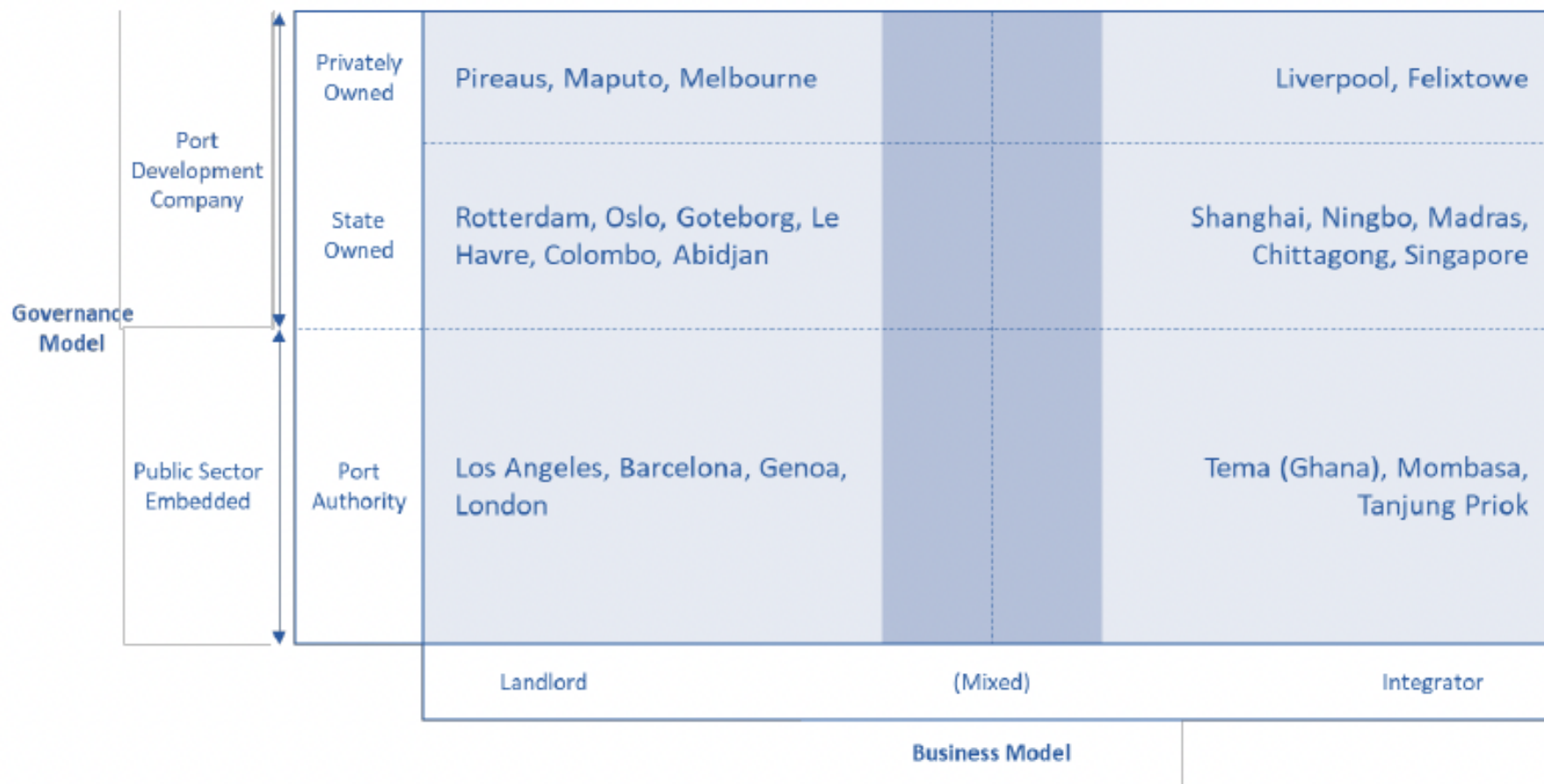


Increasing Capital Investment in Ports

A Practical Toolkit



Port Typology of Port Managing Bodies



Types of Investment in the Toolkit

Investments for the Port as Transport Node

- New sites for terminals
- Terminal equipment and 'superstructure' like warehouses
- Landside port infrastructure (in the port area)⁸
- Onshore power supply and electricity infrastructure

