







Expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay











## **STRABAG**







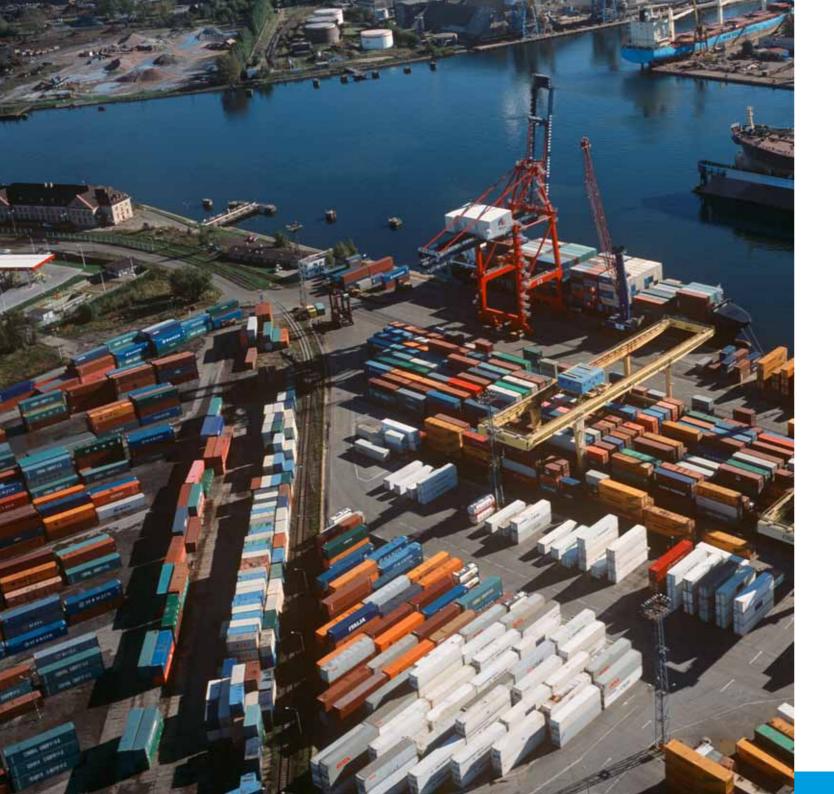








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### INTRODUCTION

This study contains a summary and description of the "Expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay" investment project carried out pursuant to a co-financing agreement under the Infrastructure and Environment Operational Programme.

It is one of several hundred investment projects planned for the coming years at the Port of Gdansk. The expansion of the terminal is at the same time the first of the projects completed as part of the largest Investment Programme to date planned for the Port of Gdansk with the support of EU funds.

The study records the most important stages of the project, beginning with the moment of the conclusion of the Project co-financing agreement between the State Treasury – Centre for EU Transport Projects – and the Port of Gdansk Authority SA in the first quarter of 2014, through the conclusion of contracts between the Port of Gdansk Authority SA and the contractor and engineer in mid-2014, to the final stage, the completion of construction work on the expansion of the terminal and obtaining of the certificate of occupancy.

The photographs included, and their descriptions, are intended to present the broad spectrum of tasks and works that the project involved. The publication is intended to be not only informative, but also commemorative. It is an expression of gratitude towards all those who took part with unwavering effort in this investment project, so important for the future of the port, representing yet another contribution to the programme of development of the potential of the Port of Gdansk and its future, in not only the Baltic, but also the European international arena.











### PROJECT SPECIFICATION:

#### The Task

"Expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay" carried out under co-financing agreement no. POIS.07.04.00-00-025/13-00

#### **Project Participants**

Contracting Party:

Port of Gdansk Authority SA, ul. Zamknięta 18, 80-955 Gdansk On the part of the Contracting Party, the task was carried out by a Task Force appointed pursuant to Company Board Resolution no. 17/2014 of 23 April 2014.

