

# Ramping up the Hydrogen Economy in Greater Rostock

Planning 100 MW ELY as is in Q3-24

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EHR Strategy Consulting



IWEN gGmbH



rostockEnergyPort GmbH



# Agenda

- I. Intro
- II. Energiehafen Rostock
- III. Varsity and Quantity of Projects
- IV. 100MW HyTechHafen Project
- V. Summary and Outlook

# Local Stakeholder

## IWEN in a Nutshell

**Founded in 2019**

**Affiliated institute of the Rostock university**

**More than 25 years of experience with renewable energies**

**Coordinating body for research, development and innovation**

**Our thematic focus covers both level of energy transition, products and processes:**

- Technology transfer for centralized energy hubs
- Decentral & smart quarters
- Wind energy and sector coupling



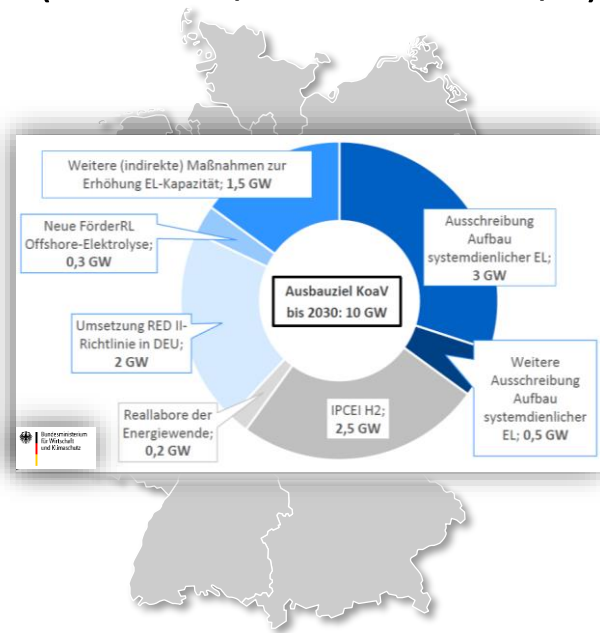


# Ecosystem GR

>4years of WSD and now?

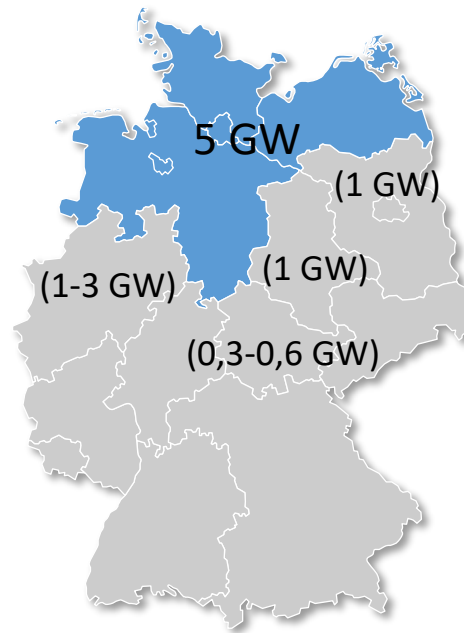
## WSD in EU & Germany

- EU: mind. 40 GW <sup>1</sup>
- DE: 10 GW Capa to 2030  
<sup>2</sup>(=28TWh/a <<< 90TWh/a)



## Northern Germany

- 500 MW Capa to 2025
- 5\* GW to 2030 <sup>3,4</sup>



## GREATER ROSTOCK

- 255 MW Capa to 2027/2028
- >3.5 GW to 2035 (4+ projects)



**Near Future**  
Mastering the  
changing pendulum

Sources:

<sup>1</sup> [Wasserstoff ist ein europäisches Projekt: Gemeinsam ans Ziel | BDEW](#)

<sup>2</sup> Koalitionsvertrag 2021

<sup>3</sup> [norddt-H2-Strategie-final.pdf \(norddeutschwasserstoffstrategie.de\)](#)