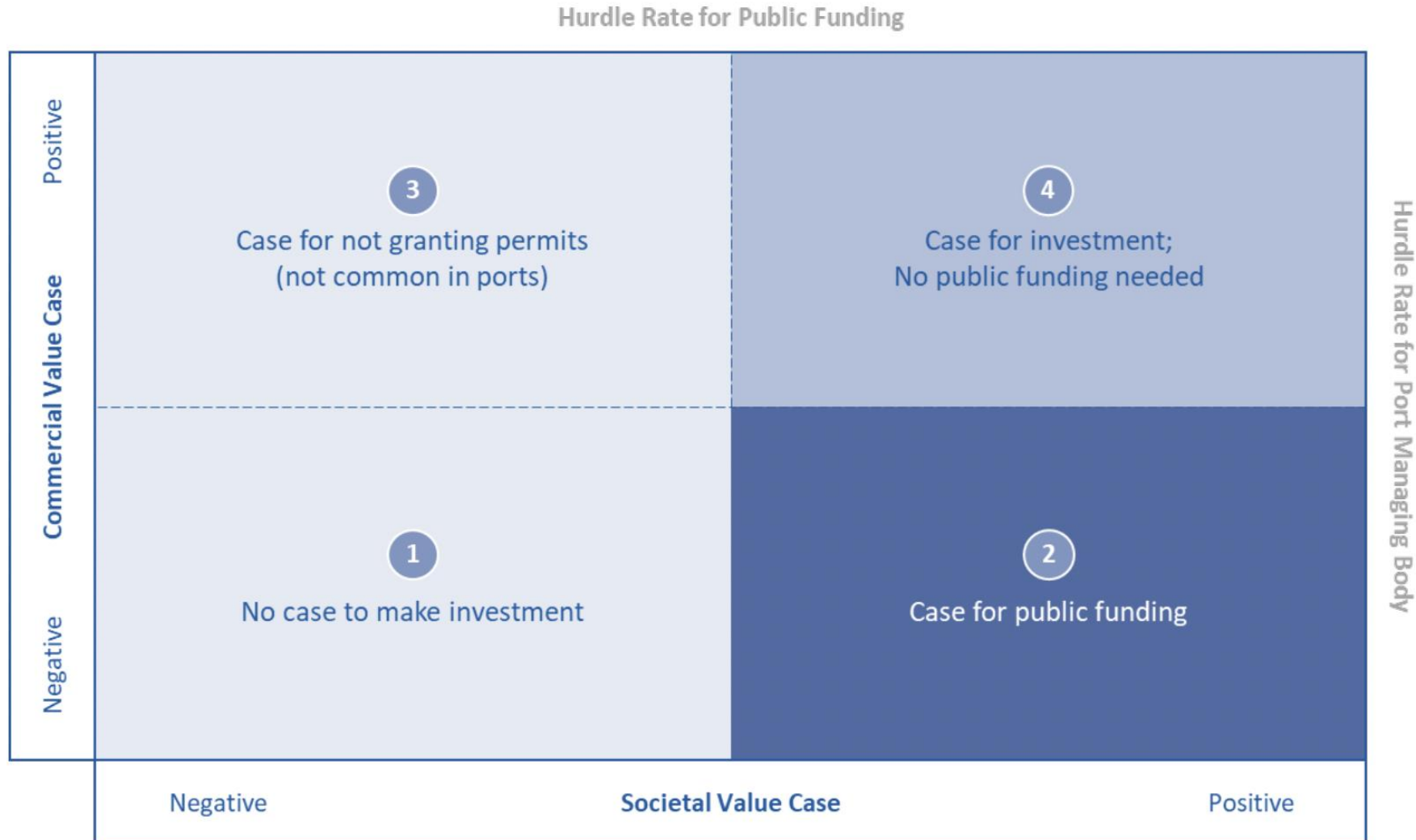
Investments for the Port as Energy Hub

- Land for port industries such as fuel production
- Production of electricity (e.g. solar, wind) and fuels
- Pipelines for fuels, steam, CO₂, or heat