#### Engineer

Consortium:

Portico Project Management and Partners Limited Partnership, with its registered office at ul. Gdańska 27/31, 01-633 Warsaw – Consortium Leader: ECM Group Polska SA with its registered office at ul. Rondo ONZ 1, 00-124 Warsaw

#### Contractor:

STRABAG Ltd. ul. Parzniewska 10 05-800 Pruszków

#### **Project Value:**

Eligible costs of the project: PLN 21.6 million

Subsidy granted: PLN 10.8 million

Total value of the project: PLN 26.9 million





## THE SEQUENCE OF WORKS ON THE EXPANSION OF THE INTERMODAL CONTAINER TERMINAL:

On 11 March 2014 in Warsaw, the State Treasury – Centre for EU Transport Projects – and the Port of Gdansk Authority SA concluded a co-financing agreement for the project "Expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay" implemented under the 2007–2013 Infrastructure and Environment Operational Programme, Priority 7, Environment-friendly transport, measure 7.4, Development of intermodal transport.

A month later, in mid-April 2014, by way of an open tender procedure, Strabag Ltd. was selected as the contractor for construction work and design services. Supervision on behalf of the investor was entrusted to the consortium of Portico Project Management and Partners Limited Partnership – the consortium leader – and ECM Group Polska SA.

Contracts for both the execution of the construction work and the investor's supervision services were ceremonially concluded by the Port of Gdansk Authority SA on 17 June 2014, thus initiating the process of project execution.

In March 2015, the Port of Gdansk Authority SA officially handed over the construction site to the contractors, and a month later, after the required permits had been obtained, the construction work officially began. Within just 7 months, the intended objective was achieved, i.e. all of the project's construction and engineering tasks were completed, and by the end of November 2015 the certificate of occupancy was obtained.

#### Important dates:

Conclusion of the co-financing agreement	11 March 2014
Opening of tenders for the design and construction work	15 April 2014
Opening of tenders for the Engineer's services and investor's supervision	15 April 2014
Conclusion of contract with the Contractor	17 June 2014
Conclusion of contract with the Engineer	17 June 2014
Construction permit – decision issued	21 April 2015
Handing over of the construction site	12 March 2015
Certificate of occupancy – decision issued	27 November 2015
Taking-Over Certificate issued	1 December 2015











### PROJECT EXECUTION:

The project to expand the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay was initiated with the aim of improving the technology and quality of service at one of the port's intermodal transport links – the container terminal located in the internal part of the Port of Gdansk. The project also had the objective of balancing all of the functions of the terminal, i.e. the storage and handling capacity of the area adjacent to the quay and the quay's throughput capacity.

The investment involved enlargement of the storage area, enhancement of the traffic system and parking zones, and improvement of the water and sewage management system. The project also included improvement of the supply of utilities, as well as provision of lighting and fencing.

The work resulted in improvement of the conditions for road-sea, rail-road-sea, and rail-sea transport services in terms of unit turnaround time. In the course of the development, appropriate improvements to the container handling and storage facilities were also made. Ultimately, the container terminal modernisation programme aims to achieve a throughput capacity of approximately 100,000 TEU (i.e. 20-foot containers) per year.

The investment covered a total area of nearly 4 hectares (3.71 ha), of which 2.57 ha was the surface area for the conversion of the container storage yard, and the remaining 1.14 ha was used for the conversion of the external and internal traffic system of the terminal.

Overall, the expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay included project components such as:

- conversion of the container storage yard along with the storage yard for containers carrying dangerous goods
- conversion of the external and internal traffic system with the parking zone for waiting cars along with the construction of an entrance portal to the terminal area
- expansion of the stormwater drainage system
- expansion of the sanitary sewage system
- expansion of the water supply system
- · expansion of the power network and the telecommunications and IT network
- · conversion of the gas distribution system
- extension of the KONE crane tracks
- · construction of new fencing
- · demolition and dismantling work.









# TECHNICAL CONSIDERATIONS IN THE EXECUTION OF THE PROJECT

To determine the optimum parameters and conditions for the expansion of the terminal, in the years 2005–2013 the Port of Gdansk Authority SA conducted a series of geological studies, as a result of which it was established that the area of the planned investment was characterised by very complex geotechnical conditions. The presence of mineral-humus-debris fill material deposits was identified across the entire area, with a depth of up to 3.0 m from the surface.

