

OUTPUT FACT SHEET

Pilot actions (including investment, if applicable)

Project index number and acronym	CE1455 COMODALCE
Output number and title	O.T2.1 - Pilot actions fostering coordination among multimodal freight transport stakeholders through ICT systems
Investment number and title (if applicable)	N/A
Responsible partner (PP name and number)	PP07 GDY PORT OF GDYNIA AUTHORITY
Project website	interreg-central.eu/comodalce
Delivery date	31 st March 2022

Summary description of the pilot action (including investment, if applicable) explaining its experimental nature, demonstration character and transnational added value

The purpose of the Pilot action was to elaborate the concept based on a preliminary feasibility study of the railway traffic management system and increase the capacity of the track systems along the integration of the port with the hinterland as part of the technical and organizational improvement of the rail access to the Port of Gdynia. Gdynia port is still in the first stage of digitalization of its multimodal transport environment. At Gdynia Port there is no PCS and most of the communication and data exchange among the players acting in intermodal chain is proceeded manually. The old fashion procedures still exist as well as the exchange of paper documents. Phones, faxes, radio-communication and e-mails are the means used for communication and traffic coordination.

Gdynia is a key port gateway and an entry and exit hub for the eastern branch of the TEN-T Baltic-Adriatic Corridor (BAC) with its primary transport infrastructure. The railway links form the European Freight Corridor No. 5, the road connections of E-75 and E-77 have the European status, while the maritime stretches compose short sea shipping connections with many Baltic ports as well as an important Motorway of the Sea (MoS) between the ports of Gdynia and Karlskrona. At the same time, Gdynia serves as a key node where the last mile TEN-T corridor infrastructure mixes with the infrastructure for regional and local traffic.

The Port of Gdynia, thanks to a well-developed network of regular container, ro-ro and ferry connections, links the routes with the Polish and European rail and road networks. Considering the upcoming groundbreaking investments in the port's foreland (External Port, new ferry terminal) and hinterland (intermodal infrastructure, railway access, Logistic Valley, Red Road), thanks to the political and financial support from the Polish State and the EU, Gdynia Port aims at optimizing logistic processes together with other transport & logistics stakeholders by means of ITS solutions. The objective and scope of the study is to evaluate the feasibility of using a railway traffic management system in the Port of Gdynia, including the systems for exchanging information with the port users and integrating the port with the hinterland, the possible organizational, technical and technological improvements in terms of increasing the capacity of track systems within the administrative boundaries of the Port of Gdynia in accordance with the requirements of the TEN-T network and interoperability in terms of technical parameters and functionalities of Gdynia Port Station modernized by PKP PLK S.A.

NUTS region(s) concerned by the pilot action (relevant NUTS level)

PL633 Poland, Pomorskie, Gdynia

Investment costs (EUR), if applicable

- N/A

Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

Pilot action did achieve the expected results, because the study as a multidimensional analysis provided many answers regarding: rail infrastructure investment plan (mostly on Port of Gdynia sidings), technical, technological and organizational improvements of terminal capacity and increase in transshipment. All solutions which affect management of railway traffic were directly and indirectly described, including the INCOS software, the SZIPS program for train notifications and ship calls and the handling of intermodal processes. IT solution concept was developed, which should be integrated into the interfaces of SEPE 2 and SWDR programs operated by PKP PLK. The concept of an integrated IT system was designed, which underlies one of the pillars of the railway traffic management system in the Port of Gdynia. The digital platform was built on three IT solutions, where the main advantage of this solution is to simplify the process of information exchange between rail transport stakeholders, and where communication takes place electronically in real time and its results are visible to all participants. Deeper stakeholder inclusion in the implementation process, particularly business stakeholders and regional and local stakeholders (**Logistic operators, Railway/Road infrastructure**

management, Port Terminals, Maritime ports authorities, Regional authorities, etc.), both within the node area and in the surrounding areas will determine the port's further development, as a Gateway and entry point of the TEN-T core network in Baltic - Adriatic Corridor, the extension of which connects Gdynia with Sweden via Motorway of the Sea Gdynia - Karlskrona. The Port of Gdynia, via well-developed network of regular container, ro-ro and ferry connections, links the routes with Polish and European rail and road networks. More advanced works on implementation of intelligent railway management system are planned. We will use our own funds but also apply for further EU cofunding programs. Concerning leverage of additional funds, the result of the Pilot action will be the basis for further works on the technical design (including digital architecture, functional and non-functional requirements, components, services and usability) and implementation of the intelligent rail traffic management system, whose approximately economic value is 750.000 euros.

Sustainability of the pilot action results and transferability to other territories and stakeholders

The result of Pilot action will be the basis for further works on the technical design (including digital architecture, functional and non-functional requirements, components, services and usability) and implementation of the intelligent rail traffic management system. Framework of the next project will consist of three main activities:

- 1) Pre-feasibility study for an intelligent rail traffic management system (with preparation of assumptions and guidelines for technical executive designs);
- 2) Technical executive designs documents including development of integrated digital platform intelligent rail traffic management system;
- 3) Final feasibility study for an for an intelligent rail traffic management system (that includes outputs from Technical executive designs documents).