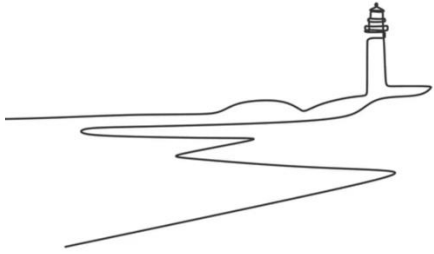
Organizational Models per Type of Investment

Investment Type	Approach(es) in a Landlord Port	Approach in an Integrator Port
New sites for terminals	A PMB investment (with commercial risk) or a partnership between PMB and an operator.	PMB investment and commercial risk.
Terminal equipment and 'superstructure' like warehouses	Investment by third party. In some cases: investment by PMB based on lease contract with the third party.	PMB investment and commercial risk, potentially in a JV with a private sector partner.
Landside port infrastructure (in the port area)	PMB investment and initiative, potentially in JV with a state-owned rail infrastructure company.	In some cases, PMB investment and initiative, in others government or rail infra company initiative.
Onshore power supply and electricity infrastructure	Partnership between PMB, terminal operator and electricity provider.	Partnership between PMB and electricity provider.
Land for port industries such as fuel production	PMB investment and commercial risk.	PMB investment and commercial risk.
Production of electricity (e.g. solar, wind) and fuels	Investments are generally done by a third party tenant, potentially in a partnership structure.	A PMB investment (with commercial risk) or a partnership between PMB and an energy company.
Pipelines for fuels, steam, CO ₂ , or heat	A PMB investment or a joint investment of PMB and users.	A PMB investment or a joint investment of PMB and users.

Types of Investment Projects



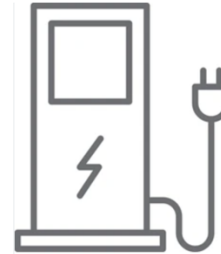
Value Creation & Risks for Different Investment Types



