



LUČKA UPRAVA RIJEKA
PORT OF RIJEKA AUTHORITY

GREEN PORT IS GOING DEEP

ENVIRONMENTAL FRIENDLY

new Deep Sea container terminal in Port of Rijeka

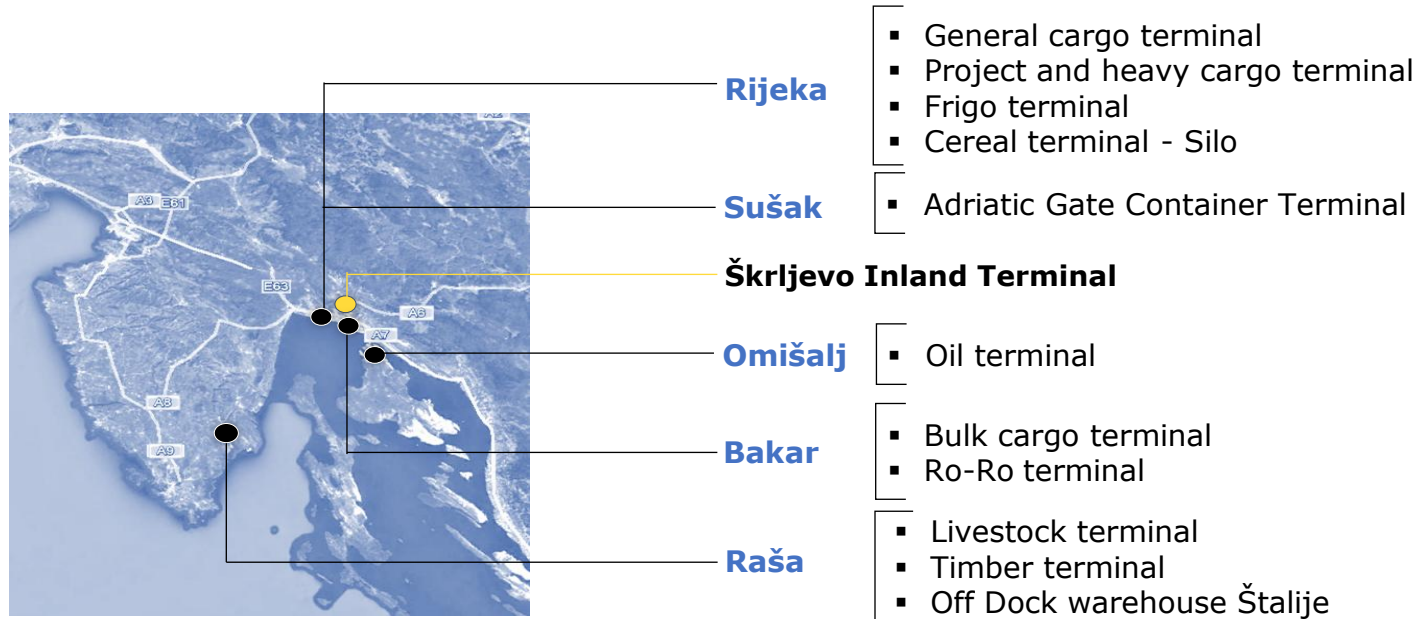




RIJEKA GREEN PORT

Overview

- Established in 1996, PRA is responsible for management, planning and strategic development Port of Rijeka
- Port operations are taken over by various concession holders
- Port of Rijeka is a multi-purpose port system capable of handling various type of cargo at 5 basins





RIJEKA GREEN PORT

Environment Protection Policy

- **Implementation of environmental protection system** including the best available technologies into the development plans of the port area
- **Aligning of all port operations and activities** with Croatian and international regulations and conventions, as well as requirements of the international standard **ISO 14001: 2015**
- **Systematic monitoring of environmental indicators and providing measures to reduce negative environmental impacts**
- **Preventive actions** to reduce environmental pollution and possible damage in case of contamination
- **Agreement on Joint Environmental Protection**, which ensures the common and systematic action of all stakeholders of the Rijeka Port System on environmental protection and sustainable development



