

THE PORT OF CONSTANTA THE EUROPEAN EASTERN GATE



www.portofconstantza.com
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EURO-ASIAN TRANSPORT LINKS 3

Joint Workshop
"Financing Transport
Infrastructure"

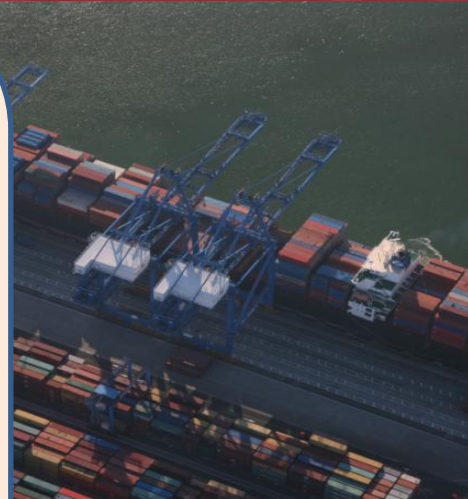
*Geneva
10th September 2013*

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Project Manager
Constanta Port Administration

ABOUT CONSTANTA PORT



- **The largest and deepest port on the Black Sea**
- **Total surface (land & water): 3,926 ha**
- **140 operational berths**
- **Quay length - almost 32 km**
- **Breakwaters – 14 km**
- **Natural depths between 7 – 19.5 m**
- **Port complying with the ISPS Code and the EU security regulation in force**
- **Environment management system implemented**
- **Free port status starting with January 2007**



Constantza North Port

Constantza South Port

ABOUT CONSTANTA PORT



- Constanta Port is the main container hub for the Black Sea area
- Constanta intermodal Port - good connections with all the transport modes (*and continuously improved by projects development i.e. SOP-T – road, rail, etc.*)
- Constanta multipurpose port – facilities for all types of cargo
- Modern facilities for passenger vessels
- Land availability for future expansion (700 ha)



CONSTANTA PORT ADVANTAGEOUS LOCATION



- geo-strategic location
- important TEN-T and TRACECA port
- BSEC “Motorways of the sea” Ad-hoc Working Group member

- rail connection – Corridor no. IV- Bucharest - Constanta segment
- inland waterway connection – Danube River (2.5 m draft to be navigable)
- road connection (Corridor IX) – connecting the Port with the Bucharest-Constanta highway (**2 hours distance**)

DANUBE CORRIDOR



- connection of Constanta Port with the Danube River is made through the Danube-Black Sea Canal
- the Canal is 64.4 km long and 90 m wide and has a water depth of 7 m and 17.5 m clearance under the bridges
- Direct transshipment and multiple facilities for barge traffic and operations
- The Danube - an efficient alternative to the European rail and road transport
- Romanian sector of Danube – 1,075 km, Danube’s most navigable section
- 4 locks on the Lower Danube

DANUBE – POTENTIAL ALTERNATIVE FOR FAR EAST-CENTRAL EUROPE TRADE



- For goods transiting from the Far East to destinations in Central Europe the link Danube River – Constantza Port is made via Danube – Black Sea Canal offers a maritime transport alternative which is 4,165 km shorter (removing bottlenecks – alternative for i.e. Rotterdam Port, reducing time and costs, environmental friendly alternative)

- Largest port in Black Sea, with natural depths that can accommodate the largest ships (300 meters) passing through Bosphorus Strait

EUROPEAN HINTERLAND



- Constantza Port Hinterland is represented by the countries from Central and Eastern Europe: Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Serbia, Bulgaria and Moldavia

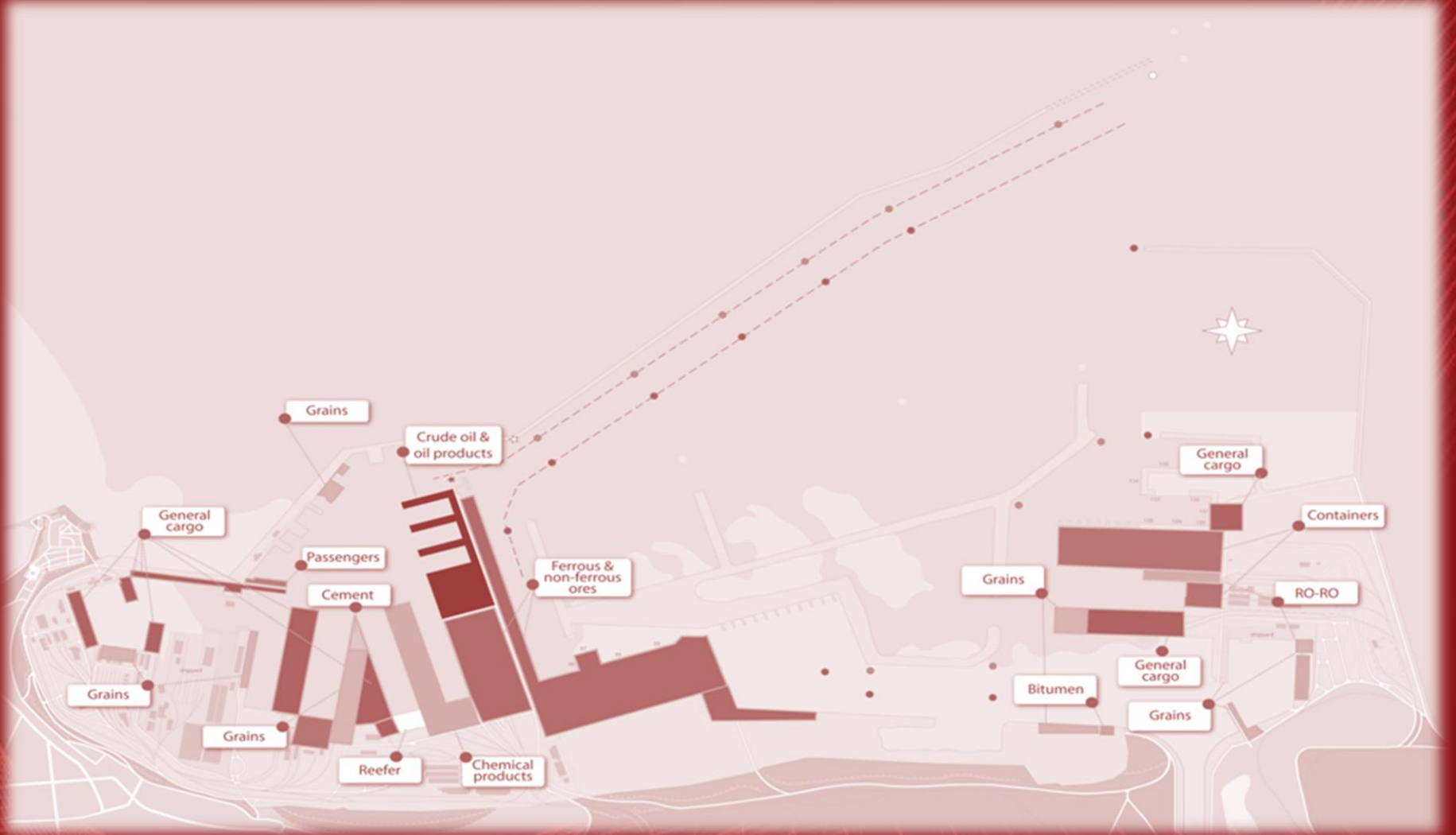
- Serving international connectivity for the landlocked countries (transit)

