

DOCK HERE!

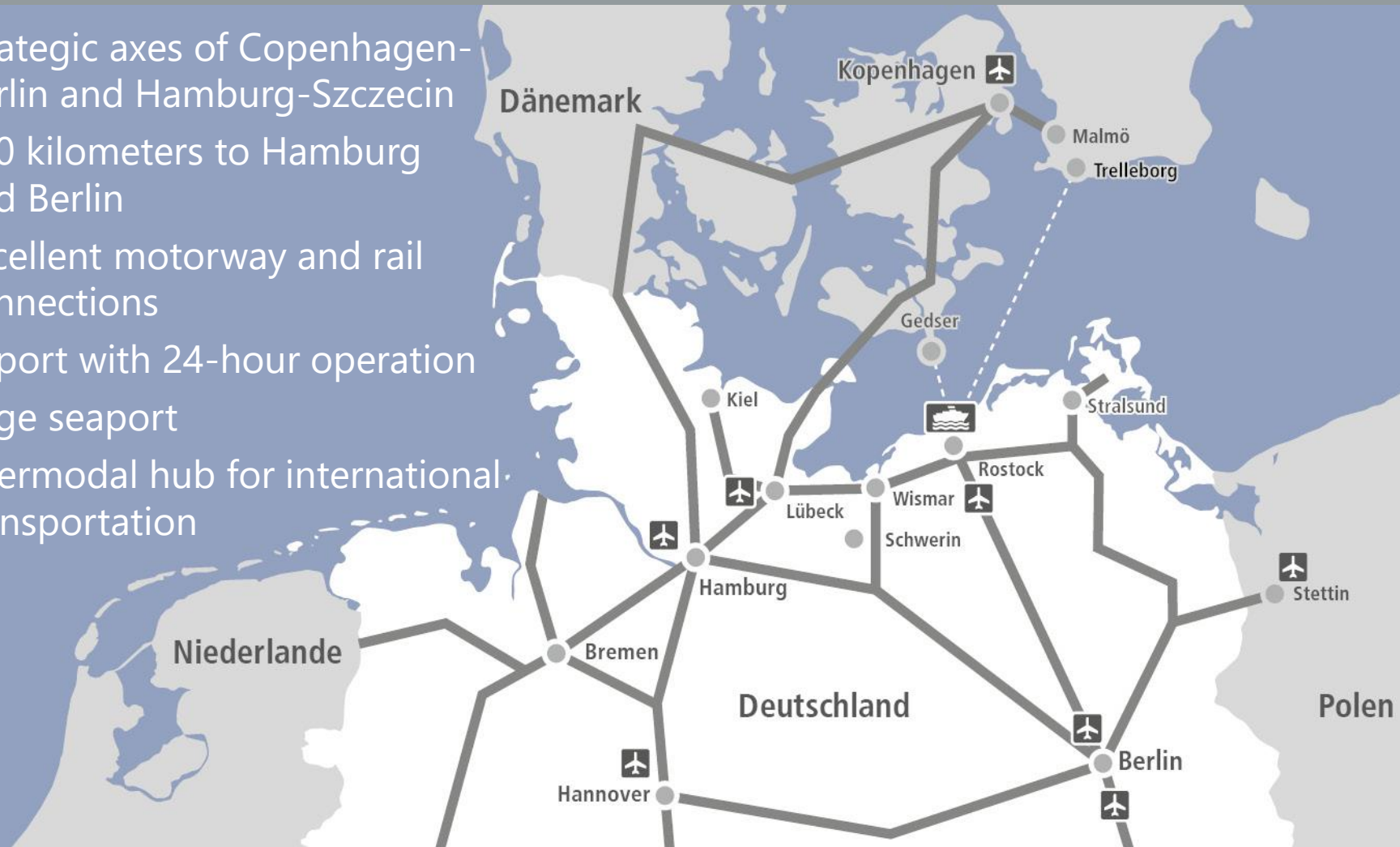
**Latest Developments in the
Hanseatic City of Rostock!**

Hanseatic City of Rostock



Hanseatic City of Rostock

- strategic axes of Copenhagen-Berlin and Hamburg-Szczecin
- 200 kilometers to Hamburg and Berlin
- excellent motorway and rail connections
- airport with 24-hour operation
- large seaport
- intermodal hub for international transportation



The Hanseatic city of Rostock

Basic figures

Inhabitants City	207,898
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Inhabitants Region	500,000
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Companies in City & Region	20,000
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Workforce Potential in Region of Rostock	150,000
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Students	13,864
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University of Rostock)

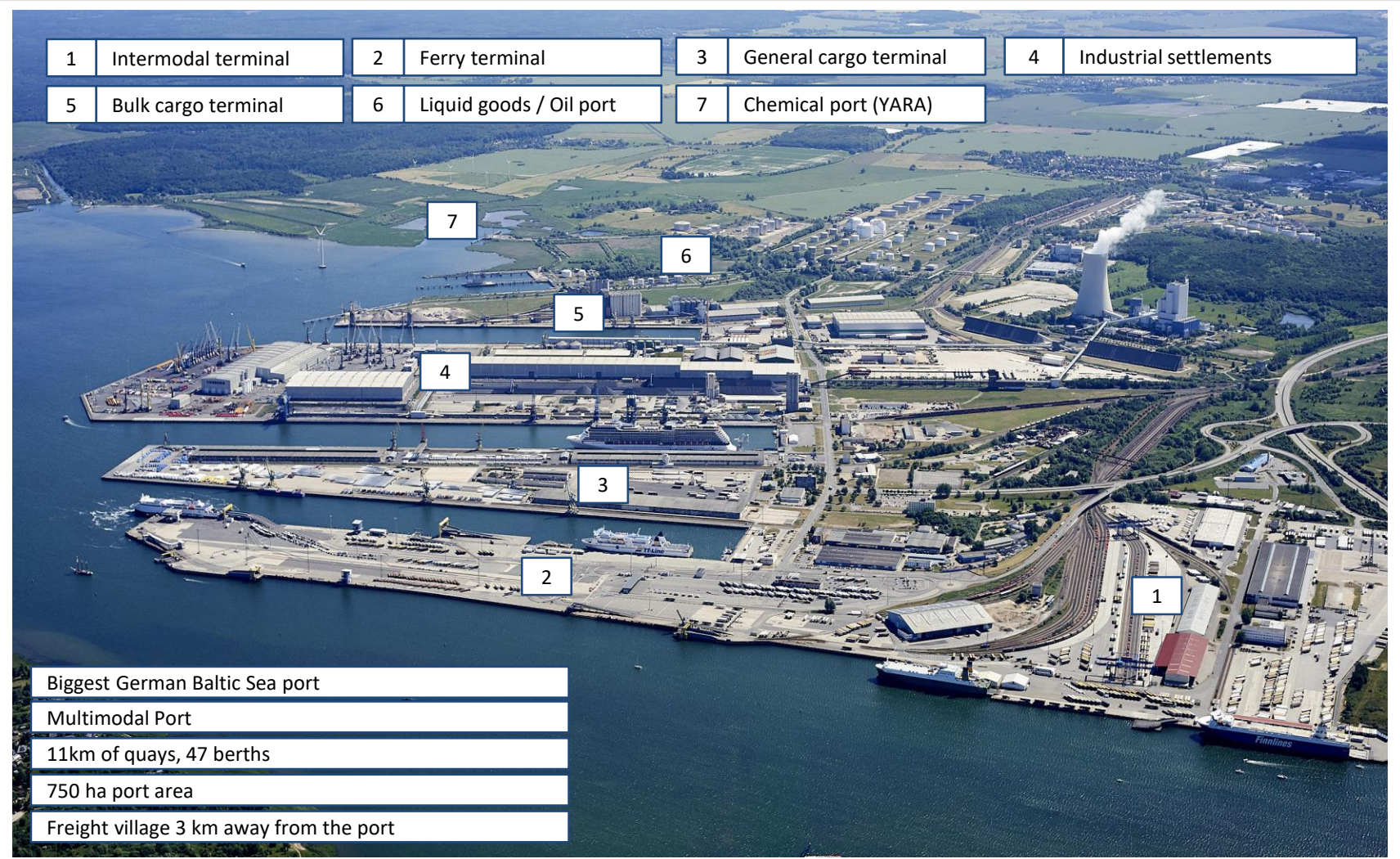
Purchasing power per inhabitant (in EUR):	18,863
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University of Rostock – Traditio et Innovatio

