level of participation in each of the three case studies is scored applying a scale with four levels of engagement.[1] As shown opposite, the levels are:

- information sharing
- consultation
- active participation
- systematic and structured discussions about policy options.

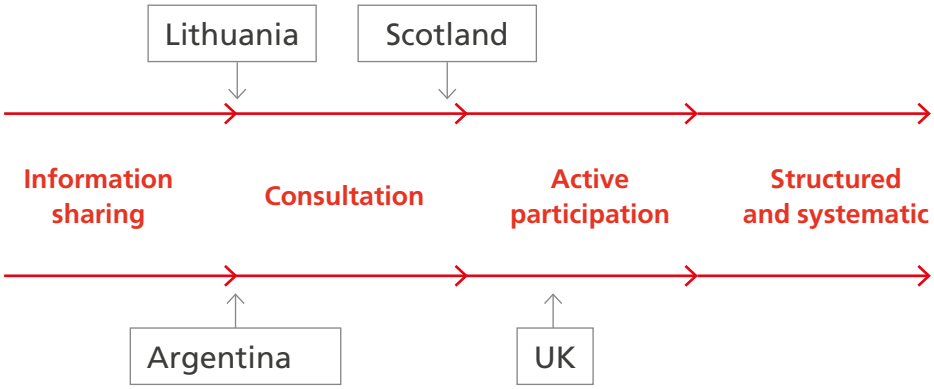
The fourth level comes closest to multi-stakeholder working as discussions are held within an agreed set-up with ongoing (as opposed to one-off or ad hoc) and regular meetings. It also has a strong potential to involve representatives from government, civil society and the private sector, and move toward collective decision making.

When looking at participation on a project-by-project level, the fourth level resembles aspects of CoST's fourth core feature of social accountability as it focuses on engaging civil society and private sector stakeholders in the infrastructure project cycle more closely and at an earlier stage. It has the potential to strengthen accountability and promote practical improvements to projects up front rather than after they have started.

The case studies confirmed that stakeholder engagement is taken seriously by authorities. Procuring entities make significant efforts to consult stakeholders on infrastructure projects, although there are variations between the different cases (see Table 3). It is also evident there are limitations on the levels of stakeholder engagement in terms of the depth of the process and ability to discuss policy options.

1 For an explanation of the design of the scale and references see chapter 2.

LEVEL OF PARTICIPATION IN INFRASTRUCTURE PLANNING AND DELIVERY



While the case studies did not provide examples of private sector or multi-stakeholder engagement in infrastructure projects, additional research produced further evidence. In the UK, the Flood and Coastal Erosion Risk Management Stakeholder Forum meets biannually to look at Department of Environment, Food and Rural Affairs and Environment Agency strategy and policy at a macro level. Forum members, who are drawn from a broad range of government organisations, industry and civil society, can engage actively in the discussion.

In Denmark attempts have been made by the Danish Road Directorate to engage entrepreneurs in dialogues about planned projects to draw on their experience and accumulate knowledge about cutting-edge techniques that could improve project design. However, even if dialogue with the private sector happens, and participatory processes are organised in line with environmental impact assessment requirements, no dialogue happens where the public and private sectors are brought together.

Similar experiences exist in the UK but here the importance of consulting other statutory bodies comes to the fore. Mega-projects such as the Thames Tideway Tunnel and Elizabeth line, a 117km railway line that crosses London from east to west, happen in complex regulatory contexts where the authority of numerous statutory bodies overlap. To manage this, Tideway has created a forum for engagement of 30 statutory bodies and to ensure public engagement use community liaison working groups. Again, no attempts are made to integrate these initiatives to form multi-stakeholder groups. Each initiative remains compartmentalised into groups with specific concerns, which are then managed by the project owner rather than benefitting from building trust and mutual understanding of the challenges across sectors.

For more details see the individual high-income country case studies.

This is partly related to democratic and legal legitimacy being sought through representative democracy, based on a close relationship with parliament. The move towards direct participation in public policy is still recent and only an emerging trend in many high-income countries. When compared to the four levels of stakeholder engagement, a notable deficit of participation remains. Procuring entities tend to interpret participation as keeping citizens informed about plans and projects rather than proactively seeking engagement to test and improve project planning. In one of the case studies, the authorities said they do not have the knowledge and tools to deliver participatory processes to engage effectively with local residents. While this indicates it is not straightforward to deliver infrastructure projects in a participatory manner, it does not necessarily mean there is active opposition to participatory approaches.

Additionally, the literature emphasises the importance of the design and independent facilitation of the participatory process as developers and government officials are not necessarily trusted by local stakeholders.[2] The role of facilitation involves enabling a process of collective analysis, learning and action, as well as creating an environment of trust to facilitate collective decisions. A major driver of participation in government policies beyond infrastructure in Argentina and Scotland is the Open Government Partnership (OGP).[3] There are strong potential synergies between OGP and CoST, specifically through concretisation of OGP commitments to public investments and infrastructure governance.

All in all, none of the case study countries can be characterised as having levels of stakeholder engagement that exceed consultation (Table 4). Scotland is marginally ahead of Lithuania and Argentina as it has established national standards for community engagement that have been applied and only need to be made compulsory for all infrastructure projects. Both Lithuania and Argentina are only just ranked as consultation but are much closer to fall into the information-sharing bracket than moving into active participation.

While the three initial case studies suggested a significant deficit in public participation in infrastructure projects, additional research has provided insights that nuances this assessment somewhat. Elements of some of the processes being implemented are relatively close to being systematic and structured, allowing policy options to discussed. A key driver here seems to be the in-built option legally to challenge decisions on nationally significant infrastructure projects at the decision point. The crux of the matter however seems to be related to where the power

2 Coelho M and Ratnoo V with Dellepiane S, Political Economy of Infrastructure in the UK, Institute for Government, 2014, p. 8, available at: instituteforgovernment.org.uk/publications/political-economy-infrastructure-uk

3 Open Government Partnership, About OGP, 2019, available at: opengovpartnership.org/about/about-ogp

to set the agenda and make decisions rests. It seems clear that collective decision making is not an option that project owners in government agencies are willing to consider or believe would have beneficial impacts, such as building trust and establishing and pursuing common goals.

