Shifting priorities & drivers

by Ewa Kochańska

The European Sea Ports Organisation (ESPO) has released *The Investment Pipeline and Challenges of European Ports* report to update the state of financial challenges faced by the Europe's ports in 2024. Based on a survey of Port Managing Bodies (PMBs) in Europe, the study reflects the evolving landscape of port operations, emphasising the shift to sustainable energy and the importance of public funding. The report offers insights into planned investments by European PMBs, discusses their changing roles and motivations, and highlights existing investment obstacles.

The aim of the survey, conducted from December 2023 to February 2024, was to update the same report from 2018, albeit with a few adjustments, e.g., the 2023/2024 data set was collected from 84 PMBs, compared to 60 previously. The general results show that Europe's ports, in order to live up to the expectations of what they must become within the next decade, need around €80 billion up to 2034.

Pertaining to where the money is going, funding for the energy transition and other sustainability projects has become one of the top two financial priorities for the European PMBs. To handle these and a plethora of different challenges, such as infrastructure and technology upgrades, European ports will increasingly require sizable public funding, relying on specific port allocations within various EU funding programmes, primarily through the Connecting Europe Facility (CEF), as well as the Innovation, the Just Transition, and the Modernisation funds.

Investment pipeline by numbers

Due to a high response rate to the survey, the results provide a detailed picture of the port industry in the EU, however, without disclosing data on particular ports. Instead, the report focuses on overall results and groupings of the Trans-European Transport Network's (TEN-T) Core and Comprehensive Ports.

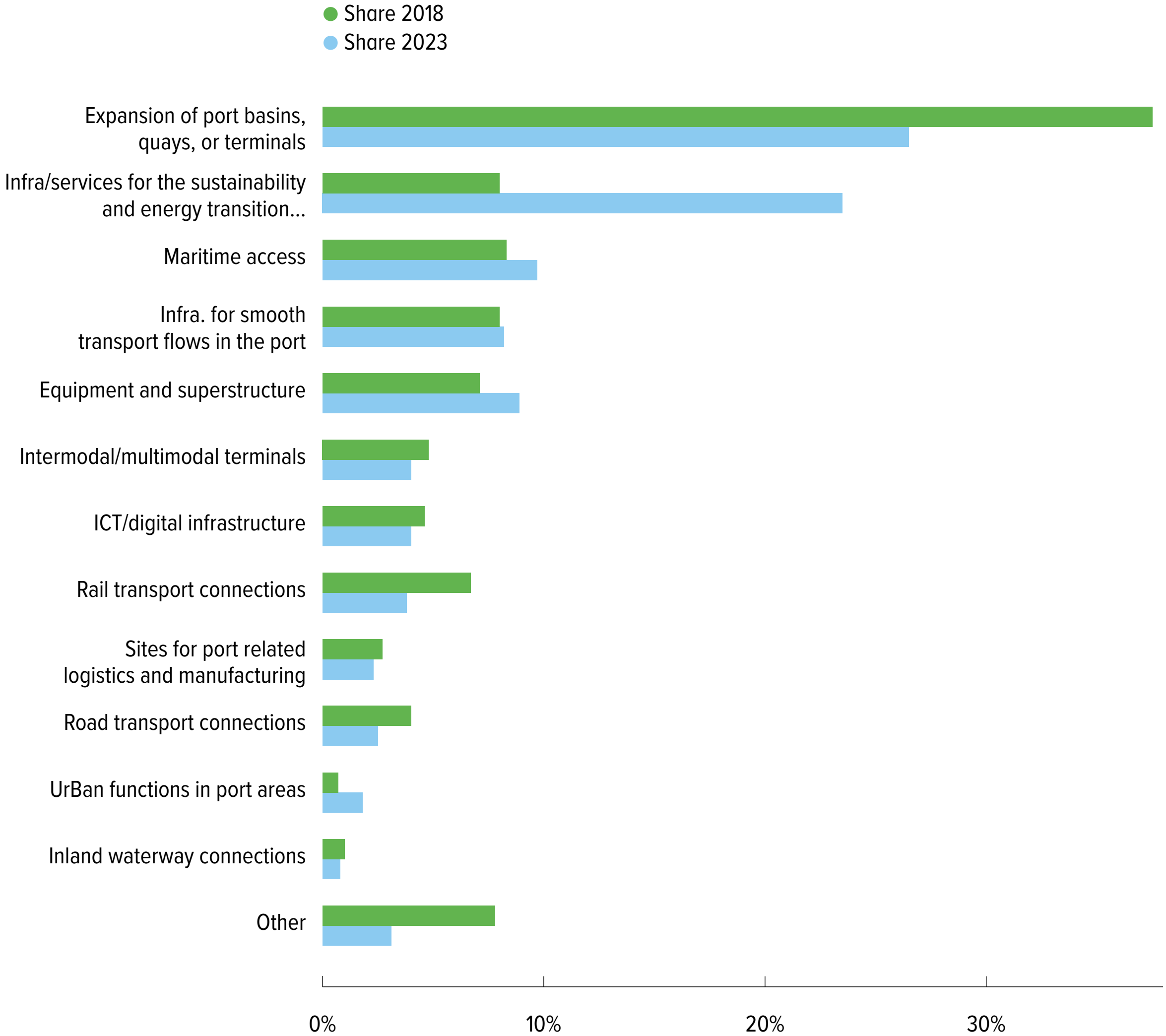
The report identifies 467 projects in 2023, up from 396 in 2018, and 84% of these projects were developed by PMBs, as the survey excluded investments by specialised private companies. Only third-party projects that enhance overall port development were included, such as government infrastructure investments and private contributions under concession agreements. The survey also covers projects managed by private firms in partnership with PMBs or state-owned enterprises, especially in inland waterways (50%), road connections (42%), rail links (33%), and energy transition (33%). Also important to highlight is that the survey focuses on capital expenditures and does not cover operational expenses – which is a significant amount for PMBs needed to maintain existing facilities like quay walls and port basins.