- University of Rostock founded in 1419 is the oldest University of North-eastern Europe
- 600th anniversary in 2019
- Currently more than 13,864 students in 9 fakulties (as well as one interdisciplinary fakulty):
 - Faculty of Mechanical Engineering and Ship Engineering with 23 chairs, including:
 - manufacturing engineering
 - Gear and drive technology
 - Construction technology
 - Modeling and simulation
 - Production organization & logistics
 - Material technology
 - Technical Mechanics / Dynamics
- with more than 70 different bachelor programmes and further post-graduate degrees the university offers one of the broadest range of courses among all German universities







Scandlines

Rostock - Gedser (DK)
2 hrs / 10x daily

Stena Line

Rostock - Trelleborg (SE)
6 hrs / 3-4x daily

TT-Line

Rostock - Trelleborg (SE)
6 hrs / 3x daily
-> Transfer to Klaipėda

Finnlines

Rostock - Hango (FI)
26 hrs / 4x weekly

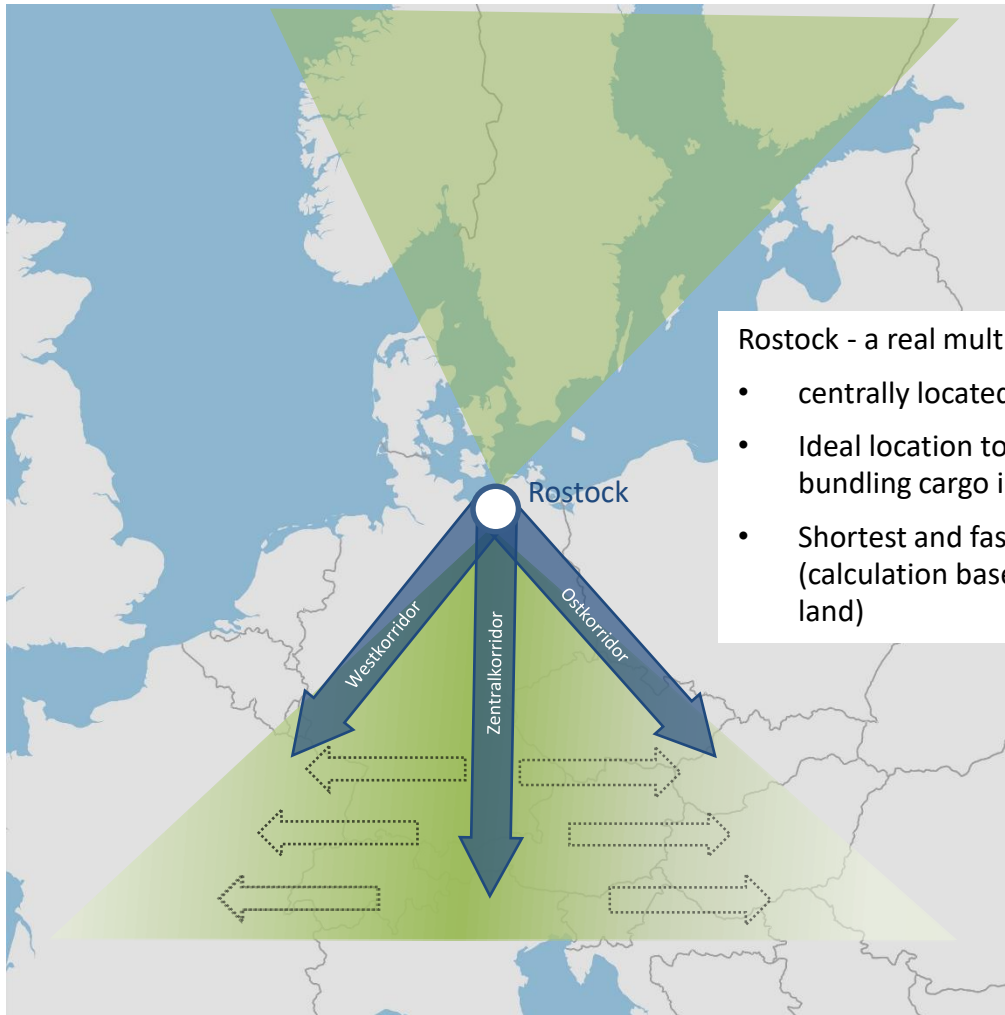
Rostock - Helsinki (FI)
32 hrs / 1x weekly

TRANSFENICA LTD Highway of the Sea

Rostock - Kotka (FI)
2x weekly


UPM

Rostock - Rauma (FI)
2x weekly



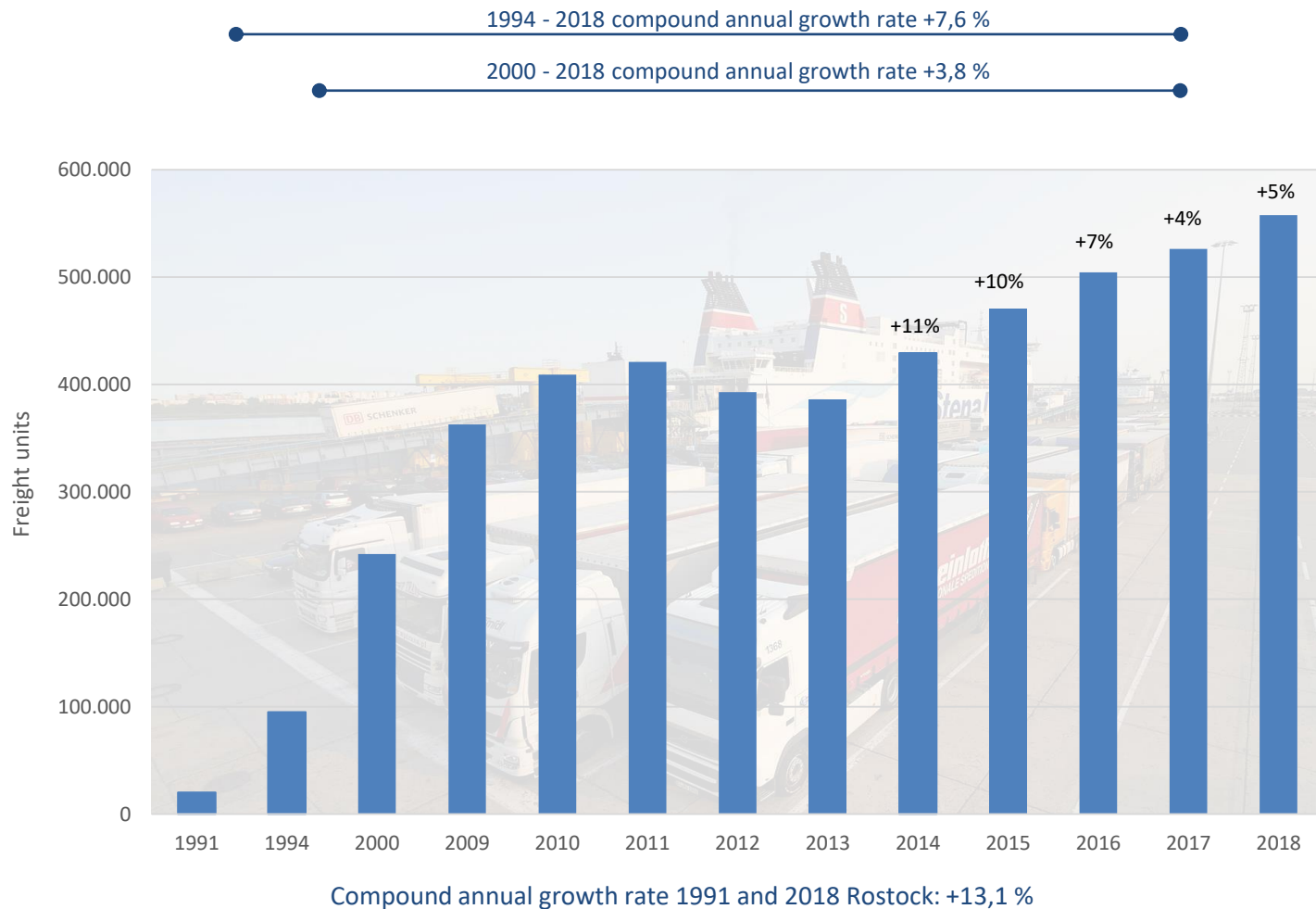
Rostock - a real multimodal hub at the Baltic Sea!

