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# *Analysis of financial and infrastructure planning of Italian ports*

The SRM's Permanent Observatory on the Maritime Economy publishes a new report in the "Public Finance" Series. This report is an extract from the project work carried out within the VI edition of the Master's degree in shipping, logistics, finance and business strategy of I.P.E., which was presented in Naples on 2nd July 2014. This study examines the major infrastructures which will be built into the ports in the future. It also analyses the financial resources necessary for the implementation of these infrastructures and their added value required to meet for ports to trade effectively.

The full version of this project work is available only in Italian. [Click here to read it](#)

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## Index

**Introduction and methodology    4**

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**A cross-reading of the port planning    6**

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## Introduction and methodology

The objective of this work is to examine the major infrastructures which will be built into the ports in the future, and to analyse the financial resources necessary for their implementation and the added value these infrastructures are required to meet for ports to trade effectively. The project also implied the analysis of the Port Authorities' their **three-year operational plans (TYOP)** and the plans of any public works.

14 out of the 23 Port Authorities we have contacted provided us with material. This can be divided as follows:

- 5 TYOP relating to 2014-2016 (Savona, Genova, Marina di Carrara, Olbia, Palermo);
- 5 TYOP relating to 2013-2016 (Venice, Livorno, Piombino, Naples, Messina);
- 1 TYOP relating to 2012-2014 with a revision in 2013 (Taranto);
- 2 TYOP relating to 2012-2014 updated with the plans of public works for the three-year period 2014-2016 (Ancona and Ravenna);
- Trieste's Port Authority's multi-annual relaunch plan and the 2014-2016 plan of public works.

### Percentage representation of the sample analysed, weighed on the total of Italian ports

Liquid bulk	Dry bulk	Miscellaneous goods	Bulk total (liquid bulk + dry bulk + miscellaneous)	TEUs traffic	Passenger's traffic
63.70%	72.34%	67.67%	67.25%	45.69%	77.46%

Table 1 - Source: Elaborations on ASSOPORTI's 2013 data

The sample's significance is noticeable, in fact the ports analysed handle each year about 255 million tonnes of goods (out of a global amount of 380 million), 4,6 million TEUs (out of about 10 million) and more than 25 million passengers (out of a total of approximately 33 million).

Another investigation carried out was about the strategies and the interventions specifically concerning the planned works (including description, features, the strategies on which they had been developed) and to the financial resources allocated (their distribution among the various interventions and over the reference period).

The first part of this project work – available in Italian only focuses on the analysis of the TYOP divided into three major areas:

- Tyrrhenian coast (Savona, Genoa, Marina di Carrara, Livorno, Piombino and Naples);
- Adriatic coast (Trieste, Venice, Ravenna, Ancona and Taranto);
- Island area (Messina, Palermo and Olbia).

The factors that have been examined for each TYOP include the strategic lines and the Port Authorities' objectives, not only by taking into account the works that exceeded a certain threshold of investment but also those which, despite being characterised by a lower investment, assure a re-launch of the port consistent with the goals set.

The second part of this report, shown here, includes a cross-reading of the analysis carried out for each single TYOP with a conclusive comparison – aimed at obtaining a wider vision of the strategies and goals of the Port Authorities under consideration – of the principal infrastructures necessary to meet these strategies and the total amount of investment required to finance them.

## A cross-reading of the port planning

### Concluding remarks on the comparison between the three-year operational plans

Italy is located in the centre of the Mediterranean area and benefits from an enviable geographic position. Every year about 600 billion euros transit from our ports in the form of goods and raw materials. Of these more or less 270 billion are represented by the manufacturing sector, of which 100 are made in Italy. However the problems Italian port authorities have to face are considerable. One of the first is represented by the poor competitiveness of our ports, both due to the bureaucracy that slows down the realisation of port projects, and by nautical port accessibility (where the depths are too low to accommodate medium-large container ships). Furthermore, another element which should not be underestimated is the lack of cross rail links which also restrict inter-modality.

Together with the problem bureaucracy is also the lack of administrative autonomy that prevents the Italian ports them from operating to an assured speed. Ports need coordination with inland services in order to create an efficient route between the port, the inland freight terminal and the logistic corridor. The correct recipe is to streamline also taking into account the European criteria and a port national plan to allocate the investments.

A noticeable difficulty is that of medium-large ships to access our ports and, to this purpose, in the coming years, some of the analysed Italian ports have planned dredging and excavation interventions.

Another critical aspect for Italian ports is the lack of coordination between Port Authorities and other institutions. In fact, it is necessary that the port authority's role in coordinating other authorities operating in the port area is guaranteed along with the tools apt to solve any critical issue. To date, the relationship between the Port Maritime, Customs, Health and, Police Authorities are themselves competitive assets which pertain to each single port. The lack of coordination among these various authorities may lead to the loss of traffic market shares and to discard the reception of entire commodities, thus undermining the efforts made to attract such activity

One of the goals set by Italian port authorities is the implementation of the transition from a unimodal to a multimodal transport type in order to enable a more efficient and effective transport flow. This implies an integration process from which a multiplier effects investments, especially as regards ports and freight terminals, where in a Hub and Spoke perspective flows of goods, means of transport and standardised load units would be concentrated.