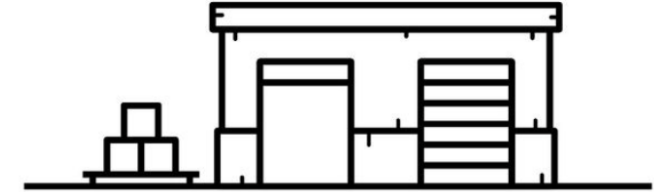
New sites for terminals



Landside port infrastructure



Onshore power supply



Land for port industries



Terminal equipment / superstructure

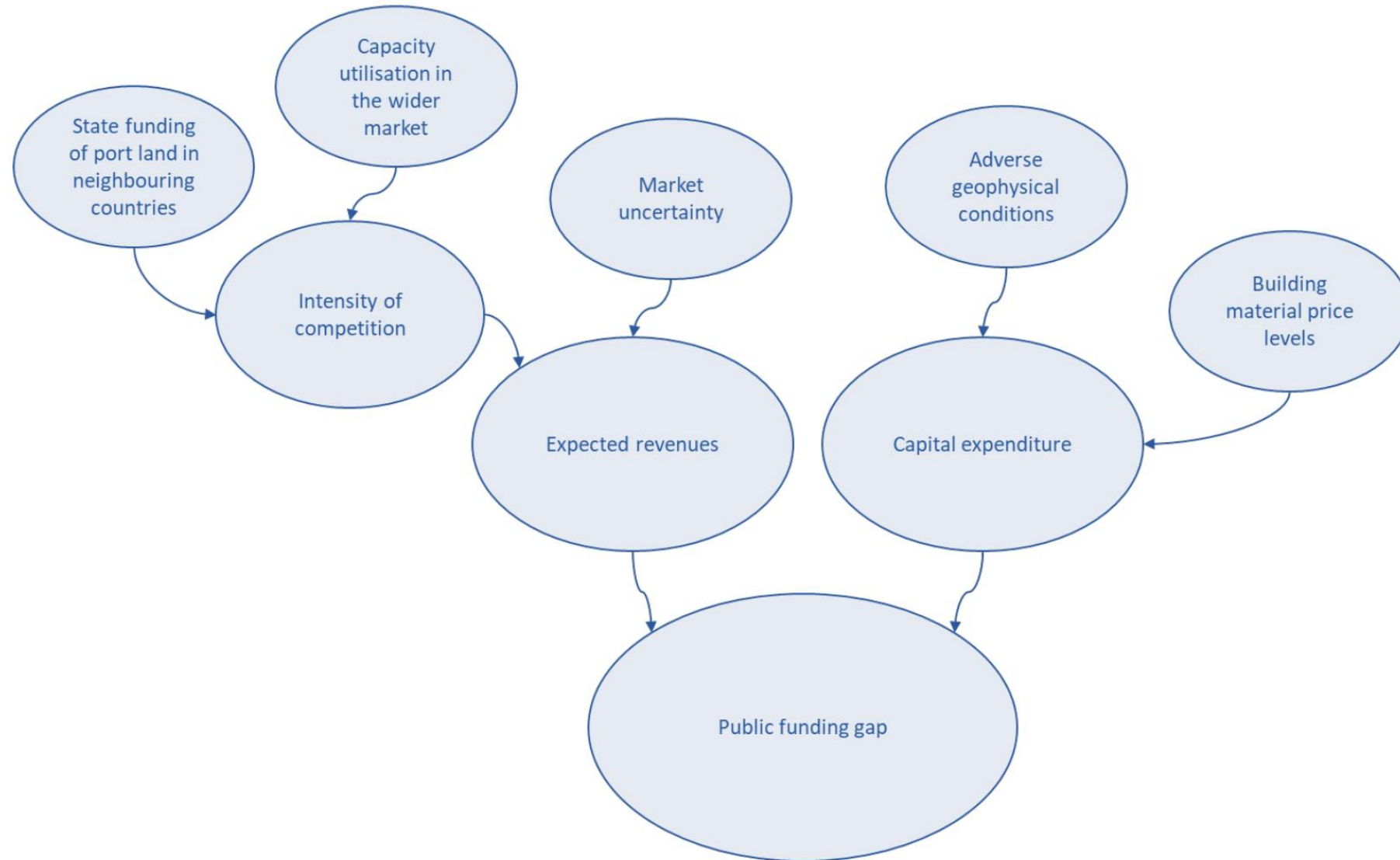