OVERSIGHT AND ACCOUNTABILITY

Accountability is at the heart of the good governance agenda as it aims to improve outcomes by ensuring that officials in public, private and voluntary sector organisations are answerable for their actions, and that there is redress when duties and commitments are not met. This usually requires a level of oversight, direction or request that information or justification is provided for actions; that individuals are answerable and responsible; and that there is enforcement through redress, sanctions or punishment if laws, procedures or rules are violated.

There are several layers and dimensions to accountability mechanisms, with many actually in place internally in the institutions within which they are applied through hierarchical administrative procedures and sanctions. When internal (or vertical) accountability mechanisms are complemented by increased transparency and stakeholder engagement, an external (or horizontal) dimension of accountability is added that is intended to complement and strengthen accountability overall.

Most democratic governments are set up with a separation of powers to create checks and balances to create accountability, particularly of the executive powers through the legislative and judicial branches. This is referred to as vertical (top-down) or formal accountability.[4] The legislative branch of government often has duties in terms of oversight through specialised committees such as public accounts committees. Parliaments too can decide to form investigative commissions or inquiries as a way to pursue accountability. The judicial power also plays a key role in relation to accountability, both preventively and actively if enforcement leads to legal proceedings.

The formal and highly institutionalised approach to accountability permeates the management of public finances. Public spending including public investments runs through a particular cycle with a clear division of power. The executive can only propose a budget which has to be scrutinised and approved by the legislature before it has a legal mandate to collect revenue and carry out expenditure. The execution of

4 Different definitions of vertical and horizontal accountability exist. In this report, the formal and institutionalised accountability mechanisms that are in the first instance internal to the administration and in the second instance internal to state institutions are described as vertical accountability, reflecting the significant top-down, hierarchical element of this type of accountability. The broader and more informal accountability mechanisms driven by non-state stakeholders are described as horizontal accountability.

Table 5. **Summary of supreme audit institution findings on infrastructure projects**

Argentina	Scotland	Lithuania
Auditoria General de la Nación (National Audit Office)	**Audit Scotland**	**Valstybės Kontrolė (National Audit Office)**
At least nine reports published on the risk of weak transparency and significant corruption in infrastructure projects, including: ■ overpricing ■ projects awarded without tender process ■ payments without implementation plans ■ payments not corresponding to specifications of proposed work. ■ Reports presented years after projects are concluded, limiting their potential impact.	Management of the Scottish Government's capital investment programme (2011). Findings included: ■ accuracy of cost and time estimates had improved in recent years ■ two key stages: the initial approval and the pre-contract award ■ a third of projects were completed on time ■ 59% met cost estimates made at initial approval ■ 89% met cost estimates made at contract award ■ 40 out of 55 projects subject to post-project evaluations.	Has questioned the preparation of State Investment Programme projects for almost half the public entities involved, as they either did not apply any selection criteria or were in breach of their own procedural selection rules. Conducts and publishes online annual ex-post audits of the state budget, of which the state investment programme makes up a substantial component. Public Procurement Office increased value for money of one project through savings of more than €6 million through a review of budget based on current market prices.

the budget is overseen by the legislature and audited at the end of the financial year.

Audits are performed by institutions with varying levels of independence from the executive (commonly referred to as supreme audit institutions) and, in some systems, fall under the judicial branch of government (see Chapter 3). Spending on infrastructure is usually classified as capital expenditure, which is part and parcel of government budgets. It implies that the traditional accountability mechanisms outlined here are highly relevant for accountability in infrastructure planning and delivery.

In addition to vertical accountability, which is highly institutionalised, there are many external approaches to accountability, sometimes also referred to as horizontal accountability. Here non-state actors outside public institutions, mainly citizen groups or civil society organisations, take centre stage applying various different methods to hold politicians, public officials and other decision makers to account. Common for the many methods and tools that exist to promote horizontal accountability is that they are often based on a combination of access to information (transparency) and active stakeholder engagement (participation).

The engagement can be formalised through different types of organised participatory processes (in line with the discussion in the previous section) or through informal and at times more confrontational approaches, such as campaigns, petitions or litigation. The basic idea is that when there are more eyes looking, there is more pressure to do things well due to the potential risk of exposure from publicly available information. It reduces the risk of deals being negotiated in narrow circles behind closed doors, with potential collusion and other malpractices. Horizonal accountability mechanisms are not intended to replace formal and institutionalised mechanisms but reinforce them through external scrutiny and pressure.

Infrastructure has been highlighted as a sector where vertical accountability mechanisms are particularly ineffective. This is because it is a sector that is not only affected by corruption and mismanagement worldwide but also by what has been described as a persistent "optimism bias" by project forecasters, who systematically underestimate costs and overestimate benefits. In the UK, it was observed that procuring entities can be subject to not having realistic assessments of budget and schedule and that procurement processes have a tendency towards rewarding "aggressive schedules and keen prices."

Flyvbjerg has suggested that, "Some forecasts are so grossly misrepresented that we need to consider not only firing the forecasters

but suing them, too – perhaps even having a few serve time."[5] It is important to point out that these accountability challenges with enduring shortfalls in delivering infrastructure on time, on budget and with the expected benefits affect all types of countries, even those with the most advanced and competent bureaucracies as well as low levels of perceived corruption. Regardless of the reasons explaining these shortfalls, it is in the interest of the public that there is more transparency and accountability in the infrastructure project cycle.

The above explains the purpose of CoST and its established goal of promoting greater transparency and accountability in public infrastructure. As outlined in Chapter 2, the CoST core features most directly associated with the pursuit of accountability are assurance and social accountability. But in essence all four core features of CoST collectively contribute towards greater accountability. This reflects the belief that a combination of transparency and meaningful participation will result in increased accountability. If disclosed data and information is not used, its purpose and added value can be questioned.

