

CONSTANȚA SHIPYARD

ESTABLISHED

1892



ESTABLISHED 1892
ȘANTIERUL NAVAL CONSTANȚA S.A.

Constanta Shipyard

**Prime Contractor to the Romanian Navy for
Repair and Dry-Docking Works**

Surface Warships 2016, 28 January 2016, Bucharest, Romania

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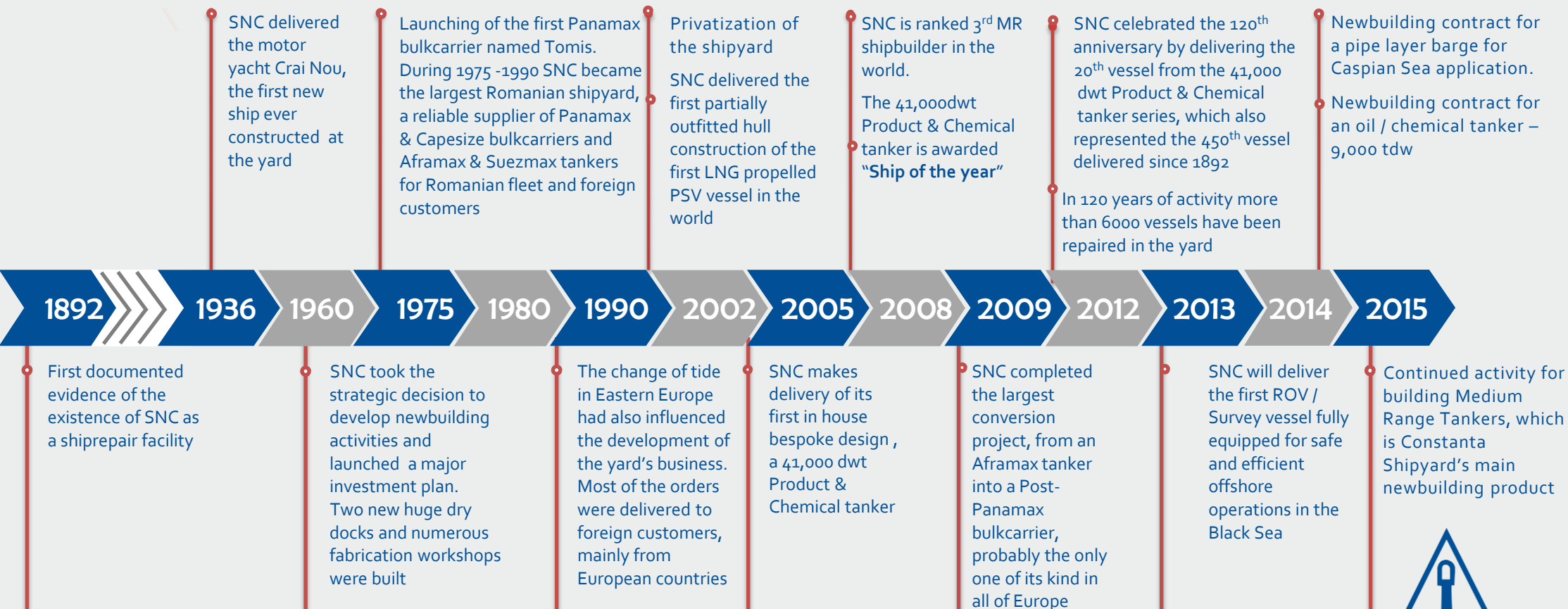
Location:

- ▮ Situated in the SE Europe, Romania is part of the European Union as a full member state since January 1st , 2007;
- ▮ Constanta Shipyard is located in the port of Constanta, on the western shore of the Black Sea;
- ▮ Constanta Shipyard is situated in the Free Trade Zone area;
- ▮ Distances from the Constanta Shipyard to some basic landmark points are as below:
 - ▮ Bosfor - 196 nautical miles
 - ▮ Suez - 1,067 nautical miles
 - ▮ Gibraltar - 1,996 nautical miles