The analysis of the data shows that the second highest expense (after maintenance) in European ports is the financing of various investments related to sustainability and energy transition, amounting to 55 projects in total. Another major segment includes 'infrastructure and facilities aimed at lowering the environmental impact of shipping' with 54 projects, and a smaller portion involves 'initiatives to lessen the environmental footprint of port operations' (eight projects).

The expectation that ports become energy hubs and support the transition to sustainability also in their surrounding cities and towns means PMBs must change and expand their services. As such, ports plan to introduce, among others, e-truck charging stations, (green) energy for port businesses, clean fuels in maritime (and pipelines for transporting them), and (digital) energy management services, while nearly two-thirds of all PMBs intend to supply onshore power (OPS) to vessels (most of the remaining ones already offer this service).

Compared to 2018, the ambition for launching these options in the next five years is significantly higher, with plans to triple the number of new services compared

Fig. 1. PMBs' planned investments by type



Source for figs. 1-2 & 4 and Tab. 1: ESPO's The Investment Pipeline and Challenges of European Ports

to the past half a decade. In particular, concerning clean energy and decarbonisation efforts, the predominant investment goes to OPS stations, with over 70% of ports reporting plans to invest in this area. About half of the participating PMBs intend to develop facilities for transporting and storing electricity, one-third plan investments in renewable energy production, and around 30% focus on energy management systems.

The projects included in the report are in different stages of completion: partial, ready for execution, and in the study or idea phase. Here, quite significant progress has been made in five years: in 2018, over half (57%) of the projects were just on the drawing board, whereas this year, this share has decreased to 40%. Also, more projects are in the execution stage in 2024 – some 20% compared to around 14% in 2018.

Concerning port expansion investments, this category has seen the most projects – 123. The significant segments driving this development are break-bulk and general cargo businesses, particularly in the Comprehensive Ports. Whereas the container segment remains important, its significance declined in 2023 vs. 2018. This shift indicates a larger trend, where the energy transition has become a more pronounced investment driver than general trade growth.

