2 Improving national infrastructure planning, prioritisation and delivery

This chapter analyses challenges in Czechia's infrastructure governance system at the national level and makes recommendations to address them. It considers whether national institutions and processes foster efficient and effective investment decisions and good governance practices in infrastructure investment. It focuses on three critical, interlinked phases in the infrastructure governance cycle: 1) long-term strategic planning and co-ordination across sectors; 2) project selection, appraisal and prioritisation; and 3) the procurement and delivery of infrastructure. Across these phases, it explores the mobilisation of private investment, stakeholder engagement and the monitoring and evaluation of outcomes. The analysis and recommendations are supported by concrete international examples, references and data from selected OECD and European Union countries.

Summary of recommendations

Given the challenges of implementing a full suite of reforms simultaneously, Czech authorities could consider sequencing concrete actions under broader recommendations. By grouping actions according to the time horizon (short term, and medium to long term) needed to implement them effectively, Czech authorities could allocate resources to reforms in a way which would provide incremental benefits. However, it should be noted that the concrete actions listed below, irrespective of their time horizon, are complementary and interconnected.

Table 2.1. Summary of recommendations and concrete actions to support their effective implementation

	Short term	Medium to long term
National level recommendation 1: Increase co-ordination in planning and enhance stakeholder engagement		
Concrete actions to support the implementation of recommendation 1	**1.1. Make greater use of co-ordinating bodies and newly formed institutions to improve the planning and delivery of infrastructure investments.** Greater co-ordination will allow for a bottom-up approach to strategic planning and ensure synergies between projects.	**1.2. Develop and maintain a cross-sectoral short-list of projects.** A short-list would help to improve investment readiness and absorptive capacity of the public and private sectors and focus financing from various sources on the most impactful projects. **1.3. Standardise stakeholder consultation processes at the national level.** This would make stakeholder consultation more transparent, helping stakeholders better understand methods of engagement, sources of information, and how inputs will be considered in decision-making. **1.4. Improve the alignment between infrastructure investment planning and national strategies and priorities.** A long-term strategic vision could align infrastructure planning with national strategies and priorities and help to ensure that investments are planned and delivered in a way that supports broader national objectives. This could help to provide a longer term strategic orientation beyond electoral cycles and European programming periods.

	Short term	Medium to long term
National level recommendation 2: Standardise national project appraisal and prioritisation		
Concrete actions to support the implementation of recommendation 2	**2.1. Improve the quality and sharing of data.** Evidence-informed decision making on infrastructure investment can be supported by data ranging from the condition of existing assets, the use of infrastructure (e.g., traffic and ridership data), and demographic trends and distributions.	**2.2. Introduce a consistent and transparent evaluation appraisal of project costs and benefits across sectors.** A standard, transparent approach to project appraisal could support consistent prioritisation and the efficient use of resources across sectors. **2.3. Standardise and expand the use of ex-post evaluations of infrastructure investments.** A common methodology and guidelines for ex-post evaluations across sectors and undertaking them systematically would improve future investment decisions and enhance accountability.
National level recommendation 3: Improve infrastructure delivery capacity		
Concrete actions to support the implementation of recommendation 3	**3.1. Improve investment efficiency by increasing the use of framework agreements.** For frequently purchased services and works, a framework agreement can secure required expertise, generate savings and reduce administrative burdens for contracting authorities and suppliers. **3.2. Develop a consistent, evidence-informed approach to decisions on infrastructure delivery models.** There should be no institutional, procedural or accounting bias either in favour of or against PPPs.	**3.3. Increase funding and direct support for project preparation to improve infrastructure delivery.** Smaller entities face challenges in project preparation, which is a particular issue for the housing sector as many municipalities lack long-term experience in undertaking investment or the resources to invest in capacity. **3.4. Develop the procurement capacity of the public sector to improve value for money in project delivery.** Infrastructure procurement requires sophisticated legal, financial, technical and operational expertise.

Introduction

Even in decentralised systems like Czechia's, the national government has a strategic role – identifying investment priorities, strengthening the capacities of the various levels of government involved in managing public investment, and ensuring sound framework conditions for the governance of public investment (OECD, 2017[1]). In Czechia, the importance of strong national infrastructure governance is critical in the context of the recovery from the COVID-19 pandemic and the implementation of the Recovery and Resilience Plan (RRP). Achieving the RRP's goals of accelerating the transition towards a low-carbon and climate-resilient economy, maximising the benefits of the digital transformation, and improving the quality of public administration depends on strong long-term planning, co-ordination across sectors, robust project appraisal and prioritisation processes, and ensuring value for money, including the appropriate use of public private partnerships (PPPs). With a total of EUR 7 billion to be invested by 2026 through the RRP alone, Czechia will need to ensure that national institutions are working collectively to make the right investments; this is also an opportunity to put in place the governance institutions that can support strong value for money over the long term. While Czechia's absorption rate of EU funds for the 2014-2020 programming period was relatively high (84% through 2022; see Chapter 1), directing this funding to the best projects was consistently raised as a challenge by Czech officials and stakeholders (European Commission, n.d.[2]).

The massive increase in infrastructure investment planned across many sectors reinforces the need for enhanced co-ordination. Major investments are planned in areas such as the expansion and electrification of rail infrastructure, the transition to clean energy sources, the renovation of energy efficient buildings, and climate adaptation. Although there are areas of good practice in specific sectors and institutions, a more co-ordinated approach to investment has the potential to improve outcomes and value for money, and achieve synergies and complementarities among investments. This could be achieved by disseminating existing good practices across sectors and levels of government and standardising approaches to infrastructure delivery and data sharing.

At a time of increased pressure on government budgets, improving infrastructure governance can help to maximise the use of scarce resources to advance economic, social, and environmental priorities. The average infrastructure efficiency gap, defined as the deficit between the average and best performers, has been estimated at 15% for advanced economies (Baum, Verdier and Mogues, 2020[3]). Relatively low-cost changes to governance processes and practices and investing in capacity can have outsized effects on large infrastructure budgets. Improving co-ordination across sectors, project appraisal and selection, and project delivery provides an opportunity to increase the efficiency of investment spending, promoting fiscal sustainability and preserving fiscal space for future projects.

As well as advancing broader policy objectives, better governance of infrastructure has a direct and significant impact on downstream productivity growth. A recent study found that sound governance of infrastructure investment is associated with stronger productivity growth in firms operating downstream, with a gain in average annual productivity growth of 0.24 percentage points over ten years. The study identified long-term planning and co-ordination across different levels of government as particularly relevant for productivity increases (Demmou and Franco, 2020[4]). This chapter focuses on reforms Czechia can make in three critical, interlinked phases in the infrastructure governance cycle: 1) long-term strategic planning and co-ordination across sectors; 2) project selection, appraisal and prioritisation; and 3) the procurement and delivery of infrastructure. Each of these themes are explored in the sections which follow.

2.1 Strengthening strategic planning and cross-sectoral co-ordination

Infrastructure planning in Czechia is fragmented along sectoral lines; a lack of co-ordination risks missing opportunities for synergies and positive spillovers. Line ministries are responsible for infrastructure policy and strategic planning in their respective sectors, but high-level co-ordination mechanisms are limited (Chapter 1). Although high-level government priorities are set out in documents such as the Policy Statement of the Government and the Resilience and Recovery Plan, translating and co-ordinating these priorities across sectors have proven more challenging. In addition, Czechia has more than 300 sectoral strategies, adding to the coherence and implementation challenge (OECD, 2023[5]). Co-ordination between sectors on infrastructure planning and investment does take place, but generally on an informal working level. While state funds generally have clearly defined responsibilities and close working relationships with partner ministries, their significant role in financing investment increases the number of bodies involved in infrastructure governance, heightening the need for co-ordination.

The Policy Statement of the Government commits to close co-operation on climate and the environment between the Ministries of Environment, Agriculture, Industry and Trade, Transport and Regional Development. This includes supporting significant infrastructure development for electro-mobility and other clean alternative vehicles to help improve air quality (Government of Czechia, 2022[6]). These commitments are also reflected in Pillar II of the RRP, which foresees investment in approximately 4 700 charging stations for electric vehicles and the acquisition of electric public transit vehicles (European Commission, 2021[7]). In the past, however, the implementation of these types of long-term, cross-sectoral commitments and strategies has suffered from the absence or weakness of institutional structures and co-ordination mechanisms to translate them into long-lasting concrete actions.

For example, in 2019 the Czech government published the National Investment Plan 2020-2050, its unified national investment strategy (Government of Czechia, 2019[8]). Despite the intention to consolidate long-term investment planning and co-ordinate public investors, the National Investment Plan has not succeeded in providing a long-term strategic vision. Challenges reported in the development of the plan included a lack of prioritisation or systematic assessment of projects, resulting in a plan without overarching guiding principles or a co-ordinated cross-sectoral approach. Instead of creating a shared vision leading to co-ordinated activity and ongoing monitoring of implementation, it lacked a strong articulation of priorities and raised expectations that were incompatible with available funding.

The Strategic Framework Czechia 2030 and the Regional Development Strategy of Czechia 2021+ have been more durable, but also do not appear to play a prominent role in directing infrastructure investment. The Strategic Framework Czechia 2030, published in 2017, set out a framework for long-term development in six priority areas: people and society, the economy, resilient ecosystems, regions and municipalities, global development, and good governance (Government of Czechia, 2017[9]). Based on Czechia 2030, the Regional Development Strategy of Czechia 2021+ establishes the main objectives of regional development over a seven-year period. It does not take precedence over other national strategies and plans, but should be reflected in their approach to regional development issues (Ministry of Regional Development, 2019[10]). Czechia 2030 and the Regional Development Strategy both acknowledge the importance of quality infrastructure and identify specific challenges, such as improving connections to the broader European transportation network, but do not appear to be clear points of reference in the development of sector-specific infrastructure policies and strategies.

Co-ordination between sectors can reduce the risk of duplication and promote complementarities between investments (OECD, 2020[11]). As infrastructure services become increasingly interdependent across sectors such as housing, energy and transport, siloed infrastructure planning, prioritisation and delivery can limit the effectiveness and efficiency of public investment (OECD, 2017[12]). For example, investments in housing need to be complemented by the right investments in transport networks, which are generally planned and implemented by different sectoral ministries or levels of government (OECD, 2017[1]). Co-ordinating housing and transport investments can ensure more attractive housing options that provide

greater access to employment and other services. To maximise these benefits, infrastructure entities need to co-ordinate the location and capacity of transport routes with decisions about where and how to invest in housing, as well as related social infrastructure like schools and hospitals. This type of long-term strategic planning needs to be aligned with a country's development aims and economic conditions across sectors (OECD, 2023[13]).

Technological advances further increase the benefits of a cross-sectoral approach to infrastructure planning as they blur sectoral boundaries in areas such as energy, transport and communications. To respond to these changes, planning frameworks need to address infrastructure needs in a holistic and integrated way (OECD, 2021[14]). For example, the de-carbonisation of end-use sectors such as transport and buildings can have interactions with the planning and implementation of energy infrastructure. The widespread adoption of electric vehicles is a challenge for the transport sector but will also require the large-scale expansion of charging stations and will affect patterns of demand on the electricity grid.

The OECD Recommendation on the Governance of Infrastructure provides guidance on developing and implementing a successful cross-sectoral approach to infrastructure investment. The Recommendation advises countries to develop a long-term strategic vision for infrastructure which articulates shared cross-sectoral ambitions and priorities (OECD, 2020[15]). Breaking down sectoral silos requires the active participation of multiple stakeholders, whose perspectives and inputs should be gathered through a structured process. A strategic vision should be informed by a broad-based stakeholder engagement process and implemented through an institutional framework which provides clear mandates (OECD, 2021[14]). An example from the Australian state of Victoria demonstrates how the development of a long-term vision can progressively inform a medium-term cross-sectoral plan and a pipeline of specific projects (see Box 2.1).

Box 2.1. Victoria, Australia: from a comprehensive 30-year infrastructure strategy to a project pipeline

In the Australian state of Victoria, the independent advisory body Infrastructure Victoria prepares a 30-year infrastructure strategy that is presented to the State Parliament. The 30-year infrastructure strategy, which must be reviewed and updated every three to five years, provides the basis for the government's five-year infrastructure plan.

In developing the most recent 2021 strategy, Infrastructure Victoria undertook extensive modelling, examined the complementarities between infrastructure and spatial planning, and conducted wide-ranging consultations. This included forecasting growth and development; commissioning research on housing and density targets; a broad social, environmental and economic assessment; and consideration of distributional impacts. The strategy draws on existing land-use plans to inform better infrastructure planning, and will act as an important input to future spatial planning. Infrastructure Victoria released a draft strategy which was subject to rigorous collaboration and consultation with community and industry stakeholders. This included surveys, roundtables and sector dialogues, and a deliberative engagement process.

Following the release of the strategy, the government is required to prepare a five-year infrastructure plan which responds to the 30-year strategy and the state's infrastructure needs and priorities across all infrastructure sectors. The government's plan must identify specific major priority infrastructure projects and a rationale for their selection, including an explanation of how they will achieve the objectives of the 30-year strategy. The current plan takes an integrated approach to spatial and infrastructure planning that seeks to identify key locations for employment and housing growth and the transport, health and education infrastructure that is required to support that growth.

The government also maintains a major projects pipeline to make it easier for businesses, suppliers, and contractors to contribute to major projects. The pipeline is updated as new major projects are announced and budgeted.

Source: (Infrastructure Victoria, 2021[16]; Office of Projects Victoria, n.d.[17]; Department of Treasury and Finance Victoria, 2021[18])

The OECD Recommendation also highlights the need to inform, consult and engage to ensure that infrastructure planning and investments meet citizens' needs. Stakeholder participation can lead to better investments from an environmental, economic, and social perspective by providing decision makers with better information. It can also help avoid conflicts later in the implementation process. Effective participation enables stakeholders to express, and decision makers to take account of, relevant needs and concerns, thereby increasing the accountability and transparency of the decision-making process and building support for the decisions taken (OECD, 2023[19]).

Better national co-ordination of infrastructure investments and strategies has the potential to improve investment outcomes in Czechia. The following recommendations are designed to achieve this at the national level by strengthening strategic planning and the co-ordination of strategies, plans, priorities, and activities among sectors. Implementing these recommendations is expected to improve infrastructure quality by allowing for better integrated and more effective investments, maintaining a clear focus on the most pressing infrastructure needs and linking investments to broader national priorities. Failure to implement them, by contrast, could lead to decision-making processes that fail to capitalise on the potential for Czechia's large, planned infrastructure investments, including over EUR 40 billion in EU funds, to drive economic growth and the green and digital transitions.

Improve co-ordination for more efficient planning and delivery of infrastructure investments

Czechia could improve co-ordination among infrastructure investment bodies at the national level. Czechia's approach to infrastructure investment, with line ministries responsible for overseeing policy in their respective sectors and state funds playing a significant investment role, can create challenges for effective co-ordination. While this approach provides clarity for accountability and responsibility, it can limit the ability of ministries to co-operate on holistic solutions (Huerta Melchor and Gars, 2020[20]). However, an institutional structure where sector or line ministries are collectively responsible for infrastructure policy is not uncommon in OECD member countries. A recent OECD study found that 13 of 38 member countries have institutional structures in which line ministries are collectively responsible for infrastructure policy, making it the second most common set of infrastructure governance institutional arrangements (Ruiz Rivadeneira and Mcmaster, 2023[21]).

These co-ordination challenges could be addressed by improving the instruments and mechanisms for strategic planning between sectors to enhance the consistency and alignment of infrastructure investment. In Czechia, institutions and mechanisms for co-ordination between ministries and other entities with infrastructure responsibilities are currently limited at the national level. While infrastructure investment comes from both EU funds and the state budget, there is no institution that jointly co-ordinates decision-making on both sources of funding.

Previous co-ordination efforts have had limited success. The Council for Public Investment was established by Government Resolution No. 61 of 21 January 2019 to prepare recommendations for the approval of important strategic projects and create draft rules for effective public investment. However, after a period of inactivity, the Council was abolished in June 2023. It was described by some officials as largely unsuccessful in providing strategic direction, potentially due to a lack of formal decision-making powers. Other mechanisms exist but are limited in their scope. The Ministry of Finance is involved in both the development of the state budget and decisions on co-financing from EU funds, but its role is largely restricted to the budgeting process and reviewing individual projects, rather than overarching infrastructure strategy and co-ordination. Inter-ministerial co-ordination generally takes place on a working level and through the formal inter-ministerial comment process on strategies and plans. The OECD's Public Governance Review of Czechia found that the lack of convening power or capabilities of some councils, or their insufficient integration into decision-making processes, made alignment on cross-cutting topics, like infrastructure, more difficult (OECD, 2023[5]).