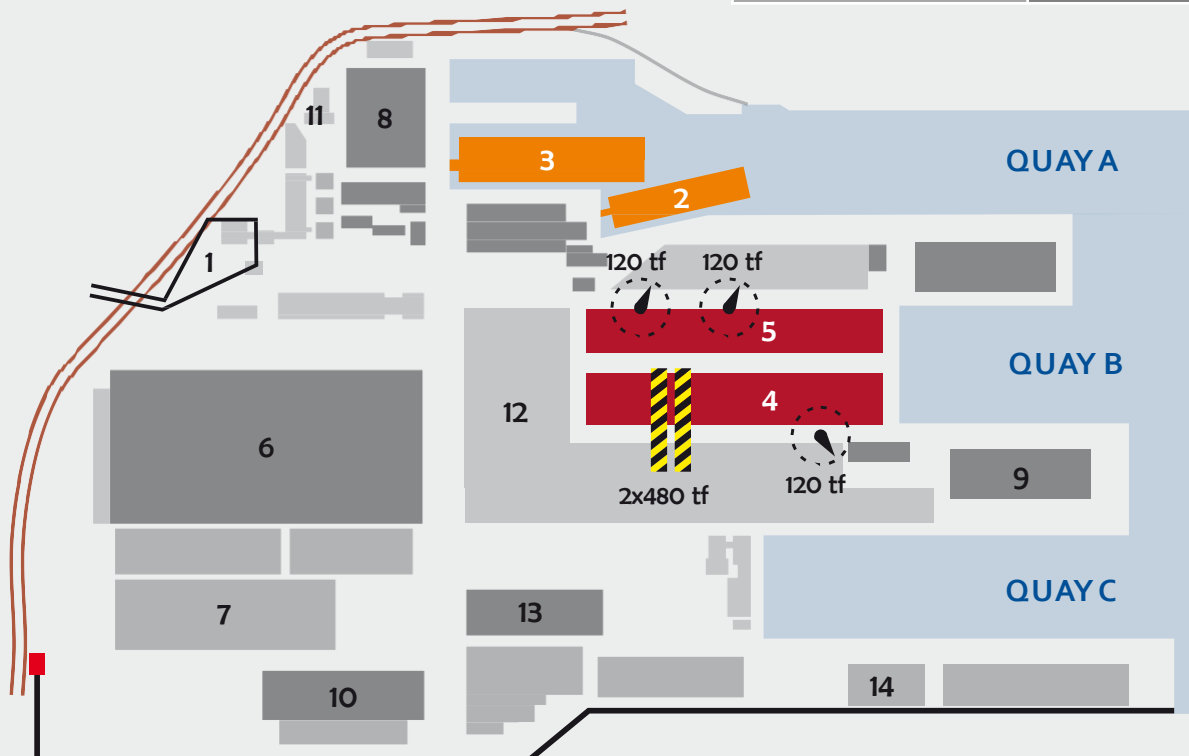
Company timeline

Over 120 Years of Tradition & Experience



SHIPYARD'S LAYOUT

Dock	Dry dock no. 1	Dry dock no. 2	Floating Dock no. 1	Floating Dock no. 2
Maximum capacity	200,000 dwt	140,000 dwt	15,000 dwt	40,000 dwt
Length, m	350	350	138	180
Width, m	58	48	23	32
Depth, m	10	10	4	6
Cranes	2 x 480 t 1 x 120 t	2 x 120 t 1 x 50 t	2 x 8 t	2 x 15 t
	2 x 16 t			



1. Main entrance gate
2. Floating dock no. 1
3. Floating dock no. 2
4. Dry dock no. 1
5. Dry dock no. 2
6. Hull indoor
7. Steel storage
8. Machining workshop
9. Mechanical and electrical workshop
10. Pipe workshop
11. Office building
12. Pre-erection platform
13. Blasting & painting workshop
14. Outfitting workshop