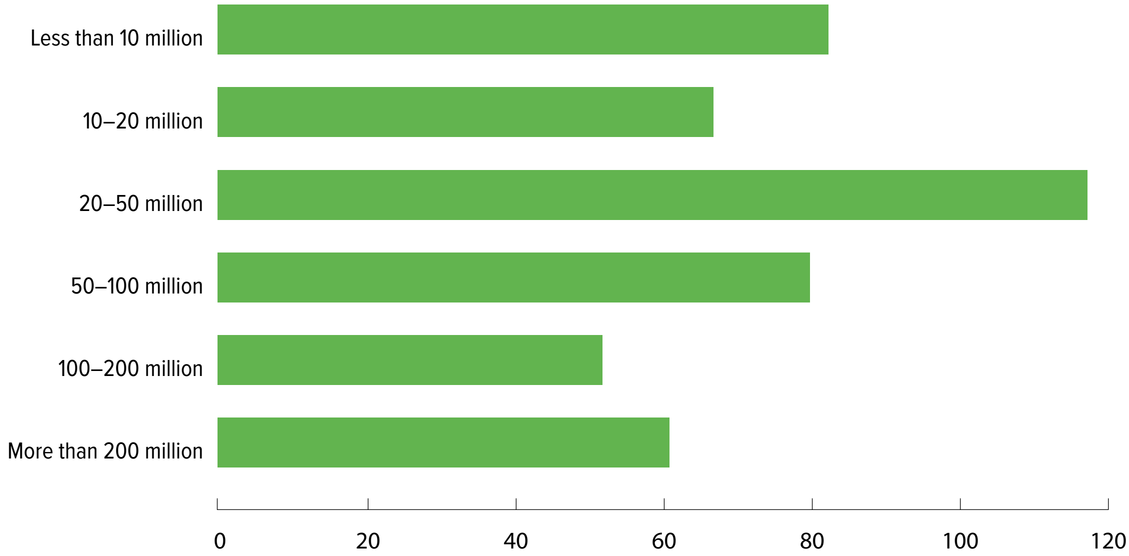
Further, the survey included a question about rail investments: 27 projects in total. The responses in this area underscore that the most common investment concern here is extending or modifying existing links, with fewer plans for new connections. Investments in electrification or safety systems are rare, as rail infrastructure companies typically manage these.

The data points to Europe's ports having a robust investment pipeline. With the ever-changing environment of European harbours focusing now more on clean fuels, clean energy, energy independence, and port resilience, the nature of PMB investments has noticeably changed since 2018.

Tab. 1. Segments for which expansion investments are made

	Containers	RoRo cargo	Passengers (ferries)	Cruise	Dry bulk	Liquid bulk	Breakbulk and general cargo (e.g. wind blades)
Core	35%	32%	11%	10%	26%	14%	30%
Comprehensive	15%	24%	12%	0%	30%	15%	45%

Fig. 2. Number of projects per investment range



Balancing the books

Until 2034, the projected investment pipeline of the surveyed PMBs is approximately €45 billion; this amount does not include private company port investments, but only projects developed through joint ventures involving PMBs and partners or by government-owned companies. This amount is higher than the 2018 figure in part because of a different estimation method for investments exceeding €200 million (using additional port-provided data) and because ports were asked to provide their investment plans for the next 10 years as opposed to seven in 2018.

The planned investment pipeline for TEN-T Comprehensive Ports (with an average cargo volume of around 7.0 million tonnes per year) is higher than for the Core ones. The former tend to handle low(er)-volume commodities, such as conventional general cargo and goods in bulk, rather than high-volume trades, like containers. That said, Comprehensive Ports eye earning more money in the future by serving the well-paying wind energy industry, especially its offshore part (then again, so do Core).