DIRECT SERVICES CONSTANTA - ASIA



<i>Agent</i>	<i>Route/ Regular lines</i>
COMPANIE MARITIME D'AFRETTMENT	Dahlian-Tianjin-Pusan- SHANGHAI -Ningbo-Taipei-Chivan-Yantian-Tanjung Pelepas-Port Kelang-Izmit-Mardas- CONSTANTA -Odessa-Ilichevsk-Mardas-Damieta - BEX Service
AP MOLLER MAERSK A/S	Izmit-Ambarli Port- CONSTANTA -Odessa-Ilychevsk-Ambarli Port-Port Said-Port Kelang-Singapore-Dalian-Xigang-Kwangyang-Busan- SHANGHAI -Ningbo-Chivan-Yantian-Tanjung Pelepas
CHINA SHIPPING CONTAINER LINES	SHANGHAI - Ningbo - Shekou - Singapore - Port Kelang - Suez Canal-Pireus - Istanbul - CONSTANTA - Ilyicevsk - Suez Canal-Port Kelang- Shanghai-Ningbo-Shekou-Singapore – ABX Service
YANG MING LINE	
WAN HAI LINES	
MOL (Mitsui O. S. K. Lines Japan)	
HAPAG LLOYD	Ningbo- SHANGHAI -Shekou- Hong Kong-Singapore-Port Said-Ashdod-Istanbul- CONSTANTA -Odessa-Istanbul-Ashdod-Port Said-Singapore-Ningbo - ABX Service
OOCL (Orient Overseas Container Line)	

ALL KIND OF CARGO



CONSTANTA PORT FACILITIES

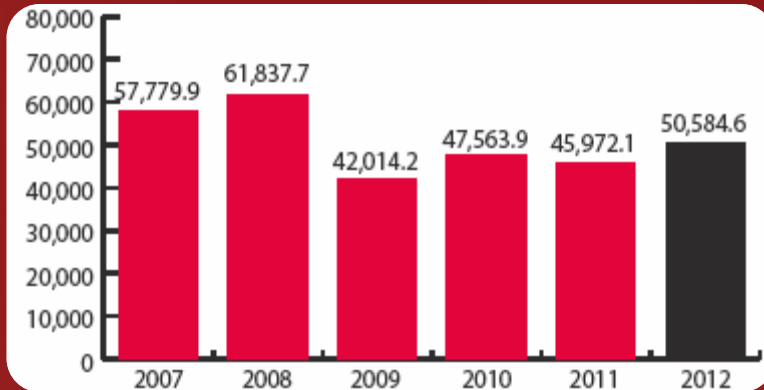


- Container hub
- Cereal hub
- Largest platform for dry bulk cargo operation in South East Europe
- Oil and LPG Terminals
- Ro-Ro/Ferry Terminals
- Passenger facilities
- *Future strategy: developing Constanta as a logistic center*

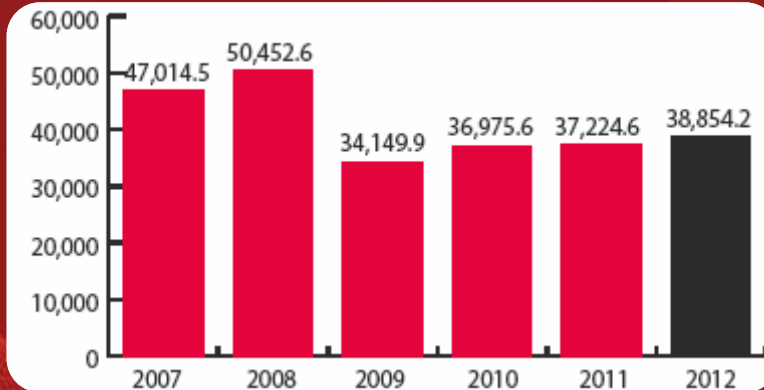
TRAFFIC – thousand tons



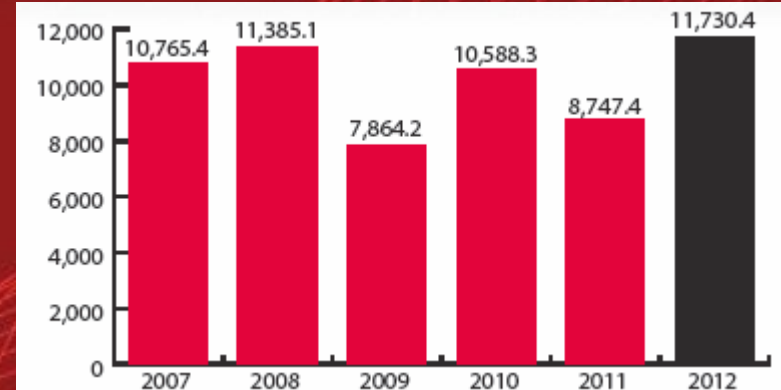
total



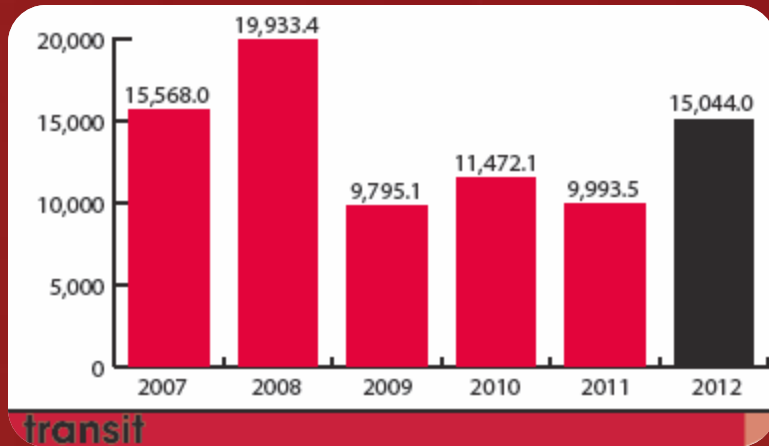
maritime



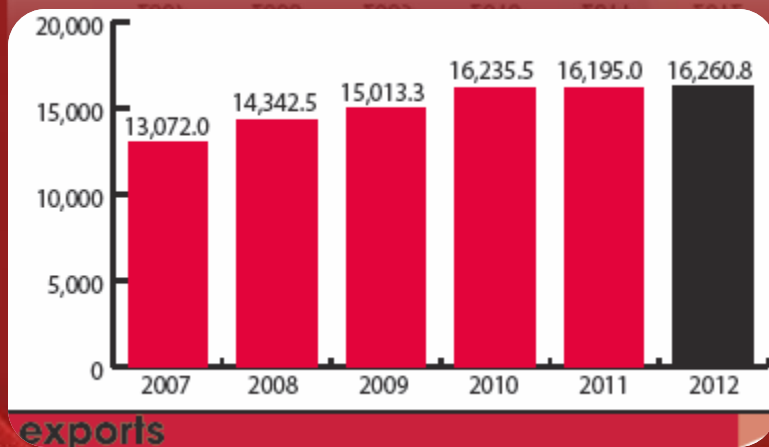
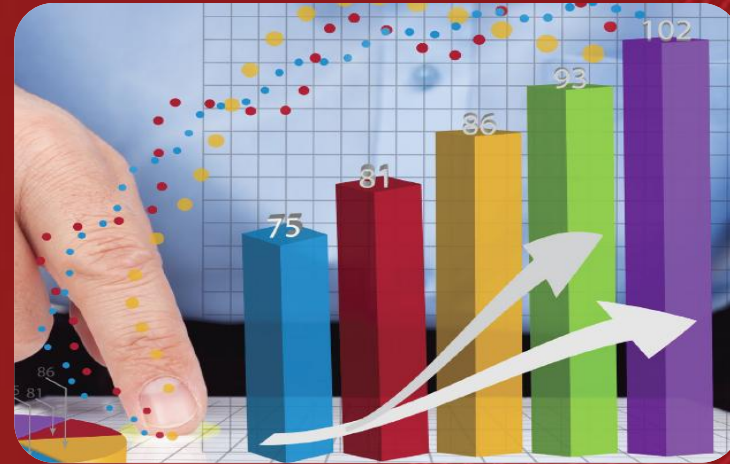
river