The government has recently sought to address these co-ordination challenges by creating the Committee for Strategic Investments (see Chapter 1). With an appropriate mandate and support, it could help to ensure alignment across sectors and drive a co-ordinated approach to infrastructure investment. While the committee is not a decision-making body, high-level political representation[1] means it can play a crucial role in setting policy direction, mobilising support and facilitating dialogue between stakeholders. To play this role successfully and ensure its decisions are informed by evidence, the committee will need to be supported by strong technical analysis and expertise. It offers several opportunities:

- To allow ministries, agencies, state funds and subnational governments to communicate their sector-specific challenges and priorities to decision makers and inform the assessment of long-term infrastructure needs.
- To oversee the infrastructure lifecycle from the development of sectoral plans and strategies to the monitoring and evaluation of outcomes.
- To identify opportunities for co-operation across sectors and between levels of government and establishing high-level priorities, the committee could help to facilitate collaboration and a coherent approach to investment.

- To play a role in monitoring the implementation of sector strategies and related infrastructure investments.

The importance of strong implementation and monitoring is underlined by the challenges faced by other Czech government strategies for reasons such as a lack of capacity or funding, misalignment with the current priorities of the government, or a lack of focus on implementation (OECD, 2023[5]). For example, Czechia's Strategy Database is an online register of strategic and conceptual documents where ministries and regions upload strategic and conceptual documents. The Database was created to allow for the connection of objectives from international, national and local levels and to help avoid duplication and find synergies. At the same time, the number of strategies in the Database suggests they may be overlapping in their themes and objectives: there are nearly 2,000 active strategies and another 1,000 archived, including almost 300 from the national level (Ministry of Regional Development, n.d.[22]).

The OECD's Public Governance Review of Czechia found that the lack of convening power or capabilities of some councils or their insufficient integration into decision-making processes made alignment on horizontal topics, like infrastructure, more difficult (OECD, 2023[5]). As it is chaired by the Prime Minister and includes the Ministers of large infrastructure ministries, the Committee for Strategic Investments has significant convening power.

While the Committee's statutes indicate that it will make maximum use of existing ministerial and inter-ministerial working groups and forums, this will need to be operationalised carefully. It will also be important to clearly define its roles and divisions of responsibility with existing bodies (e.g., the Council for Sustainable Development, the Council for Regional Development). Carrying out a co-ordination and monitoring function will require the committee's secretariat, planned to be part of the Office of the Government, to be adequately resourced with staff with the necessary knowledge and competences. The new committee's working group structure could also be leveraged to prioritise key issues such as project appraisal and delivery while ensuring sufficient representation and involvement from key ministries and other stakeholders. The secretariats of the United Kingdom's National Infrastructure Commission, the Netherlands' Council for the Environment and Infrastructure and the Irish National Economic and Social Council – all with similar mandates – have approximately 15 to 50 staff. The government could consider using secondments from infrastructure ministries or other bodies to staff the secretariat rapidly with experts with the necessary skills and knowledge.

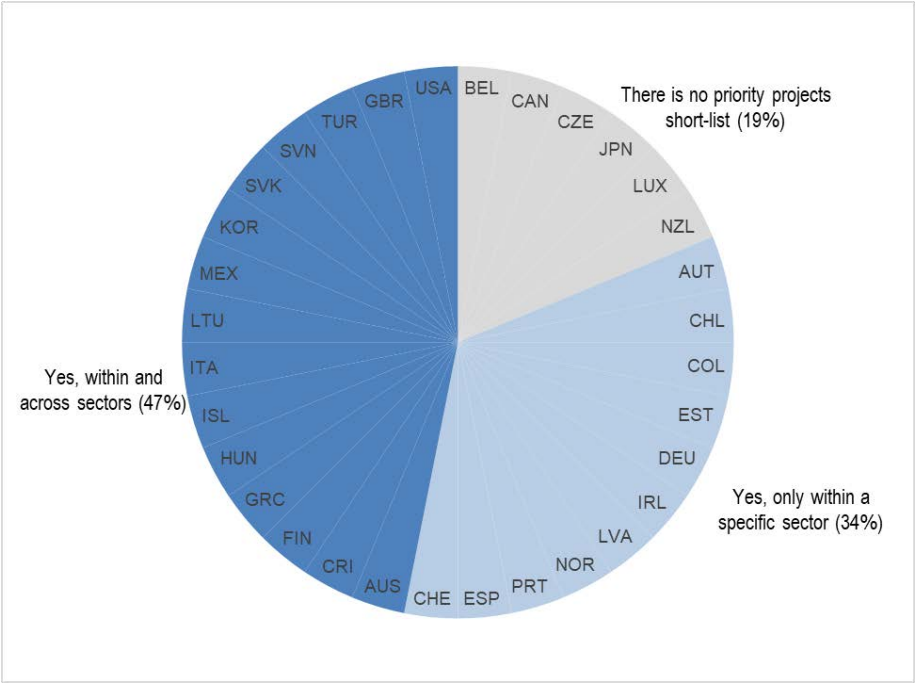
Coordination could also be improved at an operational level. As a component of its RRP, Czechia has proposed the creation of a Housing Investment Advisory Hub and Housing Investment Support Centres to provide support and expertise in the housing sector. The main objective is to increase housing affordability in the medium and long term by supporting investment in rental housing. This would involve providing support to municipalities through eight regional Support Centres in the form of methodological guidance, connecting them with local experts, facilitating the co-ordination of local housing policies, and the preparation of projects intended for support by national financial instruments. Two central Support Centre Units, one focused primarily on the housing sector and the other focused on other public infrastructure, would provide additional direct support where required. Along with this support through the Support Centres, the Housing Investment Advisory Hub would provide methodological, information and data support as well as serving as a hub for disseminating good practices and innovations. Both the Housing Investment Advisory Hub and the Housing Investment Support Centres would be part of the State Investment Support Fund.

Given their direct relationship with municipal stakeholders, there may be opportunities for the Housing Investment Support Centres and the Housing Investment Advisory Hub to play a co-ordinating role with national bodies in other sectors that are not focused on housing. The establishment of the Housing Investment Support Centres could be strengthened by a review of existing service offerings from other ministries, state funds and agencies to avoid overlap and identify complementarities and opportunities to co-ordinate efforts (e.g. with the regional offices of CzechInvest).

Create a cross-sectoral short-list of projects

A pipeline (or short-list) of projects can help to ensure that the public sector does not contribute to construction cost inflation and can encourage investment in private sector capacity. Major infrastructure investments involve the participation of the private sector throughout the lifecycle, including during the planning, design, engineering, financing, construction, and maintenance phases. A predictable pipeline of projects can give the private sector the confidence to invest in the necessary people and equipment (OECD, 2023[13]). A strong project pipeline can also allow governments and the public to track progress on the implementation of its overall infrastructure vision. To help co-ordinate investment and promote transparency, a pipeline or short-list of priority projects should be accompanied by a rationale for their selection and an explanation of their alignment with the overall strategy or vision for infrastructure (OECD, 2017[1]). In the 2020 OECD Survey on the Governance of Infrastructure, 47% of respondents indicated that their country had a cross-sectoral short list of priority projects at the national level and 34% reported having a short list of projects at a sector level; Czechia was only one of six countries that reported not having a priority projects short-list (Figure 2.1) (OECD, 2020[23]).

Figure 2.1. Czechia is one of only six OECD countries that reported a lack a short-list of priority projects



Note: Data for 2020 for Denmark, France, Israel, Netherlands, Poland and Sweden are not available. The 2020 data for Belgium are based on the responses from Flanders only.
Source: (OECD, 2020[23]), Survey on the Governance of Infrastructure.

A national project pipeline in Czechia would improve the investment readiness and absorptive capacity of the public and private sectors. The process of developing a cross-sectoral list of priority projects, based on common priorities and a shared vision for infrastructure, would also provide an opportunity to identify potential synergies and complementarities between projects. However, it will be important to ensure that the process of developing a short-list of priority projects does not unnecessarily slow the decision-making process and project delivery process. Establishing a threshold based on project value or national significance would help to avoid this by ensuring that large, significant projects went through the prioritisation process while allowing the flexibility for smaller projects to advance more quickly.

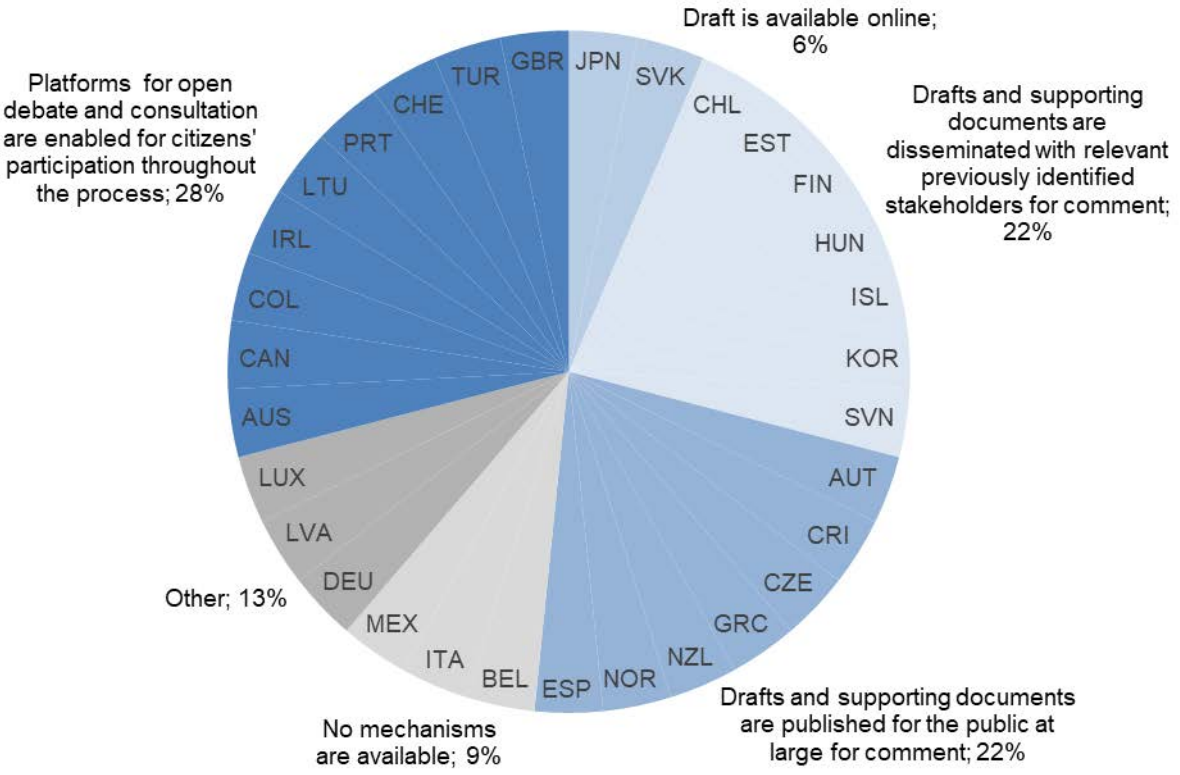
The Committee for Strategic Investments, supported by the Ministry of Regional Development, could be a decision-making venue for identifying projects to be included in the pipeline. The process could be modelled on the Ministry of Transport's Central Committee, which is made up of deputy ministers and directors of relevant departments who appraise, evaluate, and make budgetary decisions about planned projects. It is also supported by the State Fund for Transport Infrastructure, which provides expert opinions on materials prepared for the committee. Before each formal central committee meeting, projects are consulted, developed and appraised at a working expert level, with only sufficiently mature projects discussed by the central committee. If given appropriate decision-making powers and resources, the Committee for Strategic Investments could play a similar role in developing and maintaining a pipeline of projects across sectors. As it is not a technical body, projects would need to be appropriately appraised and prioritised before reaching the committee, however.

Standardise national stakeholder consultation processes

Stakeholder and citizen participation can take many forms in infrastructure governance. In the 2020 OECD Survey on the Governance of Infrastructure, countries reported varying levels of stakeholder participation in the development of national infrastructure plans (Figure 2.2). The appropriate approach will depend on the project and the stage of the infrastructure lifecycle. Effective consultation requires that processes are proportionate to the particular characteristics of the project or strategy (e.g., size, political sensitivity and population affected). For example, larger, longer-lasting public investments that impact a wide range of people may need a more structured, systematic approach, involving many different methods of gathering information, to accurately capture a wide range of perspectives. A more specific public investment with a direct impact on only a small group of individuals may require more in-depth, targeted engagement (OECD, 2023[13]).

Nevertheless, there are broad principles that are widely applicable. Consultation processes should cover the full infrastructure lifecycle and include relevant groups in decision making, while at the same time remaining proportionate to the size and complexity of the strategy or project. This can range from sharing information (both on-demand and more proactive measures to disseminate information), to a two-way exchange in which stakeholders provide feedback, to active collaboration in design and delivery (OECD, 2023[24]). Upfront stakeholder mapping and analysis can help ensure that input is sought early enough in the process to influence decisions meaningfully, and that it continues throughout the life of the infrastructure asset. Governments should also provide stakeholders with the most relevant and timely information available, expressed in clear language, and should explain how stakeholder input has been assessed and incorporated in the decisions reached. There should be clear objectives for participation, and sufficient time for stakeholders to contribute meaningfully (OECD, 2020[11]; OECD, 2017[25]). The stakeholders can include infrastructure delivery entities (line ministries, agencies and state funds, state-owned enterprises, municipalities, and regions), private infrastructure businesses, membership organisations that represent particular professions (e.g., institutes of engineers), and the general public.

Figure 2.2. Mechanisms for participation in national infrastructure plans vary across the OECD



Note: Data for 2020 for Denmark, France, Israel, Netherlands, Poland and Sweden are not available. The 2020 data for Belgium are based on the responses from Flanders only. Australia's data on long-term strategic vision for infrastructure are based on the 2021 Australian Infrastructure Plan. The 2021 Australian Infrastructure Plan is a practical and actionable roadmap for infrastructure reform, developed by Infrastructure Australia, an independent advisory agency. The plan is not a politically sanctioned document.
Source: (OECD, 2020[23]), Survey on the Governance of Infrastructure.

Mechanisms for stakeholder participation in infrastructure planning and delivery exist in Czechia but are inconsistent between ministries and sectors. While Czechia has general guidelines on consultation in place, they are not universally used across infrastructure delivery entities. An exception is for environmental impact, with infrastructure projects and plans subject to the Law on Environmental Impact Assessment and on Amendments to Certain Related Acts (No. 100/2001 Coll.), which sets requirements for consultation on environmental policy making (OECD, 2023[5]). The Law on Environmental Impact Assessment requires details on the environmental impact of projects and strategic plans to be published and provides opportunities for the public to comment on assessments and participate in public hearings.

However, other than for environmental impacts, national level bodies responsible for infrastructure in Czechia can sometimes struggle to effectively gather inputs, including stakeholder comments, for planning, programme design and decision making, leading to challenges in identifying local needs. Drafts of strategies and plans are published for public comment, but engagement by the broader public can be limited. In the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated that consultation guidance addressed the long-term planning and project appraisal phases of the infrastructure lifecycle, but not subsequent phases such as procurement, construction and operations. Ministries do not always co-ordinate their engagement with stakeholders, particularly regions and municipalities. Information provided by ministries is not always clear, and engagement is impacted by staff turnover. These gaps between subnational and national levels can lead to a lack of responsiveness, or the perception of a lack of

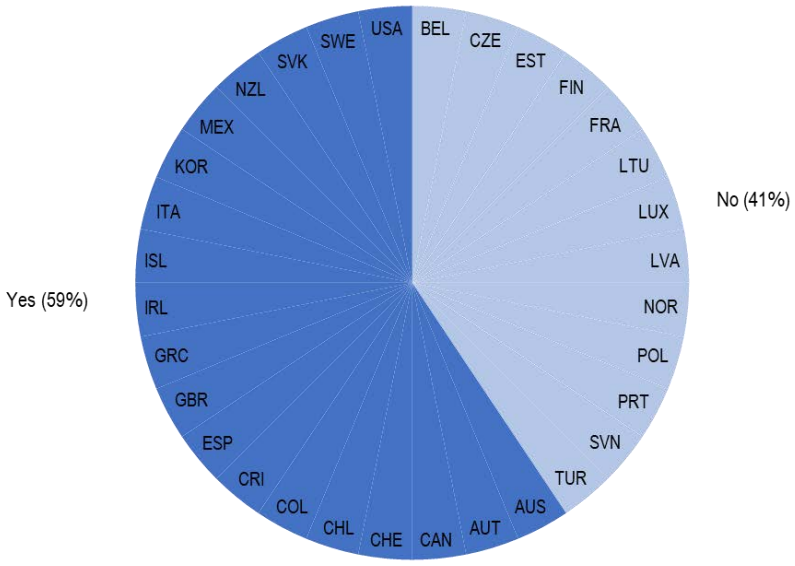
responsiveness, to local challenges. For example, effective stakeholder participation in the development of housing programmes could make them more attractive for municipalities and raise awareness and understanding of funding opportunities. Nevertheless, officials indicated that there is currently limited communication between the State Investment Support Fund and municipalities on housing issues.