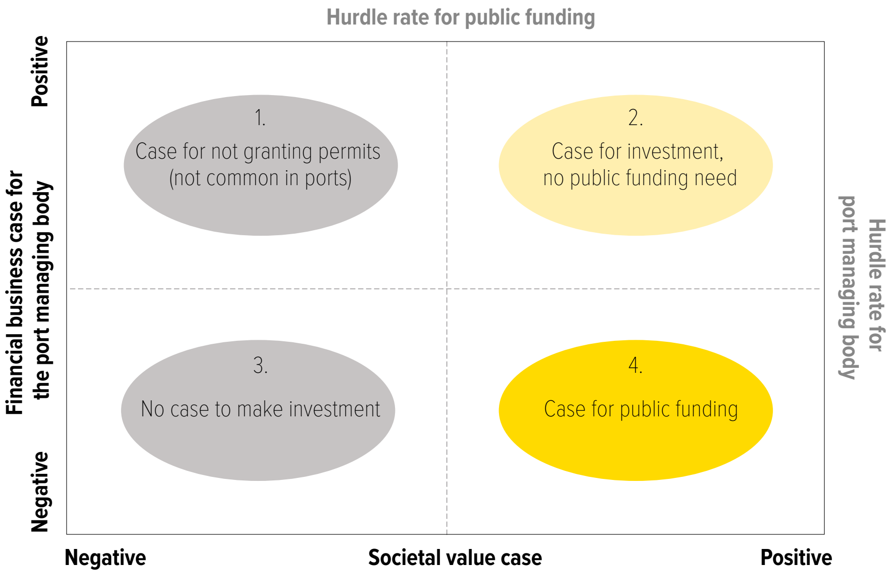
An example given by ESPO of a Comprehensive Port with a significant investment pipeline is Groningen Seaports. As part of its energy sector expansion, this Dutch PMB is dedicating resources to land development, quays, accessibility, and utilities to draw in new energy-focused businesses like offshore wind, hydrogen, and sustainable aviation fuels. There is a significant demand for additional port areas, necessitating speedy site development to ensure availability and attract both existing and potential investors (yet, our region shouldn't feel inferior – the **Baltic Green Map** and its **Catalogue** round up a wholesome set of all kinds of future-oriented port and port-related projects, while the **Baltic Offshore Wind Energy Map** does the same for those interested in harvesting wind power regionally).

A significant challenge is to balance making investments before inking contracts, particularly in constructing new quays, adding land, and setting up other heavy-duty infrastructure. In terms of utilities, the main issue is synchronising supply with demand in both timing and location. The financing challenge is tied to uncertainty, potentially causing investment delays and unsatisfactory solutions that can negatively affect the overall business network and sustainability objectives.

Given that the survey response accounts for 72% of EU port activity, the report has provided a "conservative" estimate of total investments in the block's ports, which amounts to €80 billion from 2024 to 2034. It is also important to keep in mind that besides PMBs, private enterprises operating within European ports will continue to invest substantially in new infrastructure, such as terminals, storage facilities, and industrial plants, aimed at producing clean energy commodities like hydrogen, ammonia, and biofuels. Stevedores will also likely continue greening their machinery fleets.

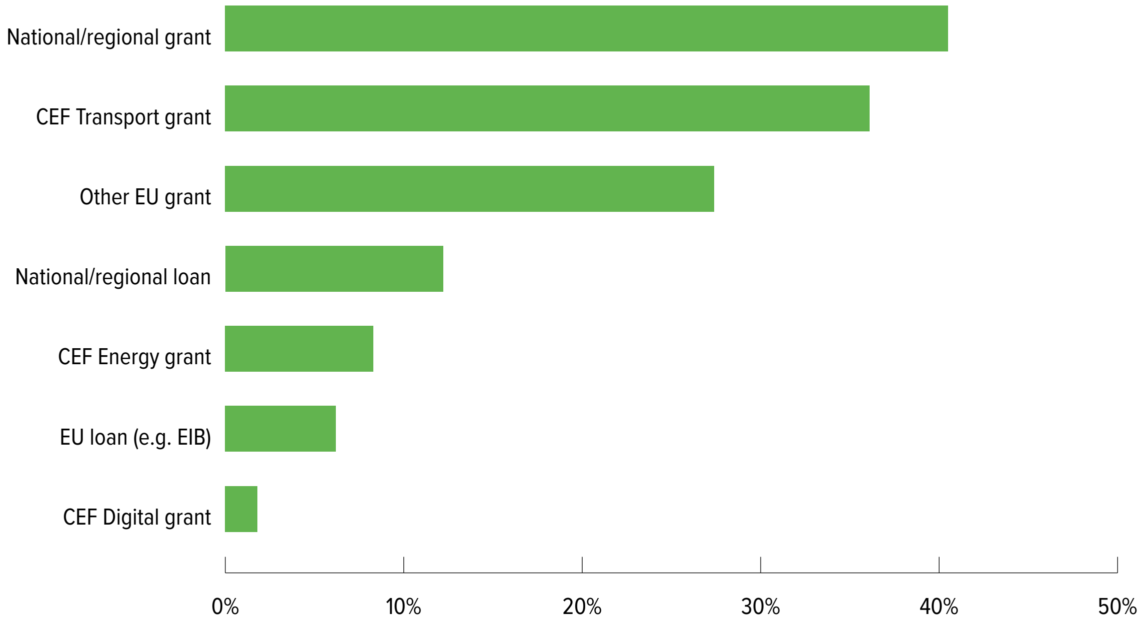
The survey also sheds light on factors influencing investment projects undertaken by PMBs. There is a notable contrast