<sup>4</sup> VNG, Stand September 2022

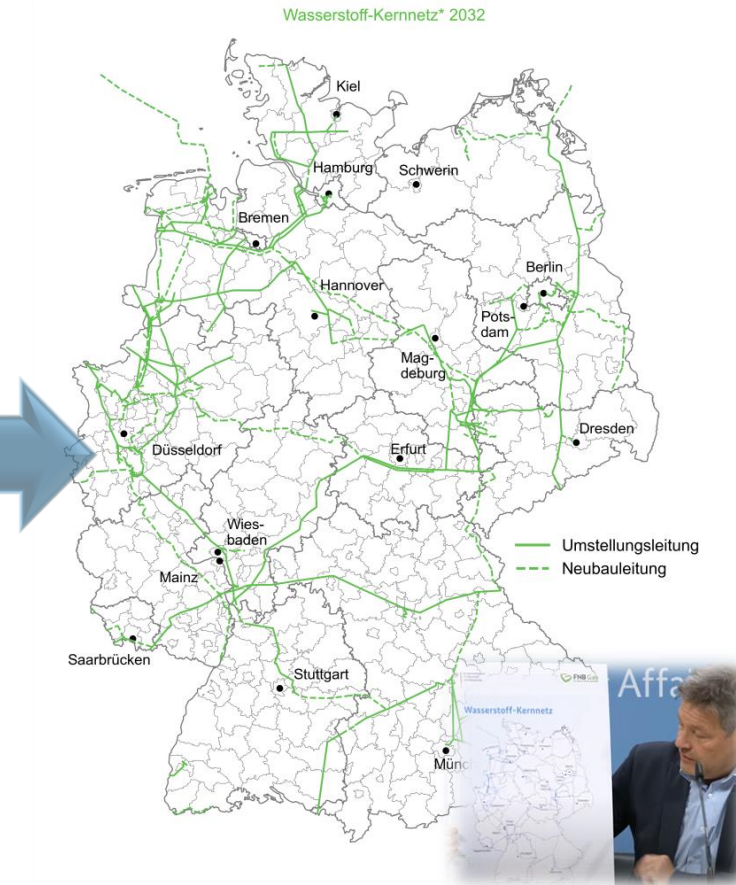
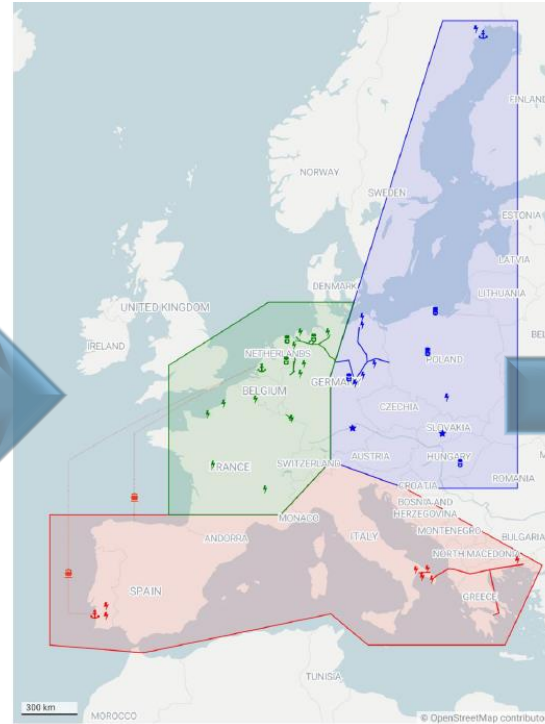
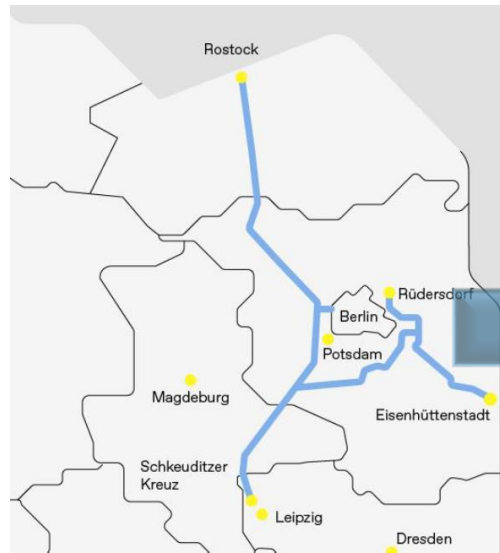
<sup>5</sup> [Energiehafen Rostock - Energiehafen Rostock \(energyport-rostock.de\)](#)

Remark:

Capacity in each case based on the year 2030

# Ecosystem for site development

Core Net - Chance and Challenge for the Region



>700km pipeline ;  
COD 2026  
„doing hydrogen“



IPCEI;  
COD 2028  
„H2Infra“



>1200km pipeline ;  
COD 2030  
„flow hydrogen“



9.666km by 2035;  
87GW Offtake Capa  
„Kernnetz“



# Booster for Site Development

Strategy „Energiehafen“

## 1. Infrastructure completion

- ✓ Connection to G/EU hydrogen backbone
- ✓ Strategic cooperation along the whole value chain
- ✓ Hydrogen/Ammonia Terminal