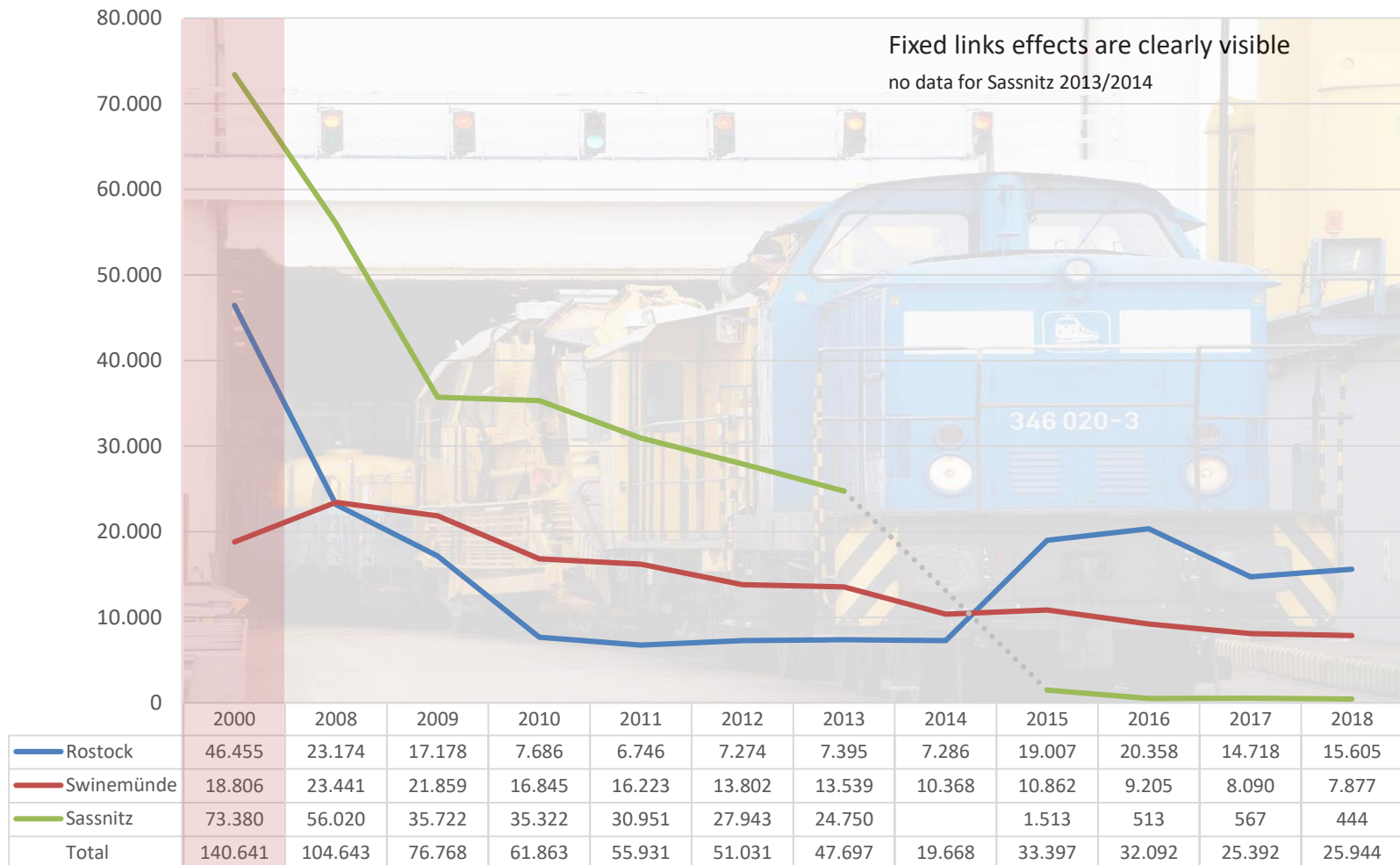
- centrally located at the Southern Baltic Sea coast
- Ideal location to serve all three different corridors by bundling cargo in one port only
- Shortest and fastest transit times on all three corridors (calculation based on the total transit time on sea and land)



Distance	Kiel	Lübeck	Rostock
Trelleborg	140	128	83
Hanko	570	560	515
Helsinki	631	622	580
Sankt Petersburg	778	762	721
Rauma	635	622	578



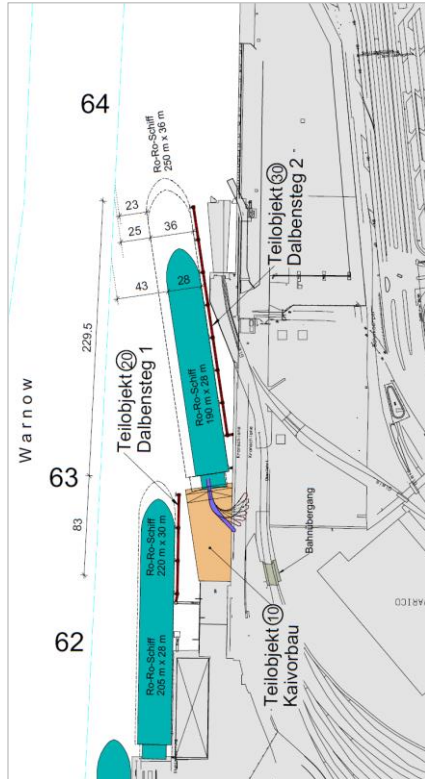




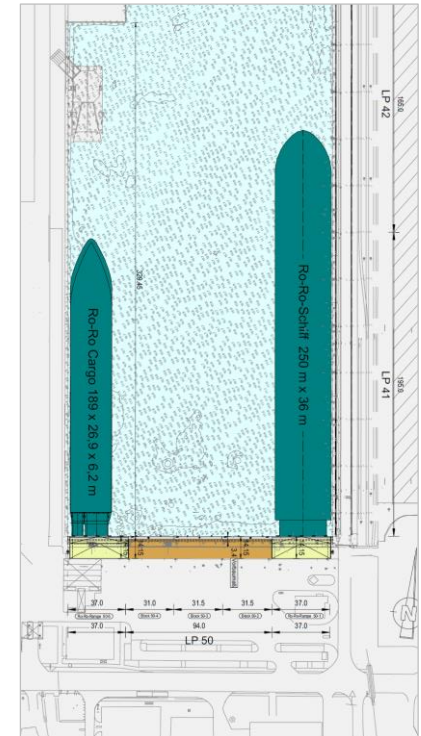
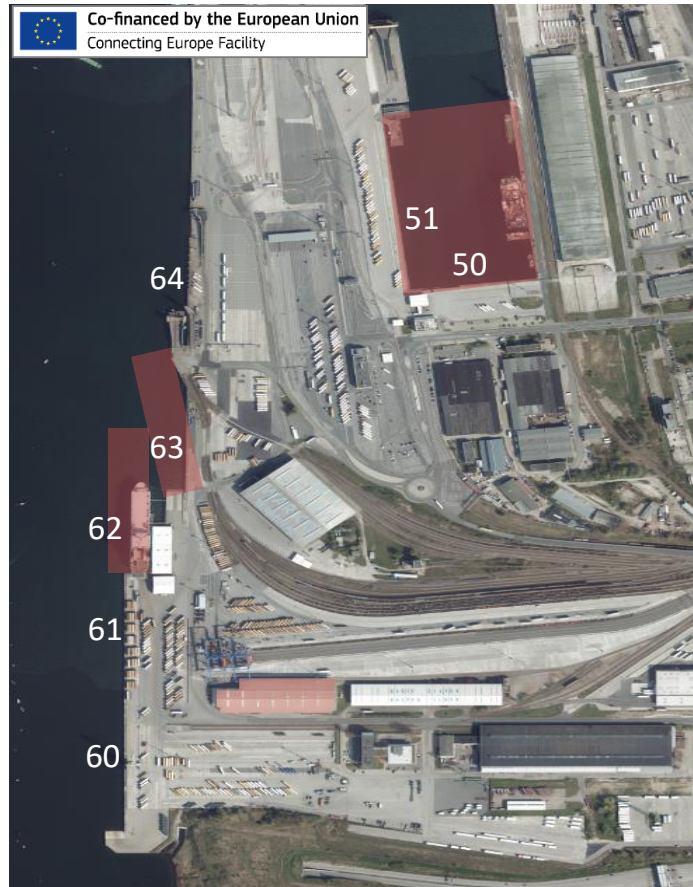