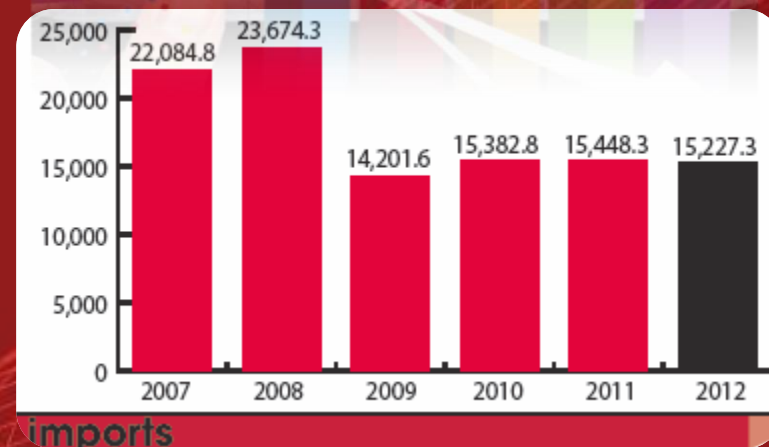
TRAFFIC – thousand tons



transit



exports

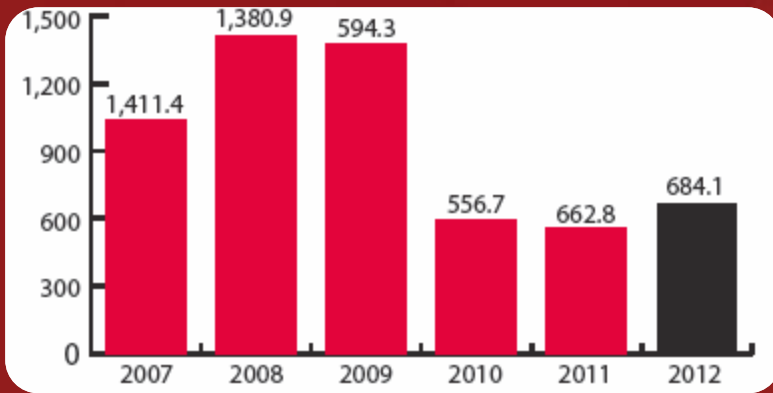


imports

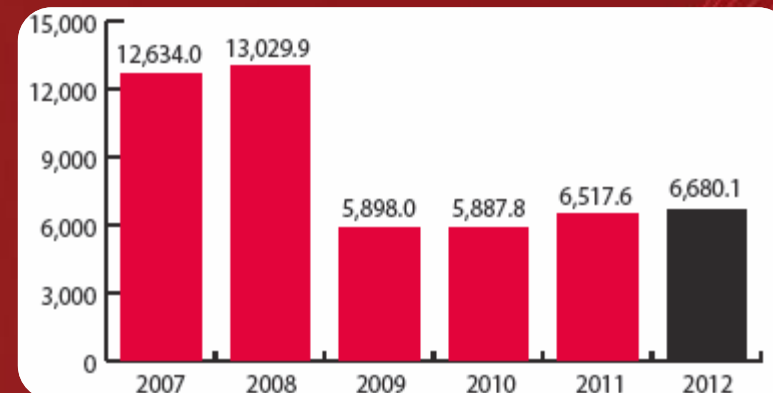
TRAFFIC – containers



thousand TEUs



thousand tons



TRAFFIC – Constanta Port



total traffic by category

Tonnes	Unloaded	Loaded	Total
Liquid bulk	7,062,798	2,953,134	10,015,932
Dry bulk	13,962,667	15,739,125	29,701,792
Containers	2,988,931	3,691,176	6,680,107
Ro-Ro	141,837	314,760	456,597
General cargo	1,335,050	2,395,184	3,730,234
Total	25,491,283	25,093,379	50,584,662

Grains – supported Constanta Port traffic during the crisis period.

main type cargo operated last years

Year	2007	2008	2009	2010	2011	2012
Cereals	4,257,869	6,670,362	10,418,679	12,061,966	9,534,972	12,628,340
Iron ores, scrap	10,794,034	11,379,572	3,843,098	5,354,094	4,731,028	6,888,094
Oil products	3,772,324	4,135,239	3,954,104	4,107,660	3,600,332	3,999,621
Coal, coke	4,798,222	7,109,433	2,731,656	2,988,594	3,151,964	3,504,331
Non-ferrous ores and scrap	998,924	693,818	550,249	2,560,682	2,609,918	2,643,509
Natural and chemical fertilizers	1,863,531	1,896,207	1,344,468	1,765,865	2,015,114	2,153,597
Metal products	3,693,890	2,133,042	1,525,155	1,471,640	2,189,071	1,871,458
Other chemical products	1,561,487	1,291,080	828,403	1,543,533	1,484,861	1,029,540

DEVELOPMENT STRATEGY



Projects financed under SOP-T 2007-2013 (ongoing)

1. **Completion of the Northern Breakwater of Constantza Port - extension by 1,050m (euro 136 mil.)**
2. **Road bridge on km 0+540 of the Danube-Black Sea Canal (euro 30 mil.)**
3. **Development of the railway capacity in the river-maritime area of Constantza Port (euro 17 mil.)**
4. **The Southward Extension of the Lighter Berth in the Port of Constantza (euro 5 mil.)**



Projects proposed to be financed under SOP-T 2007-2013 (initiated):

1. NEW MASTER PLAN FOR CONSTANTA PORT

General objective:

Providing conditions for efficient development of maritime transport system through:

- port infrastructure enhancement and port operations efficiency leading to increased attractiveness of the port in terms of cargo and passengers
- preparing the future projects portfolio

Specific objective:

Setting up the necessary framework to promote the development of Constantza port for the period 2014-2020, through optimal planning of investments in transport infrastructure

Expected results:

- Diagnostic analysis of existing situation
- Strategy alternatives
- Master Plan on short, medium and long term
- **Constanta Port Master Plan will complete the National Master Plan (to be finished this year)**

Estimated value: 2 mil. Euro (ongoing tender)

DEVELOPMENT STRATEGY



Projects proposed to be financed under SOP-T 2007-2013 (initiated):

2. MODERNIZATION OF THE PORT INFRASTRUCTURE BY INCREASED SAFETY AND DEPTHS DEEPENING WITHIN THE BASINS AND FAIRWAYS OF CONSTANTA PORT

Necessity:

NC MPA SA Constanta is responsible for the safe access and operation of the vessels calling in Constanta Port. In this respect, special works are necessary to be carried out: dredging in the basins and access fairways and maintenance of the berths depth including the stability of mooring constructions.