Organization Structure





Quality & Environmental Management System

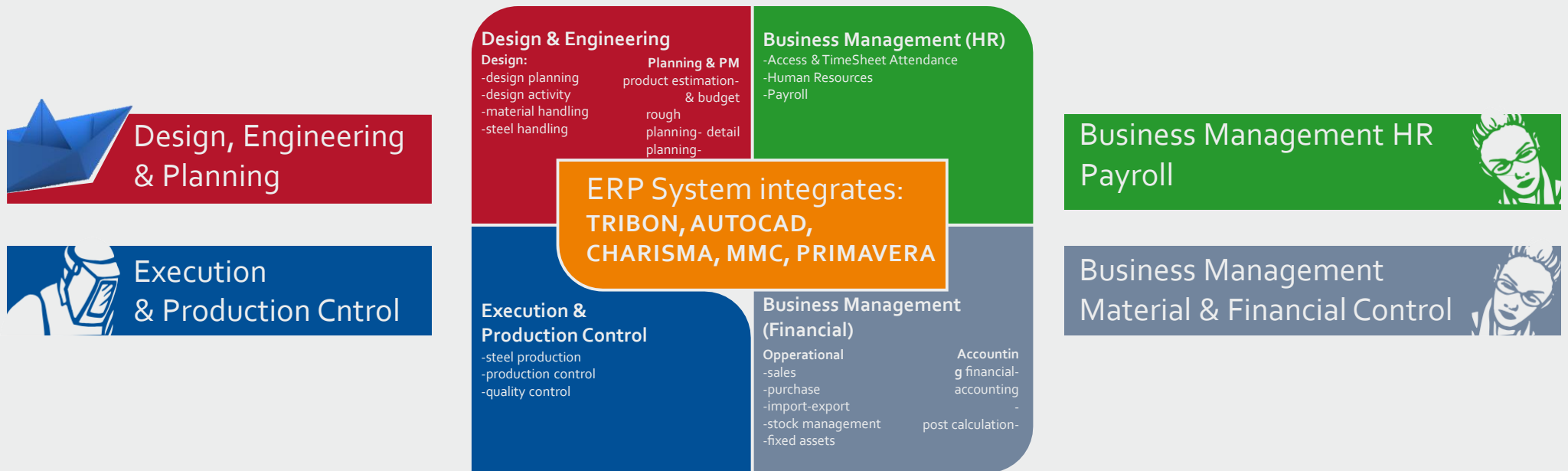
- SNC's Quality Management System is certificated by Germanischer Lloyd's on conformity to international standard of **ISO 9001:2008** for design, production, maintenance and repair services;
- In order to accomplish the business targets, the Quality Management System is coupled with **ISO 14001:2004** Environmental Management System certificate which regards all aspects of environmental damages;
- Which in turn is coupled with **OHSAS 18001:2007** Occupational Health and Safety System certificate to assess the risk involved in each process;
- **NATO Quality Assurance Requirements for design, development and production are met by the AQAP 2110 certificate;**

Main purpose of the Quality & Environmental Management System is to assure best possible services to the customers, according to the related classification society's rules, in order to increase quality and efficiency;

Our quality management system is getting improved according to the feedbacks received by means of Customer Satisfaction Questionnaires which are performed at the end of each newbuilding and repair job;



Optimal Management of the Resources through the new ERP System



▀ This complete business solution (ERP) – tailor-made for shipbuilding manages the total business process, from pre-calculations of a new ship to repair until the ship has been completed.

▀ The system enables systematic information sharing between all internal departments.

▀ Project oriented production – complete control of all resources and project accounts for complex production, enabling to measure cost-effectiveness in each total or partial delivery and also in the company in general.