Information on infrastructure projects and plans is currently provided to the public through a central portal linked to the environmental impact assessment process, the Environmental Impact Assessment Information[2]/Strategic Environmental Impact Assessment[3] (EIA/SEA) system, and the website of the National Coordination Authority[4]. The EIA/SEA system provides information on public comment periods as well as evaluations of the environmental impacts of projects and strategies, as required by the Law on Environmental Impact Assessment. The National Coordination Authority provides basic project information for projects funded by EU funds, such as the responsible entity, the project budget, the location and a brief description. Finally, the Information System of Project Plans[5] collects together the project plans of municipalities, regions and national institutions (with the exception of the Moravian-Silesian Region). In the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated a focus on sharing information on impact assessments, rather than risks, procurement and project execution.

The Ministry of Regional Development could improve stakeholder participation in infrastructure planning and implementation by promoting a standardised approach across ministries, agencies and state funds. It could consider developing a centralised portal containing comprehensive information on infrastructure plans, strategies and projects. Most other OECD countries have taken this approach: in the 2020 OECD Survey on the Governance of Infrastructure, 19 of 33 respondents (58%) reported having a government-wide digital platform to provide information on infrastructure projects (Figure 2.3). This information could extend beyond environmental impacts and projects supported by EU funds to include information on risks, procurement and project status. This could build on or supplement the EIA/SEA system, the website of the National Coordination Authority and the Information System of Project Plans, creating a single point of reference for interested citizens and stakeholders. A consolidated system could also be used to communicate with project stakeholders, for example through targeted messages about financing opportunities (as is currently planned for the Information System of Project Plans).

The housing sector could provide a model for a more comprehensive and cross-institutional approach to stakeholder participation. The Ministry of Regional Development's proposed Housing Investment Support Centres could play a role in facilitating the bottom-up aggregation of housing needs and identifying challenges faced by municipalities in planning and implementing housing projects. By aggregating the needs and challenges of local stakeholders, the Housing Investment Support Centres could help the Ministry of Regional Development, the State Investment Support Fund and other national infrastructure bodies develop strategies, supports, and financing mechanisms that better target the barriers to affordable housing development. Identifying challenges such as land availability, regulatory constraints, and funding gaps could help to develop sustainable housing plans and facilitate smoother project implementation.

Figure 2.3. A majority of OECD countries have a national digital platform on infrastructure projects



Note: Data for Belgium based on the survey responses from Flanders only.
Source: (OECD, 2022[26]), *Survey on the Governance of Infrastructure* - Part I: Ensure transparent, systematic and effective stakeholder participation.

Develop a national vision for infrastructure that aligns with national policies and strategies

Aligning long-term infrastructure plans with other government plans and strategies can increase the efficiency of investments and help ensure that projects are not working at cross purposes. The OECD Recommendation on the Governance of Infrastructure includes a pillar on developing a strategic infrastructure vision (OECD, 2020[15]). A consistent long-term vision for infrastructure investments can help governments establish an appropriate institutional framework, implement clear governance arrangements, define needs and targets and co-ordinate with stakeholders. A cross-sectoral vision can help to identify long-term commitments and challenges and ensure that individual investments are aimed at common goals. A long-term perspective is particularly important given the long lifespan of infrastructure assets (OECD, 2021[14]).

For example, spatial planning can protect existing and new infrastructure from future legal challenges or competing land uses. Spatial plans often signal new corridors or zones for infrastructure development while projects are still in the conceptual phase, providing greater certainty over the future location and timing of infrastructure, which helps send positive investment signals to the private sector (OECD, 2023[13]). Aligning infrastructure investment decisions with long-term climate and development objectives is also critical to avoiding lock-in of emissions-intensive infrastructure (OECD, 2021[14]). For example, Ireland's National Development Plan 2021-2030 (NDP) sets out an overarching strategy to guide investment worth EUR 165 billion. The NDP is aligned with Ireland's Recovery and Resilience Plan and will receive significant support from the European Union's Recovery and Resilience Facility (Box 2.2).

Box 2.2. Co-ordinating Ireland's National Development Plan with climate and environmental ambitions

Ireland's National Development Plan 2021-2030 (NDP) sets out an overarching investment strategy to make Ireland a better country for all and to build a more resilient and sustainable future. The EUR 165 billion NDP has a particular focus on housing, climate, transport, healthcare and regional jobs growth. As part of the development of the plan, a climate and environmental assessment of the NDP initiatives was undertaken, along with an assessment of the plan's overall alignment with Ireland's green recovery plan. When developing measures for inclusion in the NDP, seven climate and environmental outcomes were considered:

1. Climate mitigation
2. Climate adaptation
3. Water quality
4. Air quality
5. Waste and the circular economy
6. Nature and biodiversity
7. Just transition

The NDP includes a number of environmental and climate initiatives, including providing EUR 5 billion in additional carbon tax receipts to increase capital investment levels in energy efficiency; committing to increasing the share of renewable electricity to 80% by 2030; and improving the energy efficiency of homes through the upgrade of at least 500 000 homes to a Building Energy Rating of B2/cost optimal or carbon equivalent by 2030, and the installation of 400 000 heat pumps in existing homes. It also includes commitments to further reforms of the Public Spending Code (the rules and procedures governing public expenditures) to ensure compatibility with Ireland's climate ambition.

Ireland's NDP is aligned with its Recovery and Resilience Plan, with relevant projects rooted in advancing the green transition, accelerating and expanding digital reforms and transformations, and recovery and job creation. Ireland will receive approximately EUR 990 million in grants from the European Union's Recovery and Resilience Facility, which will be used to support investments under the NDP.

Source: (OECD, n.d.[27]; Department of Public Expenditure, NDP Delivery and Reform, 2021[28])

Defining a national vision for infrastructure in Czechia could improve the alignment and co-ordination between sectoral infrastructure planning and other national policies and priorities. Existing sector-specific infrastructure plans provide sector-specific strategies, but a siloed approach can threaten cross-sectoral policy objectives such as regional development or climate change adaptation and can overlook synergies between sectors. Improved cross-sectoral co-ordination could reduce the potential for overlap between projects, ensure that investments are mutually reinforcing, and support Czechia's efforts to harness infrastructure investment to support a sustainable and green recovery.

Unlike many OECD countries, Czechia's responses to the 2020 OECD Survey on the Governance of Infrastructure indicated a lack of co-ordination between infrastructure planning and broader policy goals and plans. Czechia indicated that its long-term sectoral infrastructure plans do not explicitly consider how to align the infrastructure strategic vision with other policies and strategies. This was reinforced in discussions with Czech officials and stakeholders held as part of this project, who indicated that despite the many strategies across sectors and ministries, there is a limited overarching vision or focus on prioritisation and implementation.

Czechia could build on its existing sectoral infrastructure plans, its Recovery and Resilience Plan, the National Investment Plan 2020-2050, and the Regional Development Strategy in aligning infrastructure investment with its overall strategic goals. As noted above, Czechia has a number of sector-specific long-term plans (see Box 2.3 for examples in key sectors). This is similar to many of its peers: responses to the 2020 OECD Survey on the Governance of Infrastructure indicated that long-term sectoral plans are in place in approximately half of OECD (56%) and EU (47%) countries. While these plans are critical for effective investment within a sector, lack of co-ordination may result in missed opportunities to benefit from synergies among investments in different sectors. In the 2020 Survey, Czechia indicated it had not used co-ordination mechanisms in the formulation of the National Investment Plan 2020-2050. This was confirmed with discussions with Czech officials and stakeholders held as part of this project, who indicated that co-ordination at the national level is challenging, both generally and in the development of the National Investment Plan 2020-2050. This contrasts with the majority of surveyed countries, more than half of which (18 out of 31 OECD countries or 58%; 10 out of 17 EU countries or 59%) indicated that they had used mechanisms for cross-sector co-ordination during the formulation (or revision) of their most recent long-term national infrastructure plan.

Box 2.3. Sectoral plans in Czechia

Czechia has a large number of sector-specific plans and strategies, many of which have a significant infrastructure component. The main strategic documents in the housing, transport and energy sectors are summarised here.

Housing Concept of Czechia 2021+

The Housing Concept of Czechia 2021+ sets out the national housing policy from 2021. It articulates a vision for the housing sector built around four primary objectives:

- increasing the availability of affordable, quality housing
- creating a stable legislative and institutional environment for housing investment
- ensuring sustainable housing development
- developing an innovative and productive housing sector.

These objectives are supported by detailed measures (e.g., establish an institutional and legal framework for social housing, improvement of energy performance) and further broken down into clearly assigned tasks (e.g., assess the functionality of the current benefit system, identify new energy-efficient project types) with estimated costs in some cases. The Housing Concept is supported by a monitoring and implementation plan.

Transport Policy of Czechia

The Transport Policy of Czechia is the highest-level transport sector planning document. The Transport Policy is built around three strategic objectives: (1) sustainable mobility, (2) territorial cohesion and (3) the use of automation and information technology. These are supported by specific objectives, such as adaptation to climate change and the balanced provision of transport infrastructure across regions, which are further supported by specific measures (e.g., set quantitative and qualitative standards in the planning of transport services, support the development of cross-border rail transport projects). The most recent version of the Transport Policy was published in 2021.

The objectives contained in the Transport Policy are outlined further in other plans, concepts, strategies and processes. For example, specific transport sector strategies constitute the main plans for the financing and development of rail, road, and waterway transport infrastructure. These transport sector strategies create a list of known projects; assess projects based on multi-criteria and cost-benefit evaluation; and prioritise and schedule projects based on the order of importance and the availability of financial resources. The Transport Policy refers to other strategic documents such as the Strategic Framework Czechia 2030, the State Energy Concept, and the Regional Development Strategy.

State Energy Policy of Czechia

The State Energy Policy aims to ensure a reliable, secure and environmentally friendly supply of energy, reflected in its three strategic objectives of security, competitiveness and sustainability. These objectives are supported by strategic priorities such as establishing a balanced energy mix, increasing energy efficiency, and strengthening international co-operation and the integration of regional electricity markets. The State Energy Policy provides the basis for further strategic documents, such as the National Action Plans for Smart Grids, the Action Plan for Biomass, and the National Action Plans for Energy Efficiency. The most recent version of the State Energy Policy was published in 2015.

The National Energy and Climate Plan, published in 2020, further expands on Czechia's contribution to European climate and energy objectives, which relate to the reduction of greenhouse gas emissions, efforts to increase the share of renewable energy sources and increases in energy efficiency.

Source: (Ministry of Regional Development, 2021[29]) (Ministry of Transport, 2021[30]) (Ministry of Industry and Trade, 2020[31]) (Ministry of Industry and Trade, 2015[32])

Summary of key recommendations

Given the challenges of implementing a full suite of reforms, Czech authorities could consider sequencing the recommendations made above. By grouping recommendations according to the time horizon needed to implement them effectively (short term, and medium to long term), Czech authorities could allocate resources to reforms in a way which would provide incremental benefits. A potential sequencing is included below.

Short-term reforms

1. **Make greater use of co-ordinating bodies and newly formed institutions to improve the planning and delivery of infrastructure investments.** Greater co-ordination will allow for a bottom-up approach to strategic planning and ensure synergies between projects.

- Given its mandate and responsibilities, the Committee for Strategic Investments could serve to ensure alignment across sectors and drive a co-ordinated approach to infrastructure investment. It could help communicate sector-specific challenges and priorities, and inform the assessment of cross-sectoral needs, thereby improving strategic planning.
- Ensure that relevant stakeholders are well represented in the committee and its working parties and that the supporting secretariat is adequately resourced with experts with the necessary skills and knowledge.
- Focus on the committee's role in monitoring the implementation of sector strategies and related infrastructure investments to provide greater insight into their effectiveness.
- Increase co-ordination for the delivery of infrastructure investments. The Ministry of Regional Development's proposed Housing Investment Advisory Hub and Housing Investment Support Centres could play a co-ordinating role between national bodies and municipalities in housing-related investments, for example.

Medium to long-term reforms

2. **Develop and maintain a cross-sectoral short-list of projects.** A short-list or project pipeline would help to improve the investment readiness and absorptive capacity of the public and private sectors and focus financing from various sources on the most impactful projects.

- Develop the short-list using objective and transparent criteria. This would clarify the decision-making process and foster trust by helping stakeholders and the public understand why certain projects are prioritised and how they align with broader objectives.
- Ensure the short-list is cross-sectoral to promote the efficient use of available funding and reduce the risk of disproportionately targeting investment towards a single sector.
- The new Committee for Public Investments could be a decision-making venue for identifying projects to be included on the short-list. As a high-level body with representation from multiple sectors, the committee would provide legitimacy and would attach political commitment to the short-list, sending clear signals to the market.

3. **Standardise national stakeholder consultation processes.** This would make stakeholder consultation more transparent, helping stakeholders better understand methods of engagement, sources of information, and how inputs will be considered in decision making.

- Create a standardised approach to stakeholder consultation that covers the full infrastructure lifecycle. Develop central guidance on consultation that is proportional to the characteristics of the project or strategy (e.g. size, political sensitivity, environmental aspects, population affected) and to the overall public interest.

- To support this standardised approach, Czechia could consider providing comprehensive project and strategy information to stakeholders in one location, such as a central portal. Information should cover the infrastructure lifecycle from planning to regulatory approvals and construction for all projects, regardless of funding source. This improved access to information for stakeholders could increase the breadth and quality of their inputs.

4. **Improve the alignment between infrastructure investment planning and national strategies and priorities.** A long-term strategic vision could align infrastructure planning with national strategies and priorities and help to ensure that investments are planned and delivered in a way that supports broader national objectives. This could help to provide a longer-term strategic focus beyond electoral cycles and European programming periods.

- Ensure the long-term infrastructure vision outlines desired investment outcomes, identifies priority sectors and defines the role of infrastructure in achieving broader goals. It could be developed based on the detailed existing national and sectoral plans and strategies.
- Requiring that infrastructure planning and project selection explicitly consider key national priorities as articulated in the long-term vision could create coherence between strategic priorities and individual investments.

2.2 Improving project appraisal and prioritisation

Strong project prioritisation and appraisal are critical elements of infrastructure governance. Governments face a significant challenge in determining which of the many investment possibilities are best able to achieve their policy goals and strategies. Strong appraisal ensures that potential projects are rigorously evaluated based on their feasibility; their economic, social and environmental impacts; and their alignment with broader policy goals and development strategies. To ensure that limited resources are allocated efficiently while maximising benefits, governments require infrastructure investment selection processes based on a sound understanding of the expected returns (OECD, 2021[14]). If assumptions and findings are made public, appraisal and prioritisation processes can also play an important role in ensuring transparency in decision-making processes.

Czechia lacks a consistent approach to project appraisal and prioritisation across sectors. In some sectors, such as transport, there is detailed guidance on project appraisal and rigorous evaluation. For example, the Departmental Guideline for the Evaluation of Economic Effectiveness of Transport Construction Projects provides detailed methodological guidance for evaluating transport infrastructure investments (Ministry of Transport, 2018[33]). Originally developed for the EU funds programming period 2014-2020, the guideline is used to evaluate transport projects with costs of over CZK 30 million (approximately EUR 1.3 million). However, across the investment system as a whole, projects are often prioritised based on their readiness to move forward quickly and their ability to access European funds rather than conducting a standardised appraisal of the costs and benefits of the investment. In the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated that while project benefit estimates in the transport and energy sectors are based on international benchmarks, in other sectors such as social or water infrastructure they are not. The difficulty of prioritising across sectors was also reported by officials as a factor in the challenges in implementing the National Investment Plan 2020-2050.