Estimated value: 49.5 mil Euro (future tender)



DEVELOPMENT STRATEGY



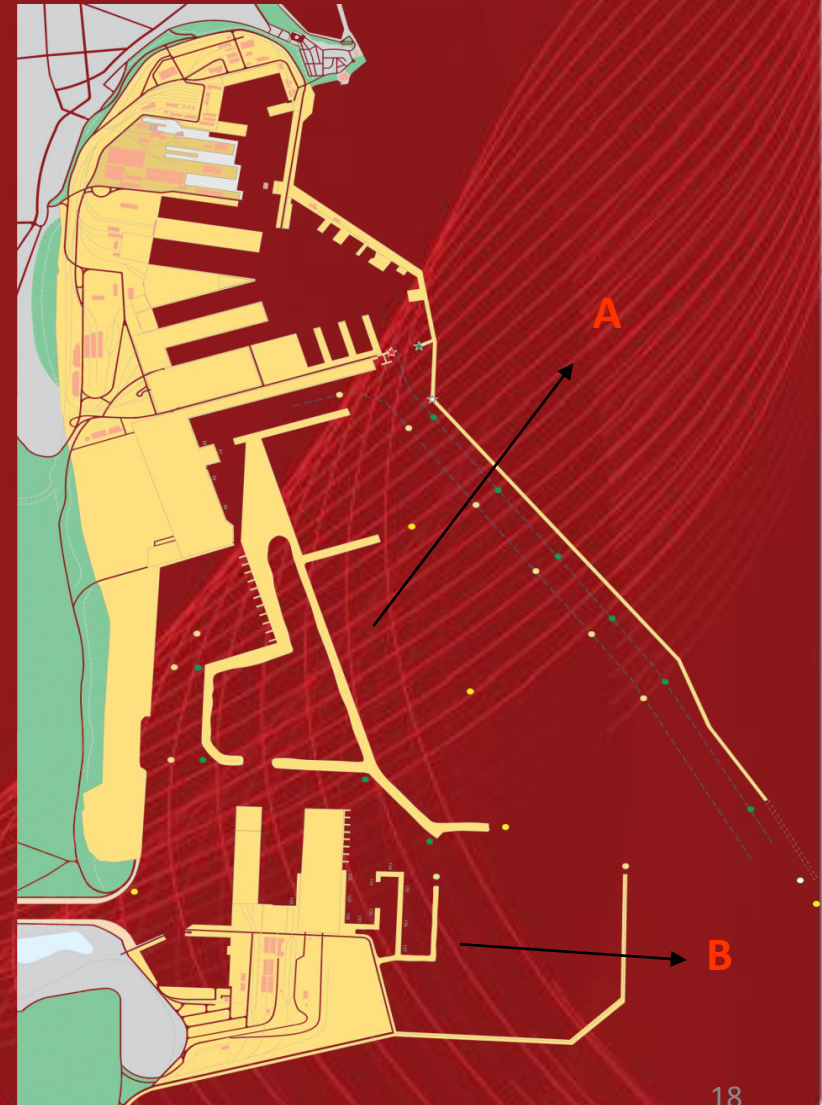
MAJOR PROJECTS – FINANCING TO BE IDENTIFIED

A. DEVELOPMENT OF THE ARTIFICIAL ISLAND

- A great potential for the development of other economic activities in the Port is represented by the Artificial Island
- The Artificial Island has an area of 22.1 ha and it is a territory created with fillings from the excavations of the Danube-Black Sea Canal
- The total area that can be achieved by the infrastructure works is 300 ha

B. COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS

- The Southern Area of Constanta Port offers excellent development opportunities due to its large depths that allow the accommodation of high capacity vessels.



COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS



- **2010-2011** - Joint Taskforce **Romanian Ministry of Transport** and the **European Gateways Platform** (public-private entity supported and co-financed by the Dutch Government) prepared the **“Intermodal Strategy Romania 2020”** to be in line with the European Union Strategy **“Europe 2020”**.
- **Constanta Port** - one of the key important locations **to facilitate** the existing and prospective **demand for inter-modal transport** on short term (i.e. the existing SOP-T period 2010-2013) but also for the medium and long-term period (2014-2020).
- **The expected growth of containerized traffic** (using containers is also an EATL recommendation) through the Port of Constanta will require expansion of the port facilities. **The South Port of Constanta** is considered to be the right location for this by European Gateways which delivered **an integrated transport modes solution for the South Port of Constanta extension (a pre-fesibility study for PierIII-PierIV development**, that offers the possibility to use all **three modes of connections: road, rail and inland waterways.**
- **Development of this project is also in line with EATL strategy – maritime terminal development**

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – **project readiness**

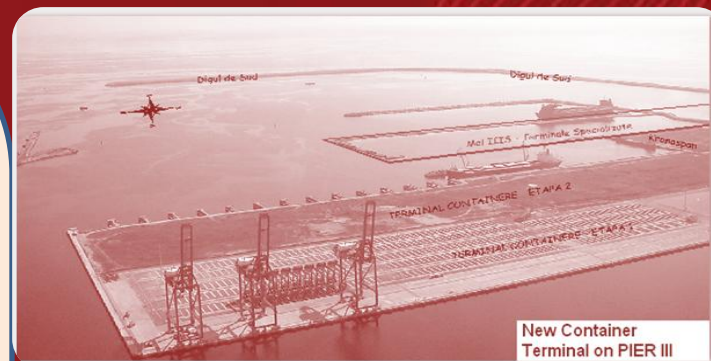


- **Three design concepts** have been developed for the new container terminal and logistics park in the south side of Constantza Port