Intermodal connections		
Destination	pro Woche	Dauer
Hamburg	3	3 Std.
Karlsruhe	3	16 Std.
Wuppertal	3	12 Std.
Halle/Schkopau	2	14 Std.
Verona	14	23 Std.
Cervignano	3	22 Std.
Treviso	2	24 Std.
Brno	6	18 Std.
Lovosice	3	11 Std.
Curtici	1	30 Std.





Re-construction LP62 (max. 220 m)
New construction LP63 (max. 250 m)

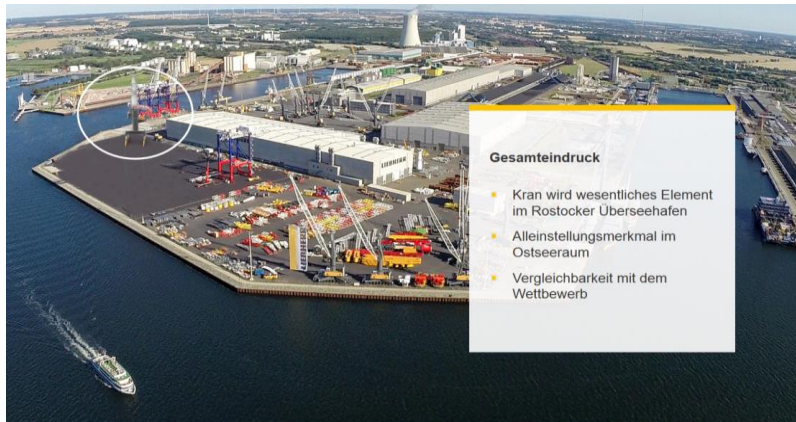


New construction LP50 (max. 190 m)
and LP51(> 250 m)





- Steel Treatment Cluster
 - ✓ Maritime cargo handling equipment (Liebherr)
 - ✓ Large diameter pipes (Erndtebrücker Eisenwerke)
- Wind Turbine Components (Nordex)
- Energy generation (KNG, Vattenfall)
- Fertilizer plant (YARA)



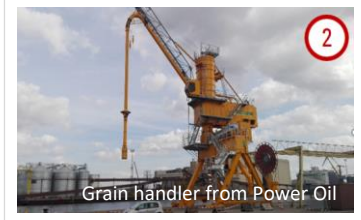
Gesamteindruck

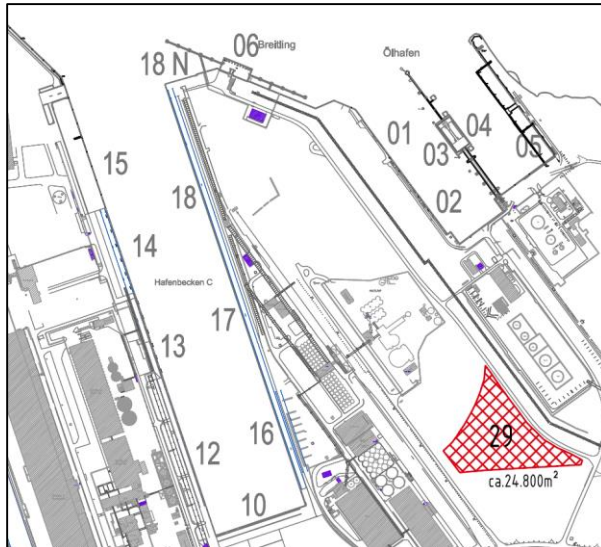
- Kran wird wesentliches Element im Rostocker Überseehafen
- Alleinstellungsmerkmal im Ostseeraum
- Vergleichbarkeit mit dem Wettbewerb



- Maximum lifting capacity: 1,600 tons
- Unique solution of its kind in the Baltic Sea Region
- Height of crane boom: 164m
- Height of crane: 107m
- Total crane weight: 5,500 tons







Port of Rostock as

- bunkering hub in the Southern Baltic
- regional distribution hub for fuels (land traffic)
- Industrial centre of the region

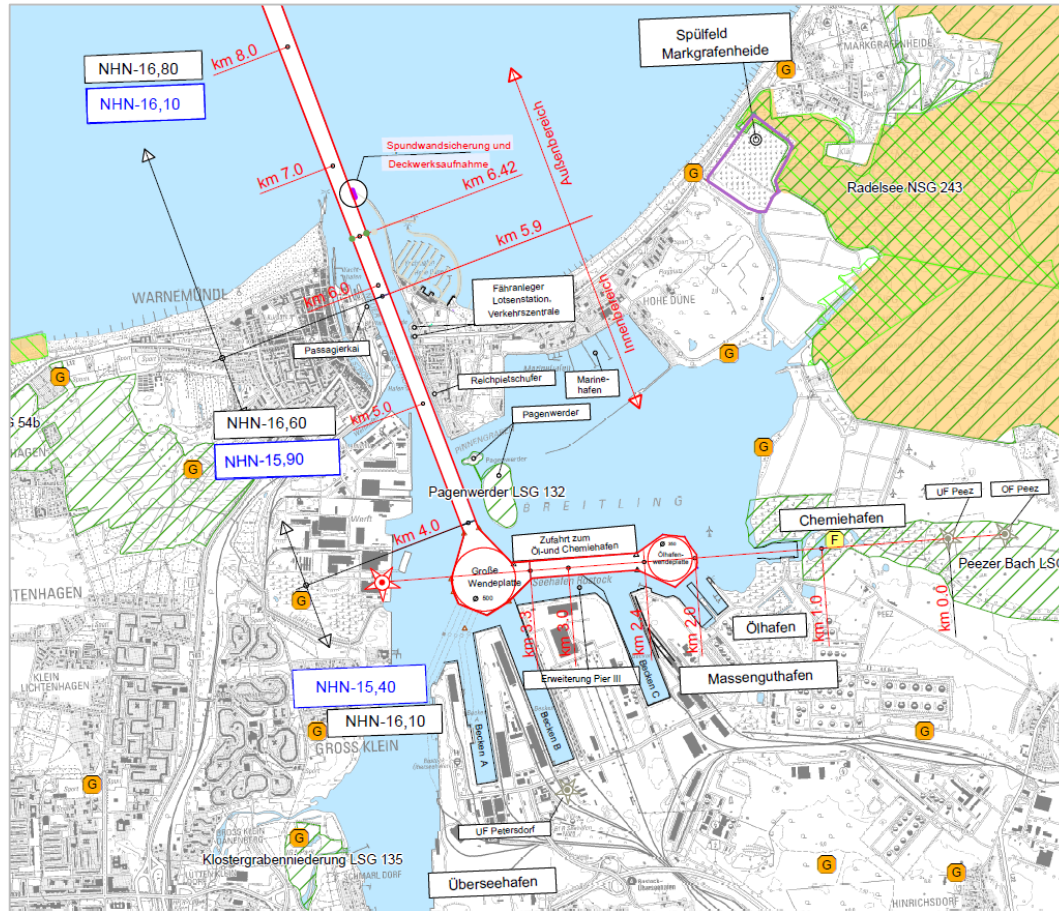
Port of Rostock wants to

- extent the range of available fuels,
- improve the environmental footprint as well as
- broaden the energy base for the local industry

Port of Rostock offers

- more than 8.000 ship movements (focussed on ferries and roro)
- approx. 700.000 lorries passing the port area each year.