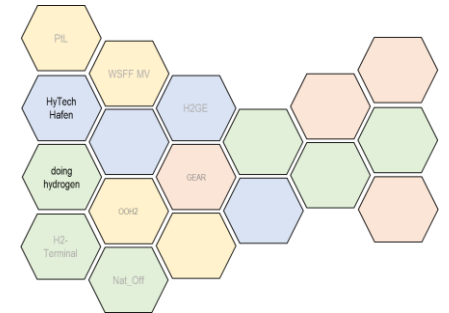
✓ Accompanying RDI

## 2. Industrial Conversion/Production

- ✓ Production projects on MW scale
- ✓ Regional acceptance, participation up to business share

## 3. Valley and Hub

- ✓ Business development up to concrete industrial settlement and expansion
- ✓ Accompanying regional industrial transition
- ✓ Maritime mobility



Energy Port Rostock –  
Strategy towards 1 GW

THE GERMAN BALTIC HUB FOR HYDROGEN

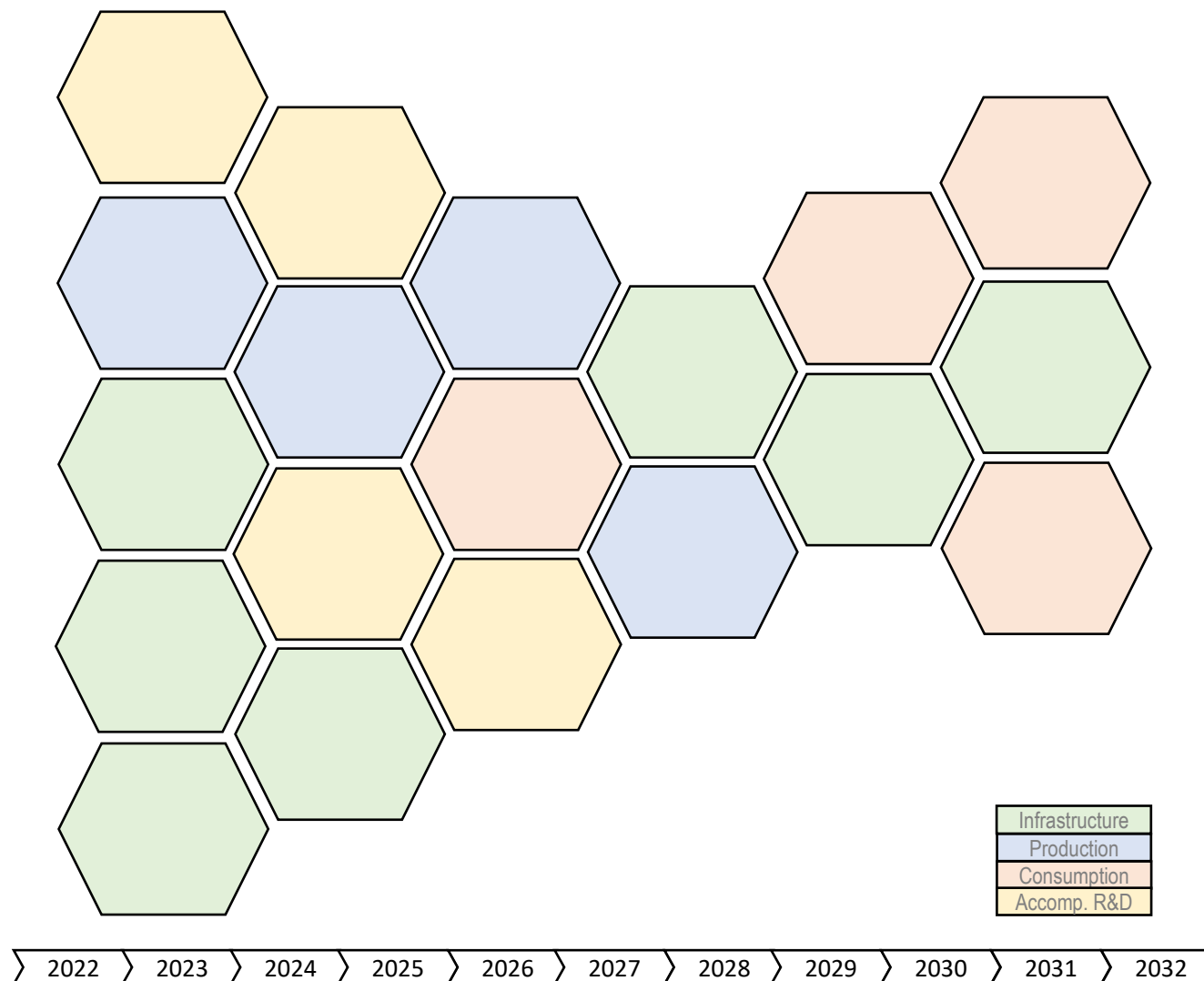
Strategy Coordination

|  ROSTOCK PORT |  IWIEN |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Jens A. Schermer<br>ROSTOCK PORT GmbH<br>+49 381 350-4000<br>management@rostock-port.de          | Dr. Ralf Tschulke<br>IWIEN gGmbH<br>+49 381 260530-402<br>r.tschulke@iwi-institut.de      |