RIJEKA GREEN PORT

Environment Protection Management

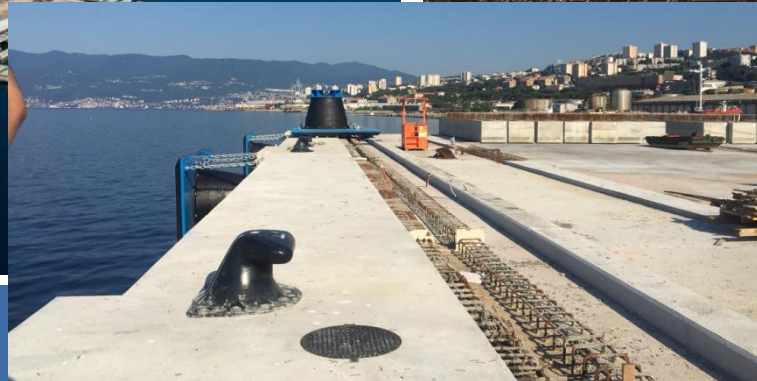
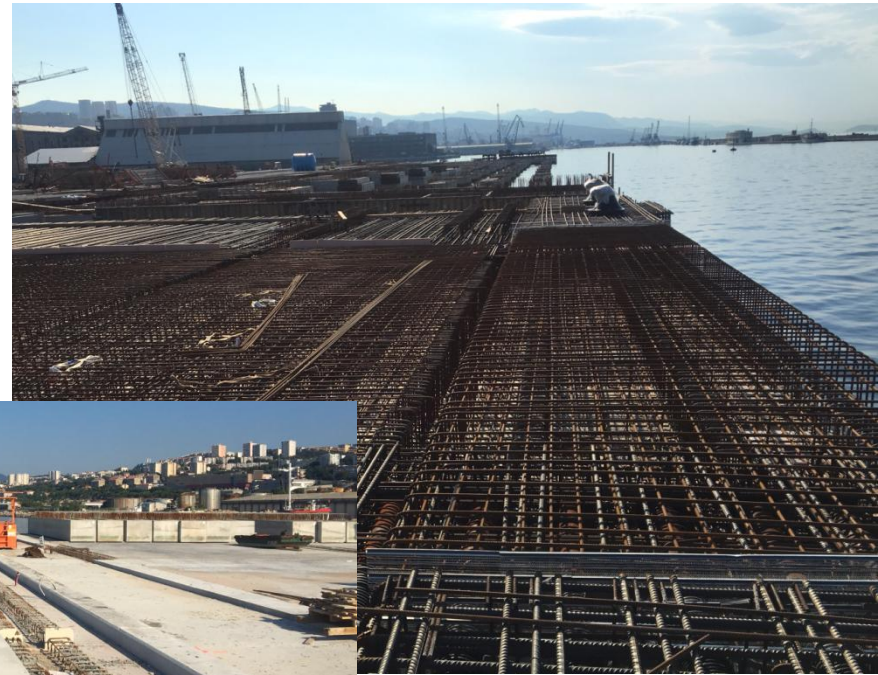
- **PRA manages and plans strategic development** of the entire area of Port of Rijeka **including environmental protection guidelines** to be implemented by terminal operators
- **PRA is a member of ECOPORTS** (since 2007)
- **PRA has certified systems:**
 - Quality management ISO 9001: 2015
 - Environmental protection ISO 14001: 2015
- **Application NIMBUS CONTROL key element of the environmental management system**



GREEN TERMINAL

Zagreb Deep Sea Container Terminal

Current status of project





GREEN TERMINAL

Zagreb Deep Sea Container Terminal

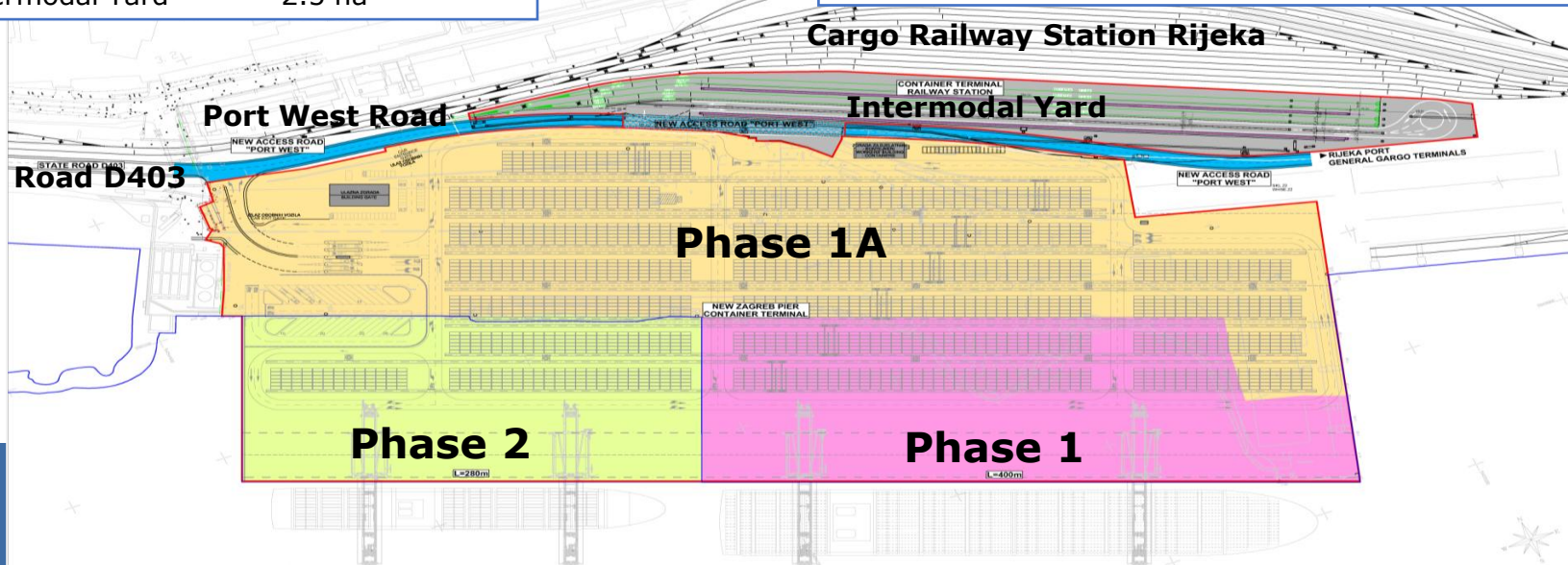
Phase 1+1A:

- Opening: 2023
- Quay length: 400 m
- Depth alongside: CD -20.0 m
- Area: 13.6 hectares
- Ground slots: 1,968 TEU GS
- Capacity: 400,000 TEU
- Intermodal Yard: 2.5 ha

Terminal specifications

Phase 2:

- Opening: Investor responsibility
- Quay length: additional 280 m
- Depth alongside: CD -20.0 m
- Area: additional 3.7 ha
- Ground slots: additional 504 TEU GS
- Capacity: at least 200,000 – 400,000 TEU depending on TO technology





GREEN TERMINAL

Zagreb Deep Sea Container Terminal

Modal Split Project in Progress

CEF: Upgrade of the Rijeka Port infrastructure - Zagreb DS CT

Value of project: € 31,587 Mio

Activities:

- Reconstruction of cargo section of Rijeka Railway station
- Construction of an Intermodal Yard

Implementation phase

Completion date 31/12/2020



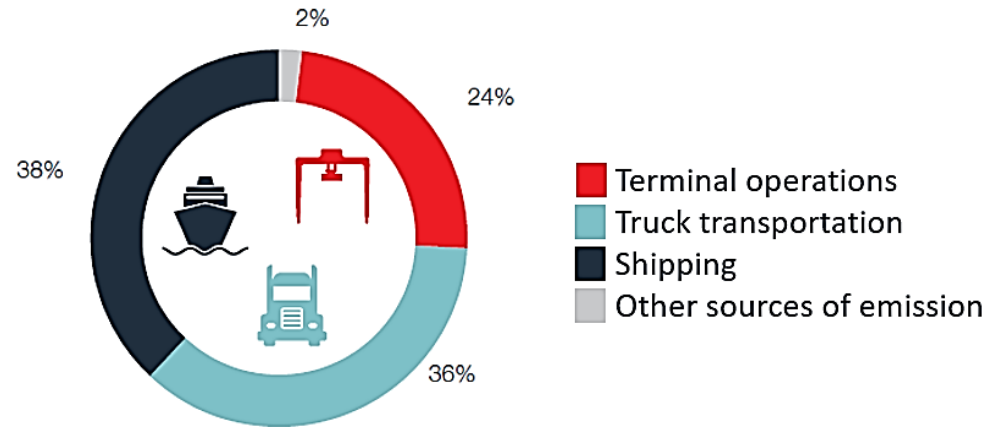


GREEN TERMINAL

Zagreb Deep Sea Container Terminal

Recommendations to reduce terminal impact on the environment

Breakdown of emission sources at a container terminal



- Zagreb DS CT is located on the edges of the Rijeka city centre
- Strong requirements for design and operation of the terminal to keep at minimum impact on the surrounding area



GREEN TERMINAL

Zagreb Deep Sea Container Terminal

Recommended Technology



Quayside cranes of the Zagreb DS CT adjusted to the type of vessels sizes which are expected to increase to 18,000 TEU



GREEN TERMINAL

Zagreb Deep Sea Container Terminal

Recommended Technology

- **Quayside**

- Megamax Cranes capable to handle Ultra Large Container Vessels (ULCV)
- Megamax Cranes with state-of-the-art technology that significantly reduce environmental impact



- **Yard and Horizontal Transport**

- Rubber-Tyred Gantry Cranes - eRTG
- Terminal Tractors – Hybrid or Electric





GREEN PORT IS GOING DEEP

Environmental friendly

- **Starting point to the low-carbon economy**
 - reduction of 80-95% of greenhouse gas emissions by 2050
- **Climate and Energy Framework 2030**
 - reduction of greenhouse gas emissions by at least 40%
- **Obliges Republic of Croatia and Port of Rijeka, as well to meet the European Union goals**

In that direction we will continue to work !



GREEN PORT IS GOING DEEP

Thank you for the attention