2012	Feasibility study: deepening to 16,50 m water depth reasonable
2013	Start main examination
2019	Start „Planfeststellungsverfahren“
2021 - 22	Deepening to 16,50 water depth

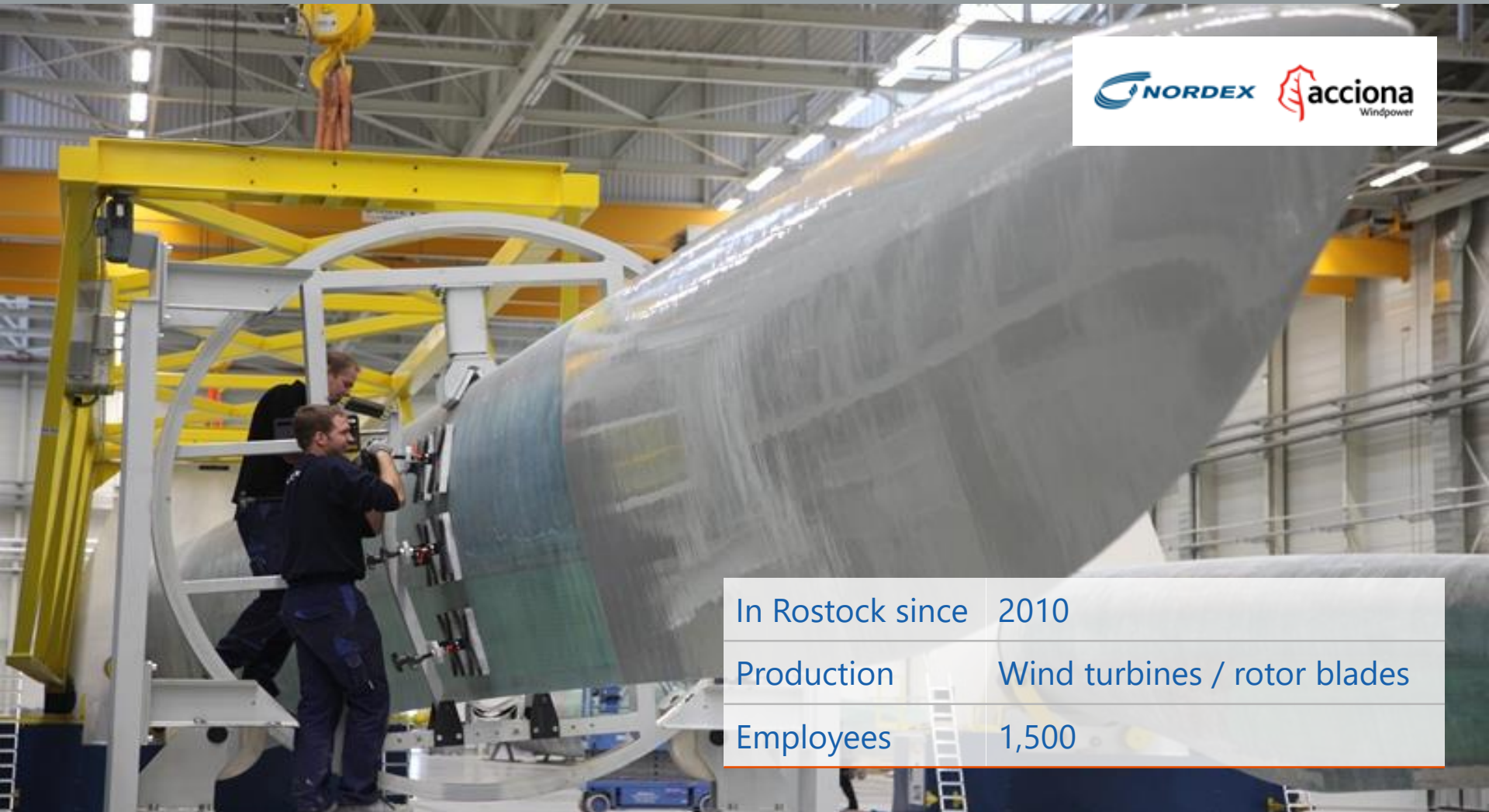
Growth Clusters



Established Companies

SIEMENS	DOT medical implant solutions	GAMBRO	DIEHL Aerospace	HANGARTNER	CAPITA Europe
NanoBone® artoss, inc The Art of Ossification™	a ja Das Resort.	EIKBOOM <small>Energy</small>	ICS adminservice Wir rechnen für Sie.	D Düssmann-Gruppe	H. STINNES LINIEN GmbH
AIDA	WAGLON POWERING A GREENER TOMORROW	THALES	CAT	SYSGO EMBEDDING INNOVATIONS	NORDEX acciona Windpower
LIEBHERR	CENTOGENE THE RARE DISEASE COMPANY	TT-Line	ABX ABX LOGISTICS	DEUTSCHE SEEREDEI	LIDL
3D CONTECH	AROSA Leben auf Skizzen	TRW Automotive	REEDEREI F. LAEISZ	ENO ENERGY	IKEA®
FERCHAU ENGINEERING	comdirect	O₂ A Telefonica company	SIXT Aktiengesellschaft	VARA	EEW SPC
MV WERFTEN WISMAR ROSTOCK STRALSUND	EADS	INROS LACKNER Berater, Planer, Architekten, Ingenieure	SEAR	ROTTACH BLECHVERARBEITUNG	TAMSEN MARITIM