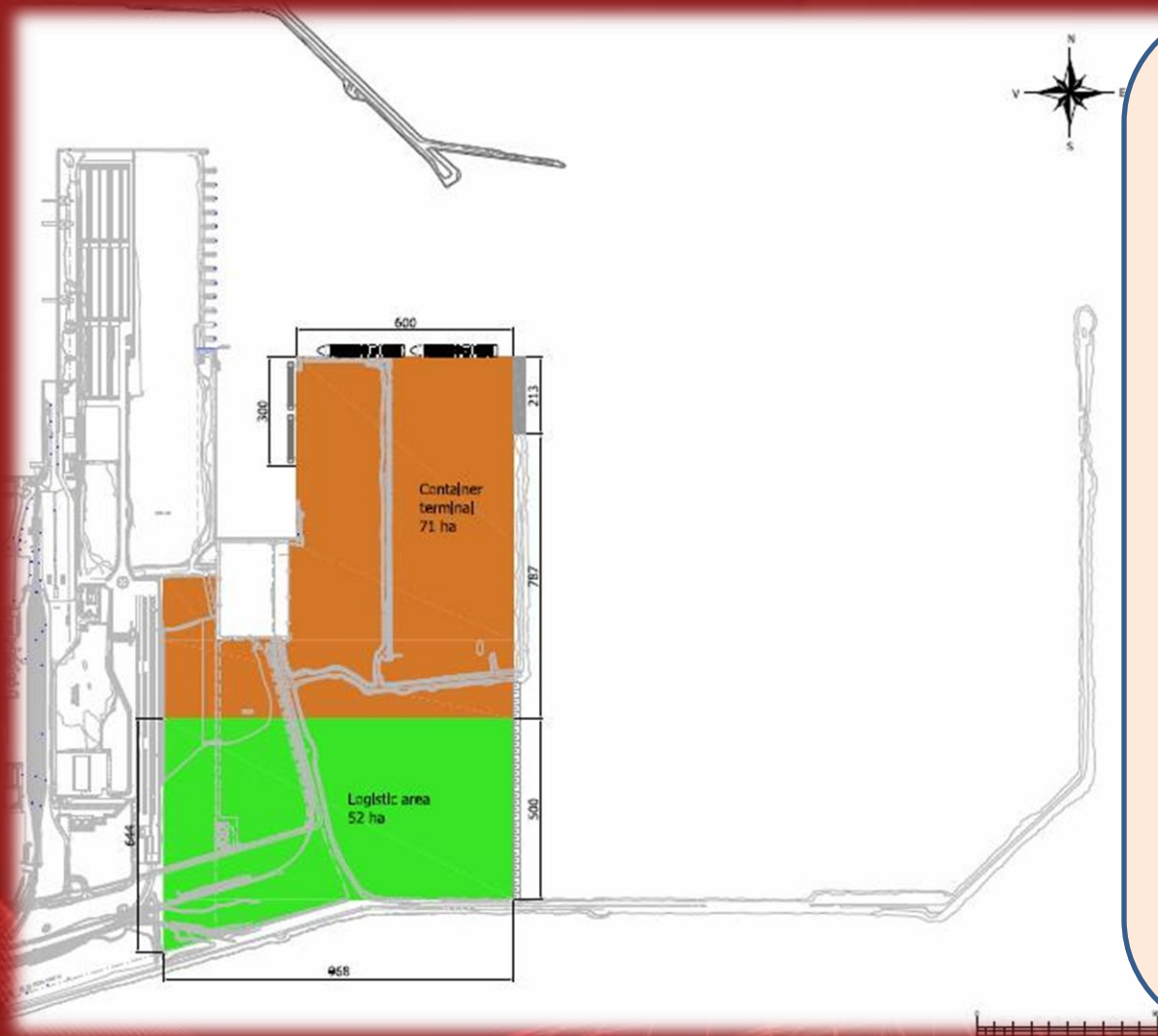
- Based on the traffic forecast the designed capacity of the **new container terminal** in its first phase has been established;

- **The first phase** of the terminal will be based on a maximum throughput of approx. **1 million TEUs per year** with a deep sea quay wall of **600m**, a barge quay wall of **300m** (two berths) and a land area of about **70 ha**;

- The traffic forecast indicates a throughput of approx. 5 million TEUs in 2035. All concepts are able to handle this amount of containers in the foreseeable future.



COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – concept 1



Concept 1 suggests the location of the new container terminal at Mol 3, including the area between Mol 3 and Mol 4. The barge terminal is West of Mol 3 and the deep sea terminal in the North. The existing breakwater from Mol 4 can be retained and should be increased in length by 213 meter.

Deep sea quay: 600 m

Barge quay: 300 m

Container terminal area: 71 ha

Logistic area: 46 ha

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – concept 2



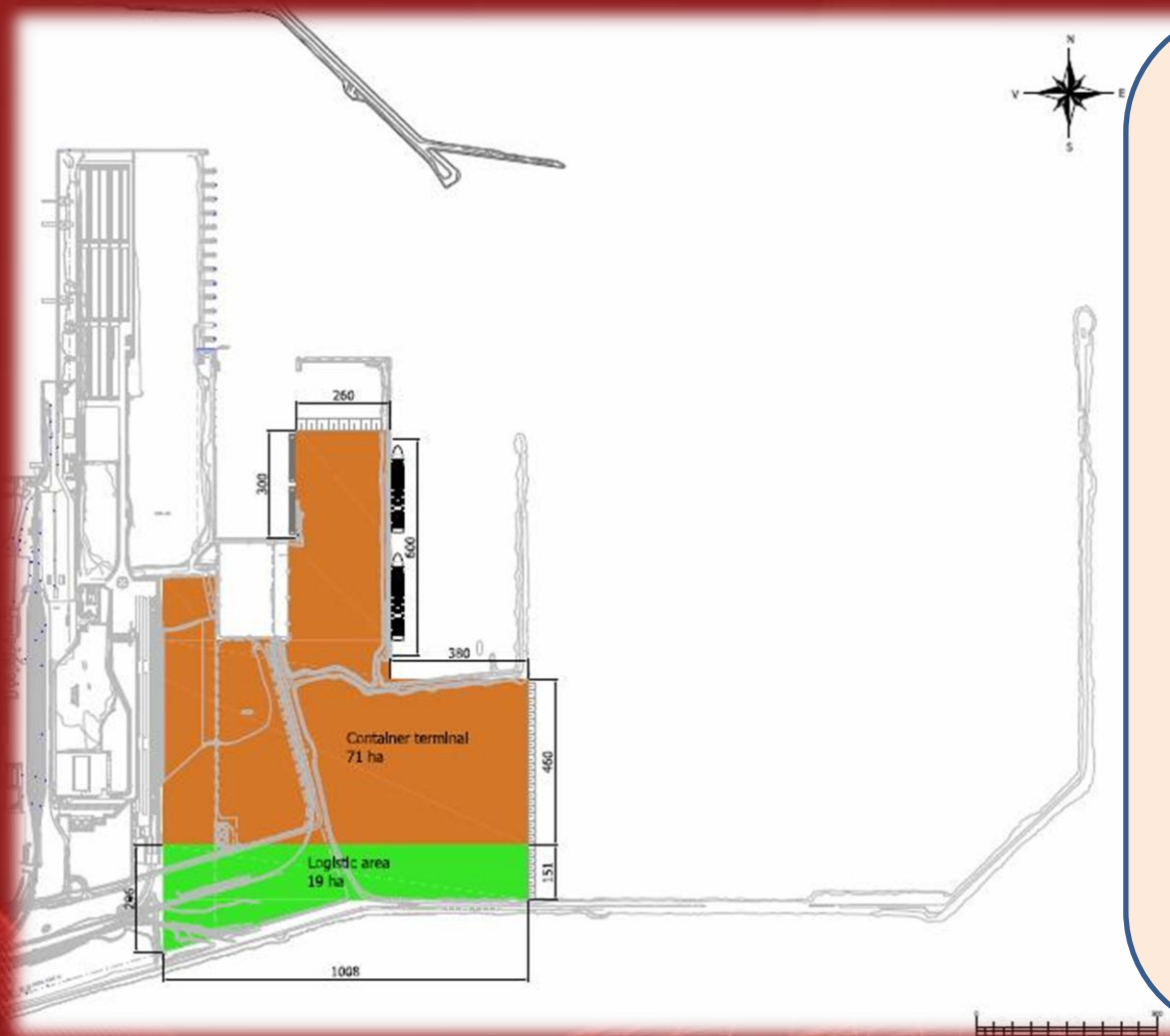
Concept 2 makes use of the existing quay wall and caissons at MOL 3. The barge quay is located on the West and the deep sea quay on the East. With a space of only 260 meters between the two quays most of the containers will be stored South of Mol3. The deep sea quay could use the caissons already placed on the East of Mol3.