Version 1.0, date 02/2022

# Variety and Quantity of Projects

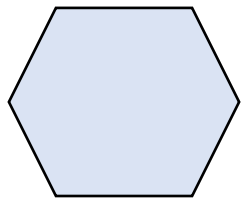
Holistic but Structured Development Approach





# Variety and Quantity of Projects

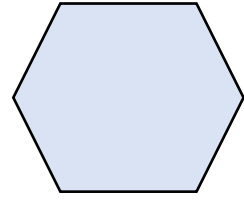
Production Projects as is in 2024



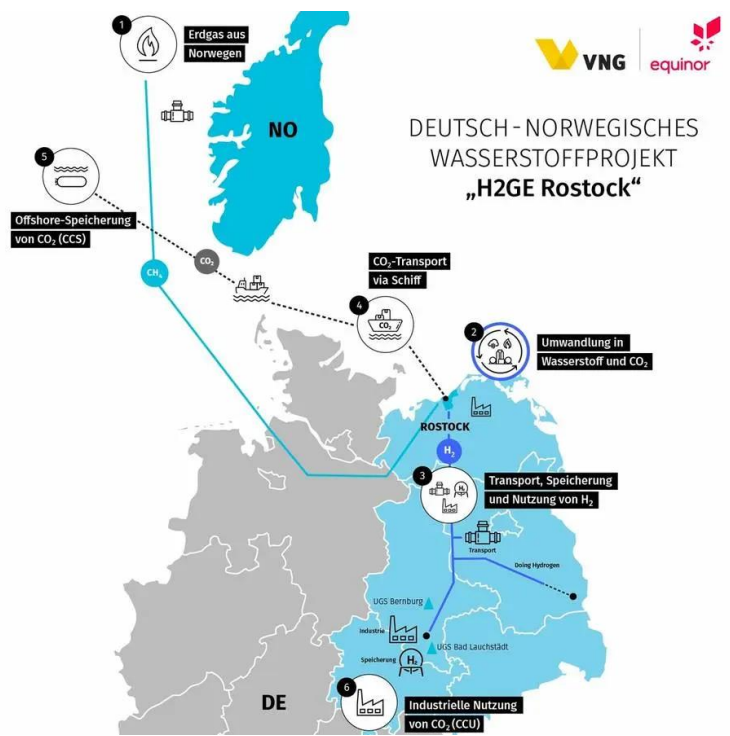
HyTechHafen Rostock



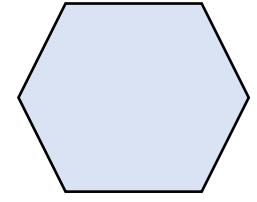
[google.com/maps/@54.1471947,12.1438289,3324m](https://www.google.com/maps/@54.1471947,12.1438289,3324m)



H2GE



<https://www.equinor.de/wasserstoff/h2ge-rostock>

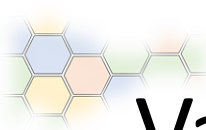


7++ further Projects:  
H2ERO@H2APEX  
ELYKorridor OD  
...