In measuring the level of accountability, the case studies looked at two elements. They sought to gauge the challenge by assessing the track record in delivering projects on time, budget and with expected benefits. More importantly they also assessed the institutional set-up and practice for control and oversight of public infrastructure investments. While it turned out difficult to get data to inform a systematic assessment of the track record, sufficient evidence was gathered to conclude that all case-study countries faced challenges.

Project delivery track record

Overall data on project delivery is very hard to come by. In the UK, none of the procuring entities interviewed could provide statistics on the number of projects completed on time, on budget and with the expected benefits. This does not imply that all projects go off track, rather that it is not closely monitored.

Looking at a sample of 26 projects from the Observatory of Urban Works in the city of Buenos Aires, the Argentina case study found that approximately a third was delivered with delays, in some cases taking more than double the original estimated time to be completed.[6] Insufficient data was disclosed to make a similar assessment of budget overruns.

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5 Flyvbjerg B, "Survival of the Unfittest: Why the Worst Infrastructure Gets Built – and What We Can Do About It", Oxford Review of Economic Policy, Vol. 25 No. 3, 2009, p. 349

6 A third is a conservative estimate as data was not available for 38% of the sample. A third was documented as delivered on time

Lithuania has a historic record of many unfinished infrastructure projects throughout the country, which was one of the main motivations for creating the state investment programme in 1997. In 2015 and 2016 on average more than 8 out of 10 tenders were found to be in breach of public procurement law.

In Scotland a 2011 report by the National Audit Office found that the accuracy of cost and time estimates had improved, although only a third of projects were completed on time compared to the time estimates made at both initial approval and pre-contract stages. However, delays did not always result in increased cost of the projects, as 59% met estimates made at initial approval stage and 89% met estimates made at contract award. Post-project evaluations of performance were not always carried out as required: only 40 out of 55 projects had been subjected to this type of assessment.[7]

The case studies found limited use of independent reviews, such as second-opinion or gateway reviews of project proposals or business cases at the appraisal stage in Scotland, UK and Denmark, but they are not used systematically. The Crossrail 2 project in the UK provides a positive example of this type of process, where an independent affordability review has been carried out to consider the scope, cost and risk of the project. The review has been considered a positive exercise but, as noted, it is not something done regularly even on large projects in the UK. This suggests that limited priority is given to scrutinise infrastructure projects beyond internal procedures, which increases the risk of issues with projects being detected at this stage of the project cycle.

Institutional set-up for control and oversight

In terms of the quality of control and oversight of public infrastructure investments, all case studies found strong set-ups with competent, well organised and active institutions in charge (see Table 5). This indicates they all have adequate vertical accountability mechanisms in place and limitations on impact are seemingly not caused by institutional weakness.

In Lithuania, the case study additionally found evidence of advanced internal control mechanisms addressing infrastructure governance. The Ministry of Transport and Communication carried out an internal audit of 33 projects and found that nine out of 10 projects were of substandard quality. Issues identified included thinned layers of concrete, poor quality materials and departure from or not meeting technical specifications.

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7 At UK level, the Institute for Government has called for more consistent evaluation of infrastructure projects in its report on how to transform infrastructure decision making in the UK. Source: Davies N, Atkins G and Slade D, How to transform infrastructure decision making in the UK, Institute for Government, February 2018, available at: instituteforgovernment.org.uk/sites/default/files/publications/IfG_infrastructure_decision_making_WEB.pdf

In these cases the companies were instructed to go back and make improvements.Audit Scotland has over the years had a very strong focus on capital expenditure and infrastructure projects being delivered on time, on budget and with expected benefits. In addition, Scotland is interesting as two major infrastructure projects have been subject to public inquiries, which is a high-level accountability mechanism in the UK and beyond.

The challenge faced by the supreme audit institutions, particularly in Argentina, is that they sometimes struggle to have an impact despite being formally set up to provide control and oversight of government spending. All cases have Westminster model systems, where the supreme audit institution reports its findings and recommendations to a public accounts committee in parliament, and not the francophone model with a cour des comptes (court of audit) with distinct enforcement powers. In Westminster model systems, parliament becomes responsible for enforcement of actions to remedy audit findings. However, the risk with this is that audits can become politicised to protect a government's majority in parliament. Moreover, supreme audit institutions have wide areas of responsibility and only infrequently look specifically at public investment in infrastructure.

The same is true for public inquiries. Despite requiring substantial investment of time and resources, these ultimately depend on parliamentary control and political will to address key issues. What the Scotland case study suggests, however, is that rather than holding individuals to account, infrastructure inquiries have sparked a long-term reform process that has addressed many of the shortcomings identified over time. The inquiries approach is costly and only applied under very special circumstances, but it might be possible to identify more cost-effective accountability mechanisms.

The case studies did not find evidence of interest in cultivating horizontal accountability mechanisms through greater involvement of citizens in the planning and delivery of infrastructure. The authorities generally perceive themselves as displaying highly developed democratic systems with a range of mechanisms and practices for vertical accountability, such as oversight, supervision and control of public infrastructure projects.

Civil society organisations in high-income countries are fragmented and do not seem to be in a position to change this. They tend to either operate within existing boundaries or seek direct and sometimes confrontational approaches to influence infrastructure projects. The media does play a substantial role in covering infrastructure issues, but mainly when projects have already gone off-track in terms of time and budget overruns. The institutions most inclined to explore the benefits of increased citizen engagement were the supreme audit institutions. ■

5. EMERGING EVIDENCE OF POTENTIAL FOR CoST ADDED VALUE IN HIGH-INCOME COUNTRIES

The mapping of existing practices in governing infrastructure planning and delivery in high-income, advanced economies has identified four principal areas for improvement.

- Infrastructure planning and delivery tends to be based on a decentralised, sectoral approach. There is generally a lack a long-term strategic vision across government for infrastructure development that would assist prioritisation, attract finance and get better value for money.