Deep sea quay: 600 m

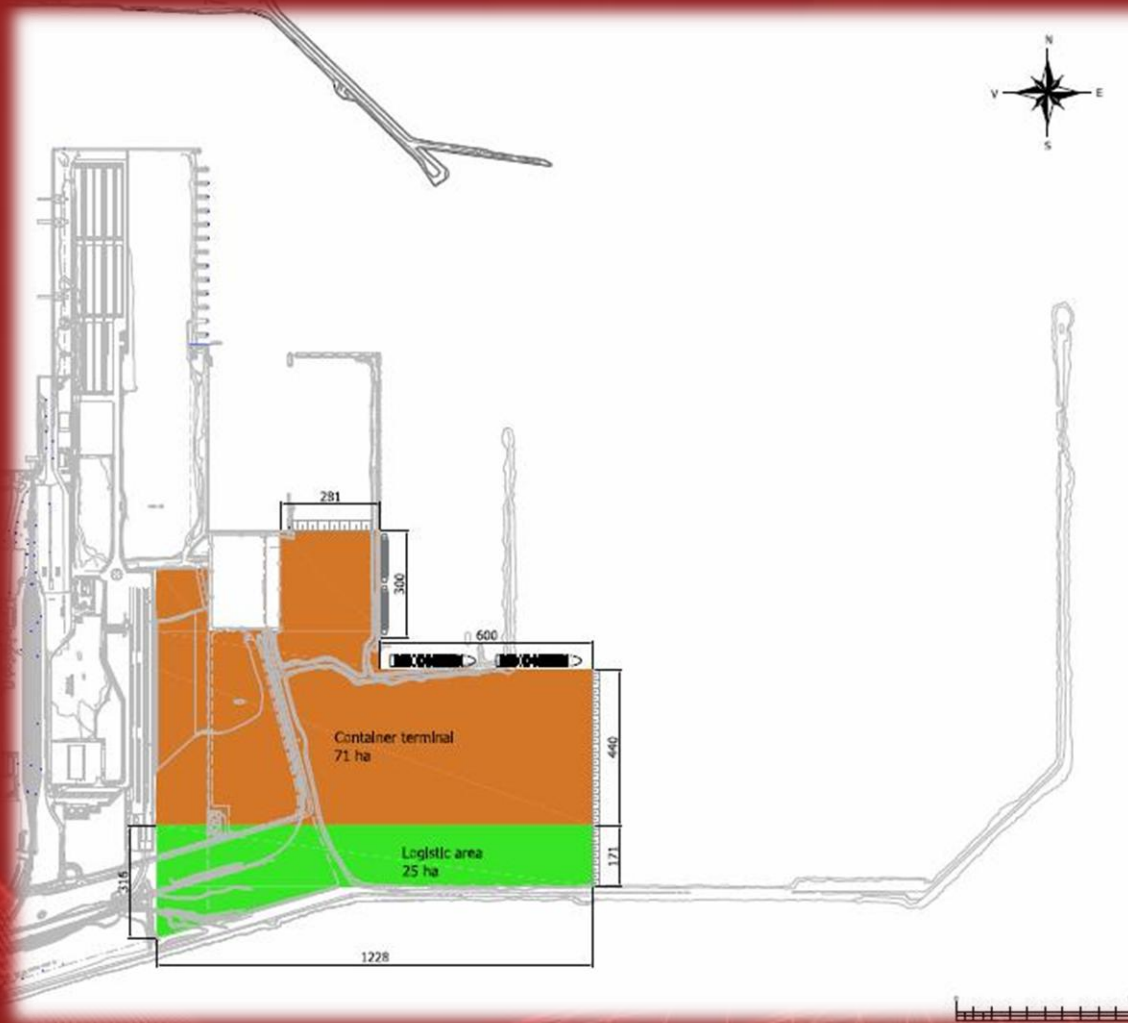
Barge quay: 300 m

Container terminal area: 71 ha

Logistic area: 13 ha



COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – concept 3



Concept 3 shows the new container terminal mostly on the South of Mol 3. The barge quay could use the caissons and quay already constructed. The depths of the water are only 7 meters South of Mol 3.

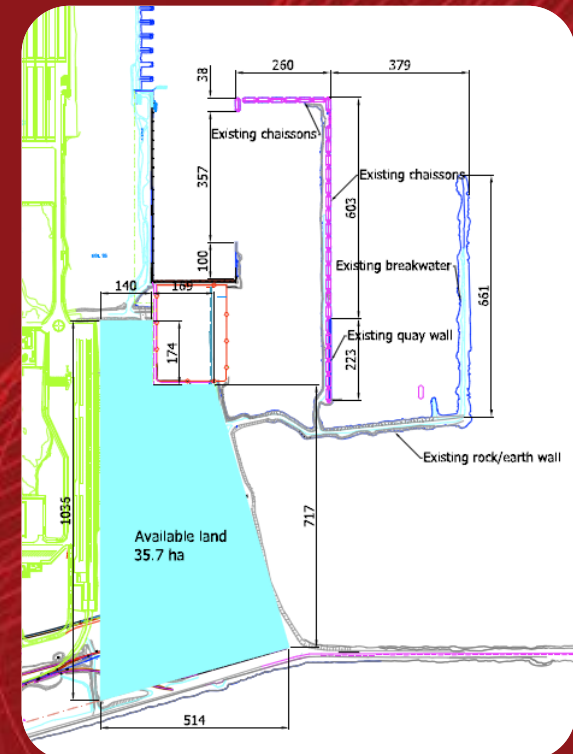
<i>Deep sea quay</i>	<i>600 m</i>
<i>Barge quay</i>	<i>300 m</i>
<i>Container terminal area</i>	<i>71 ha</i>
<i>Logistic area</i>	<i>19 ha</i>

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study



All three concepts provide ample expansion possibilities and phasing to cater for the container throughput in the year 2035. The main parameters for expansion of different terminal designs are shown in the table below.

	Concept 1	Concept 2	Concept 3
Container terminal area (ha)	170	179	140
Deep sea quay (m)	3,242	4,326	4,407
Ratio m2 per m quay (m)	524	414	318
Reclamation volume (m3)	9,315,350	4,835,500	4,730,500



COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – current situation Pier III



It can be seen that Pier III contains caissons. On a small part of these caissons a quay wall has been created, however most of the caissons do not have the superstructure, such as the capping beam. The current quay wall is used to moor vessels and to transfer cargo from vessels to barges and other vessels.