Production of green electricity / fuels



Pipelines for green fuels, steam, CO₂, heat

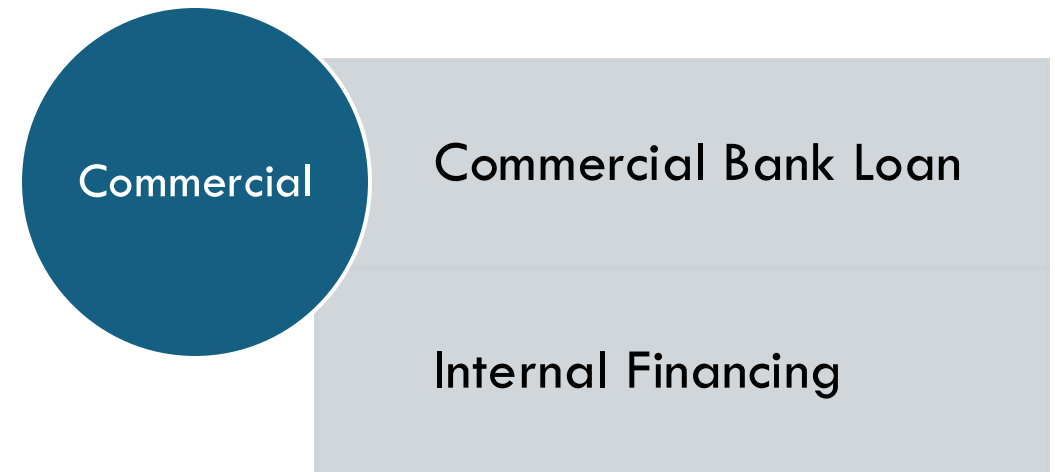
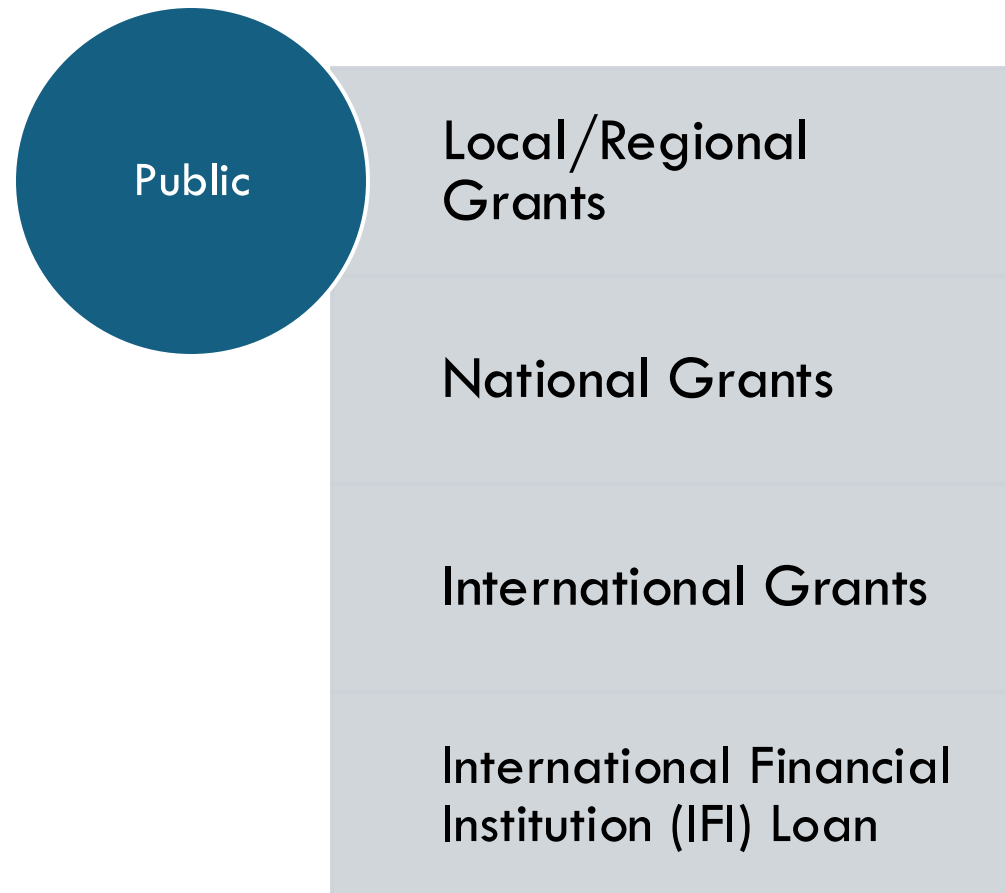
Drivers of a Funding Gap