The demonstrated low bearing capacity of the ground was the basis for the pre-project determination of the maximum number of tiers of stacked containers and the method to be used for reinforcing the ground.

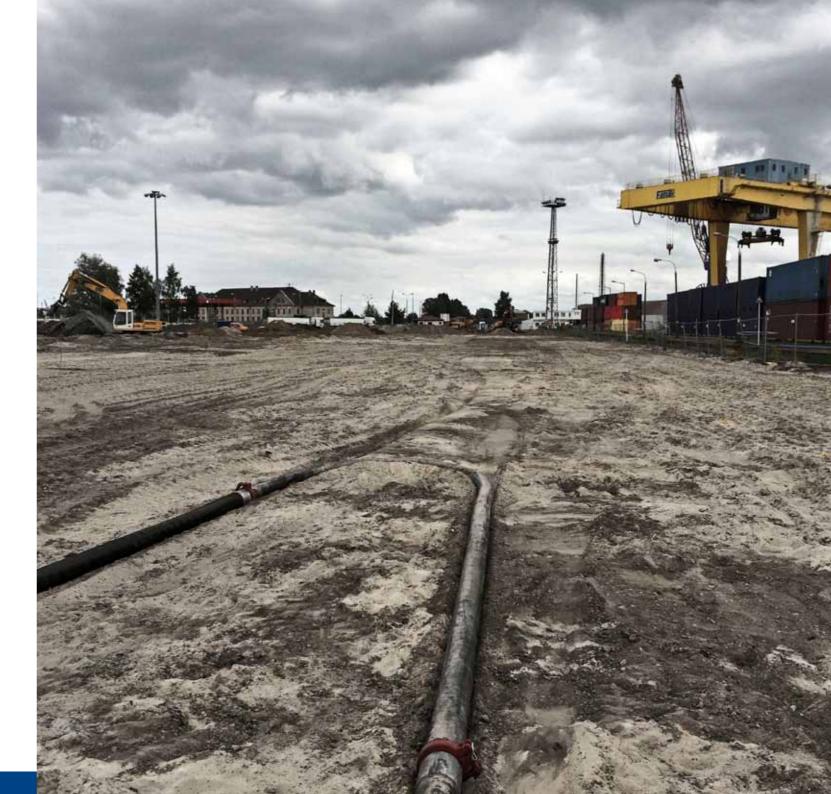
The optimum technical and economic solution, making it possible to maintain the target annual throughput capacity of the terminal at the level of 100,000 TEU, was to reinforce the ground with gravel and cement columns and determine the maximum height of the stacks of full containers within the terminal area at up to four tiers, with a fifth handling tier taken into account.

Under the contract for the design and the expansion of the intermodal container terminal in the area of the Port of Gdansk's Szczecinskie Quay, the ground was reinforced across an area of ca. 25,000 square metres with 4,500 hybrid (gravel and cement) columns.

Constructed on a substrate prepared in this manner, the yard will now accommodate 456 twenty-foot containers and 30 twenty-foot containers with dangerous goods in one tier, which — with four-tier stacking — will make it possible to accommodate a total of 1,824 twenty-foot containers and 120 containers with dangerous goods simultaneously. This, in turn, fulfils the target of maintaining the annual throughput capacity of the terminal at a level of 100,000 TEU a year.



























The Port of Gdansk Authority SA would like to express its gratitude to all those involved in the execution of the project to expand the intermodal container terminal in the Port of Gdansk, including:

the staff of the Centre for EU Transport Projects
for their contribution to the execution and settlement of the project,

the contractor for the construction work – Strabag Ltd.

for its professional and efficient execution of the development,

the consortium of Portico Project Management and Partners Limited Partnership

and ECM Group Polska SA

for supervising the execution of the project on behalf of the investor

and

the entire Task Force and the Ad Hoc Group appointed to implement the project on behalf of the Port of Gdansk Authority SA.







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