- There is significant room to improve the level of transparency. Gaps persist in the amount of data and information that is proactively disclosed to the public, particularly in relation to variations to price, duration and scope as well as reasons for changes to contracts and projects. Disclosed data is generally fragmented and difficult to locate as it is spread out over various agencies, sites and formats.

- The level of stakeholder participation is broadly limited to information sharing and consultation, with no systematic use of forums for structured and informed discussions about infrastructure planning and delivery both at a policy and project level.

- Challenges persist in delivering projects on time and budget and realising the expected benefits. The effectiveness of existing accountability mechanisms is questionable despite the presence of strong and competent oversight and auditing institutions that occasionally target issues associated with infrastructure.

Based on these findings, this Chapter discusses the potential for the core features developed by CoST – the Infrastructure Transparency Initiative (CoST) to add value to infrastructure governance in high-income countries.

DISCLOSURE

The three case studies and additional research clearly demonstrated that there is a need for a standard such as the CoST Infrastructure Data Standard (CoST IDS) that enables data disclosure on an ongoing basis, in real time and throughout the project cycle. Robust disclosure systems and procedures for proactive disclosure have not yet been established in any of the case study countries.

The levels of disclosure ranged significantly, from almost full disclosure for major projects in Scotland to roughly two-thirds in Lithuania, medium-sized projects in Scotland and large projects in the UK; less than half in Argentina; and only a third of medium-sized projects in the UK (see Figure 3). Furthermore, the data was generally fragmented, divided between different webpages and formats, and not easily identifiable. As referred to in Chapter 4, this represents an example of opaque rather than clear transparency, greatly reducing its positive impact even when the actual level of disclosure is high.

The comparison, and especially the surprising discrepancy between the levels of disclosure in the UK and Scotland, shows that CoST could add value as it offers a standard that countries or procuring entities could use as a template for putting in place disclosure systems that enable systematic and measurable disclosure of open data through electronic means. Additionally, the CoST IDS provides a benchmark for intra-government (different levels of government, regions or procuring entities) and cross-country comparison of the levels of transparency that can be used to reflect on and address major differences provided that contextual differences are taken into account.

The Lithuania case study found that there is a legal requirement to report 90% of the data required by the CoST IDS internally to respective ministries and oversight institutions, while only about two thirds of the data is available to the public. This demonstrates the relevance of the CoST IDS and that the data required is already generated internally. In most cases the data can be obtained through freedom-of-information requests but this has a high administrative cost. This could be addressed through making the data available proactively. To take advantage of the existence but non-disclosure of such data, efforts should be invested in addressing the concerns public officials have with moving towards more open management of the data. If there was a greater commitment and awareness of its merits, infrastructure transparency could be boosted instantly and without greatly increasing the administrative burden, especially if digital solutions are taken advantage of.

The case of major projects in Scotland also illustrates that it is possible to be fully compliant with data required by the CoST IDS. Regular disclosure by high-income-country procuring entities on the other hand would

help CoST to sustain a larger database to measure impacts of increased transparency and assess the meaningfulness of the data gathered. This would help refine the standard and increase its added value for users.

The CoST IDS is relevant for authorities responsible for implementing freedom-of-information legislation which are considering making information available prior to public request. This is sometimes done for information that has previously been requested by the public to ease processing. Interviews in the UK confirmed the view that it is better to disclose proactively, rather than supplying information through freedom-of-information requests. The 40 proactive data points and 26 reactive information points covered by the CoST IDS could be used as a template for data that could be disclosed proactively concerning infrastructure planning and delivery. Similarly CoST and the CoST IDS can support members of the Open Government Partnership seeking to concretise and meet commitments to improve transparency and accountability in public investments or infrastructure planning and delivery.

The CoST IDS has been applied successfully, not only to traditionally procured (design and build) infrastructure but also to public–private partnerships (PPP) in conjunction with the World Bank PPP disclosure framework and the Open Contracting Data Standard on PPP infrastructure investments. This approach enables the implementation of a comprehensive framework for PPP disclosure that is compliant with all major global standards. While attractive for many governments, PPPs are considered a controversial approach to the financing and delivery of public infrastructure as financial and contract arrangements are usually opaque and concerns have been raised over their value for money. This increases the relevance of ensuring that contracts and projects are managed in ways that are fully transparent. It would add value, particularly for high- and upper-middle-income countries embarking on PPP projects, to draw on the experience and expertise of CoST to ensure that financial and contractual arrangements are fully transparent and that strong accountability mechanisms are put in place.

CoST has experience in supporting the use of online, open-source platforms to make data disclosed easily available in a user-friendly format to citizens and other interested stakeholders. Experience includes enhancing an existing e-procurement portal in Guatemala; developing a new procurement portal in Ethiopia; and creating new information platforms in Costa Rica, Honduras, Ukraine, Malawi, Panama and Thailand. Data from over 25,000 infrastructure projects has been disclosed across these platforms between 2015 and 2018. In April 2019, CoST and the Open Contracting Partnership launched the Open Contracting for Infrastructure Data Standard (OC4IDS) that brings together the CoST IDS of what should be disclosed at each stage of the project cycle with the Open Contracting Data Standard of how data should be disclosed. OC4IDS and CoST's expertise in this area

could potentially add substantial value in high-income countries with a higher level of digitalised public administration, reducing the administrative burden of disclosure.

Data that has been disclosed and exists in the public domain is surprisingly hard to come by, which represents a missed opportunity in terms for example of having a more informed debate about plans and projects. CoST can both contribute to and learn from other initiatives. These include the Planning Inspectorate in the UK, which has a searchable geo-referenced platform for planning applications currently under consideration, and the City Government of Buenos Aires, where an online platform provides access to information on the ongoing infrastructure projects. Both of these platforms could easily be improved by making data required by the CoST IDS available for all projects listed. CoST could learn from the attractive designs, which makes them user-friendly and enjoyable to navigate through. Creating this type of platform represents "low-hanging fruit" for the authorities in high-income countries, both at national and sub-national level, in terms of boosting disclosure and citizens' perception of transparency in the management of public infrastructure.