The fragmentation of decision making and responsibility for infrastructure investment across sectors in Czechia makes a consistent approach to project prioritisation and appraisal challenging. In each sector, different entities are responsible for developing their own prioritisation criteria. Prioritisation is often based on eligibility under EU Funds, with funding reallocated to less efficient projects due to timing challenges. A lack of structured analysis can also contribute to inconsistent prioritisation across the electoral cycle: the focus is often on quick wins where spending can align with political and programme timelines, rather than projects with the greatest return.

Another issue for Czechia is that high-quality data are not readily available for project analysis, and capacity challenges can limit the ability of the public sector to generate and use data to inform decision making. Fragmentation can also limit the availability of data on infrastructure performance, making it difficult to assess how future investments could be optimised. Existing decision-making frameworks are not always suitable for accommodating a more diverse set of policy goals, such as the green transition and digital transformation. However, these issues are not unique to Czechia: while many countries do collect data, most of the data required to compare the overall cost and performance of projects across sectors are not systematically aggregated or used (OECD, 2017[1]).

Effective prioritisation and appraisal should be informed by data-based evidence. Governments should put in place systems that ensure the systematic collection, analysis, dissemination, and use of relevant data for project prioritisation and appraisal (OECD, 2017[1]). Specific sectors require more targeted data: for example, evaluating transport projects often requires data on topics such as traffic patterns and congestion, while energy infrastructure decision making requires data on trends in consumption and planned production. However, these data requirements are often interlinked: housing investments, for example, can impact both traffic patterns and energy consumption. A lack of systematic data collection on investment performance can therefore undermine decision making by limiting governments' ability to identify strengths and weaknesses. The limited availability of data can also make it difficult to assess the potential impacts and estimated costs of infrastructure projects. Ex-post evaluations can be a valuable means of producing data and evidence for future decision making. The OECD Recommendation on the Governance of Infrastructure advises adherents to ensure that ex-post value-for-money evaluations are carried out and that the results are used in the decision-making process for future investment projects (OECD, 2020[15]).

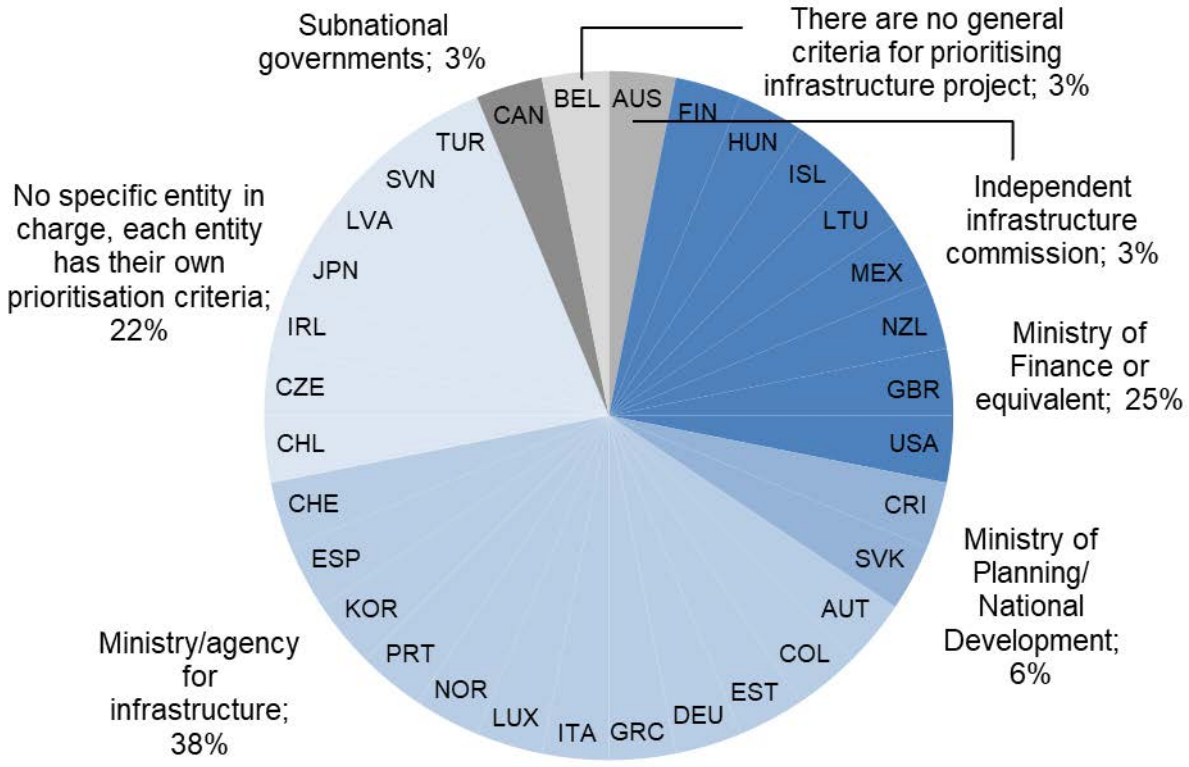
Standardising project appraisal and prioritisation processes has the potential to improve the effectiveness of infrastructure investment. The sections which follow make recommendations for how Czechia could make the appraisal of project costs and benefits more consistent and improve the availability of evidence on which to base those evaluations. Implementing these recommendations is expected to increase the consistency and transparency of decision making, reduce investment risks and allow resources to be allocated more efficiently. While estimates will vary depending on the national context, one study found that choosing the right combination of projects and eliminating wasteful ones could save 7% of total infrastructure investment on a global basis (Dobbs et al., 2013[34]). While this is necessarily a high-level estimate, it indicates the scale of the potential fiscal impact of better project appraisal and prioritisation: 7% of planned investments of EU funds in Czechia alone over the next decade would total EUR 2.8 billion.

Standardise the evaluation of project costs and benefits across sectors

The Ministry of Regional Development could work with other stakeholders to develop a standard approach to project appraisal across sectors. The standardised methodology could be used by ministries and state funds when developing funding programmes, and also be made available to subnational governments to support their prioritisation of infrastructure investments. As noted above, it is not unusual among OECD countries for line ministries to have responsibility for infrastructure investment in their sector. However, it is less common for line ministries to set their own prioritisation criteria – this occurs in only 7 of 33 countries (including Czechia) responding to the 2020 OECD Survey on the Governance of Infrastructure (Figure 2.4) (Ruiz Rivadeneira and Mcmaster, 2023[21]).

Figure 2.4. Most OECD countries have a single institution that prioritises infrastructure projects

Primary institution for setting the criteria to prioritise infrastructure projects in OECD countries, 2020



Note: Data for 2020 for Denmark, France, Israel, Netherlands, Poland and Sweden are not available. The 2020 data for Belgium are based on the responses from Flanders only.
Source: OECD (2020), Survey on the Governance of Infrastructure.

Project selection should be based on a rigorous appraisal of costs and benefits, driven by factors such as forecast demand or need, economic efficiency, and environmental and social sustainability. As highlighted by the OECD Recommendation on the Governance of infrastructure, it is especially important to provide for an independent and impartial assessment of the costing, risk management and governance for projects that exceed a high investment threshold (OECD, 2020[15]). When processes for identifying priority projects and choosing delivery modes are not sufficiently formalised, political dynamics can undermine sound decision making (OECD, 2021[14]).

To be applied widely, project appraisal methodologies need to be flexible to reflect differences in project size and complexity and differences between sectors. Countries take different approaches to setting a threshold for full project appraisal (see Box 2.4 for examples). However, a standardised approach could involve (OECD, 2020[35]; World Bank, 2021[36]):

- A holistic cost-benefit analysis, including the evaluation of economic, environmental, and social dimensions (see Box 2.5). This could include a set of common assumptions and a methodology for evaluating common project elements across sectors (e.g., carbon impact) and a consistent approach to cost estimation.
- A calculation of lifecycle costs or total cost of ownership, which is critical for ensuring that projects enable the most efficient use of funds and minimise sustainability risks.

- An assessment of whether the project is feasible and deliverable, and a review of elements such as risk, the capacity of the implementing agency, the quality of project governance and whether the supplier market has been tested and the procurement strategy is well developed.
- An evaluation of strategic alignment with major policy objectives, as well as alignment with other government policy tools (such as spatial planning and regional development plans). This should include establishing the rationale for the project and placing it in the overall strategic context, along with identifying potential linkages and alignment with other infrastructure projects and sectors.

Czechia does already have a standardised methodology for presenting business cases for data, digital and information technology projects developed by the Office of Chief Architect of eGovernment of the Ministry of the Interior. The Information Concept of Czechia includes general principles on planning, procurement and operations and is accompanied by the forms which central institutions need to complete to present business cases for information and communication technology projects (OECD, 2023[5]). These may act as a model for the type of guidance materials that could support stronger project appraisal across sectors.

Box 2.4. OECD country examples of thresholds for applying the project appraisal system

- In Chile, all investment initiatives financed by the government are subject to technical and economic analysis. This includes municipal projects financed with capital transfers from the central government, provided the transfers cover more than 50 percent of project costs.
- In Korea, the threshold is KRW 50 billion (EUR 35 million) for central government projects, and KRW 30 billion (EUR 21 million) for subnational government projects or projects with private participation receiving a central government contribution equal to or greater than that amount.
- In Norway, the threshold is NOK 750 million (EUR 65 million) for central government projects.
- In Ireland, the appraisal methodology depends on the type, scale, and complexity of the project:
  - For project proposals below EUR 10 million, approving authorities (government department with the ultimate responsibility for the project) should decide with sponsoring agencies (primary responsibility for evaluating, planning, and managing projects) as to whether an economic appraisal is required and what type of economic appraisal is appropriate.
  - For project proposals over EUR 10 million, approving authorities and sponsoring agencies should engage on the choice of the appropriate appraisal methodology in line with sectoral guidance. Wherever possible, cost-benefit analysis should be used. In cases where this may not be possible or desirable, cost-effectiveness or multicriteria analysis may be used.
  - As a general rule, cost-benefit analysis is required for all major projects with an estimated cost over EUR 200 million, as well as a mandatory assurance process involving independent expert reviews.

Source: (Baum, Verdier and Mogues, 2020[3]), (Department of Public Expenditure, NDP Delivery and Reform, 2023[37]) (OECD, 2023[38])

Infrastructure investment is increasingly expected to address multiple economic, social, and environmental objectives beyond a narrow definition of user needs. This creates challenges for decision makers, who are required to weigh and balance different (and sometimes competing) goals in selecting and prioritising projects (OECD, 2021[14]). The OECD Recommendation on the Governance of infrastructure advises adherents to ensure that methodological tools accommodate multiple objectives (OECD, 2020[15]). Supplementing cost-benefit analysis with other methodological tools to accommodate multiple objectives and uses can establish the overall societal return on investments and support the allocation of resources to the best projects. A standardised approach to project appraisal and prioritisation can help address these

challenges but should also be flexible to account for differences across sectors in terms of needs, timelines, stakeholders and decision-making processes. Applying rigorous project appraisal and selection processes that take into account economic, social, and environmental costs and benefits can help with this challenge. In Italy, for example, new guidelines were introduced for the ex-ante valuation of projects, along with a new investment scoring system that evaluates dimensions of sustainability. To support this new approach, the Italian government created a Centre for Innovation and Sustainability in Infrastructure and Mobility (Box 2.5).

Box 2.5. Greening the planning and evaluation of Italy's infrastructure projects

In 2021, the Italian Ministry for Sustainable Infrastructure and Mobility (MIMS) introduced an innovative approach to planning and evaluating projects which integrates sustainability considerations. The initiative sought to provide methodological tools to strengthen the ministry's decision-making capacity with a focus on economic, environmental, social and governance dimensions. Moreover, the new approach aligns with the requirements for funding under the Next Generation EU plan, including the Recovery and Resilience Facility, and other international sustainability principles and guides, such as the EU taxonomy for sustainable activities and the Sustainable Development Goals.

The tools introduced include new guidelines for the ex-ante valuation of projects, together with related operational sector-specific guidelines and a new scoring system that evaluates dimensions of sustainability to help define project prioritisation. A further reform is the introduction of new guidelines for evaluating the technical and economic feasibility of projects financed through Italy's Recovery and Resilience Plan. These new guidelines seek to simplify the process for investing in green and digital technologies; ensuring compliance with energy and environmental responsibility criteria when awarding public contracts, including through the definition of minimum environmental criteria; including measures to encourage the inclusion of SMEs in the construction phase; and introducing digitisation for the public investment process.

To develop the skills and expertise needed to ensure that the new approach is effective, the Centre for Innovation and Sustainability in Infrastructure and Mobility was also created within MIMS. The centre will collaborate with other ministries and academia, both at the national and international level, to carry out research and promote innovation in the field of infrastructure sustainability.

Source: (OECD, 2023[38])

Following a common, structured format for project appraisal can also facilitate independent review and provide a transparent record of decisions. A consistent approach can be reinforced through the systematic publication of ex-ante and ex-post appraisals, which enables review by external stakeholders. This can also support expanded centralised review to verify assumptions and ensure projections are realistic. In the United Kingdom, for example, the Infrastructure and Projects Authority manages independent assurance reviews of the government's most complex and high-risk projects (Box 2.6).

Box 2.6. Centralised project governance to ensure value for money in the United Kingdom

Strong governance arrangements include appropriate checks and balances to ensure that there is an ongoing assessment of whether a project offers value for money as it evolves throughout its lifecycle. Large projects entail fiscal risks that that can affect the overall public investment programme. For this reason, the United Kingdom has made central agencies responsible for the oversight of public investment programmes part of the governance structure for major projects.

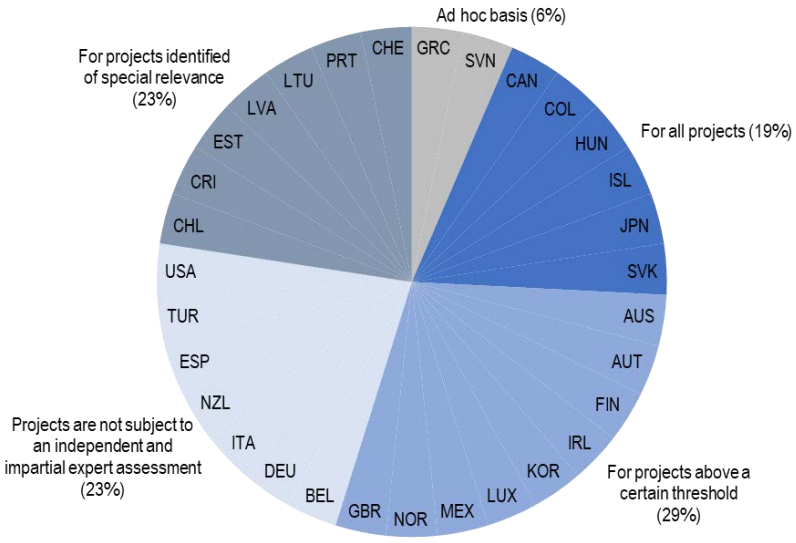
The UK Infrastructure and Projects Authority (IPA) arranges and manages independent assurance reviews of major government projects each year. These reviews are mainly for the government's most complex and high-risk projects within the Government Major Projects Portfolio (GMPP). The IPA also publishes an annual public report on the progress made on projects within the GMPP. The IPA reports to the Cabinet Office and the Treasury and is led by a Chief Executive who reports jointly to the Chancellor of the Exchequer and the Minister for the Cabinet Office. It employs approximately 180 people in roles such as policy advisors, project delivery professionals, and project finance professionals.

Assurance is an essential part of successful project delivery. The IPA has established a Major Projects Review Group (MPRG) comprised of a pool of experts from which panels are put together to scrutinise the largest and most complex major government projects. It is co-chaired by the Chief Executive of the Civil Service and the Second Permanent Secretary to the Treasury. The MPRG panels challenge projects on deliverability, affordability and value for money at key points in the project life cycle. The MPRG aims to improve the performance of projects and programmes and advise HM Treasury ministers on which projects within the GMPP are ready to proceed through the next stage-gate. Projects are selected for MPRG review according to the following criteria: projects with a whole life cost of over GBP 1 billion; projects that are high risk and complex in their procurement and delivery of benefits; projects that set a precedent or are highly innovative; and other projects 'of concern' (as recommended by HM Treasury or the IPA and agreed by the MPRG Chair).