Range of “Funding Gap” for Investment Types

Investment Type	Indicative Range ‘Funding Gap’
New sites for terminals	Depends on competitive landscape and development level of country. Generally, between 0 and 30%.
Terminal equipment and ‘superstructure’ like warehouses	There is only a funding gap in exceptional cases like green equipment, in those cases generally <10%.
Land for port industries such as fuel production	Depends on competitive landscape and development level of country. Generally, between 0 and 15% unless additional land needs to be reclaimed from the sea.
Onshore Power Supply and electricity infrastructure	Generally substantial (>50%) in the early stage of OPS introduction, no funding gap once OPS is obligatory and OPS facilities have a high utilisation.
Landside port infrastructure	Generally substantial (>50%) unless the PMB can implement specific charges for the use of the infrastructure.
Production of electricity (e.g. solar, wind) and fuels	There is only a funding gap in exceptional cases, generally <10%, given the rapid decline of alternative fuel costs.
Pipelines for fuels, steam, CO ₂ , or heat	There generally is a funding gap (0-50%), with huge differences between projects, based on user commitment and volumes.

Common Funding Sources



Policy Frameworks and Policy-Making Layers

	Local/Regional	National	International
Regulatory Instruments			
Funding Instruments			

Good Practices on Policy Frameworks

Policy Objectives	1) Set Clear, Measurable, and Long-Term Policy Objectives
Regulation	2) Develop Investment-Friendly Regulation 3) Harmonise Regulatory Frameworks 4) Focus on Enforceable Mechanisms
Funding Instruments	5) Develop Adequate Public Funding Instruments 6) Include Positive Externalities in Public Funding Business Cases 7) Account for Value Creation of Ports beyond their Role as Transport Node 8) Frontload Public Funding 9) Favour Open Competitive Processes 10) Address Demand and Country Risks through Non-Commercial Loans 11) Focus on Flexible and Accessible Instruments
Governance of PMBs	12) Give PMBs Agency over their Financial Management 13) Consolidate Smaller Port Authorities to Increase Investment Capacity

Good Practice 12: Case Study

Give PMBs Agency Over Their Financial Management

Case Study – Borrowing Limits of the Canadian PMBs

The Canadian Port Authorities (CPAs) play a key role in providing international accessibility for Canadian firms and consumers. A very substantial (CAD 110 billion) need for port infrastructure investments was established in 2022²⁴.

The Canadian ports can borrow money to invest, for instance by issuing bonds. The borrowing capacity of the CPAs is subject to a fixed limit set out in their letters patent. Currently, the process for changing the limit is lengthy, with no reliable timeframes for completion, introducing significant uncertainty. The Canadian CPAs are asking for more financial flexibility through increased lending limits and a quicker process for amendments or through the addition of risk-based formulas developed with the financial services industry.