Not only CoST but the wider cause of infrastructure transparency would benefit from participation at national or subnational level of high-income governments that either already display high levels of transparency, or are committed to improve their levels of disclosure in a targeted manner.

MULTI-STAKEHOLDER WORKING

Multi-stakeholder working is the CoST core feature that has significant potential to address relatively modest levels of participation in infrastructure governance in high-income countries. However, it needs adapting from the way it has been used by CoST members to date. While efforts to ensure public participation in infrastructure projects are taken seriously by authorities, the level of engagement rarely exceeds consultation. There are signs however that by building on experience and adding innovative elements, countries could deepen public participation and benefit from some of the advantages of multi-stakeholder working.

Multi-stakeholder working has its origins in efforts to formalise and institutionalise civil society participation, particularly in the management of extractive industry revenue in resource-rich countries, through guaranteeing civil society organisations a direct role in overseeing implementation of the Extractive Industry Transparency Initiative (EITI). EITI provided a template for the original CoST design and the idea of formalising participation through the core feature

of multi-stakeholder working. The way this is done in most countries, similar to EITI, is through creation of a multi-stakeholder group that oversees the implementation of the initiative in the country. A number of issues arise from this approach, which to an extent are exacerbated in high-income countries.

First, the number and variety of stakeholders in infrastructure, and the way they interact, is vastly more complex than in the extractives sector. Second, related to this, participation and stakeholder engagement in the two sectors have very different characteristics. Third, these differences are accentuated in high-income countries for a number of reasons. Relationships between different types of stakeholders are deeply institutionalised and there is less of a tradition and pressure for opening up direct participation in policymaking, partly because democratic institutions are perceived as stronger and capable of ensuring representation and accountability in all sectors.

Setting up a multi-stakeholder group clashes with the usual ways of doing business. This is because the notion of promoting infrastructure transparency and accountability through a programme conflicts with existing institutional configurations. It would be challenging and perhaps even counterproductive to try to persuade authorities in high-income countries to establish multi-stakeholder groups as an isolated infrastructure-governance mechanism. CoST has already addressed these challenges by making the initiative more flexible and introducing different types of memberships (see p10), with an emphasis on multi-stakeholder working as opposed to multi-stakeholder groups. Other examples of multi-stakeholder working should be explored and piloted with the aim of strengthening coordination, building trust and ultimately increasing the benefits from infrastructure investments in high-income countries.

There are clear indications that stakeholder engagement in infrastructure planning and delivery could be strengthened and deepened in high-income countries, and this could help mitigate the risks associated with disengagement. The three case studies have substantiated this observation as all countries had poor track records of stakeholder engagement when benchmarked against levels of engagement, including (in ascending order): information sharing, consultation, active participation, and systematic and structured discussions about policy options.

The case studies all indicated low levels of engagement. Due to the institutional set-up and tradition in many high-income countries, there is little interest in moving towards engagement types that would entail collective decision making. This does not mean however that participation in infrastructure planning and delivery cannot be strengthened and draw on the benefits associated with

multi-stakeholder working. This has further potential if multi-stakeholder working is adapted flexibly and in line with the recommendation to establish, "forums where politicians, experts, interest groups, and representatives of local communities may engage in structured, informed discussions about policy options for infrastructure investment."

The question is how to implement this in practice and constructively manage the engagement of multiple stakeholders at different levels. Two potential approaches to take this forward and adapt multi-stakeholder working as a principle were identified through the research. The first relates to applying multi-stakeholder working at a high strategic level that deals with visioning, policy design and planning of infrastructure investments. The second relates to relates to applying multi-stakeholder working at project level as a principle for how to deliver public infrastructure.

Multi-stakeholder adaptation at the strategic level

At the strategic level there is a potential for adapting multi-stakeholder working in countries that have moved towards a more strategic, overarching approach to infrastructure planning and delivery. Both in Scotland and the UK, provision of independent, informed advice on vision, ambition and priorities for long-term infrastructure challenges has been established.

In Scotland, the Infrastructure Commission set up in early 2019 has a mandate to advise on development of the long-term strategy for Scotland's infrastructure and, in a first stage of engagement, it has invited written contributions on Scotland's infrastructure priorities. In the UK, it has been suggested that the National Infrastructure Commission should, "be given greater independence as an executive non-departmental public body, draw its commissioners from a more diverse range of geographical and professional backgrounds, and engage the public more widely." The key argument is that the credibility and legitimacy of both the UK and Scottish infrastructure commissions' recommendations may be called into question if its commissioners are not perceived to represent a wide range of stakeholders.

The recommendation resonates with the reasoning behind multi-stakeholder working although it emphasises the need to bring both civil society organisations and private sector stakeholders to the policy table. This could be achieved by appointing members of the infrastructure commissions who represent the views of civil society and private sector respectively. These members would have to be able to justify representing these constituencies legitimately. This would bring into play the advantages of multi-stakeholder working, such as deepening the legitimacy of strategies and plans, building trust between different sectors and fostering more responsible engagement.

It is possible that such a set up would not be as streamlined and effective in decision making as a tightly knit unit of likeminded executives, but decisions will be better informed, more legitimate and more sustainable in the long-term. Taking this approach would in effect make infrastructure commissions multi-stakeholder groups through an adaptation of the CoST model. It would also emphasise the benefits for countries that have not yet followed the recommendations from international institutions to move towards a more strategic approach to infrastructure investments. In many ways the UK and Scotland are examples of good practice in this regard and could lead on further innovating the approach.

A secretariat function, such as the one provided by the Infrastructure Investment Unit currently in Scotland, should remain. If combined with a commitment to disclose infrastructure data in line with the CoST IDS on an ongoing basis, in real time throughout the project cycle, it could take on vital disclosure functions. These include overseeing disclosure from projects included in the strategy's pipeline, and hosting an online platform that makes data on planned and ongoing infrastructure projects available to the public in a user-friendly style based on open-data formats.