Source: (OECD, 2020[39]; Infrastructure and Projects Authority, 2021[40]; Infrastructure and Projects Authority, 2020[41])

According to the 2020 OECD Survey on the Governance of Infrastructure, 71% of OECD countries (22 out of 31) reported conducting regular independent and impartial expert assessments (19% for all projects, 29% for projects above a threshold and 23% for projects of special relevance). Within the EU, the share was 63% (10 out of 16)[6] (Figure 2.5). Data for Czechia are not available for this survey question, but it appears that the independence and quality of project assessments varies depending on the sector and institutional structure. For transport projects worth over CZK 1.8 billion (approximately EUR 75 million), project appraisals must include an evaluation provided by the State Fund for Transport Infrastructure. The State Fund for Transport Infrastructure co-operates with external entities such as the Transport Research Centre and the Institute of Construction Economics and Management at the Brno University of Technology to select appropriate evaluators. Through the budgeting process, the Ministry of Finance plays a role in reviewing projects worth over CZK 300 million (approximately EUR 12 million); however, a significant proportion of Czech infrastructure investment is undertaken by state funds over which the Ministry of Finance has more limited influence. For example, officials indicated that approximately 40% of the government's infrastructure budget is approved through a small number of decisions related to transfers into state funds, with limited oversight of project selection.

Figure 2.5. The majority of OECD countries require independent and impartial expert assessment of infrastructure projects



Note: Data for Belgium are based on the survey responses from Flanders only. In Austria, independent and impartial expert assessments are conducted for projects above a certain threshold as well as for projects identified of special relevance.
Source: 2020 OECD Survey on the Governance of Infrastructure

Czechia could consider expanding the role of independent review of infrastructure investment at the national level. An independent and impartial expert assessment can test factors such as project costing, fiscal sustainability, timelines, risk management and governance and help to identify flaws or gaps. Independent reviews can also provide a mechanism for monitoring and evaluating project performance over time, helping to identify issues as they arise. In Norway, for example, an external quality assurance process is compulsory for projects with an expected budget over EUR 100 million. The quality assurance process is refined through an independent process of ex-post evaluations of completed projects. In Czechia, this could be achieved by applying the approach used by the State Fund for Transport Infrastructure to other sectors, or increasing the role and capacity of the Ministry of Finance. Publishing independent assessments would also increase transparency in infrastructure appraisal and selection by providing stakeholders and the wider public with access to objective evaluations of project feasibility, costs and benefits. This could promote accountability and help build public trust in the investment system.

Box 2.7. Norway's quality assurance process and Concept Research Programme

The Norwegian quality assurance process is compulsory for land based public investment projects with an expected budget of over NOK 750 million (approximately EUR 100 million). Analysis and decision documents are prepared by ministries according to a common format issued by the Ministry of Finance and reviewed by external quality assurers pre-qualified by the Ministry of Finance.

Funded by the Ministry of Finance and led by the Norwegian University of Science and Technology, the Concept Research Program organises ex-post evaluation of completed projects that have been through the quality assurance process. The lessons learned are seen as crucial for improving knowledge and practices in the development and implementation of projects and in the quality assurance process itself.

Results are openly available and published in a series of scientific reports, in addition to textbooks, working papers, scientific papers in journals and conference proceedings, etc.

Source: (Kim, Fallov and Groom, 2020[42])

Improve data quality and sharing across sectors

Evidence-informed infrastructure decision making requires a broad range of data. Data on existing infrastructure and its condition can help identify areas where upgrades and maintenance may be necessary. For example, linking strategic objectives – such as increased mobility – with indicators such as congestion hotspots, traffic flows and journey time maps can help to identify areas where there is a case for investment. Traffic data can help identify areas where highway or public transit investments could improve mobility. Data can also be used to identify disparities in access to infrastructure: for example, data on housing affordability across regions can help identify where new affordable housing projects may be needed. Demographic data, including insights into population trends and distribution, are necessary for needs analysis and can provide insights into distributional impacts. Economic data, such as employment rates and industry sector trends, can be used to evaluate the potential economic impacts of projects, while data on air quality, water resources, and land-use patterns are necessary to evaluate environmental impacts. Technical data such as construction cost indices, maintenance requirements, and asset conditions are critical for developing cost estimates, assessing feasibility and prioritising.

Governments with a strategic approach to the use of data across the entire public sector are better able to anticipate societal trends and needs and therefore develop more effective long-term plans (OECD, 2019[43]). Access to accurate and reliable data is essential for improving evidence-based decision making. The OECD Recommendation on the Governance of Infrastructure encourages countries to harness digital technologies, release open data and use data analytics to enhance infrastructure policy and decision making (OECD, 2021[14]). Data sharing across entities and sectors can promote transparency, helping to identify common challenges and opportunities across sectors, and promote collaboration by enabling different sectors to share knowledge and expertise. For example, in the Netherlands, the government collects water data and makes them publicly available for planning use by a range of actors (Box 2.8).

Box 2.8. Making water data available for infrastructure decision making in the Netherlands

Flooding events can cause damage and destruction to property and infrastructure. Flooding is becoming increasingly frequent with climate change and rising sea levels. As urban expansion continues, flooding in these areas can become more frequent due to insufficient drainage. This requires action to lessen the risk of urban flooding for infrastructure. Flood management systems can track patterns to identify areas likely to be flooded, looking at the probability that flooding will occur.

Governments can use sensors (GPS, water level, radar for thermal images) to collect data on water levels, resources, quality and water-related hazards. The data collected are transmitted to a central system and then analysed to enable flood prevention and better water resource management. This enables local authorities to identify mitigation solutions (e.g., dams and water management systems) or alternative areas where the risk of flooding is lower. A water height and flood management system can enable local authorities to predict future flooding and avoid building major infrastructure in high-risk areas. Local authorities can use the flood patterns to identify the probability of flooding for each area and use this information to improve decision making when selecting suitable locations for future housing and other infrastructure.

Rijkswaterstaat, an executive agency of the Dutch Ministry of Infrastructure and Water Management, manages and develops the Netherlands' main road and waterway networks. Rijkswaterstaat monitors the water level, discharge rates, wave height and flow speed using automatic measuring equipment at more than 450 locations. The data collected are made publicly available and used by water boards, provinces, municipalities, the private sector and researchers. The Rijkswaterstaat also collaborates with the Ministry of Agriculture, Nature and Food Quality and the Ministry of Defence on the Marine Information and Data Centre (IHM). Launched in 2012, the IHM makes available all government data on the North Sea in a single location. Rather than storing the data in a central location, the IHM functions as a portal, generating references to locations where data can be accessed. The data remain stored and maintained in their original location, ensuring they are current and accurate.

Source: (Global Infrastructure Hub, 2020[44]; Rijkswaterstaat, n.d.[45]; Marine Information and Data Centre, n.d.[46])

In Czechia, there is limited data available to support project appraisal and prioritisation. In addition, when data are collected, the large number of stakeholders in infrastructure planning and delivery creates challenges for quality and consistency, with data managed differently across sectors. The Ministry of Regional Development provides tools to municipalities to use demographic and economic data to develop strategies and prioritise projects (e.g., to forecast needs), but these tools are not currently linked to data on infrastructure investment, and municipalities may not always have the capacity to take advantage of the data. Officials confirmed during this study that a lack of data was a challenge for infrastructure planning at the municipal level. For example, data on housing are limited or insufficient: the main source of information on housing is the census of houses and apartments, which is carried out every 10 years, and administrative data are not leveraged to provide more current information. Asset management, including the monitoring and evaluation of infrastructure, is the responsibility of the asset owner and data on the condition of infrastructure are not shared or collected centrally.

The 2022 Programme for Government recognises the importance of data and commits to expanding its use in infrastructure planning and monitoring. This includes a commitment to using data to set a recommended level of infrastructure services for municipalities (e.g., for education, medical and social care, public transport, high-speed internet) and linking requirements to funding. It also commits to ensuring that plans, the achievement of objectives and efficiency are evaluated in the preparation and implementation of infrastructure by transport investment organisations, such as the Railway Infrastructure

Administration and the Waterways Directorate, and evaluating their performance against European peers (Government of Czechia, 2022[6]).

The Ministry of Regional Development could work with other infrastructure stakeholders to improve data quality and expand data sharing for project appraisal and prioritisation (ITF, 2021[47]). This could involve working with relevant ministries, state funds, agencies, regions and municipalities to develop infrastructure data guidelines and standards. Developing common data formats that all sectors can use for collecting, storing and sharing infrastructure data, and data-sharing protocols defining how data are shared and who has access, would ensure a common approach and avoid conflicts over data ownership. The ministry could also develop and disseminate guidelines on data collection and management to help ensure data is accurate and complete.

Strengthening the skills required for data use will be important. Collecting, managing, and using data effectively requires skills and resources. The Ministry of Regional Development could invest in training and capacity building for data management and analysis to ensure stakeholders have the necessary skills to collect, store and use data effectively. This could include providing technical training and workshops, as well as access to data management tools and resources. For example, in the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated that it maintains a national unit price database for infrastructure. Making this type of database more accessible and facilitating its use by a broad range of stakeholders could improve project appraisal and prioritisation.

The Ministry of Regional Development could also consider establishing an accessible data-sharing platform or repository to streamline data sharing on infrastructure with stakeholders. In the housing sector, the ministry's proposed Housing Investment Support Centres and Housing Investments Advisory Hub will already play a role in collecting and disseminating data on housing needs and projects. Over time, the ministry could consider playing this role for other sectors, improving access and increasing co-ordination and collaboration. However, developing an integrated data platform that crosses sectors raises various technical, organisational and regulatory challenges and would require significant investment of resources and strong commitment from stakeholders to ensure the benefits could be realised (World Bank, 2020[48]).

Standardise ex-post evaluations of infrastructure investments for evidence-based decision making

Ex-post evaluations can provide valuable insights and evidence to inform decision making. Alongside assessing how successful a project has been in achieving its stated aims, ex-post evaluations can also identify any unforeseen externalities, which are particularly important for informing future projects. In France, for example, some large projects put in place external bodies to track long-term environmental and economic impacts (Box 2.9). The accuracy of future appraisals can be improved by comparing ex-post outcomes with the expected outcomes identified in the appraisal of completed projects. Elements of the appraisal that may benefit from this approach include assumptions, projections and modelling methodologies. A stronger understanding of the uncertainty inherent in project appraisal can contribute to better scenario analysis, while information on the nature and extent of systemic bias (e.g., optimism bias) can help to correct these biases in future appraisals. Finally, by systematically assessing actual outcomes against initial claims, ex-post assessment can increase accountability (ITF, 2021[47]).

Box 2.9. Ex-post evaluations of transport projects in France

In France, ex-post evaluation of large transport projects has been mandatory since 1982. The aims are to: (a) inform the public about project outcomes, especially the extent and causes of any differences between outcomes and initial estimates; (b) account for the use of public funds by evaluating the effectiveness of investments; and (c) provide feedback to the project appraisal process.

The ex-post evaluation process is largely done independently of the entity responsible for the initial project appraisal. In some cases, independence is achieved by allocating responsibility to different parts of the same entity. For example, the Audit and Risks Department within SNCF Réseau (the network manager) performs evaluations of rail projects. In all cases, however, evaluations are supplemented by an independent opinion from L'inspection générale de l'environnement et du développement durable (General Inspectorate for the Environment and Sustainable Development).

Some projects adopt a permanent observatory model. Permanent observatories are external bodies that track projects over time, gathering data on projected costs, timelines and actual results. Contracts for the two most recent high-speed rail projects required the private operators to establish and finance permanent observatories to measure their environmental and economic effects.

Source: (ITF, 2022[49])

The Ministry of Regional Development could work with other infrastructure stakeholders to standardise and expand the use of ex-post evaluations to ascertain whether expected benefits were achieved and whether projects were cost-effective. This could include developing standardised, data-based approaches for conducting ex-post evaluations and ensuring evaluation results are available across sectors for planning and to inform operational decision making. This is already being done in some sectors: in the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated that the project appraisal process in the transport, energy and water sectors included ex-post analysis of similar projects. Similarly, Czechia's Evaluation Library[7], hosted by the National Coordination Authority, catalogues evaluation and monitoring information for projects and programmes financed by EU funds. Standardising these approaches and expanding them across sectors and funding sources could improve decision making and transparency and allow for comparison and learning across sectors.

Czechia could also expand existing commitments to evaluate the performance of transport sector investments and benchmark them against European peers to progressively include other priority sectors over time. This could provide greater insights into the effectiveness and efficiency of past investments, improve future decision making, and help to identify areas of success and areas for improvement. It could also include establishing a system for the ongoing monitoring of asset performance during the operational phase of the infrastructure lifecycle, potentially including introducing obligations for entities responsible for infrastructure to publicly report on its condition and use (OECD, 2020[11]).

Continuing to monitor and collect data on infrastructure performance after a project has been implemented can provide valuable inputs into decision making and allow for remedial action as required. The use of tools such as key performance indicators to oversee the performance of infrastructure service delivery can help to monitor and benchmark the performance of infrastructure in the delivery phase (OECD, 2017[1]). The effective monitoring of asset performance depends on ensuring the systematic collection, storage, and management of relevant data over the entire infrastructure lifecycle. Similarly, better data can support decision making for resilience: information about past risks and potential threats as well as systematic data collection on the resilience levels of infrastructure assets are key to understanding a system's continued capacity to withstand shocks. For example, Switzerland uses a comprehensive database (ProtectMe) to

monitor the aging process and vulnerabilities of existing protective infrastructure, including information on the status of maintenance and protection capacity (OECD, 2021[14]).

Summary of key recommendations

Given the challenges of implementing a full suite of reforms, Czech authorities could consider sequencing the recommendations made above. By grouping recommendations according to the time horizon needed to implement them effectively (short term, and medium to long term), Czech authorities could allocate resources to reforms in a way which would provide incremental benefits. A potential sequencing is included below.

Short-term reforms

1. **Improve the quality and sharing of data.** Evidence-informed decision making on infrastructure investment can be supported by data ranging from the condition of existing assets, the use of infrastructure (e.g., traffic and ridership data), and demographic trends and distributions. Sharing data across entities and sectors can provide access to a broader evidence base, helping to identify common challenges and opportunities.

- The Ministry of Regional Development could work with relevant ministries, state funds, regions, and municipalities to develop infrastructure data guidelines and standards to improve data consistency and accuracy.
- The ministry could also invest in capacity building for relevant ministries, state funds, regions, and municipalities for data management and analysis to ensure they have the necessary skills to collect, store and use data effectively.

Medium to long-term reforms

2. **Introduce consistent and transparent appraisal of project costs and benefits across sectors.** A standard, transparent approach to project appraisal could support consistent prioritisation and the efficient use of resources across sectors. Project appraisal should consider Czechia's overarching economic, social and environmental objectives, but be flexible enough to account for differences across sectors in terms of needs, timelines, stakeholders and decision-making processes.

- Develop guidelines and methodologies for project appraisal through a joint approach with the Ministry of Regional Development and other infrastructure stakeholders, to ensure sectoral differences are reflected in a standardised approach.
- Increase the transparency and accountability of infrastructure investments by publishing project appraisals to enable review by external stakeholders. Consider expanding the independent review of project appraisals, for example by co-operating with external experts or enhancing the current role of the Ministry of Finance in project reviews.

3. **Standardise and expand the use of ex-post evaluations of infrastructure investments.** Ex-post evaluations are an important accountability mechanism, determining whether expected benefits were achieved. They can also inform future decision making. A common methodology and guidelines for ex-post evaluations across sectors and undertaking them systematically would improve future investment decisions and enhance accountability.

- Develop a standardised cross-sectoral methodology based on existing approaches for evaluating projects in the transport sector and projects financed by EU funds.
- Expand on existing commitments to evaluate the performance of transport sector investments and benchmark them against European peers to progressively include other priority sectors over time.

2.3 Investing in infrastructure delivery capacity

Even with strong strategic planning and robust project appraisal processes in place, poor delivery can limit the benefits of infrastructure investment (OECD, 2020[35]). How infrastructure is delivered impacts value for money, risk and affordability. Choosing high-value projects in a well-integrated strategic framework is of limited use if those projects are not delivered efficiently and effectively. Effective infrastructure procurement processes can also generate broader economic, environmental, and social returns and be used strategically to incentivise innovation, including in the transition to low-carbon infrastructure and the adoption of digital technologies (OECD, 2017[1]).

Inefficient infrastructure procurement can increase tendering costs, delay project implementation, reduce competition and inhibit innovation. While the infrastructure procurement process should deliver projects in a way that maximises value, procurement strategies are frequently based on the habits and capacity of contracting authorities rather than on strategic choices (OECD, 2021[14]). Smaller contracting authorities in particular may lack the resources, expertise, and experience required. Capacity building, shared services, collaboration, simplified procedures and a supportive regulatory framework can all help to overcome these challenges. Tailoring procedures to the needs and capabilities of small contracting authorities and providing clear guidance and standards to support compliance are other useful actions.