Fig. 3. The case for public funding for investment projects of PMBs



Source: ESPO's 2018 Port Investment Survey

Fig. 4. The PMBs' desired funding mix for planned investment projects



between 2023 and 2018 regarding key drivers. Last year, economic decarbonisation was a much more significant factor than five years earlier. However, the anticipated rise in trade volumes played less of a role in 2023 than in 2018 (although it continues to be an important driver for investment demands). In terms of obstacles to the planned investments by PMBs, the report listed seven potential bottlenecks: insufficient societal support, legal hurdles stemming from environmental regulations, complexity of agreement amongst all project partners, insufficient financing instruments to close the funding gap, lengthy and complex permitting procedures, expenditure increases because of inflation and material costs, and inability to secure funding for the investment projects.

The survey results underscore financial obstacles remain highly significant in the port industry. Also, this conclusion aligns with 2022 data on PMB investments; over 40 PMBs, handling over 1.5 billion tonnes of cargo, reported total investments exceeding €1.5 billion that year. Despite this high level of investment capacity, PMBs' financing ability is still inadequate to fund all upcoming projects.

Value for money

From a European standpoint, PMBs reduce energy dependency, create sustainable environments, and enhance geopolitical resilience. According to the report, the value generated by the in-the-pipeline investments of Europe's PMBs is comparable to the value created in their 2018 portfolio.

Through most of their projects, ports prioritise generating high-quality outcomes for both current and future port users, including shippers, shipping lines, and port-operating companies. Additionally, PMBs create societal value by minimising the environmental impact of port and logistics activities and supporting the energy transition – locally by reducing negative impacts (of pollution) and through waterfront redevelopment projects.

The report states that over 85% of PMB projects have a beneficial environmental effect. Firstly, approximately one-third of the investments enhance efficiency in shipping and port operations. Secondly, about one-third of the projects directly lower the environmental footprint of port and shipping activities, such as through the provision of (green) shore power. Lastly, another third focuses on reducing the environmental footprint of the port management itself. Additional actions in this area include attracting zero-carbon industries, e.g., via becoming sustainable fuel production hubs, or shifting cargo to more eco-friendly transportation modes like inland waterways or rail.

The 2018 Port Investments Study emphasised that projects expected to provide significant societal benefits relative to their costs are important from a community standpoint. However, although the societal value created is often considerable, PMBs cannot always translate this into financial revenue, making some projects commercially unviable. National and European policies offer loans or grants to PMBs to address this issue to some extent.

Because of ongoing financial constraints, PMBs predominantly seek public funding to implement their investment projects. Almost all European PMBs are publicly owned, which drives their focus on user and societal benefits. Approximately 40% of projects aim for national or regional grants, and one-third seek CEF backing. In contrast, only a small portion of projects pursue loans from the European Investment Bank compared to national and regional ones. For projects in the implementation phase with secured funding, nearly one-third have received CEF grants, while very few have got national funding. These results imply PMBs can count on a financial support at the state level only once customised funding mechanisms are created.

Charting a fresh course

European ports have been expanding their role significantly in recent years. Beyond serving as critical links in the supply chain by connecting maritime and inland transport, they are sprouting into centres for sustainable energy and offering circular economy initiatives while also enhancing geopolitical and economic resilience.

These new functions complement their traditional roles but also create new investment needs, yet the most critical bottlenecks identified by PMBs are related to the financing and implementation of projects. To overcome these challenges, ports need public funding from diverse sources at regional, national, and European levels. ■