Success Stories



In Rostock since	2010
Production	Wind turbines / rotor blades
Employees	1,500

Success Stories



In Rostock since	2003
Production	Steel pipes
Employees	700

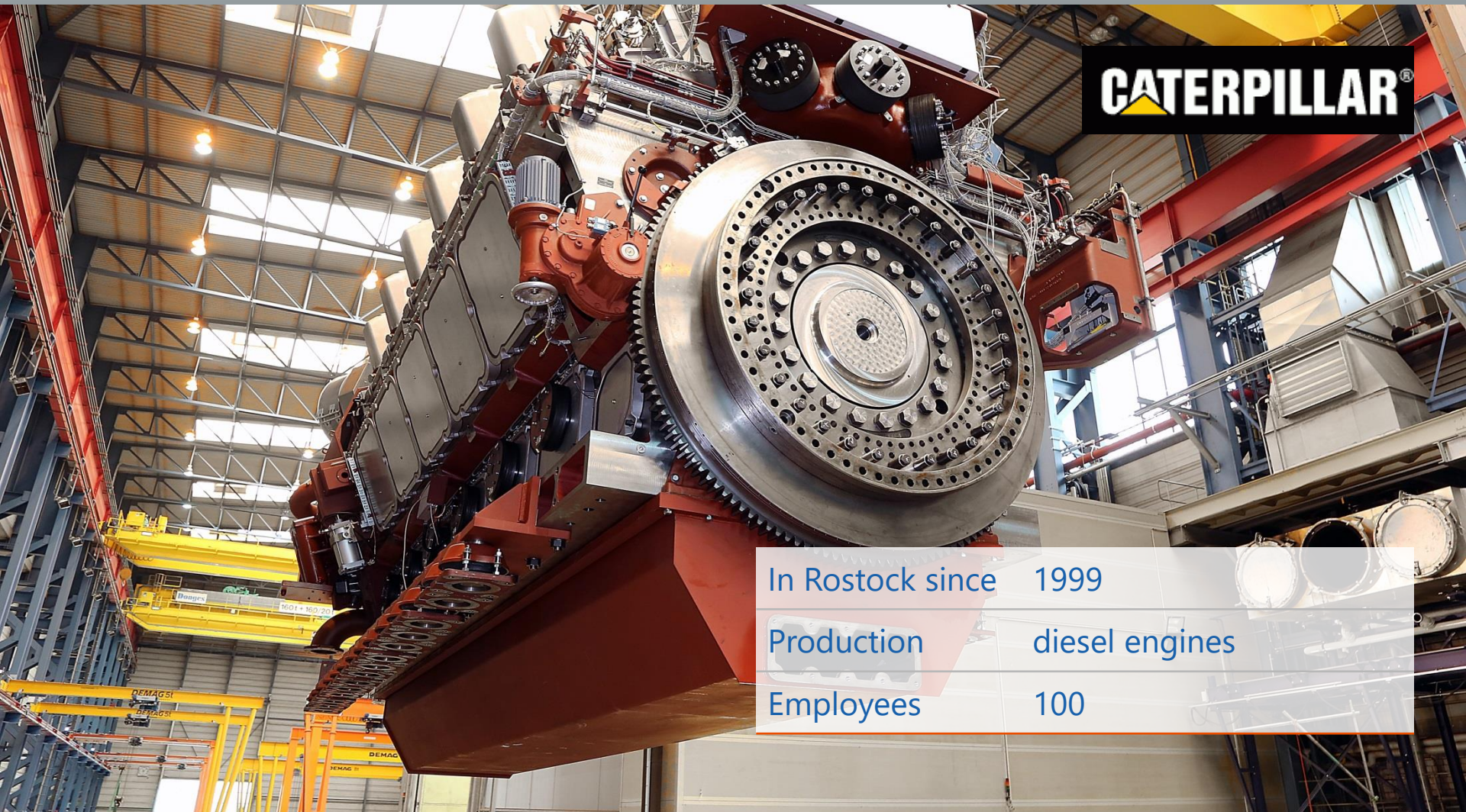
Success Stories

LIEBHERR
MCCtec Rostock GmbH



In Rostock since	2002
Production	maritime cranes
Employees	1,700

Success Stories



In Rostock since	1999
Production	diesel engines
Employees	100

Success Stories




Bed capacity 2016	21,930 on 11 vessels
Employees 2016	8,000 from 40 countries, 7,000 on board, 1,000 onshore
New vessels	2017, 2019, 2020

Success Stories



In Rostock	As of 2018
Production	Cruise liners
Employees	3,000 in Rostock, Wismar and Stralsund

OCEAN TECHNOLOGY CENTER ROSTOCK

An underwater remotely operated vehicle (ROV) is shown in a deep-sea environment, illuminated by its own bright lights. The ROV is yellow and white, with a camera and various sensors mounted on its front. It is positioned above a dark, rocky seabed. A transparent, dome-shaped structure is visible on the seabed, and a blue, elongated object is lying nearby. The ROV's lights create a strong glare and illuminate the surrounding water and seabed.

Centre for Development, Testing and Education
Innovative Maritime and Subsea Technologies

The Initiative

Introduction

OCEAN TECHNOLOGY CENTER ROSTOCK

Future Concept

Innovation Campus Subsea Technology
Rostock („Ocean Technology Center“)

Academy

**Study/
Education/
Training**

Research
Association

Interdisciplinary
**Basic
Research**

Subsea
Laboratory

Testing
**Infra-
structure**

Transfer Centre

Technology
transfer
**Applied
(Networking)
Research**

Enterprise

Competitive
Research and
Productization

The Initial Situation

Why do we do this?

User Industries & Needed Technologies

Offshore Wind Energy

- New sensor and camera systems for sea cable detection
- New automated robotic systems for removing sea contaminations
- New vehicles for automated monitoring / monitoring of subsea structures
- etc.

Marine Research

- New image and camera systems for environmental monitoring in the sea
- New autonomously driven vehicles for monitoring in the sea
- New measuring methods/ sensors for environmental analyses
- New subsea communication and data evaluation technologies
- etc.

Marine Mining

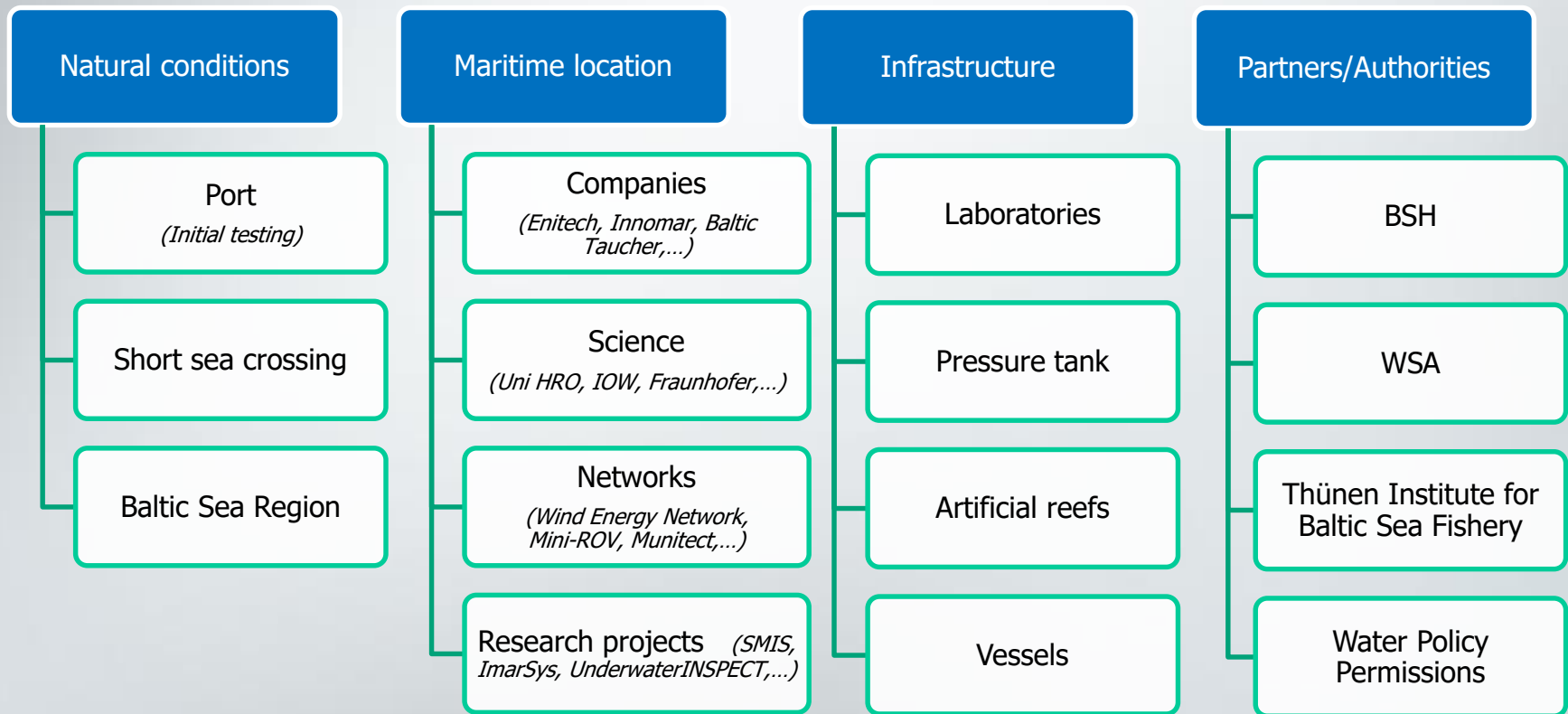
- New mining methods – and machine systems for extracting resources from the sea
- New system for autonomous energy supply in the sea (docking station)
- etc.

Aquaculture (Maritime – Ocean Aquacultures)

- Sensor and camera systems for culture monitoring
- Extensive operation automation
- etc.