The capacity of the public procurement workforce is critical for efficient delivery and achieving value for money (OECD, 2023[50]). Effective procurement requires expertise in a range of areas, including project management, legal and regulatory frameworks, and technical knowledge of the services and works being procured. Given the complexity of infrastructure procurement, a lack of expertise or inadequate resources can lead to poor decisions, delays and cost overruns. Infrastructure procurement can be time-consuming and challenging for contracting authorities, leading to delays and inefficiencies. For this reason, the OECD's Recommendation on the Governance of Infrastructure advises adherents to ensure that the procurement workforce has the capacity to deliver value for money by providing tools to improve procurement skills and competencies (OECD, 2020[15]). Denmark's National Building Fund provides an example of how a central institution can improve infrastructure investment by smaller bodies through financial and technical support (see Box 2.10.).

Box 2.10. Denmark's National Building Fund

Almost 1 million people, approximately 17% of Denmark's population, live in the social and affordable housing sector, composed of around 600 000 housing units**.** The National Building Fund, created in 1967, is a key pillar of Denmark's social and affordable housing model. An independent institution outside the state budget, the Building Fund is financed by a share of tenants' rents (amounting to 2.8% annually of the total acquisition cost of the property), in addition to housing associations' contributions to mortgage loans (approximately 2% of the property acquisition cost). The fund finances the expansion of new social and affordable housing and the renovation of existing properties. This includes improvements to inside and outdoor areas, modernisation to improve access for elderly and disabled people, and energy improvements. Support from the fund is obtained through applications submitted by the housing organisations and allocated using objective criteria.

The fund's experience illustrates how the construction industry is central to the objective of renovating social housing: by mobilising the private sector through public procurement, the National Building Fund is able to implement a EUR 4 billion green renovation programme.

Along with financial support, the fund provides the sector with expert knowledge, data, and IT tools. It produces statistics, key figures and analysis of the social housing sector. Moreover, the fund holds various types of master data for the social housing sector. Based on the data it collects and maintains, the fund has developed various IT tools, such as an accounting database and a so-called Twin Tool that makes it easier to benchmark specific housing organisations against their peers.

Source: (Madsen, 2021[51]) (OECD, 2020[52])

Czechia's context and institutional structure intensify common public infrastructure procurement challenges. The infrastructure governance system is fragmented, with different entities responsible for infrastructure decision making, funding, and implementation, leading to co-ordination challenges. Many entities do not have long-standing experience undertaking infrastructure investment or the resources to invest in building capacity. Small municipalities can find it difficult and expensive to prepare tenders and administer contracts in accordance with the national public procurement framework. Despite a focus on green, social and innovation procurement at the policy level (the consideration of environmental, social and innovative criteria is mandatory for all tenders), the capacity of contracting authorities to carry out complex procurements is often limited. The overall administrative burden of public procurement and the need to comply with complex requirements is also seen as a significant barrier to accessing EU funds. The government has made efforts to increase market capacity through initiatives such as webinars for potential suppliers, but interest has been limited. The recent inflation (Chapter 1) has exacerbated these market capacity challenges, leading suppliers to revisit contracts due to rising input costs and, in some cases, abandoning projects. Czech authorities also face challenges from contracting authorities' weak capacity and skills to develop procurement strategies and prepare tender documents. The focus of public authorities, including at the national level, is primarily on complying with procurement legislation and regulations, rather than the strategic use of procurement to deliver outcomes and value for money.

Choosing the wrong procurement strategy can lead to cost overruns, delays, or quality issues. The choice of procurement strategy involves trade-offs between the capabilities to be retained in-house and those sourced from the market, whether projects should be procured through a single or several contracts (e.g. bundling lifecycle phases), and the bidder selection process (OECD, 2021[53]). Czechia has limited experience with the use of public-private partnerships (PPPs) and other non-traditional delivery models for major infrastructure projects. PPPs and other non-traditional models are complex to design, negotiate and implement. Expanding their use will require carefully evaluating available delivery models, including consideration of value for money and the optimal allocation of financial, legal and delivery risk.

By improving delivery capacity, the Ministry of Regional Development could help to ensure that Czechia is able to maximise value for money from its large planned infrastructure investments. The following sections propose steps to improve infrastructure delivery capacity in Czechia by increasing support for project preparation, using tools like framework agreements, developing public sector procurement capacity and developing a consistent, evidence-informed approach to decisions on infrastructure delivery models. While measuring the impacts of better infrastructure delivery is challenging, one study found that improving infrastructure delivery could save 15% of total infrastructure expenditure through measures such as streamlining project delivery, increasing investment in early-stage project planning and design, and taking a more strategic approach to procurement (Dobbs et al., 2013[34]). Though simplified, this figure provides a general sense of the scale of the opportunity.

Increase support for project preparation

The Ministry of Regional Development could work with other stakeholders to build capacity and increase support for project preparation. While some institutions, such as the Ministry of Transport, have sophisticated project preparation processes in place, others are less advanced. Smaller entities in particular face challenges with project preparation. For example, the costs of project design and land acquisition are not eligible for inclusion under most granting programmes, meaning that municipalities often lack the resources to put forward projects for consideration. Municipalities also find it expensive and technically challenging to contract the professional services (e.g., environmental impact assessments, technical feasibility studies) required to apply for infrastructure investment financing. These challenges in project preparation have a particularly large impact in the housing sector, as it is municipalities that are primarily responsible for the delivery of affordable housing projects. In the case of the State Investment Support Fund, municipal projects generally need to have obtained planning permission and building permits and gone through the procurement process before a grant or loan agreement is finalised. The grant or loan is only disbursed as construction work is carried out, which can create financing challenges. This approach, however, is not universal in Czechia: the State Environmental Fund has issued special calls for project preparation to provide support for large project development (including the development of feasibility and cost-benefit analysis).

To improve project quality and incentivise early planning and preparation, ministries and state funds could consider including project preparation in eligible costs when developing grant programmes. Preparation costs have been estimated to range from approximately 3-5% of total project costs (Global Infrastructure Hub, 2019[54]), but investing in project preparation can have significant downstream benefits. Smaller municipalities in particular could benefit from support with project design and preparation. Ministries and agencies could consider the increased use of two-round calls, with the first-round funding project preparation and design or reimburse preparation costs after construction approval.

The Ministry of Regional Development could also take steps to provide direct access to expertise, specialised support and advice on project preparation. Public sector organisations such as small municipalities could be provided with expertise or direct technical assistance in areas such as, for example, financial modelling and business case development. Specialised training could be offered in technical, economic, environmental and social analysis to support investment appraisals, as well as increased access to and training in data analytics tools. Support could also focus on preparing projects to align with EU objectives and requirements, such as the application of the ‘Do No Significant Harm’ principle. For example, the Ministry of Regional Development’s proposed Housing Investments Advisory Hub could play a role in developing methodologies, formulating best practices, guidelines and frameworks for the effective preparation of affordable housing projects. These could include areas such as site selection, financial structuring, and stakeholder engagement. The Housing Investment Support Centres could work with municipalities to support the application of these methodologies at the local level. Box 2.11 provides examples from Ireland of initiatives and institutions working to provide both direct support and build the capacity of contracting authorities.

Box 2.11. Building project delivery skills in Ireland

The Office of Government Procurement's Commercial Skills Academy

Ireland's Office of Government Procurement (OGP), part of the Department of Public Expenditure, National Development Plan Delivery and Reform, was established in 2013 with the goal of maximising value for money and operational efficiency through the central management of public procurement. One of the OGP's roles is co-ordination and capacity building in the public procurement system.

The OGP established the Commercial Skills Academy in 2019. Its objective is to provide public servants with an understanding of key issues, commercial skills, and best practice approaches for effective project delivery throughout the entire lifecycle of a public investment project. The Commercial Skills Academy is centrally funded by the Irish government and delivered at no cost to participants. The academy is currently focused on Ireland's Capital Works Management Framework, which consists of a suite of best practice guidance, standard contracts and mandatory generic template documents that must be used by contracting authorities on projects which are more than 50% publicly funded. It also contains template prequalification questionnaires, instructions to tenderers, forms of tender and contracts.

The Commercial Skills Academy's offerings include:

- A six-day training programme in using the Capital Works Management Framework, focused on decision making rather than process. Most participants are construction qualified e.g. (engineers, architects) employees of organisations such as local authorities and the Department of Public Works, but eligibility is generally wide and also includes housing authorities, who are not strictly public sector employees.
- Online self-directed training providing an introduction to procurement legislation and rules, Ireland's Public Spending Code and the Capital Works Management Framework.
- Specialist masterclasses on key topics for the delivery of infrastructure projects such as dispute resolution and contract management. Training is delivered by practitioners from the public and private sector.
- Three-day training courses aimed at senior decision makers overseeing organisations delivering public-funded projects, and covering project governance and oversight, risk and cost management.
- Conference-style presentations on a specific theme such as green public procurement or building information modelling, with presenters from public and private industry.

Training sessions are also recorded and available online. The OGP also facilitates regional roundtables and networks to provide opportunities for networking and co-ordination among contracting authorities. As it begins to expand beyond the structured Capital Works Management Framework to other areas of procurement, the academy is placing a greater focus on understanding the existing competencies and proficiencies of the workforce.

The Housing Agency

Ireland's Housing Agency was established in 2012 as a centre of expertise to support housing policy development, and to collaborate with partners to implement effective housing programmes. The Housing Agency is a non-commercial state agency under the Department of Housing, Local Government and Heritage and is governed by a board appointed by the minister. Its operations are funded primarily through a grant from the department.

The Agency's Procurement Unit was created in 2016 and supports local authorities and approved housing bodies in Ireland with social housing construction, regeneration, infill, upgrade, and procurement projects. It has specific expertise, knowledge, and experience in the planning, design, and construction of public housing and has worked with partners on a range of housing projects, supporting the delivery of over 3 300 homes in 2021.

The agency offers technical assistance and support for all stages and sizes of public housing projects. This can include general design and procurement advice, preparing tender documents and managing the tender process for procuring consultants and works contractors in accordance with Irish and EU procurement regulations. It also provides support for project management and design, and contract administration. For example, it has established a framework agreement managed by Ireland's Office for Government Procurement for architect led-design teams.

Source: (The Housing Agency, 2022[55]; The Housing Agency, 2022[56])

Increase the use of framework agreements, particularly for procuring professional services

Framework agreements are umbrella agreements for the future supply of goods, services or works. They establish the terms governing contracts to be awarded by one or more contracting authorities during a given period, including maximum price, minimum technical specifications and, where appropriate, quantities (OECD, 2014[57]). For frequently purchased goods, services and works, a framework agreement can reduce administrative burdens for contracting authorities and suppliers alike, by allowing simplified ordering processes once the agreement is in place. If structured to allow second stage competition, where multiple suppliers under a framework agreement compete on price, they can also generate additional cost savings (OECD, 2016[58]). Framework agreements can also help address competition challenges: it can be difficult for small contracting authorities to attract bids from suppliers with the necessary expertise and experience on their own.

The Ministry of Regional Development could encourage the expanded use of procurement tools such as framework agreements. It could identify initial areas of focus for framework agreements by aligning the government's priorities, such as housing and the green transition, with the priorities of small contracting authorities, such as challenges with project preparation and planning. It could also work with other national bodies to provide smaller contracting authorities, such as municipalities, with access to frameworks developed by larger contracting authorities.

Framework agreements for the development of public housing projects could provide a useful test case. The proposed Housing Investment Support Centres could play a role in facilitating the development and management of framework agreements to enable municipalities to more easily access services for developing affordable housing projects. The Support Centres could work closely with municipalities to identify their specific requirements and establish framework agreements outlining the terms and procedures for municipalities to access a pool of pre-qualified service providers. By centralising the procurement process, the Support Centres would be able to streamline the selection and contracting of services, reducing the administrative burden for municipalities and ensuring consistency in quality and pricing.

Attention should be given to the design of framework agreements to avoid regional disparities which could hamper infrastructure investment objectives. As a result of the need to standardise, framework agreements run the risk of neglecting the needs of specific contracting authorities. This diversity of needs can be addressed by dividing frameworks into lots. In the case of Czechia, it would be important to ensure frameworks are accessible to contracting authorities across the country and that successful suppliers are not concentrated in specific urban areas. This could be accomplished by dividing frameworks into regional lots. Very small contracting authorities, such as some municipalities, might also struggle to attract bids due to the low value of their needs. This could be addressed by creating a low-value lot to award contracts

below a certain threshold. To ensure that lots are awarded to different suppliers, contracting authorities can also limit the number of lots for which economic operators can bid or which a single economic operator can be awarded. These approaches, however, must be balanced against the risk that some lots may not receive bids or that economies of scale will be diminished (SIGMA, 2016[59]; OECD, 2014[57]).

Developing framework agreements requires an understanding of contracting authorities' requirements, as well as the capabilities and capacity of the market. Framework agreements also require follow-up to ensure that they allow for the successful matching of needs with market capabilities. Supporting contracting authorities and suppliers while initiating framework agreements helps to create a structured environment. Support can include information events, guidance for contracting authorities and suppliers on how to use the framework, help-desk services, and training to both contracting authorities and suppliers. For example, Finland has developed templates to be used by contracting authorities during the call-off stage to ensure that key procurement principles, such as fairness and transparency, are included (OECD, 2017[60]).

Develop the procurement capacity of the public sector

Infrastructure procurement involves complex legal, financial, technical and operational considerations that require specialised knowledge and skills. If public sector officials lack this procurement expertise, they may struggle to deliver infrastructure investments effectively. In Czechia, public procurement is seen as a significant barrier to accessing and efficiently using EU funds, hindering absorption and making it challenging to complete projects within programme time limits.

The large number of contracting authorities in Czechia makes it challenging to build the professionalisation of the procurement workforce. There are over 1 800 active contracting authorities at the central, regional and local level responsible for their own public procurement, without central co-ordination. While large contracting authorities often have a specialised purchasing department, regional and local authorities often lack full-time public procurement professionals (European Commission, 2020[61]). These smaller contracting authorities often need to hire consultants to undertake procurements, increasing project costs and administrative overhead.

The Ministry of Regional Development could provide infrastructure-specific support to increase the professionalism of the procurement workforce. The ministry is responsible for public procurement legislation and regulation in Czechia and has been active in professionalising public procurement through the development of training. This has included capacity building seminars and specialised training in specific areas (e.g., professional seminars for hospitals focused on the procurement of medicines and medical supplies). The ministry also co-operates with professional organisations and other relevant institutions to develop methodological guidance on public procurement. Other national institutions also provide support. The Ministry of the Environment publishes methodological guidance for green public procurement and the Ministry of Labour and Social Affairs has published reports highlighting good practice on the use of social procurement in Europe and Czechia (Ministry of Labour and Social Affairs, 2017[62]; Ministry of Labour and Social Affairs, 2019[63]; Ministry of the Environment, n.d.[64]). The Office for the Protection of Competition has also offered seminars and training on public procurement, including an educational programme for small communities focused on multi-criteria evaluation, prepared jointly with the Union of Towns and Municipalities of Czechia (European Commission, 2020[61]).