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – current situation



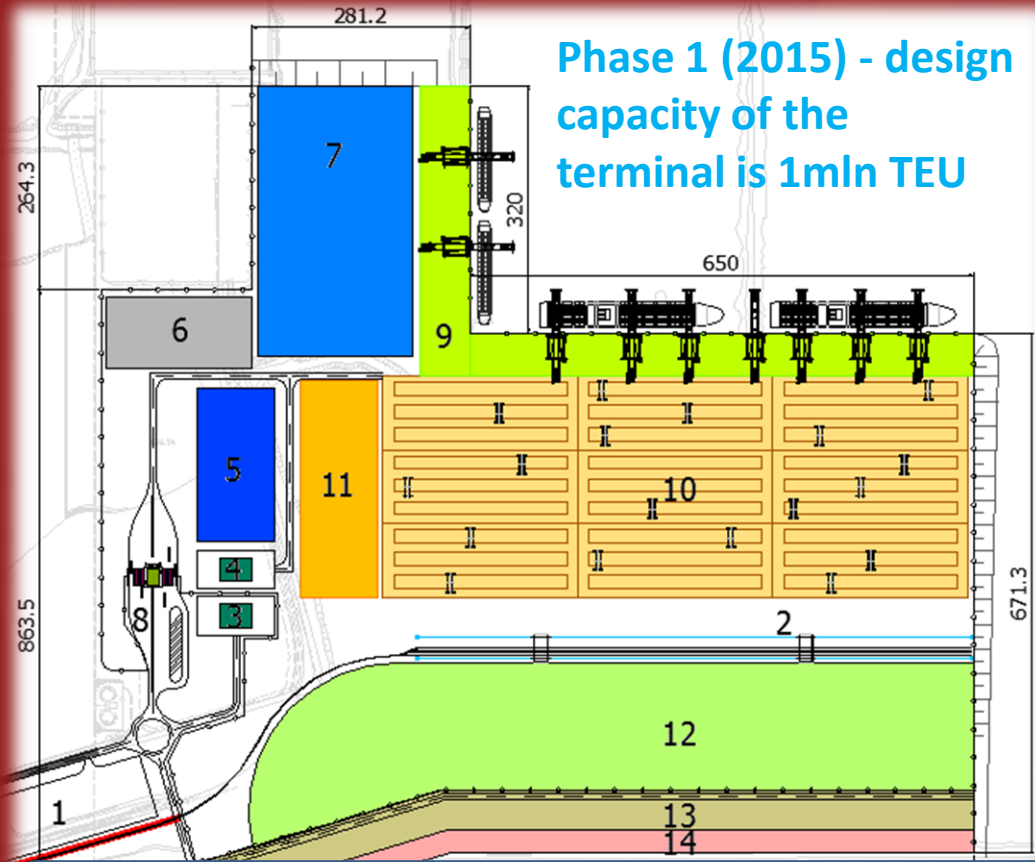
West side of MOL 4 where it can be seen that concrete tetrapods are placed on top of the breakwater.



The available land of 35.7 ha is land that is currently unused which could be used for development of a part of the container terminal.



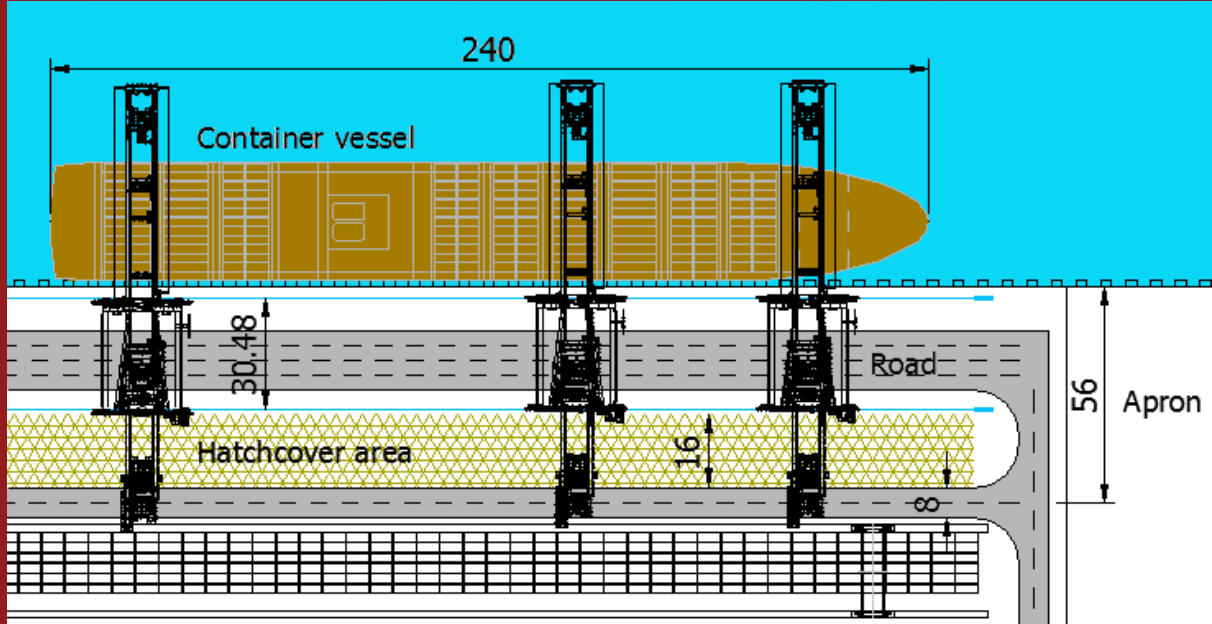
COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – Concept 3 - recommended



1	Truck parking
2	Rail terminal
3	Port office / Bus stop
4	Terminal office / Canteen /Locker room
5	Workshop / Service area
6	Equipment parking
7	Customs area
8	Gate area
9	Quay / Apron
10	Container stacking
11	Empty container stacking
12	Logistic area
13	Utilities & Road (future)
14	Rails (future)

The departure point is the handling forecast as per the high development scenario. This means a required start up per 2015 and a full utilization of the terminal reached per 2019.

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – Concept 3 - recommended



The quay area or apron of the container terminal will be equipped with the container cranes including all facilities and equipment for the container cranes. Another key function of the apron is the horizontal transport of the containers from and to the container stacks.

The design vessel of 3,000 TEU will have a length of approximately 240 m. From the start of the terminal, it is assumed that at least two design vessels should be able to more at the same time.

COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – Concept 3 - recommended

COSTS	Amount in Euro
Base Infrastructure	€ 119,900,000
Civil Infrastructure	€ 59,300,000
Equipment	€ 114,600,000
Total Investment	€ 293,800,000