Container companies aim at economies of scale only achievable by vessels with a capacity of 16,000 containers in the north European ports and with vessels able to carry 13,000 containers in the Med, vessels that only a few Italian ports will be able to host. In the near future a selection on the base of logistic features will take place, features that are essential for mega carriers: depths of at least 18 metres, quays' length between 300 and 400 metres, availability of turning basin able to allow adequate manoeuvring and proximity of the port to the production and consumer markets which can ensure giant ships to transport a flow of goods concentrated at a single point. Other critical infrastructures are those behind the ports, like dedicated highways or railways.

The analysis of the TYOPs has allows us to obtain a picture of the financial resources needed to implement the infrastructure projects planned during this period; the total financing amounts to 6 billion euros.

In particular, about 20% of it is intended to be performed on the Tyrrhenian coast, 66% is for the Adriatic coast interventions, and 14% for the island regions.

With reference to the macro-categories identified to classify the works for each TYOP we can observe (Figure 1) that about 1.7 billion euros has been intended for shipbuilding and repair interventions; little more than 830 billion euros has been allocated for port streamlining works, little more than 810 billion euros has been allocated for railway and road interventions; 137 billion euros are for public interest works and about 120 billion are for maintenance operations. Another category is that of the “deep-water offshore ports” serving the logistics and ports that are in the industrial conversion area of Marghera which, along with the navigation lock under construction at the mouth of Malamacco, will form a permanent structure that will enable access to the port of Venice and which requires a 2.45 billion euros in financing.

#### Distribution of the financial resources by macro-category

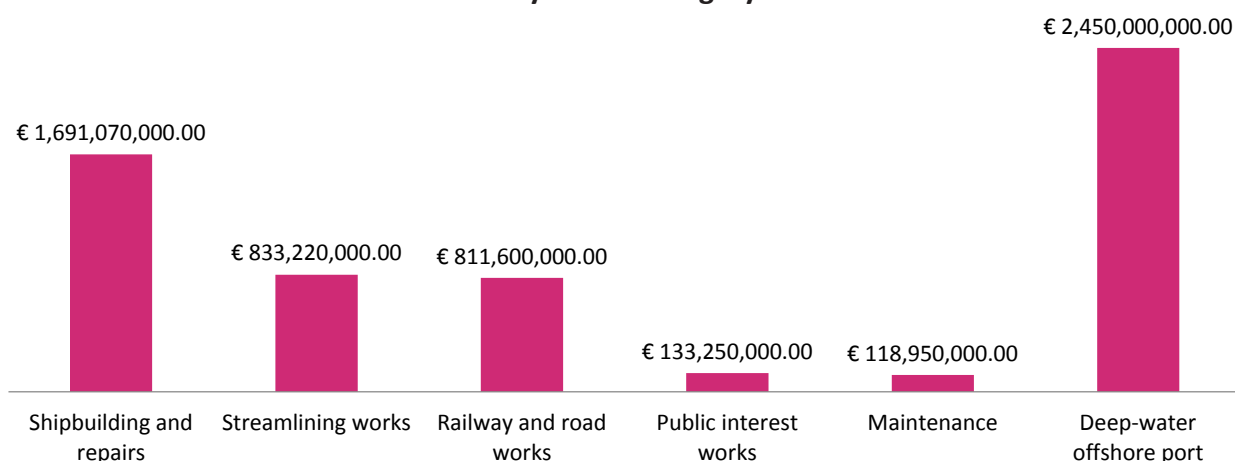


Figure 1 - Source: Authors' elaborations on the three-year operational plans



More in detail, the following list shows the works that the port authorities analysed have planned in order to re-launch themselves and more in general Italy, in the Mediterranean:

- **Savona:** 157.78 million euros, which is equivalent to the total amount that we have already discussed. The whole amount includes the completion works for the Multipurpose Platform of Vado Ligure, the implementation of which is scheduled for 2017;
- **Genoa:** 227.90 million euros, which includes the sum of the amounts allocated for the categories “shipbuilding and repairs”, “port streamlining works” and “railway and road works”. These are all works that are included and flank the so called ‘logistics program’ aimed at developing the integrated logistics systems to allow a significant revival of the port of Genoa;
- **Livorno:** 35 million euros for the rail link to the freight terminal;
- **Naples:** 220 million euros included in the so called great project “Logistics and ports. Naples’ port integrated system” aiming at foster the development of the maritime connections of the port of Naples with all the Mediterranean;
- **Trieste:** 27.56 million euros, which is part of the great project for the Logistic Platform, a work which begins with the expansion of the airport in the north-east;
- **Venice:** 160 million euros for railway and road works and 2.45 billion euros for the deep-water offshore port;
- **Ravenna:** 183 million euros included in the project “Ravenna port hub”;
- **Palermo:** 500 million euros for a road link between the port / ring road / highway / port between the two ports of Palermo and Termini Imerese.

To sum up, the port authorities under consideration need a total amount of 3,961,240,000.00 euros to implement all the mentioned above works.

It is evident that the different Italian port authorities have plans to adapt their infrastructure to be competitive in the trades they offer, particularly focusing on the logistics. Logistics, in fact, is a catalyst for public and private resources and moves an important flow of interests: ports, airports, railways, freight terminals, logistics companies, thus enhancing economy and employment.

Focusing on logistics could be the winning move as this is a sector which strongly addresses the internationalisation of business, especially at a time when exports continue to play a supporting role in the Italian economy (4.3% is the estimated average annual growth between 2013 and 2016).

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