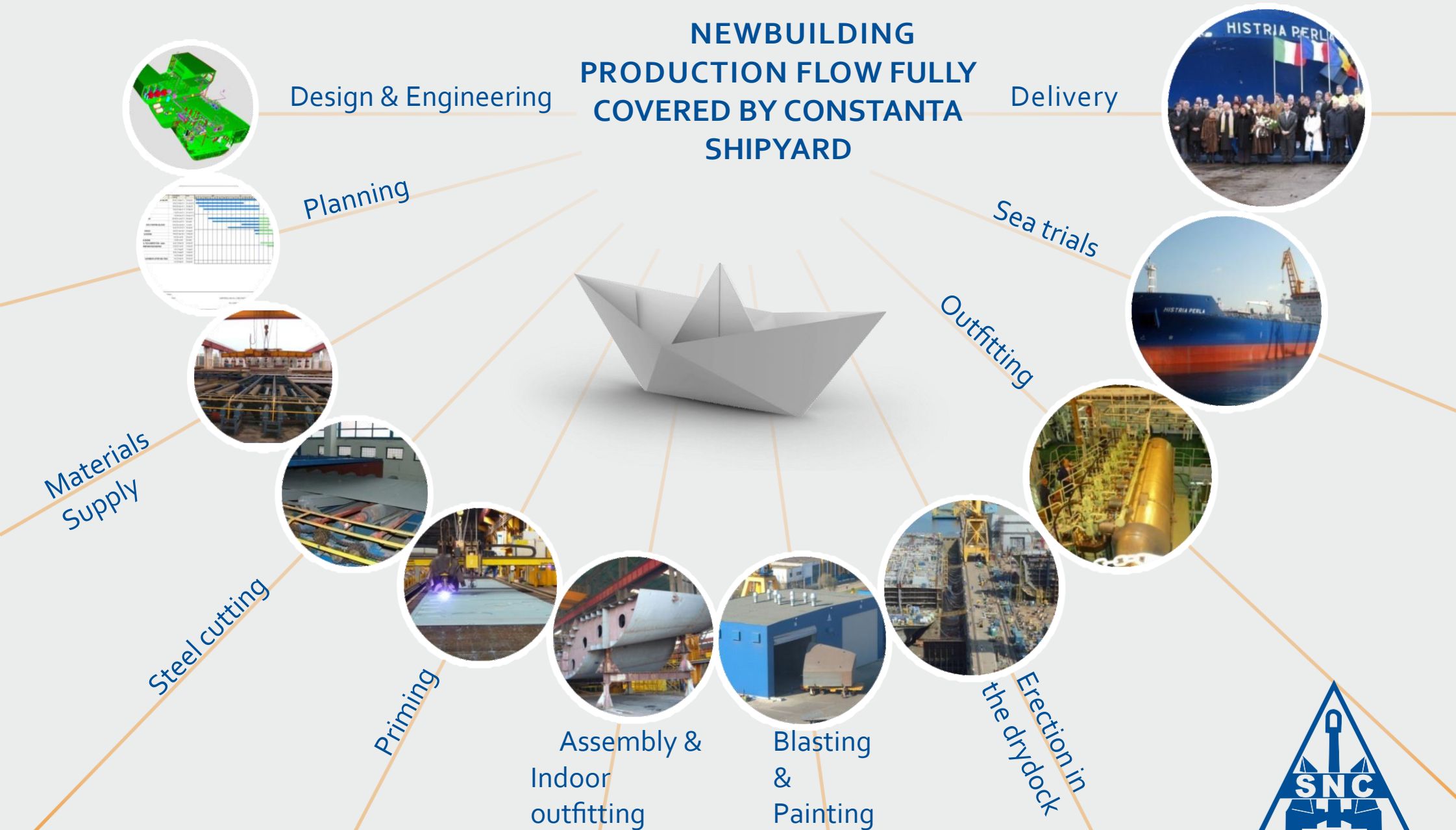
Complete capability to integrate all the ship's systems, including sensitive mechanical and electrical sub-systems

Sample - resources for the production of one tanker of 41,000 DWT:

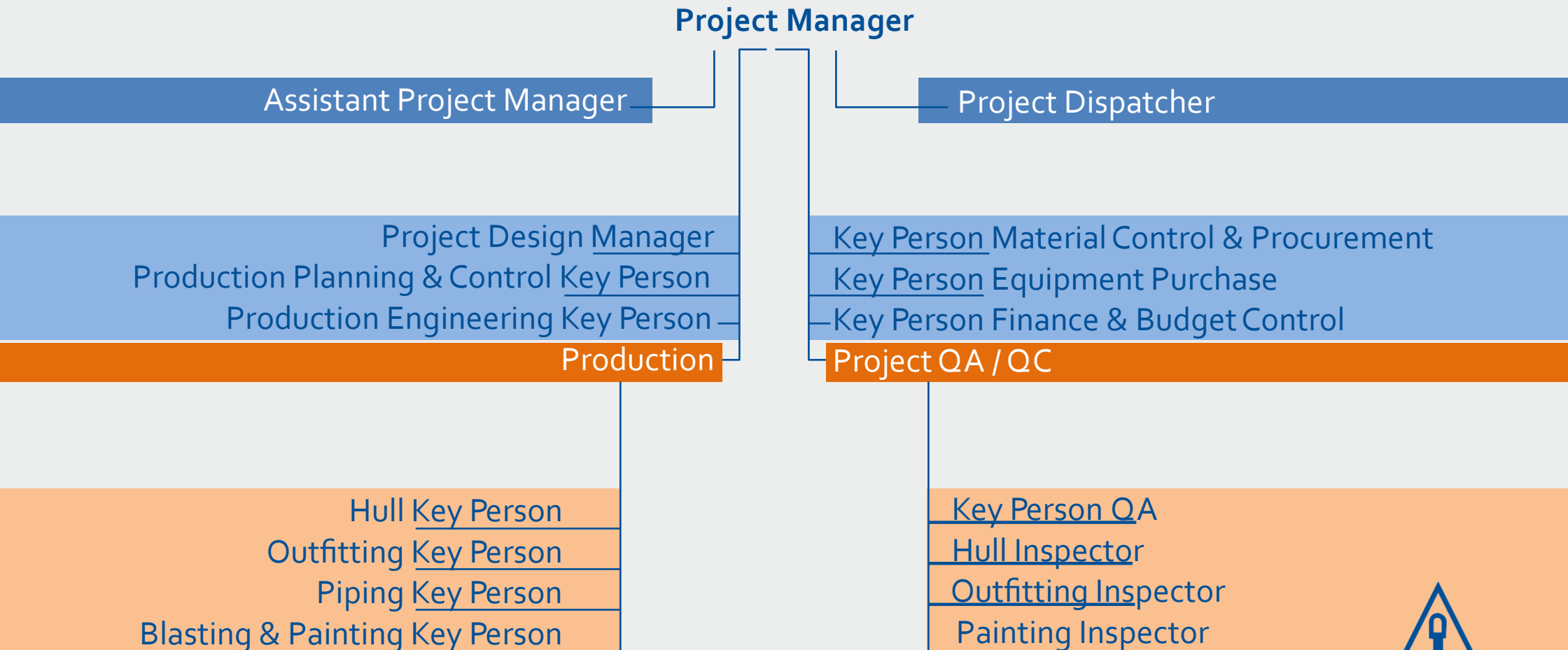
1.500 drawings;
11.000 activities;
350 equipments
80.000 m cables;
8.400 tone plates
200.000 steel items;
28.000 m pipe;
2.000 de valves
160.000 sqm blasted
400.000 sqm painted



**NEWBUILDING
PRODUCTION FLOW FULLY
COVERED BY CONSTANTA
SHIPYARD**



Newbuilding Project's Organization



NEWBUILDING ACTIVITY

World's 3rd ranked shipbuilder for M.R. Tankers!



SNC adaptability for any kind of project is proven by its track record,
below exemplified by various newbuilding turn-key projects delivered



Medium Range Tanker



ROV/Survey Vessel



Pipe / Cable laying
Barge for Offshore



LNG propelled PSV



Floating Crane for
Offshore Operation

Ship Design activity – SNC Ship Design

- ▼ **SNC Ship Design SRL** was established in 2006 as a fully owned subsidiary of Constanta Shipyard, in order to provide design services at all stages from contract to delivery
Headquarter: Constanța Shipyard;
Personnel: over 35 experienced Naval Architects and Marine Structural Engineers;
- ▼ It provides naval architecture, engineering, design and operation services to the **International Shipping, Shipbuilding, Navy and Offshore Industries**
- ▼ It has earned its reputation for innovative and successful designs in the Product and Chemical tanker market and has been a leader in creating **eco fuel - efficient** vessels for service in the marine transportation industry



References for navy projects

UK MoD MARS Program

Project period 2010-2011.