Next steps will be performed in close cooperation and inter-dependence with system users (future beneficiaries) of integrated digital platform (governance and approaches for traffic data sharing in common operational environment of the Gdynia Port, addressing data security and data protection issues of the involved private and public stakeholders), including BCT as one of the most efficient terminal operators.

If applicable, contribution to/ compliance with:

- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

To get full cooperation of all participants at intermodal transport chain some regulations on national level has to be done. Railways companies still uses internal complicated and old fashioned procedures (very often paper) which does not respond to modern intermodal transports requirements. Much of these procedures has it origin in national legislation which has to be changed enabling fast and digital exchange of information. Sharing data regulations in rail industry has to be changed in the way to facilitates the digitalization and implementation of synchro-modality on national or European level.

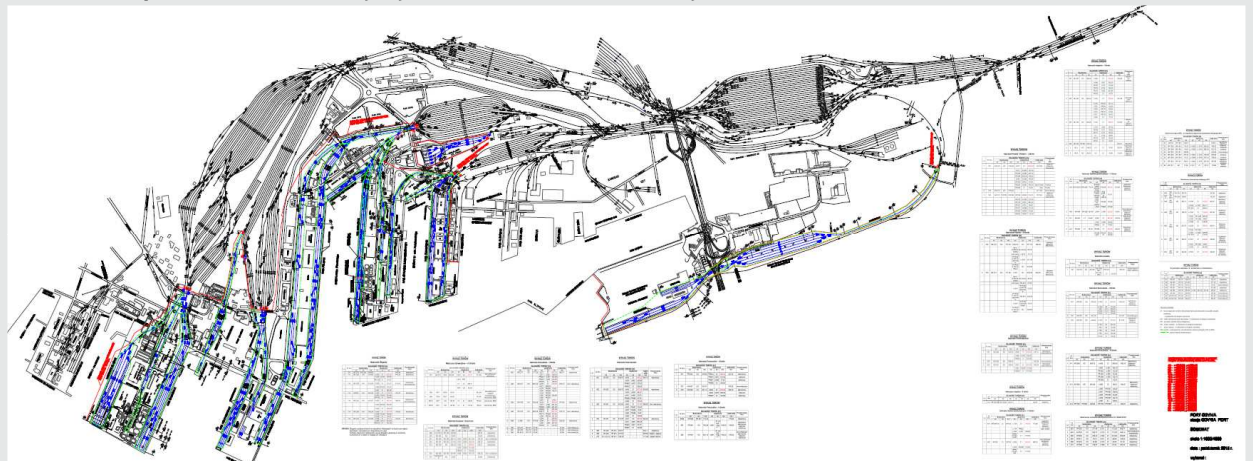
References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

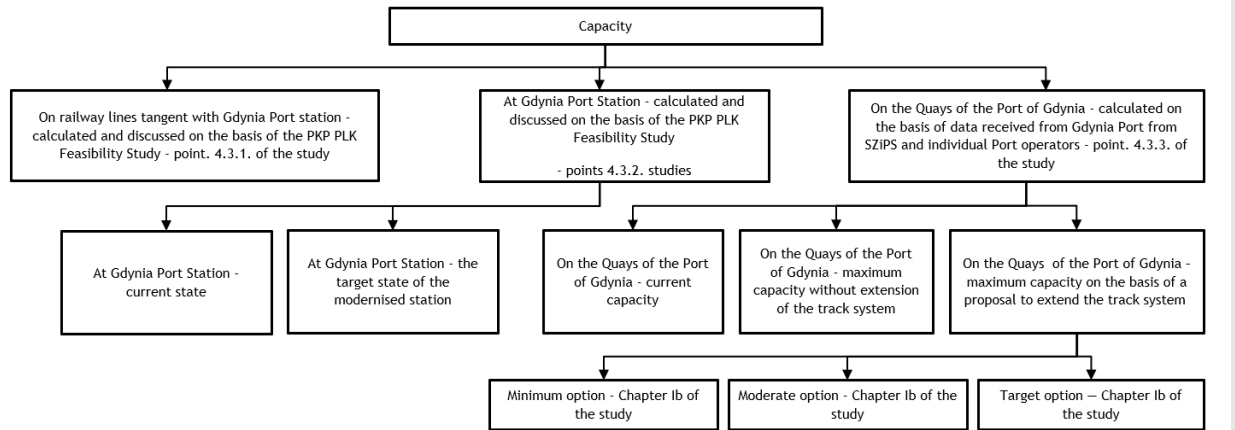
The output is related to the D.T2.2.9 “FINAL PILOT ACTION REPORT - PP07 GDY PORT OF GDYNIA AUTHORITY” and T1.2. “Territorial Needs Assessments for Gdynia Node” and it is related as well to D.T2.2.15 “Pilot action evaluation report”.

In addition, please find relevant pictures:

Schematic plan of the railway system of the Port of Gdynia



The diagram used for the range of capacity calculations included in the study.



Proposed model of railway traffic management system at the Port of Gdynia.