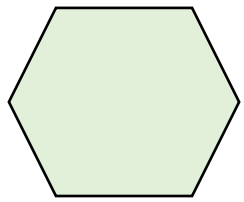
<https://h2apex.com/de/ipcei-grossprojekte/>



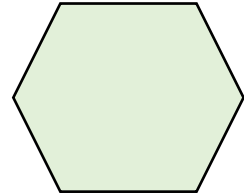
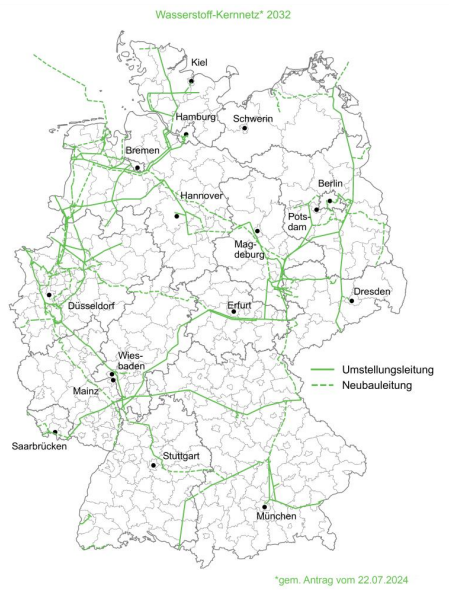


# Variety and Quantity of Projects

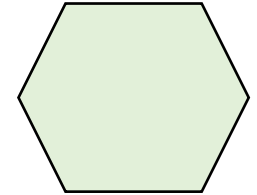
Infrastructure Projects as is in 2024



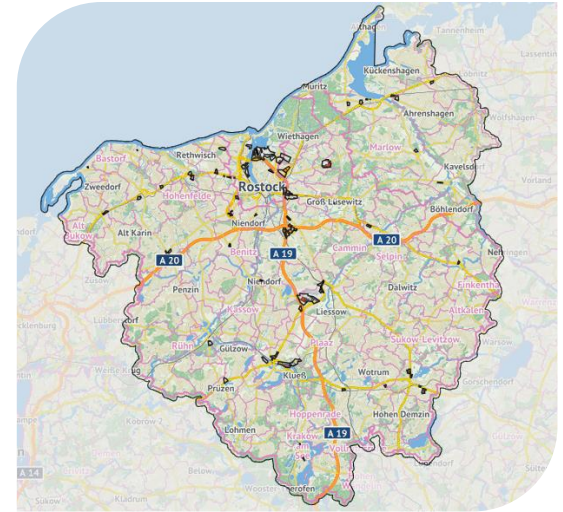
**Core Net**



**HyConnect  
Rostock-Lubmin**



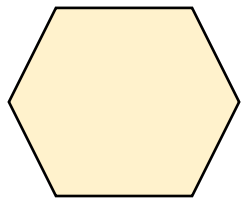
**Feasibility Study <sup>3</sup>GR**



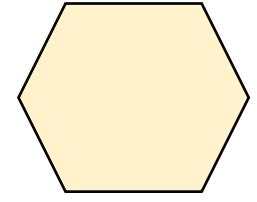
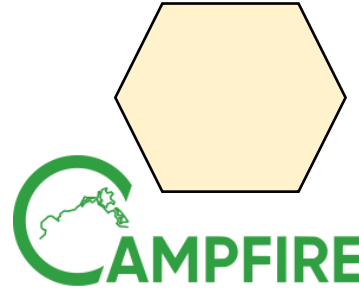


# Variety and Quantity of Projects

Accompanying R&D Success as is in 2024



**Wasserstoff-Forschungsfabrik MV**



**BSH2**



Leibniz-Institut für Katalyse



Anwendungszentrum Wasserstoff  
(Rostock Seehafen – Lead IGP)



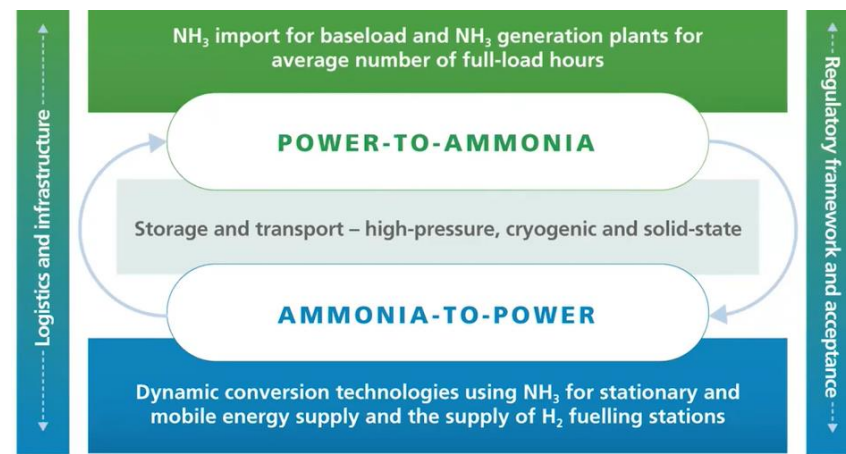
PtX-Transfertechnikum  
(Rostock Südstadt – Lead LIKAT)