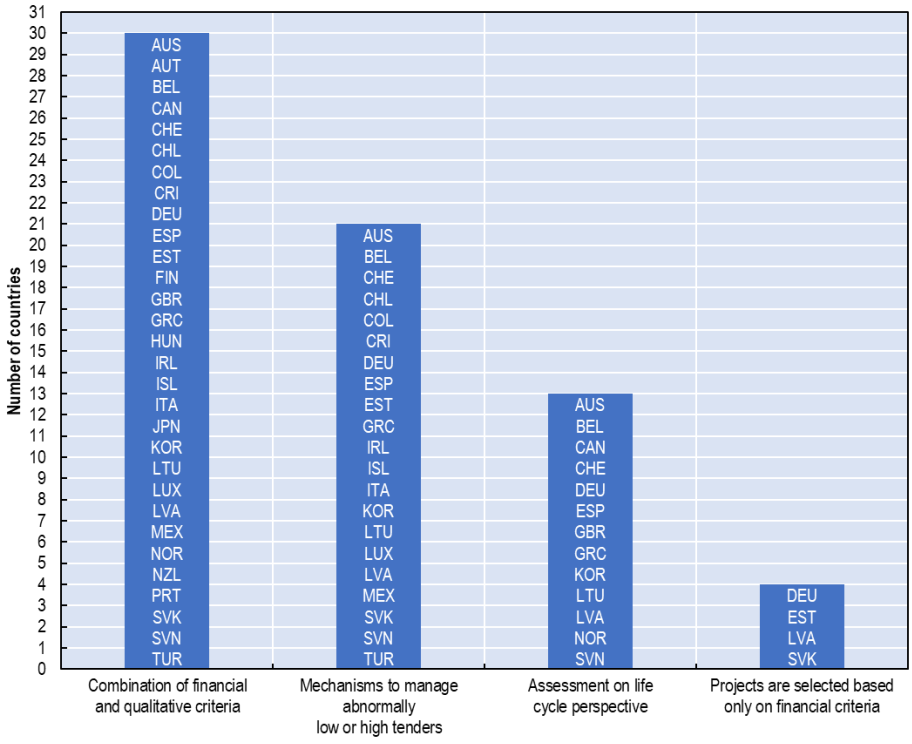
More capacity is also needed in the use of strategic procurement by contracting authorities. It is important for contracting authorities to consider non-financial criteria in order to achieve strategic policy goals, particularly those related to the green transition. However, strategic procurement can be more complex, requiring specific technical and legal expertise. Small contracting authorities may struggle to ensure compliance and are often risk averse, while sometimes lacking a clear understanding of the potential benefits. A 2020 report prepared by the Union of Towns and Municipalities highlighted the following barriers to the use of strategic procurement in Czechia (Union of Towns and Municipalities of Czechia, 2020[65]):

- Administrative complexity: Strategic procurement requires a higher level of experience and knowledge and there is no generic guidance or model forms that can be followed. It also requires decisions about when and how to apply different aspects of strategic procurement.
- Lack of market capacity and interest: Contracting authorities are already faced with a market environment characterised by low interest from potential suppliers. There is a concern that additional requirements will further discourage suppliers from bidding for public contracts. They are also concerned that suppliers will not be able to meet additional performance requirements related to strategic procurement.
- Higher prices and lower quality: Contracting authorities are concerned that the requirements of strategic procurement will result in higher prices. In the area of social procurement, they are reluctant to require the involvement of disadvantaged people in the labour market due to quality concerns.
- Challenges with managing supplier performance: Contract management and evaluating supplier compliance is more complex for strategic procurement. For example, contracting authorities found it more technically complex or administratively burdensome to verify whether suppliers were meeting environmental and social requirements.
- Challenges with compliance and control bodies: Contracting authorities are concerned that using strategic procurement imposes additional risks of non-compliance with legal and regulatory requirements. They reported that control bodies were generally not aware or supportive of strategic procurement. Contracting authorities tend to be particularly cautious in the case of procurements financed by EU funds.

In the 2020 OECD Survey on the Governance of Infrastructure, all surveyed countries reported employing a combination of financial and qualitative criteria to select proposals (Figure 2.6). However, less than half use lifecycle costs for awarding contracts (13 out of 30 OECD countries or 43%; 7 out of 16 EU countries or 44%). While Czechia did not respond to this question in the 2020 OECD Survey, officials interviewed for this project noted an increasing emphasis on sustainable procurement, with a focus on green, social and innovation factors. However, capacity challenges make more complex procurements challenging for many contracting authorities. Officials indicated that tender selection is almost always made on the basis of price rather than best value, as the use of non-financial criteria requires more capacity and expertise from contracting authorities. Recognising this challenge, the Policy Statement of the Government commits to expanding methodological support for public procurement to make it easier for buyers to consider non-financial criteria (Government of Czechia, 2022[6]). There may also be areas of good practice which could form the basis for knowledge sharing: Czech officials identified the rail sector as a good practice example of the use of best value in procurement.

Figure 2.6. Nearly all OECD countries combine financial and qualitative criteria to select proposals

Mechanisms used by OECD countries to help identify proposals offering the best value for money, 2020



Note: Data for Belgium are based on the survey responses from Flanders only.
Source: OECD (2020), Survey on the Governance of Infrastructure.

Procurement capacity can be built through the use of methodological assistance tools (e.g., guidelines, manuals, standardised templates, a help desk, direct support and advice to implementing actual procurement procedures), and practical training (on-the-job training, mentoring, and job swapping). Examples include:

- Providing examples and guides to encourage innovation and the adoption of good practices in the construction industry. For example, a Danish Housing Authority initiative is working to provide easily accessible examples of cheap, sustainable construction for builders, consultants, project supervisors, contractors and manufacturers of building materials (Ministry of the Interior and Housing, 2021[66]). Encouraging and facilitating the use of modular construction is also anticipated to have benefits including reducing costs, accelerating build times, and providing greater cost certainty (McKinsey & Company, 2019[67]; Global Infrastructure Hub, 2020[68]).
- Developing templates and standardised contracts and tender documents to simplify the procurement process and reduce administrative burdens for contracting authorities and the private sector (as in Ireland's Capital Works Management Framework, outlined in **Box 2.11**.
- Encouraging and supporting the use of innovative tools such as building information modelling (BIM). By providing a comprehensive and integrated approach to project design, construction and management, the use of BIM can help to improve collaboration between stakeholders throughout the infrastructure lifecycle.
- Tools such as ProcurComp^{EU}, the European public procurement competency framework, may also be useful in identifying areas of strengths and weaknesses (Box 2.12).

There may be a role for the Ministry of Regional Development's proposed Housing Investments Advisory Hub and expert centres to develop good practices in procurement related to housing, and for regional centres to disseminate and promote methodologies. The hub and national centres could also work to ensure alignment and co-ordination across national institutions providing methodological support for procurement by municipalities in sectors other than housing, such as the Ministry of the Environment, Ministry of Labour and Social Affairs and the Office for the Protection of Competition, as well as engagement with relevant control bodies.

Box 2.12. ProcurComp^{EU}: The European competency framework for public procurement professionals

In 2017, the European Commission issued a Recommendation on the professionalisation of public procurement to encourage Member States to develop public procurement professionalisation policies and initiatives. The Commission supports Member States by providing guidance to practitioners, training, technical assistance and facilitating the exchange of good practices and innovative approaches. As part of this support, ProcurComp^{EU} is a voluntary tool developed by the Commission to help contracting authorities, public procurement authorities and training organisations to identify and address competences that require strengthening.

Overview of ProcurComp^{EU}

ProcurComp^{EU} consists of three elements:

- **A competency matrix** which defines 30 competences (knowledge, skills and attitudes) that public procurement professionals should demonstrate in order to carry out public procurement procedures that bring value for money. The competences are grouped in two main categories: procurement-specific competences and soft competences.
- **A self-assessment tool** which public procurement professionals and organisations can use to assess their levels of proficiency and organisational maturity in the different competences identified in the competency matrix.
- **A training curriculum** which outlines the content of training for developing the competences in the competency matrix. The training curriculum describes the standard training content and learning outcomes for 30 training modules.

ProcurComp^{EU} implementation case study: Slovenia

The Slovenian Public Procurement Directorate's (PPD) main tasks are public procurement policy design and implementation, developing e-procurement tools and services, and providing assistance to contracting authorities and economic operators that carry out or participate in public procurement procedures. The PPD implemented ProcurComp^{EU} as part of its professionalisation action plan. The PPD developed a Slovenian-specific competency framework (including competency matrix and job profiles), self-assessment tool and training curriculum adapted from ProcurComp^{EU}. These tools form part of the training programme, called the Public Procurement Academy. The PPD takes a gradual approach to the implementation of the training curriculum: it will first be voluntary, before potentially becoming mandatory, and could possibly lead to a certification. This approach will allow for the adjustment and refinement of the training curriculum content or implementation process to ensure it responds to the expectations and needs of stakeholders.

Source: (OECD, 2023[50]; European Commission, 2020[66]; European Commission, 2020[67])

Develop a consistent, evidence-based approach to deciding infrastructure delivery models

Public-private partnerships (PPPs) have become a prominent method for delivering public infrastructure globally. They can deliver value for money when the right institutional capacities and processes are in place. However, there should be no institutional, procedural or accounting bias either in favour for or against PPPs. Instead, long-term planning and project appraisal should guide project choice independently from decisions on how those assets are delivered (OECD, 2017[1]). The OECD Recommendation on the Governance of Infrastructure advises adherents to carefully evaluate available delivery modes against previously defined criteria based on projects' characteristics, optimal risks allocation and the use of value for money analytical tools (OECD, 2020[15]). Given the range of choices, countries should determine their approach to procurement based on a careful evaluation of the national, sectoral and project-specific context, rather than applying one delivery strategy to all projects by default.

There is a renewed interest in the use of PPPs in Czechia following a period when their use was not generally considered at a national level. This was largely due to negative experiences with PPPs in the 1990s and 2000s, which led to political sensitivity and discouraged the use of these alternative financing and delivery modes. A PPP Unit previously existed in the Ministry of Finance, and was responsible for preparing tender documentation, undertaking feasibility studies and providing guidance and advice, but it has become inactive. There is currently one highway project being delivered as a PPP at the national level: the D4 Highway PPP project consists of the construction of approximately 32 km of new highway, and the operation and maintenance of approximately 16 km of existing highway for a period of 28 years under a design-build-finance-operate-maintain model (including approximately four years of construction). A subsequent highway project, the D35, is also being prepared for PPP delivery.

The Policy Statement of the Government commits to evaluating the PPP delivery of the D4 motorway and to considering the use PPPs in other transport infrastructure projects (Government of Czechia, 2022[6]). While there is currently no formal system at the national level for deciding on the most appropriate delivery model, new national guidelines for the development of affordable housing through PPPs are currently being drafted. A legislative amendment is also underway which would enable the issuance of bonds to finance transport infrastructure and to implement PPPs across all transport modes (State Fund for Transport Infrastructure, 2022[68]).

The Ministry of Regional Development could work with the Ministry of Finance to establish a standard framework for making decisions on infrastructure delivery models. This could include using specific methodologies for assessing value for money, including creating an analytical tool for comparative assessment of service delivery options. Factors to be considered could include projects' scale and duration, the scope for innovation and design integration, and the assessment of relevant risk transfers and financial design (OECD, 2020[35]). This type of analysis should consider aspects such as the comparative costs of financing, construction, maintenance and operations over the whole lifetime of the project; whether project risks can be clearly defined and measured; the level of market competition and capacity; the extent to which the project outputs can be clearly and completely defined ex-ante; whether the project is of sufficient size to justify PPP transaction costs; and the potential for whole-of-life benefits and innovation from combining different phases in one contract (OECD, 2012[69]). This could allow the advantages and weaknesses of PPPs to be compared to traditional delivery and other forms of private capital involvement in infrastructure projects in an evidence-informed and consistent way.

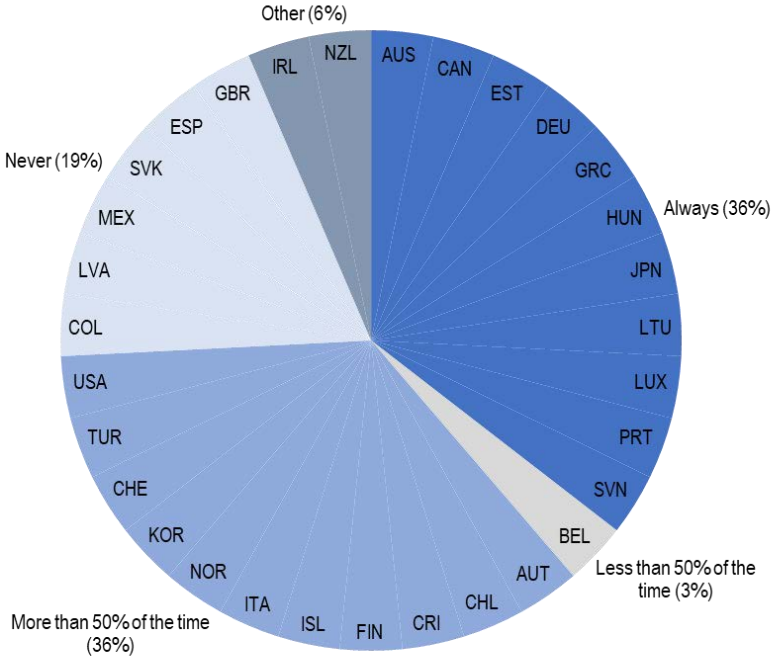
To help ensure that decisions are informed by evidence and to build public trust, delivery model selection could be made more transparent. This could include publishing information about PPP projects and the value-for-money analysis and involving relevant stakeholders, such as civil society organisations, in the decision-making process. Analysis should be scaled to the complexity and size of the project. It could be conducted by the entity responsible for the project and reviewed by a body with the necessary expertise, such as the Ministry of Finance. In the 2020 OECD Survey on the Governance of Infrastructure, Czechia indicated that formal bodies such as parliamentary committees and audit institutions were involved in

overseeing infrastructure delivery, but civil society organisations and the wider public were not. The OECD's Principles for the Public Governance of Public-Private Partnerships suggest that active involvement by non-government organisations can create transparency for problematic issues that might otherwise be overlooked and become serious problems if not addressed at an early stage (OECD, 2012[69]).

A strong decision-making framework could help ensure the PPP model is applied where there is evidence for increased value for money. Economic efficiency and value for money throughout the lifecycle of the asset should be central to decisions on how to mobilise private investment to deliver infrastructure. PPPs are therefore only one of several alternatives or tools for infrastructure financing, and their applicability depends on individual cases. While they offer advantages such as access to private sector financing and expertise, they can be complex and require careful oversight. Given their long-term nature, particular care should be given to assessing value for money and aligning the objectives of the public sector with the profit objectives of the private partner (OECD, 2012[69]).

The 2020 OECD Survey on the Governance of Infrastructure asked countries whether the decision to procure an asset was made before the choice of delivery mode (Figure 2.7). Most surveyed countries indicated that they always (11 out of 31 OECD countries or 36%; 8 out of 16 EU countries or 50%) or more than 50% of the time (11 OECD countries or 36%; 3 EU countries or 19%) decide on the procurement of an asset before choosing the mode of delivery. Only 23% of OECD countries (7 out of 31) reported choosing the delivery model before deciding to procure the project more than 50% of the time.

Figure 2.7. Most OECD countries usually decide to procure an asset before choosing the delivery mode



Note: Data for Belgium are based on the survey responses from Flanders only.
Source: 2020 OECD Survey on the Governance of Infrastructure.

Czechia could leverage the capacity being developed in the Ministry for Transport and State Fund for Transport Infrastructure through the implementation of projects like the D4 motorway to inform the future development and delivery of PPPs across government. This would allow the government as a whole to learn and improve the quality of future projects, help reduce risks, and deliver infrastructure more effectively. It could also help build institutional capacity across sectors and increase public confidence in the PPP model by showing that government is learning from past experiences and seeking to improve the PPP process. Developing governance guidelines for the management of PPP contracts, including defining the roles and responsibilities of different stakeholders, establishing dispute resolution mechanisms and undertaking ongoing monitoring and evaluation, would all be valuable.

Czechia could consider reintroducing a specialised PPP Unit rather than having skills and approaches developed and concentrated in specific sectors such as transport and housing. Given the complexity of PPPs and their infrequent use, it can be advantageous to pool critical skills in a PPP Unit that is made available to the relevant ministries and agencies (OECD, 2012[69]). The unit could serve as a resource for ministries, agencies and subnational governments, providing guidance and support on PPP project development and implementation. Its role could also include collecting potential projects to build a PPP pipeline and encouraging collaboration and information sharing between stakeholders involved in PPP projects.

Summary of key recommendations

Given the challenges of implementing a full suite of reforms, Czech authorities could consider sequencing the recommendations made above. By grouping recommendations according to the time horizon needed to implement them effectively (short term, and medium to long term), Czech authorities could allocate resources to reforms in a way which would provide incremental benefits. A potential sequencing is included below.

Short-term reforms

1. **Improve investment efficiency by increasing the use of framework agreements.** For frequently purchased services and works, a framework agreement can secure the required expertise, generate savings and reduce administrative burdens for contracting authorities and suppliers.
   - The Ministry of Regional Development could develop and manage framework agreements for infrastructure services to enable smaller contracting authorities to efficiently access planning and project development services.
   - Use framework agreements for services related to public housing projects as a useful test case. The Ministry of Regional Development's proposed Housing Investment Support Centres could play a role in facilitating the development and management of framework agreements by working closely with municipalities to identify their specific challenges and needs in this sector.
   - Give careful attention to the design of framework agreements to avoid regional disparities which would hamper infrastructure investment objectives.
2. **Develop a consistent, evidence-informed approach to decisions on infrastructure delivery models.** There should be no institutional, procedural or accounting bias either in favour of or against PPPs. Long-term planning and project appraisal should guide project choice independently of decisions on how those assets are delivered. Given the range of choices, the approach to procurement should be based on a careful evaluation of the national, sectoral and project-specific context.