Multi-stakeholder working at project level

The level of participation in specific infrastructure projects could equally be strengthened through the adaption of multi-stakeholder working to high-income country contexts. Infrastructure projects have impacts that are often unevenly distributed. They can be positive for a large and broadly distributed group of people, but negative for local areas in which the infrastructure is located. This has for example given rise to the phenomenon known as "not in my backyard" (or "NIMBYism"), which describes strong opposition by highly localised groups that sometimes mobilise very effective campaigns against specific infrastructure projects. This is particularly prominent in countries with a high level of education, access to information and social media. This kind of opposition is hard to overcome but well organised (systematic and structured) participatory approaches, with broader engagement and real ability to discuss policy options, represent a way forward.

Adding a multi-stakeholder element to such an approach could add value as a template for structuring engagement and ensuring a constructive dialogue, from an early stage in planning a specific infrastructure project through to its completion. The process could be set up as a working group or forum meeting regularly throughout the infrastructure project cycle. It would engage: the project owner and affected statutory and regulatory bodies; community liaison groups or associations; specialised organisations and interest groups; and representatives for different types

of contractors (design, project management, construction) or appointed representatives.

The engagement of contractors would have to be phased to ensure competition in the procurement phase (when the project is based on competitive bidding), but with that exception in mind their expertise would add value compared to bilateral processes relying on government–citizen relationships alone. This is not too far from current experience in mega-projects such as the Thames Tideway Tunnel in London, but the principle could essentially be applied to projects of any size. Some experience exists from renovation projects in the non-profit housing sector in Denmark, where residents have taken charge of reshaping buildings and surrounding outdoor areas, parks and playgrounds, adding quality to the project (within reasonable means) and making it more financially and socially sustainable.

For multi-stakeholder working to be successful, it is important that independent process facilitators are engaged and that sufficient time is invested as this increases trust and the likelihood of a constructive dialogue. Mapping and identification of participants is key and time needs to be invested in getting this right. External facilitation will help keep the process on track and avoid the space being captured by one-sided motivations or concerns. This can happen if power relations are unequal (one stakeholder group is under resourced compared to others) or there is risk of actors being side-lined. It should also be possible to draw on external experts to inform discussions of specific issues.

Multi-stakeholder working groups at project level would have an ad-hoc nature and be dissolved once the project has been delivered. However, monitoring groups could be maintained, for example in the case of a PPP. By providing a template for deeper engagement, especially at project level, the issues related to project managers not knowing how to engage effectively with citizens, which was highlighted in the case of Lithuania, would be at least be partially overcome. It is important to point out however that the approach must be flexibly adapted in ways that fit the specific project context.

It should be emphasised that deepening stakeholder engagement through adaption of the approach outlined here is neither completely straightforward nor will it be successful in every case. The suggested approach should not be seen as a fixed solution but as a set of principles for how stakeholder engagement could be deepened over time. A constructive way forward would be to test it though a pilot project (throughout the project cycle) to review the dynamics of the approach.

Innovative approaches to engage contractors pre-tender exist such as in Finland, where the Finnish Association of Building Owners and Construction Clients facilitates dialogue between procurers and suppliers

before contracts are tendered. This enhances trust and enables the best and most cost-efficient approaches to be identified. The practice is also used in Denmark and other countries. While not directly associated with multi-stakeholder working, it illustrates that the private sector is ready to engage in new ways of collaboration.

ASSURANCE AND SOCIAL ACCOUNTABILITY

Assurance and social accountability are the CoST features most directly associated with strengthening accountability. They both have added value as horizontal accountability mechanisms with potential to reinforce existing vertical accountability mechanisms. This seems necessary as many governments, not least in high-income countries, continue to struggle with delivering infrastructure projects on time, on budget and with the expected benefits; to narrow the efficiency gap in public investment; and to get more value for money from investments in infrastructure.

Traditionally oversight with government investments or capital expenditure is carried out by public accounts committees within parliament and supreme audit institutions that tend to have strong mandates and a degree of autonomy from government. Supreme audit institutions often enjoy respect and are generally viewed as credible. In the case studies they were also quite active in looking into spending on infrastructure, but they struggled to have a direct impact in terms of increased accountability.

Assurance is a process in which a group of independent experts is selected and tasked with looking critically at data disclosed throughout the infrastructure project cycle in line with the CoST IDS. Although it should not be confused with an audit, the nature of the assurance process has the potential to add value to existing public accountability mechanisms and complement the work of strong supreme audit institutions and public accounts committees, tailored to public infrastructure spending in high-income countries. With wide areas of responsibility, formal oversight institutions do not have the resources to conduct audits of investment programmes or major projects on a frequent basis. If infrastructure data is disclosed systematically (and this is an important prerequisite), assurance can complement these audits through a lighter review, conducted on an ongoing basis in a cost-effective manner.

When infrastructure data is disclosed in line with the CoST IDS in real time (or at regular intervals), the assurance process can also complement internal accountability systems, which tend to be based on *ex-post* controls, by being applied systematically as an independent review mechanism at the appraisal stage of the infrastructure project cycle (see Table 6).

When assurance teams get access to documents such as business cases early in the infrastructure project cycle, they can perform an independent review of the appraisal and provide the additional scrutiny called for by international institutions and thought leaders alike.In cases where an infrastructure commission has been created with a functioning secretariat, an assurance team could be constituted through a roster of experts contracted on a rolling basis, or through a more permanent team endorsed by the board. Credibility of the exercise would be increased if the commission has a multi-stakeholder dimension.

Another solution would be to place responsibility for appointing assurance teams and managing the process under the auspices of the supreme audit institution. As these institutions tend to enjoy high levels of independence and credibility in high-income countries, they would be well placed to take on the task. It would be important, however, to ensure that the assurance process is easy to distinguish from audits or reviews conducted by the institution itself.

Social accountability is recognised as a horizontal accountability mechanism and, in the context of this analysis, it has some linkages to the proposed greater involvement of community groups as stakeholders in the planning and delivery of infrastructure projects. Especially at this level, and combined with disclosure and assurance features, social accountability could strengthen evidence-based discussions about infrastructure policy choices both at strategic and project level. This would increase the public awareness of potential issues that need to be addressed, which in turn would increase the pressure on parliamentary committees and ultimately politicians to respond effectively to issues arising from the assurance process.