Good Practices for Augmenting Investment Capacity

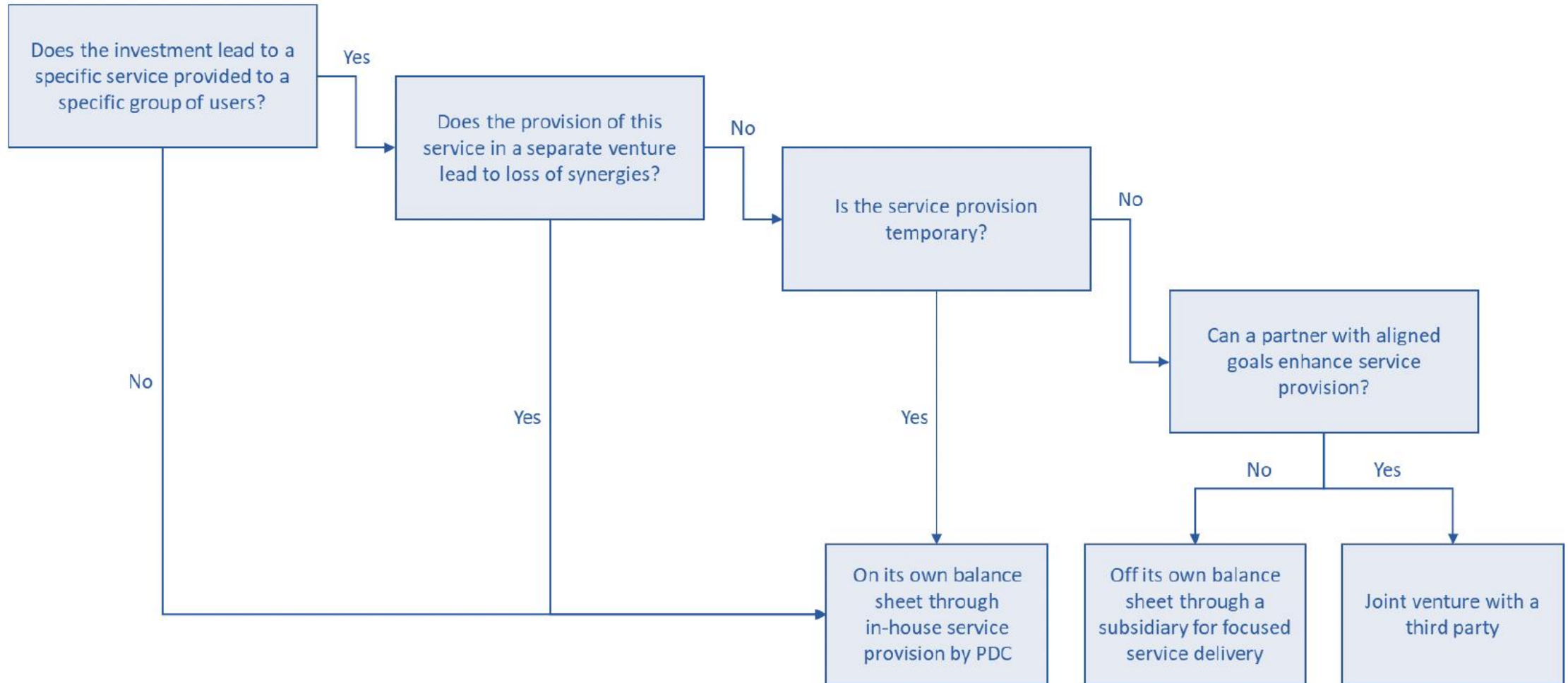
Organizational Capabilities

- 1) Develop Initiatives to Unlock the Investment Capacity of Commercial Third Parties
- 2) Secure Flexibility and Cost-Effectiveness through a Phased Fit-For-Purpose Design
- 3) Start Developing Early in View of Long Planning and Approval Processes

Financial Investment Capacity

- 4) Augment Investment Capacity through Tight Control of Operating Costs and High Asset Utilisation
- 5) Increase Share of Lease Incomes for More Stable Revenues
- 6) Strengthen Capabilities to Seize Public Funding Opportunities

Decision Chart for Organisational Models



Designing a Port Investment Framework



Part of the design of a policy framework
All stakeholders should be involved in these steps, but for which the government is responsible



Primarily the responsibility of the port managing body (PMB)

Key Insights

CHANGING EXPECTATIONS

- Canadian ports are expected to play an increased role in trade diversification, facilitating access to new markets and supporting a strong economy.
- Ports are evolving into key players in the global energy transition, supporting renewable energy and circular economy initiatives.

BARRIERS AND CHALLENGES

- Critical funding gap due in part to high upfront costs, uncertain returns, and restrictive regulatory systems.

ACTIONABLE STRATEGIES

- Incorporating both private and public funding mechanisms, such as grants and concessional loans, along with innovative tools like Contracts for Difference, to unlock investments that are not commercially viable on their own but offer strong environmental and economic benefits.
- Creating governance models that enable ports to better leverage private capital and international expertise.
- A step-by-step guide to support increasing port investments in relevant, resilient and sustainable infrastructure.

An aerial photograph of ocean waves, showing intricate patterns of white foam and deep blue water. The waves are breaking in a circular or spiral pattern, creating a mesmerizing, almost fractal-like appearance. The overall color palette is dominated by various shades of blue, from deep navy to bright cyan, with white foam providing high contrast.

Thank you