Conditions at the site Rostock

Perfect Conditions



The Vision

Objective

Aim:

- **Rostock / Mecklenburg-Vorpommern shall become the internationally leading location of subsea technology development and testing in the Baltic Sea Region**

Expected Results:

- **Consolidation of portfolio companies** and employment expansion via optimum conditions at the site
- Creation of new companies and jobs via science spin-offs
- **Settlement** of companies and scientific institutions at the site and creation of new jobs
- **Joint research works** with (inter-)national research institutions on site due to the unique infrastructures (*inviting the world to develop new technologies with us*)
- Technology / Product developments via test sites and, thus, **strengthening** of the companies' international competitiveness

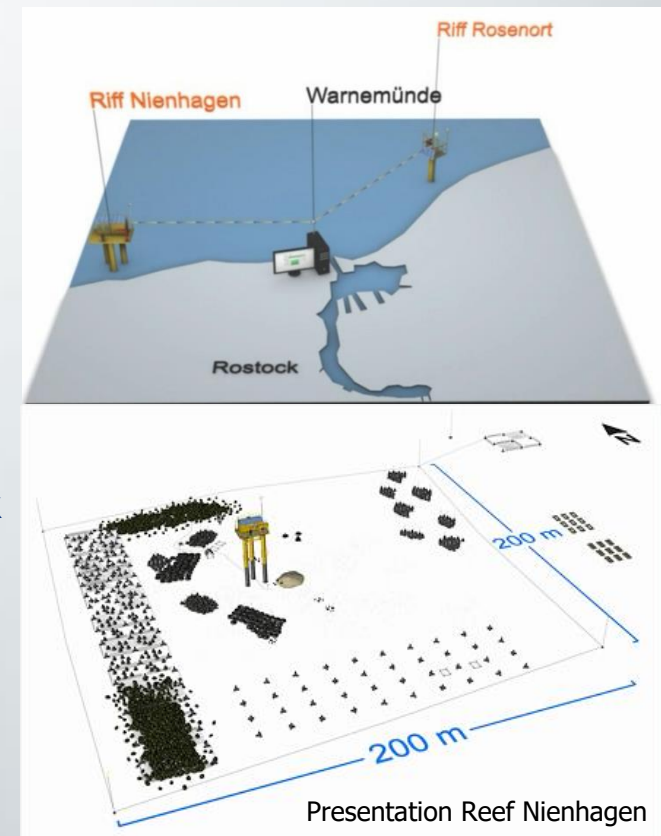
→ **Establishment** of a new **Cluster** at the location in a future market

Infrastructure

1. Establishment of a Subsea Test Site

Expansion of subsea testing facilities

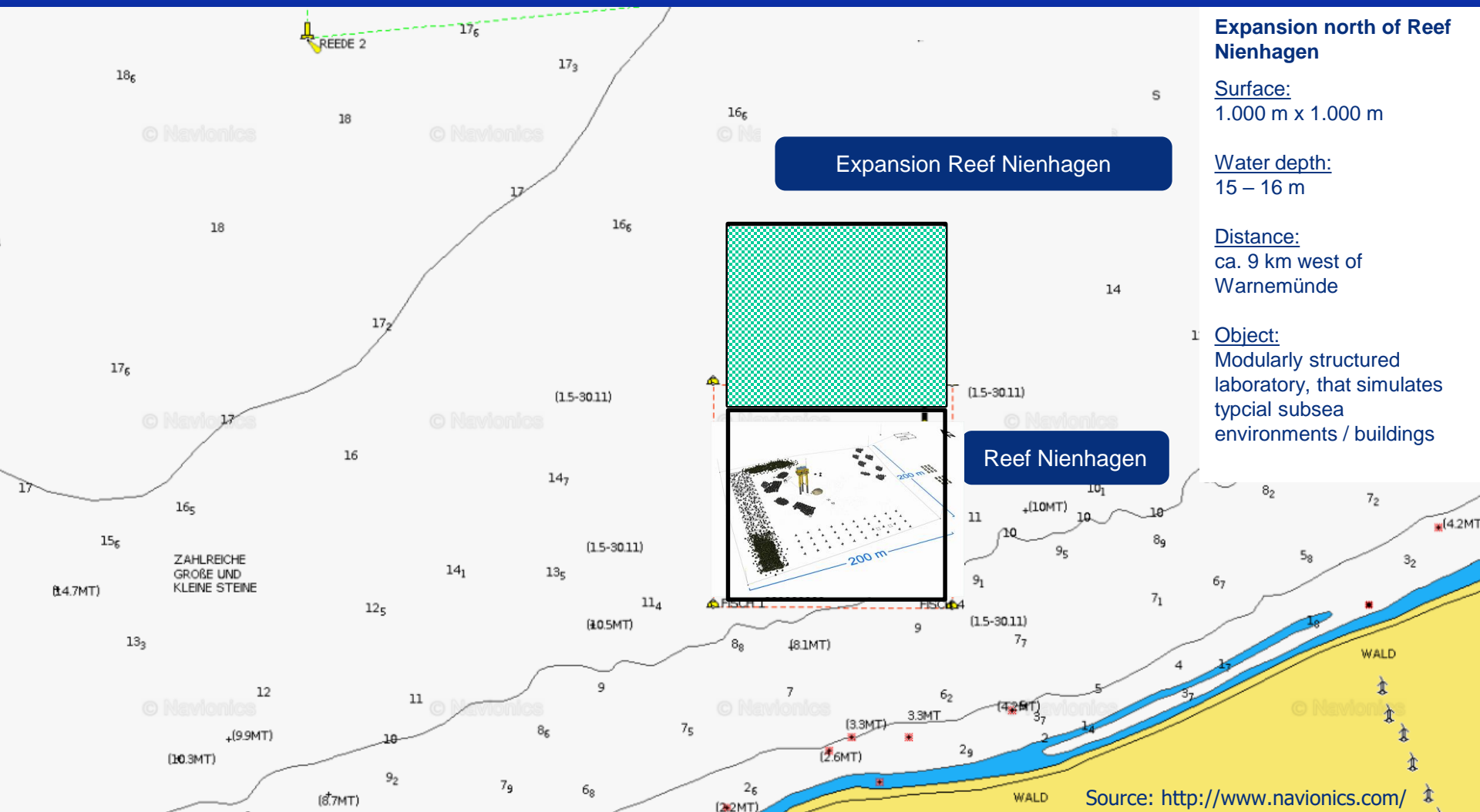
- There are two artificial reefs that have already been partly used for testing
- The association owns water police permissions for implementing test drives of ROV/AUV, crawlers, deep sea stations
- Existing artificial reefs shall be expanded with test tracks for various applications
- Companies & scientists from Germany / Europe come to Rostock and use these test areas for testing new innovative technologies
- Thus, technologies can be developed faster and more efficient into a marketable commodities (*short distances to the testing area, translocated from research vessel to conventional vessels/platforms with onshore assistance*)