INFRASTRUCTURE GOVERNANCE AND PUBLIC INVESTMENT MANAGEMENT

Cutting across the findings presented above, and in some cases already referred to under each of the core features, CoST has potential to add value as an integrated part of broader reform efforts to strengthen infrastructure governance and public investment management.

In recent years, there has been increasing recognition of the benefit of taking a more visionary and strategic approach to prioritising infrastructure investment across sectors and regions. This has led to the publication of project pipelines that aim to attract financing and help the construction industry to plan for future work. There has also been an acknowledgement of the need for more transparency and accountability. Applying CoST core features to a more strategic approach would enable a strong push for transparency and accountability top-down and uniformly across all projects included in plans and pipelines.

This would help de-risk and improve the quality of projects, which is vital for mobilising additional finance for investments in infrastructure.

It is evident from the research that Scotland is already leading the way, with a very high level of transparency for major projects included in its infrastructure investment plan. However, even in this case, transparency is "opaque" as data remains fragmented, scattered and hard to find.

Likewise, projects included in an infrastructure strategy could be subject to systematic assurance through independent reviews of the data disclosed, especially at the appraisal stage. This would offer a more cost-effective approach to independent scrutiny of projects, which is only sporadically used today (such as gateway reviews or second-opinion assessments). It would introduce a greater degree of "preventive" accountability, complementing existing ex-ante accountability mechanisms.

Transparency and accountability throughout the lifecycle of infrastructure projects is made more complicated by different classifications and accounting systems across government agencies and the other entities involved. To overcome this, projects must be assigned a unique reference number that allows associated transactions to be linked easily to a specific project and, for example, to reconcile budget appropriations with final costs. A unique project identifier of this sort also allows effective use of online, open-data-based disclosure platforms. OC4IDS includes a project identifier providing the type of unique reference that could be linked to the project pipelines and public investment management programmes.

In countries that have taken a more strategic approach to infrastructure planning, an institutional set-up to monitor the implementation of the strategy has also usually been adopted (e.g. Scotland, UK and Australia). The legitimacy and credibility of such an institutional set up is a central concern as it oversees decisions that involve significant and often unevenly distributed investments within a national context. This could be boosted by guaranteeing regional and sectoral diversity in an advisory board, similar to the way multi-stakeholder working groups have been constituted by countries implementing CoST.

Combined, the application of CoST core features to existing public investment management arrangements would complement existing horizontal and vertical accountability mechanisms provided, for example, by national audit offices and parliamentary oversight committees. This could increase the impact of existing reviews and audits.

The relevance of pursuing innovative approaches to strengthen transparency and accountability in infrastructure governance and public investment management is substantiated by evidence from the research.

A recent study by the UK National Audit Office assessing the accountability and transparency of major project delivery and whether they have delivered their intended benefits. It found that changes to the scope of projects is monitored but not reported on, and that more data on benefits is collected but remains incomplete.[1]

In Lithuania a major Government reform towards strategic planning and budgeting is under way. This includes reviewing and updating the processes of assessing and selecting investment projects. All investment projects will have to be thoroughly assessed by comparing possible alternatives, by applying life-cycle cost analysis, carrying out impact assessments and selecting the most appropriate source of funding. The reform programme specifically aims to increase transparency and accountability. In pursuit of this the reform aims at higher involvement of public and decision makers in budgeting processes as well as increasing the quality and openness of budget documentation.

The Ministry of Finance is at the heart of the reform in Lithuania and more generally the Ministries of Finance and Treasuries are key actors for improved infrastructure governance. Their principal concern is often budget discipline and they are therefore interested in creating incentives for procuring entities to deliver projects on time, on budget and with expected benefits. Disclosure and assurance of such data helps strengthening such incentives. ■

1 National Audit Office, Projects leaving the Government Major Projects Portfolio, HC 1620 Session 2017–2019, 19 October 2018, pp. 32–34, available at: nao.org.uk/report/projects-leaving-the-government-major-projects-portfolio/

Table 6. **Illustration of how independent reviews could be used earlier in the project cycle**

Rajaram 2010 (public investment cycle)	Argentina
1. Investment guidance, project development, preliminary screening	Identification stage Project idea
2. Formal project appraisal	Project assignment
3. Independent review of appraisal	Pre-project stage
4. Project selection and budgeting	Preparation stage Project approval stage
5. Project implementation	Implementation stage Project implementation
6. Project adjustment	Evaluation stage
7. Facility operation	Project evaluation stage
8. Basic completion review and evaluation	

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<table>
<tr><th>Scotland</th><th>Lithuania</th></tr>
<tr><td>Inception</td><td>Identification stage</td></tr>
<tr><td>Develop outline business case</td><td>Call for project proposals</td></tr>
<tr><td>Initial approval</td><td rowspan="2">Project selection by public entities</td></tr>
<tr><td>Procurement</td></tr>
<tr><td>Develop full business case</td><td>Review by Ministry of Finance</td></tr>
<tr><td rowspan="2">Pre-contract approval</td><td>Approval by Parliament</td></tr>
<tr><td>Implementation stage</td></tr>
<tr><td>Tender contracts</td><td>Procurement by public entities</td></tr>
<tr><td>Delivery</td><td rowspan="4">Award and manage contracts</td></tr>
<tr><td rowspan="4">Award and manage contracts</td></tr>
<tr><td>Budgetary amendments</td></tr>
<tr><td>Progress reporting</td></tr>
<tr><td></td><td>Delivery, monitoring and evaluation</td></tr>
<tr><td rowspan="2">Accept completed project</td><td>Project completion</td></tr>
<tr><td>Final reporting</td></tr>
<tr><td>Completion and operation</td><td rowspan="2">Audit by National Audit Office (part of audit of state budget)</td></tr>
<tr><td>Post-project evaluation and benefits realisation</td></tr>
</table>

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6. CONCLUSION

High-income countries are by no means immune to challenges associated with delivering infrastructure projects on time, on budget and with the expected outcomes. The result is a persistent efficiency gap and essentially reduced value for money from public investments in much-needed infrastructure. There is no panacea that will resolve this challenge overnight. However, there is a need for a paradigm shift in the current way of doing business that relies on dramatically increased transparency, more meaningful stakeholder engagement, and strengthened vertical and horizontal accountability mechanisms.