Complete concept design package, as partners of Thales UK, for conversion of our 41,000 dwt Product/Chemical Tanker to the UK requirements for the provision of Military Afloat Reach and Sustainability vessels (MARS).

Romanian corvette

Project period 2009-2010.

Concept design package, as partners of Thales NV, for Romanian MoD intended program of renewing the fleet of vessels intended for SAR and EEZ protection.



SHIP REPAIRS & CONVERSIONS



120 YEARS OF EXPERIENCE

Repairs activity: 80-100 vessels per year

Types of Works

GENERAL SERVICES

Pilot & Tugboat services
Attendance for shifting
Other services: shore power, ballast water, cooling water, compressed air supply, etc.

DOCKING WORKS

We can accommodate ships of various sizes, from tugs to Suezmax tankers
Works: Sea chest, Sea strainers, Anodic protection, Anchors & chains, Valves overhauling, Tail shaft, Stern tube and propeller, Rudder

BLASTING AND PAINTING WORKS

Hull treatment & marks
Cargo tanks & cargo holds treatment
Water ballast treatment
Hatch covers treatment
Various types of paints application, including Phenolic epoxies
Silicon based antifouling
High abrasive resistant (3 components)

STEEL WORKS

Steel works renewal: Hull, Hatch Covers, Hatch Coamings
Soft steel works

PIPE WORKS

Straight pipe on deck and /or open space renewal
Elbow/bend, Low pressure flange, Heating Coils renewal
Handrails on deck and accommodation

MECHANICAL & ELECTRICAL WORKS

Main Engines & Auxiliary Engines Overhauling (MAN B&W, Kawasaki, Sulzer), including parts reconditioning
Engine's Governors & Turbo chargers Overhauling (Sulzer, MAN, Brown Bowery, Napier type)
Air coolers Overhauling
Boilers & Heat exchangers Overhauling
Mooring winches
PV Valves & Pumps Overhauling
Lifeboats, Davits & Crane tests
Alternators Overhauling
Electric motors Overhauling
Installation of electric cables

**We can perform repair works
in docks or afloat.**

Retrofitting Projects & Ships energy efficiency measures & Upgrades

- ❖ Water ballast treatment installation
- ❖ Exhaust Gas Scrubber (EGS)
- ❖ Low Sulphur treatment plant
- ❖ New Navigation & Automation Systems
- ❖ New Equipment Installation
- ❖ Additional Exhaust Gas Boilers (EGB)



Within ship repairs and conversion activity, Constanta Shipyard is the prime contractor to the Romanian Navy for repairs and dry-dockings works



Representative projects carried out for Romanian Navy

Project	Period	Special Works
Frigate "Marasesti F111"	September 2007	
Submarine "Delfinul"	November 2007 December 2011	December 2011: <ul style="list-style-type: none"> - Docking in emergency conditions - Repairs at submarine's hull with the removal and refit of the external insulation
NS "Mircea"	November 2008 December 2015	
Frigate "Regina Maria F222"	September 2009 June 2013 December 2014	September 2009: <ul style="list-style-type: none"> - First docking of a T22R frigate in Romania - Replacement of the starboard propeller blades
Frigate "Regele Ferdinand F221"	June 2010 May – June 2012	
Corvette 265	February 2013	
NST "Albatros"	July 2013	



WHY CONSTANȚA SHIPYARD?

- Most versatile Romanian shipyard in terms of newbuilding, conversions & shiprepair projects
- Complete in-house integration of design, purchasing, production and testing activities;
- Prime Contractor to the Romanian Navy for repair and dry-dock works;

PARTNER FOR THE FUTURE

THANK YOU!



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