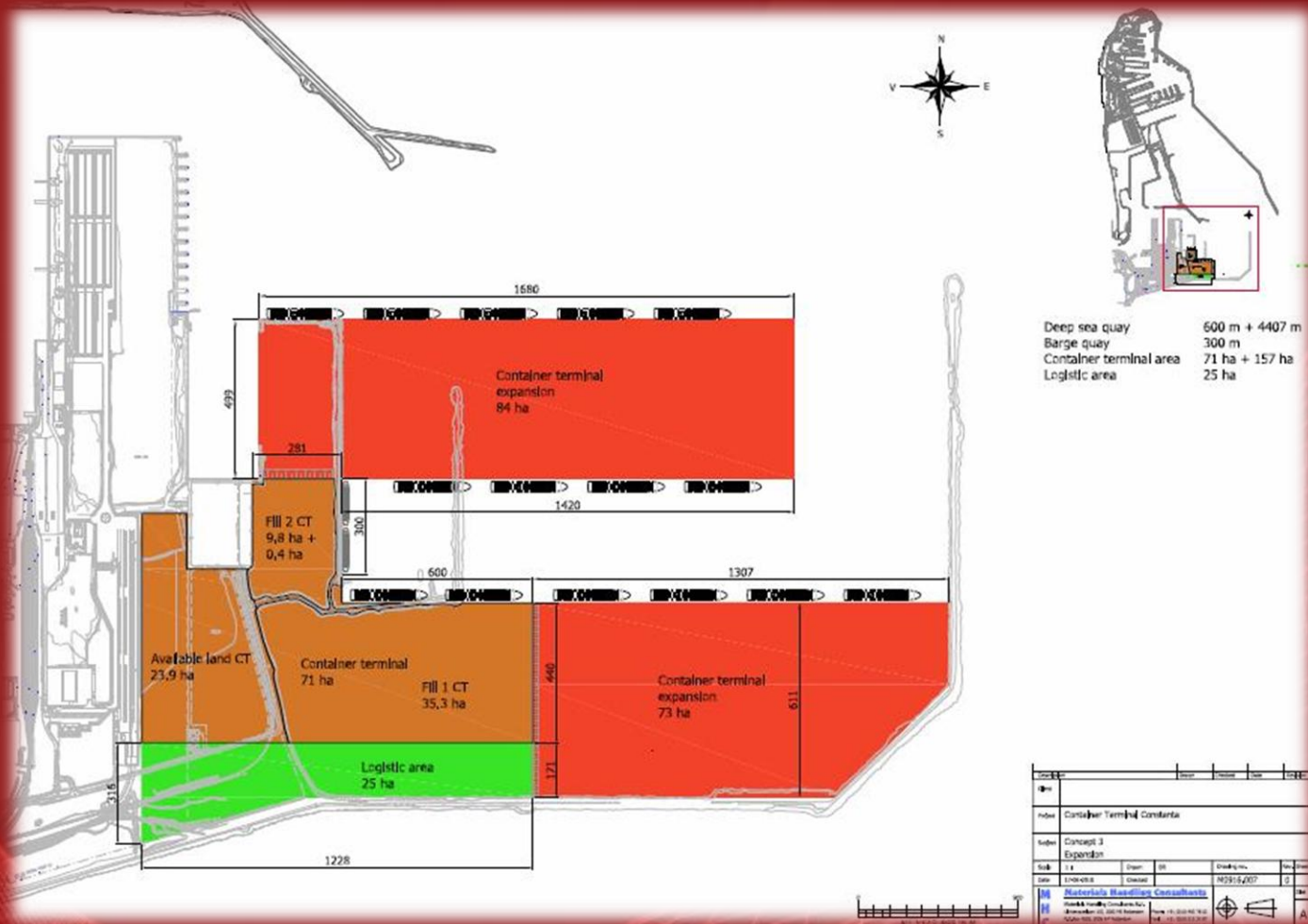
The timetable of the investments is as follows:

- 2014 and 2015: base infrastructure by developer
- 2014 and 2015: civil works by operator
- 2014 and 2015: rail terminal by operator
- 2014 till 2019: equipment

•This project is also suitable for PPP. This year Romania is completing its PPP/concessions strategy. Pier 3 – Pier 4 is included in PPP national strategy.



COMPLETION OF INFRASTRUCTURE ON PIER III AND PIER IV SOUTH FOR SPECIALIZED TERMINALS – Pre-feasibility study – Concept 3 – Possible development by 2035 (5 mil. TEU capacity)



CONCLUSIONS



Finding financing sources for the infrastructure projects of the port **is one of the main goals** of the NC MPA SA Constanta.

The main completed infrastructure projects such as Rehabilitation of the Breakwaters of Constanta's Port (euro 70 million); New Container Terminal on Pier II S South Constantza Port (usd 90 million); Barge Terminal (euro 24 million), Constantza Port Environment and Infrastructure Project (euro 22 million); were **financed mainly by IFI's** (EIB, Phare Programme, JBIC, EBRD) and co-financed by the state budget and the company's own sources.

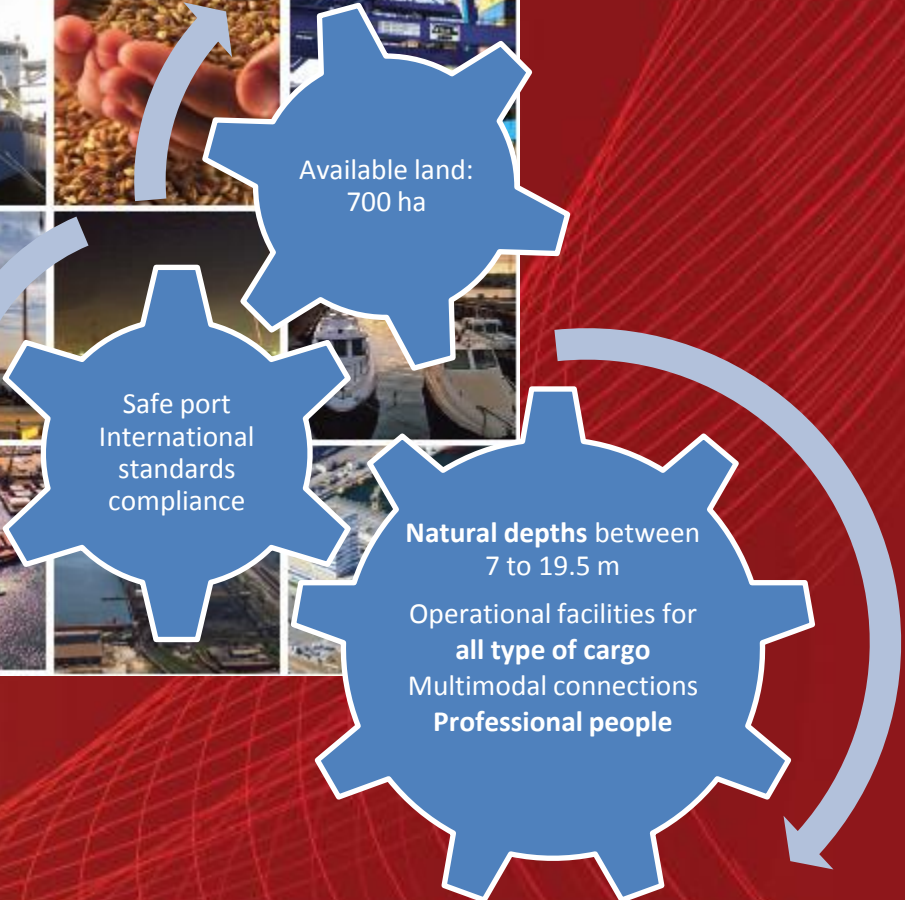
Currently, four main projects are financed by the Structural Funds of European Union and co-financed by the State Budget through the Sectorial Operational Programme in Transports 2007-2013 (Extension of the North Breakwater with 1050 m; Road Bridge over the Black Sea Danube Canal and related road and access infrastructure; Development of the railway capacity in the river-maritime sector; The Southward Extension of the Lighter Berth in the Port of Constanta).

Financing Sources for the projects promoted by the NC MPA SA Constanta are: EU Funds, State Budget, Own Sources and Other Sources **to be identified and attracted (i.e. PPP).**

EATL can play an important role in Constanta Port investment strategy.



CONSTANTA PORT ADVANTAGES





***Thank you for
your kind attention!***

**Cristiana RACAUTANU
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