Quelle: <http://www.riff-nienhagen.de/>

Infrastructure

1. Establishment of a Subsea Testsite



Subsea Test Site

Subsea facilities

Cable Garden

Test of sensor,
tracking and
camera system

**AUV Flight
Garden**

Test of AUV, control and
navigation systems

Offshore Structure Garden

Test of control, sensor,
camera and electronical
systems

**Pipeline
Garden**

Test of drive, control and
assistance systems

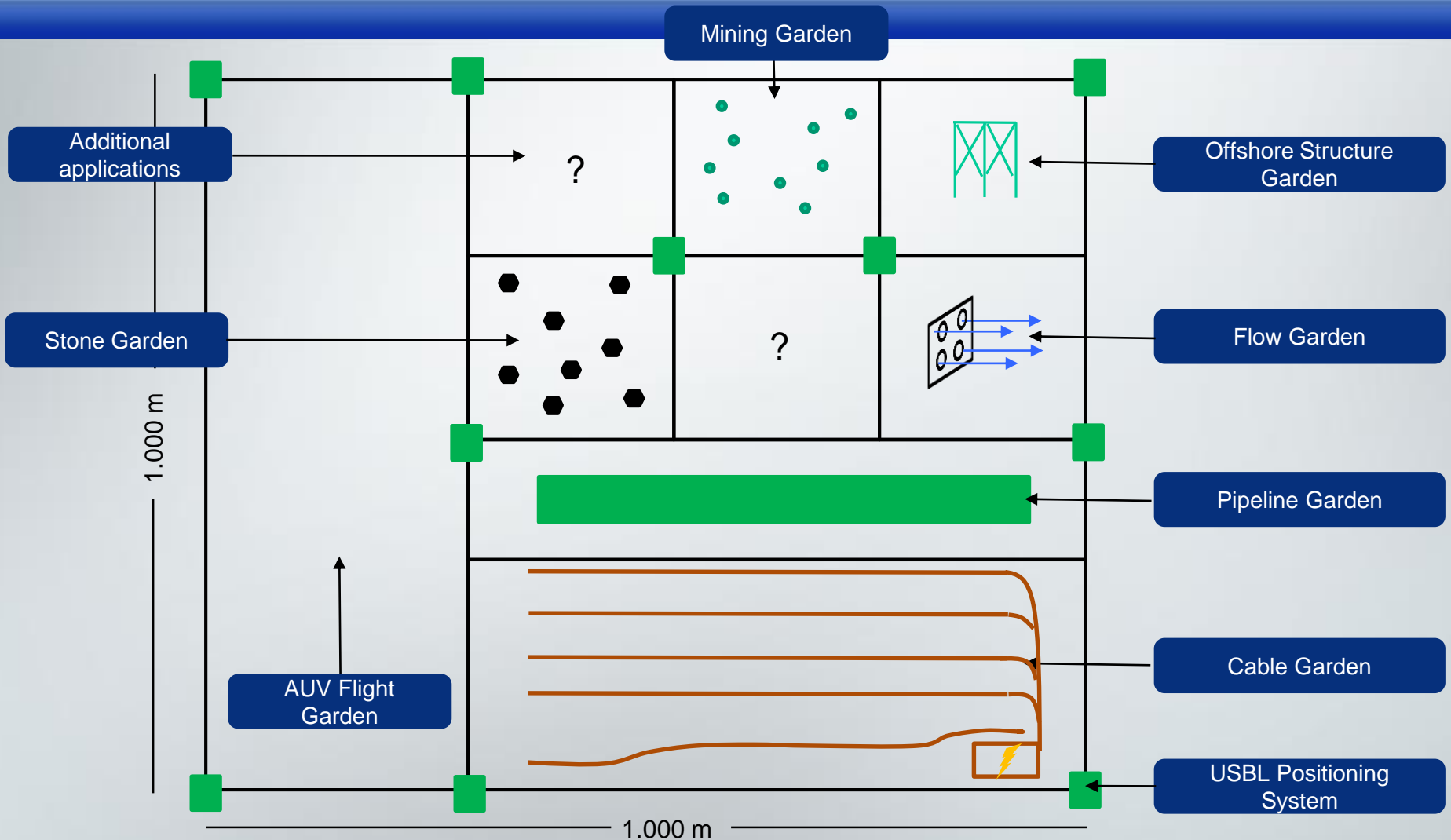
Flow Garden

Mining Garden

Test of sensor,
tracking and
camera system

Subsea Test Site

Subsea facilities



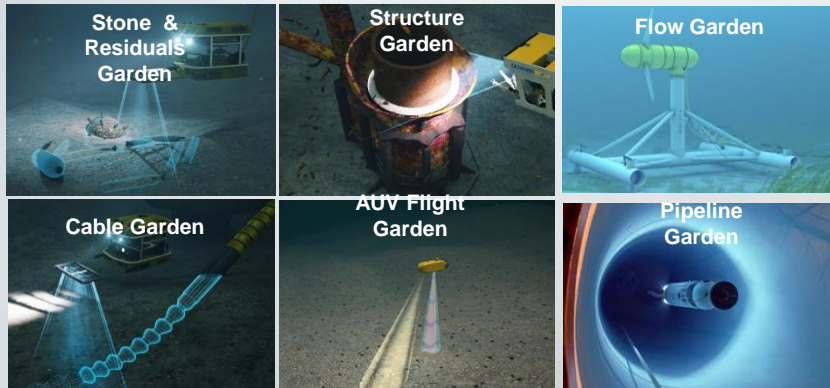
Subsea Test Site

Time Schedule

Implementation and expansion of the first Test Site

(Integration of first test infrastructure)

Short-term
2017 - 2019



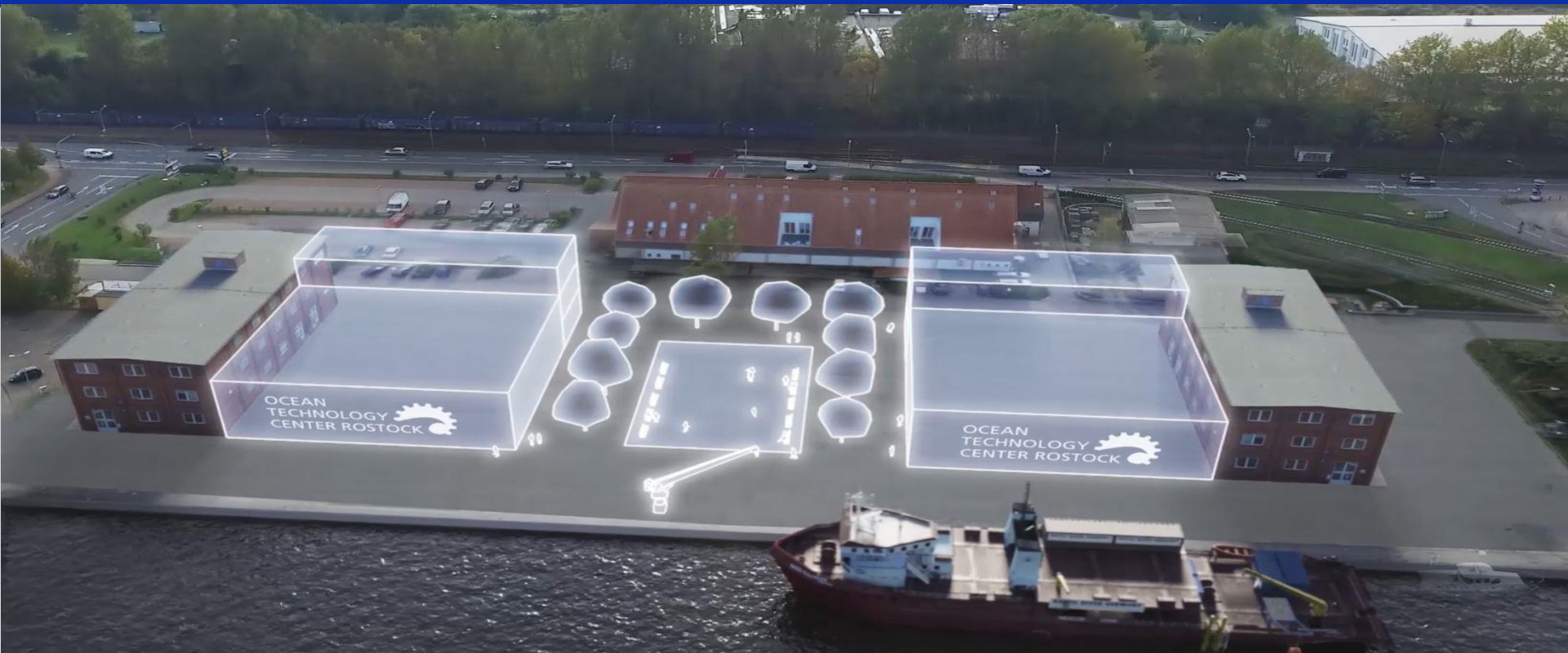
Operation and expansion of the test site for new sectors

(Integration of additional test infrastructure)

Medium-term
2020 - 2025

Maritime Environmental Technology (Antifouling colour/coating agent)	Subsea Mining	?
Aquakultur	Marine Energy	?

Digital Ocean Lab





**Rostock offers the best of both worlds:
an attractive business environment
& an outstanding quality of life**

DOCK HERE!

Rostock Business

– your one-stop-agency for business in Rostock

We would be pleased to welcome you to the region.

Schweriner Str. 10/11
18069 Rostock
Tel: +49 (0)3813771910
info@rostock-business.de
www.rostock-business.de

[twitter@RostockBusiness](https://twitter.com/RostockBusiness)
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- Many thanks for your attention -