The research project on the potential added value of CoST – the Infrastructure Transparency Initiative (CoST) in high-income countries has produced a body of evidence suggesting that application of CoST core features has a clear potential to add value. It can make infrastructure governance more transparent, participatory and accountable if adapted and contextualised in a flexible manner. The findings should however be seen as case-based and indicative rather than representative and conclusive.

In most cases, infrastructure projects in high-income countries are not as transparent as the responsible procuring entities tend to assume. Levels of transparency are mixed and most often data concerning the closing stages of the infrastructure project cycle, which is of most interest to the public, remains undisclosed. In most cases procuring entities disclose more data than is legally required, which indicates a policy-driven approach based on an appreciation of the need to keep the public informed. While this means increased attention should be paid to the potential of policy-driven disclosure requirements, the flip side is that this could be an indication of outdated legal frameworks that do not reflect the demands of the information society. Transparency is not an end in itself but a vital means for meaningful participation, strengthened accountability and value for money.

The research also indicates that even in cases where significant amounts of data required by the CoST Infrastructure Data Standard (CoST IDS) is disclosed, the positive associated effects tend to be undermined because the data is fragmented, scattered and hard to access. Embracing the opportunities offered by digitalisation and provision of open data represents a solution to this missed opportunity making data easily available in a user-friendly format to citizens and other interested stakeholders.

The new Open Contracting for Infrastructure Data Standard (OC4IDS) was designed for this purpose and is a good fit for high-income countries where the digitalisation agenda is already advanced.

Data on infrastructure project cycles is increasingly sought after by institutions promoting increased investment in infrastructure to meet future demands and helping potential investors better understand and gauge the risks. Disclosing data in line with the CoST IDS, and subsequently OC4IDS, represents a genuine starting point for high-income countries to produce this kind of data in a systematic manner.

Approaches to stakeholder engagement reveals a perception of public participation that is somewhat outdated and does not appreciate the growing recognition of the positive contribution such processes can make to complement traditional ways of planning and delivering public infrastructure. Limiting stakeholder engagement to information sharing and consultation at project level implies that stakeholders will often feel that formal avenues offered for participation are not meaningful, that decisions have already been made and critically that (in some cases) they need to take other more direct and potentially disruptive measures if they are to have any influence.

Raising the level of participation towards structured and systematic approaches that draw on multi-stakeholder engagement and allow for discussion of policy options may increase preparation time of projects upfront. But it would also lower risks for projects being challenged, for example through litigation later in the process, and increase the possibility of swift delivery and long-term sustainability of infrastructure projects. Similarly, adopting this type of approach at a strategic level would increase the legitimacy and credibility of the institutional set-up created to propose and oversee long-term infrastructure strategies and plans. Moving towards such approaches does not represent a "silver bullet", but it would help manage specific infrastructure project cycles more constructively and improve infrastructure governance.

There seems to be a growing need to assure taxpayers that investments in public infrastructure provide value for money, regardless of the source of financing and delivery modality. Existing accountability mechanisms do not seem to have delivered on this as countries keep struggling with delivering projects on time, on budget and with the expected benefits. Often time overruns lead to increased cost, which results in decisions to reduce the original scope, changing the grounds on which economic and public service delivery models are based. It is clear that delivering infrastructure projects can be highly complex, but it is vital to determine who has responsibility for emerging issues and for ensuring that lessons are being learned. Crucially, these challenges do not seem to be closely monitored. Data is only rarely collected systematically by procurement

entities and not necessarily reported on. This is an area where the CoST approach could potentially yield significant dividends.

Strengthening existing accountability mechanisms with more preventive or advanced checks at the appraisal stage of the infrastructure project cycle is one way to approach this, and the CoST assurance feature offers a cost-effective tool if project data is disclosed in real time. Moreover, horizontal accountability provided by increased transparency and public engagement can complement traditional, vertical accountability structures based on internal controls, reviews, audits, inquiries and parliamentary control.

CoST has traditionally supported infrastructure transparency and accountability at procuring entity or project level in low- to medium-income countries. This approach has relevance in high-income countries too. Adaptation of CoST core features also has potential to add value as an integrated part of broader reform efforts to strengthen infrastructure governance and public investment management. Moving towards a strategic approach to infrastructure planning and delivery is not a feature that has traditionally been recommended by CoST, but it is considered good practice by the Organisation for Economic Co-operation and Development and other international institutions. While one does not exclude the other, applying CoST core features to a process of developing and implementing an infrastructure strategy has the potential to strengthen infrastructure governance in a more systematic manner.

A comprehensive national infrastructure strategy could be developed transparently and set out an ambition for openness in the planning and delivery of public infrastructure. It would also enable a strong push for transparency and data generation, top-down and uniformly, across all projects included in plans and pipelines, especially if a unique reference number is assigned. A unique project identifier would enable transactions to be linked easily to a specific project throughout the project cycle, and allows effective use of online, open-data- based disclosure platforms.

An infrastructure strategy also lends itself to be subject to public participation. This would increase its legitimacy and credibility, and provide feedback and contributions towards prioritisation of the selection of projects across sectors and geographic areas, creating a baseline against which governments could be held to account. Implementation of the strategy could be overseen by a board or advisory committee composed of members selected from multiple sectors, in effect turning it into a multi-stakeholder working group.

CoST is a voluntary international initiative created to promote infrastructure transparency and accountability. The research project suggests that if adapted in a relatively flexible manner, the CoST core features have a high degree of applicability to all high-income countries. They have the potential to improve infrastructure governance and obtain more value for money from investment in public infrastructure. ■


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