- The Ministry of Regional Development and the Ministry of Finance could establish a standard framework or analytical tool for decisions on infrastructure delivery models, including the comparative evidence-based assessment of delivery model options.
- Consider reintroducing a PPP Unit as a resource for ministries, agencies and subnational governments. Given the complexity of PPPs and their infrequent use, it can be advantageous to pool the skills and experience in a PPP Unit so that they can be made available to entities requiring such expertise.

Medium to long-term reforms

3. **Increase funding and direct support for project preparation to improve infrastructure delivery.** Smaller entities face challenges in project preparation, which is a particular issue for the housing sector as many municipalities lack long-term experience in undertaking investment or the resources to invest in capacity. This could be addressed by providing funding for project preparation activities and providing direct support in priority sectors such as housing.
- Ministries and state funds could include project preparation in eligible costs when developing grant programmes. Without the resources for project preparation, small municipalities can struggle to bring forward eligible projects.
- The Ministry of Regional Development could provide direct access to expertise, support, and advice on housing project preparation through its proposed Housing Investment Support Centres, given the importance of the sector in Czechia.

4. **Develop the procurement capacity of the public sector to improve value for money in project delivery.** Infrastructure procurement requires sophisticated legal, financial, technical and operational expertise. The large number of contracting authorities in Czechia makes it challenging to develop this expertise to deliver infrastructure projects effectively.
- The Ministry of Regional Development could provide infrastructure-specific support to increase the professionalisation of the procurement workforce, with a focus on increasing the use of non-financial criteria, including environmental criteria.
- The Ministry of Regional Development's proposed Housing Investments Advisory Hub and Housing Investment Support Centres would provide an opportunity to develop and directly apply good practices in the procurement of public housing. These capacity building activities could later be expanded to other sectors.

Notes

1 It is chaired by the Prime Minister and includes the ministers of the large infrastructure ministries.

2 https://portal.cenia.cz/eiasea/view/eia100_cr?lang=en

3 https://portal.cenia.cz/eiasea/view/SEA100_koncepce

4 https://dotaceeu.cz/cs/statistiky-a-analyzy/mapa-projektu

5 https://www.projektovezamery.cz/

6 Figures exclude countries that reported conducting assessments on an ad hoc basis.

7 https://dotaceeu.cz/cs/fondy-eu/narodni-organ-pro-koordinaci/evaluace/knihovna-evaluaci

References

Demmou, L. and G. Franco (2020), "Do sound infrastructure governance and regulation affect productivity growth? New insights from firm level data", *OECD Economics Department Working Papers*, No. 1609, OECD Publishing, Paris, https://doi.org/10.1787/410535403555. [4]

Department of Public Expenditure, NDP Delivery and Reform (2023), *Circular 06/2023: Update of the Public Spending Code Capital Spending Requirements*, https://assets.gov.ie/251585/daa5c0b1-4165-4a49-8668-d3137ac6e124.pdf. [37]

Department of Public Expenditure, NDP Delivery and Reform (2021), *National Development Plan 2021-2030*, https://assets.gov.ie/200358/a36dd274-736c-4d04-8879-b158e8b95029.pdf. [28]

Department of Treasury and Finance Victoria (2021), *Victorian Infrastructure Plan 2021*, https://www.dtf.vic.gov.au/sites/default/files/document/Victorian%20Infrastructure%20Plan%202021.pdf. [18]

Dobbs, R. et al. (2013), *Infrastructure productivity: How to save $1 trillion a year*, https://www.mckinsey.com/capabilities/operations/our-insights/infrastructure-productivity. [34]

European Commission (2021), *Analysis of the recovery and resilience plan of Czechia*, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0211. [7]

European Commission (2020), *ProcurCompEU Implementation in Slovenia*, https://commission.europa.eu/system/files/2021-04/procurcompeu-slovenia-en_1.pdf. [67]

European Commission (2020), *ProcurCompEU: European Competency Framework for Public Procurement Professionals*, https://commission.europa.eu/system/files/2020-12/procurcompeu-ecf_for_pp_en.pdf. [66]

European Commission (2020), *ProcurCompEU: Study on professionalisation of public procurement in the EU and selected third countries*, https://commission.europa.eu/system/files/2020-12/procurcompeu-study_prof_pp_en.pdf. [61]

European Commission (n.d.), *Open Data Portal for the European Structural Investment Funds*, https://cohesiondata.ec.europa.eu/2014-2020_cohesion_overview (accessed on 1 June 2023). [2]

Global Infrastructure Hub (2020), *Water Height and Flood Management System*, https://www.gihub.org/infrastructure-technology-use-cases/case-studies/water-height-and-flood-management-system/ (accessed on 5 April 2023). [44]

Global Infrastructure Hub (2019), *Leading Practices in Governmental Processes Facilitating Infrastructure Project Preparation*, https://cdn.gihub.org/umbraco/media/2344/gih_project-preparation_full-document_final_art_web.pdf. [54]

Government of Czechia (2022), *Policy Statement of the Government of Czechia*, https://www.vlada.cz/assets/jednani-vlady/policy-statement/Policy-Statement-of-the-Government.pdf. [6]

Government of Czechia (2019), *National Investment Plan of Czechia 2020-2050*, http://www.vlada.cz/assets/media-centrum/aktualne/Narodni-investicni-plan-CR-2020_2050.pdf. [8]

Government of Czechia (2017), *Strategic Framework Czechia 2030*, https://www.vlada.cz/assets/ppov/udrzitelny-rozvoj/projekt-OPZ/Strategic_Framework_CZ2030.pdf. [9]

Huerta Melchor, O. and J. Gars (2020), "Planning mobility in a fragmented metropolitan area: The case of Prague and its suburbs", *OECD Regional Development Papers*, No. 08, OECD Publishing, Paris, https://doi.org/10.1787/4cdf2d31-en. [20]

Infrastructure and Projects Authority (2021), *Assurance Review Toolkit*, https://www.gov.uk/government/collections/infrastructure-and-projects-authority-assurance-review-toolkit (accessed on 17 April 2023). [40]

Infrastructure and Projects Authority (2020), *About the IPA*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973834/About_the_IPA_2020_12.03.21.pdf. [41]

Infrastructure Victoria (2021), *Victoria's Infrastructure Strategy 2021-2051*, https://www.infrastructurevictoria.com.au/wp-content/uploads/2021/08/1.-Victorias-infrastructure-strategy-2021-2051-Vol-1.pdf. [16]

ITF (2022), *Broadening Transport Appraisal: Summary and Conclusions*, ITF Roundtable Reports, No. 188, OECD Publishing, Paris, https://doi.org/10.1787/a0e2e0a6-en. [49]

ITF (2021), *Developing Strategic Approaches to Infrastructure Planning*, ITF Research Reports, OECD Publishing, Paris, https://doi.org/10.1787/d8d6651c-en. [47]

Kim, J., J. Fallov and S. Groom (2020), *Public Investment Management Reference Guide*, Washington, DC: World Bank, https://doi.org/10.1596/978-1-4648-1529-4. [42]

Madsen, B. (2021), *The Covid-19 legacy: More Resilient Procurement Strategies?*, https://www.oecd.org/gov/public-procurement/infrastructure-and-public-procurement-webinar-series-2021.htm. [51]

Marine Information and Data Centre (n.d.), *Marine Information and Data Centre*, https://www.informatiehuismarien.nl/uk/about-us/ (accessed on 5 April 2023). [46]

Ministry of Industry and Trade (2020), *The National Energy and Climate Plan of Czechia*, https://www.mpo.cz/en/energy/strategic-and-conceptual-documents/the-national-energy-and-climate-plan-of-the-czech-republic--252018/. [31]

Ministry of Industry and Trade (2015), *State Energy Policy of Czechia*, https://www.mpo.cz/assets/en/energy/state-energy-policy/2017/11/State-Energy-Policy-_2015__EN.pdf. [32]

Ministry of Labour and Social Affairs (2019), *Responsible Public Procurement: European Practice*, https://sovz.cz/wp-content/uploads/2019/10/responsible-public-procurement-european-practice.pdf. [63]

Ministry of Labour and Social Affairs (2017), *Socially Responsible Public Procurement in Czechia: Selection of Best Practice Case Studies*, https://sovz.cz/wp-content/uploads/2017/08/sovz_case_studies_en_komplet.pdf. [62]

Ministry of Regional Development (2021), *Housing Concept of Czechia 2021+*, [29]

https://mmr.gov.cz/getmedia/30528174-7e61-421e-a058-5f39aa4f09c9/KB-2021-_komplet-web(C)_max.pdf.aspx?ext=.pdf.

Ministry of Regional Development (2019), *Regional Development Strategy of Czechia 2021+*, Ministry of Regional Development, https://mmr.cz/getmedia/a9985cb6-b672-4a97-a92c-c4c68bea2925/EN-III_ma_SRR-prac_doplneni-schemat-a-map_kontrola.pdf.aspx?ext=.pdf. [10]

Ministry of Regional Development (n.d.), *Strategy Database: Portal of Strategic Documents in Czechia*, https://www.databaze-strategie.cz/cz/info (accessed on 10 July 2023). [22]

Ministry of the Environment (n.d.), *Lean public administration*, https://www.mzp.cz/cz/setrna_verejna_sprava (accessed on 5 May 2023). [64]

Ministry of Transport (2021), *Transport Policy of Czechia for the period 2021-2027, with an outlook until 2050*, https://www.mdcr.cz/getattachment/Dokumenty/Strategie/Dopravni-politika-a-MFDI/Dopravni-politika-CR-pro-obdobi-2014-2020-s-vyhled/Dopravni_Politika_CR_ENG.pdf.aspx. [30]

Ministry of Transport (2018), *Departmental Guideline for the Evaluation of Economic Effectiveness of Transport Construction Projects*, https://www.sfdi.cz/soubory/obrazky-clanky/metodiky/2017_03_departmental-methodology-full.pdf. [33]

OECD (2023), "Delivering environmentally sustainable and climate-resilient infrastructure", in *Government at a Glance 2023*, OECD Publishing, Paris, https://doi.org/10.1787/2387658e-en. [19]

OECD (2023), *OECD Public Governance Reviews: Czech Republic: Towards a More Modern and Effective Public Administration*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/41fd9e5c-en. [5]

OECD (2023), "Professionalising the public procurement workforce: A review of current initiatives and challenges", *OECD Public Governance Policy Papers*, No. 26, OECD Publishing, Paris, https://doi.org/10.1787/e2eda150-en. [50]

OECD (2023), *Public Investment in Bulgaria: Planning and Delivering Infrastructure*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/b73ef3b4-en. [13]

OECD (2023), "Stakeholder participation in infrastructure decision making", in *Government at a Glance 2023*, OECD Publishing, Paris, https://doi.org/10.1787/59c7c2b2-en. [24]

OECD (2023), "Strengthening environmental considerations in public investment in Ireland: Assessment and recommendations", *OECD Public Governance Policy Papers*, No. 35, OECD Publishing, Paris, https://doi.org/10.1787/83b97aca-en. [38]

OECD (2022), *Survey on the Governance of Infrastructure - Part I: Ensure transparent, systematic and effective stakeholder participation*. [26]

OECD (2021), *OECD Implementation Handbook for Quality Infrastructure Investment: Supporting a Sustainable Recovery from the COVID-19 Crisis*, OECD Publishing, https://www.oecd.org/finance/oecd-implementation-handbook-for-quality-infrastructure-investment.htm. [14]

OECD (2021), "Procurement strategy in major infrastructure projects: Piloting a new approach in Norway", *OECD Public Governance Policy Papers*, No. 06, OECD Publishing, Paris, [53]

https://doi.org/10.1787/38996343-en.

OECD (2020), “Infrastructure Governance Review of Argentina”, *OECD Journal on Budgeting*, https://doi.org/10.1787/f2574b7b-en. [39]

OECD (2020), *OECD Compendium of Policy Good Practices for Quality Infrastructure Investment*, OECD Publishing, http://, www.oecd.org/finance/oecd-compendium-of-policy-good-practices-forquality-infrastructure-investment.htm. [35]

OECD (2020), *Policy Actions for Affordable Housing in Latvia*, https://issuu.com/oecd.publishing/docs/latvia_housing_report_web-1. [52]

OECD (2020), *Recommendation of the Council on the Governance of Infrastructure*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0460. [15]

OECD (2020), *Supporting Better Decision-Making in Transport Infrastructure in Spain : Infrastructure Governance Review*, OECD Publishing, Paris, https://doi.org/10.1787/310e365e-en. [11]

OECD (2020), *Survey on the Governance of Infrastructure*, https://qdd.oecd.org/subject.aspx?Subject=GOV_INFRA. [23]

OECD (2019), *The Path to Becoming a Data-Driven Public Sector*, OECD Digital Government Studies, OECD Publishing, Paris, https://doi.org/10.1787/059814a7-en. [43]

OECD (2017), *Getting Infrastructure Right: A framework for better governance*, OECD Publishing, https://doi.org/10.1787/9789264272453-en. [1]

OECD (2017), *Recommendation of the Council on Open Government*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0438. [25]

OECD (2017), “Strategic practices for the effective use of framework agreements in Chile”, in *Public Procurement in Chile: Policy Options for Efficient and Inclusive Framework Agreements*, OECD Publishing, Paris, https://doi.org/10.1787/9789264275188-6-en. [60]

OECD (2017), *The Governance of Land Use in the Czech Republic: The Case of Prague*, OECD Regional Development Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264281936-en. [12]

OECD (2016), *The Korean Public Procurement Service: Innovating for Effectiveness*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264249431-en. [58]

OECD (2014), *Manual for Framework Agreements*, https://www.oecd.org/gov/ethics/manual-framework-agreements.pdf. [57]

OECD (2012), *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0392. [69]

OECD (n.d.), *Ireland: National Development Plan 2021-2030*, https://infrastructure-toolkit.oecd.org/wp-content/uploads/Ireland_NDP.pdf. [27]

Office of Projects Victoria (n.d.), *Victorian Major Projects Pipeline*, [17]

http://www.opv.vic.gov.au/Pipeline (accessed on 17 April 2023).

Rijkswaterstaat (n.d.), *Rijkswaterstaat Publication Platform*, https://open.rws.nl/ (accessed on 5 April 2023). [45]

Ruiz Rivadeneira, A. and P. Mcmaster (2023), "Mapping institutional arrangements for infrastructure governance in OECD countries", *OECD Working Papers on Public Governance*, No. 62, OECD Publishing, Paris, https://doi.org/10.1787/31825d0d-en. [21]

Schwartz, G. et al. (eds.) (2020), *Well Spent*, International Monetary Fund, Washington, D.C., https://doi.org/10.5089/9781513511818.071. [3]

SIGMA (2016), *Division of Contracts into Lots*, OECD Publishing, https://www.sigmaweb.org/publications/public-procurement-policy-brief-36-200117.pdf. [59]

State Fund for Transport Infrastructure (2022), *Budget of the State Fund for Transport Infrastructure for 2023 and the medium-term outlook for 2024 and 2025*, https://www.sfdi.cz/soubory/obrazky-clanky/rozpocet/2023_rozpocet_text-rozpoctu.pdf. [68]

The Housing Agency (2022), *Annual Report 2021*, https://www.housingagency.ie/sites/default/files/2023-01/The%20Housing%20Agency%20-%202021%20Annual%20Report%20English.pdf. [56]

The Housing Agency (2022), *Strategic Plan 2022-2024*, https://www.housingagency.ie/sites/default/files/2022-01/Housing%20Agency%20Strategic%20Plan%202022-2024%20online.pdf. [55]

Union of Towns and Municipalities of Czechia (2020), *Examples of Good Practice in Voluntary Associations of Municipalities*. [65]

World Bank (2021), *Infrastructure Governance Assessment Framework*, https://thedocs.worldbank.org/en/doc/96550c14d62154355b6edc367d4d7f33-0080012021/infrastructure-governance-assessment-framework-december-2020. [36]

World Bank (2020), *Infratech Value Drivers*, World Bank, https://openknowledge.worldbank.org/entities/publication/675dc4d5-56fb-535d-9c32-d6d2b17e0dd0. [48]

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