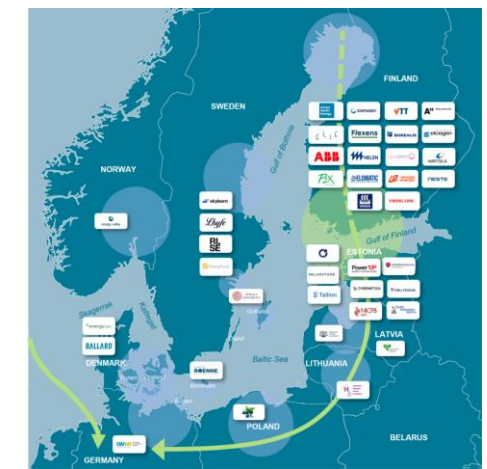
PtX-Plasma-Technikum (PPT) &  
PtX-Plasma-Entwicklungsumgebung (PPE)  
(Greifswald – Lead INP)



FROM IDEA TO PROTOTYPE



<https://wir-campfire.de/>

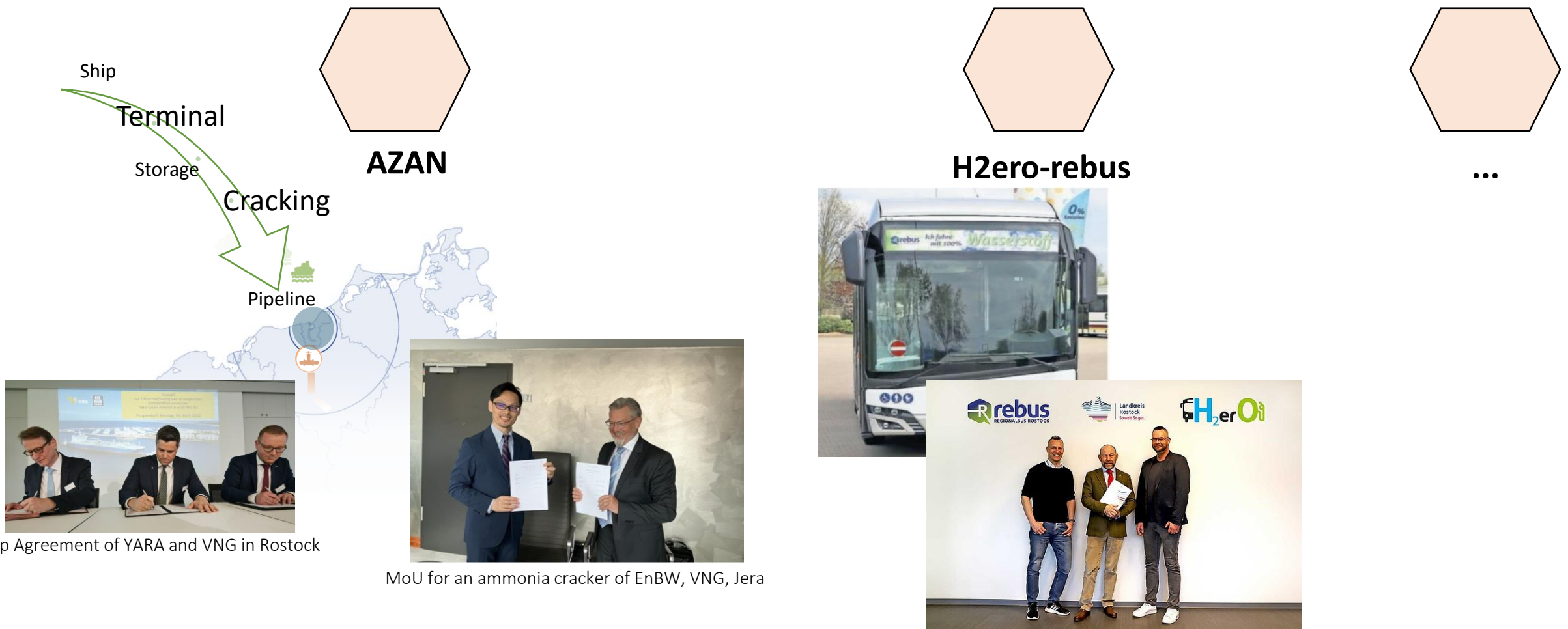


<https://balticseah2valley.eu/>



# Variety and Quantity of Projects

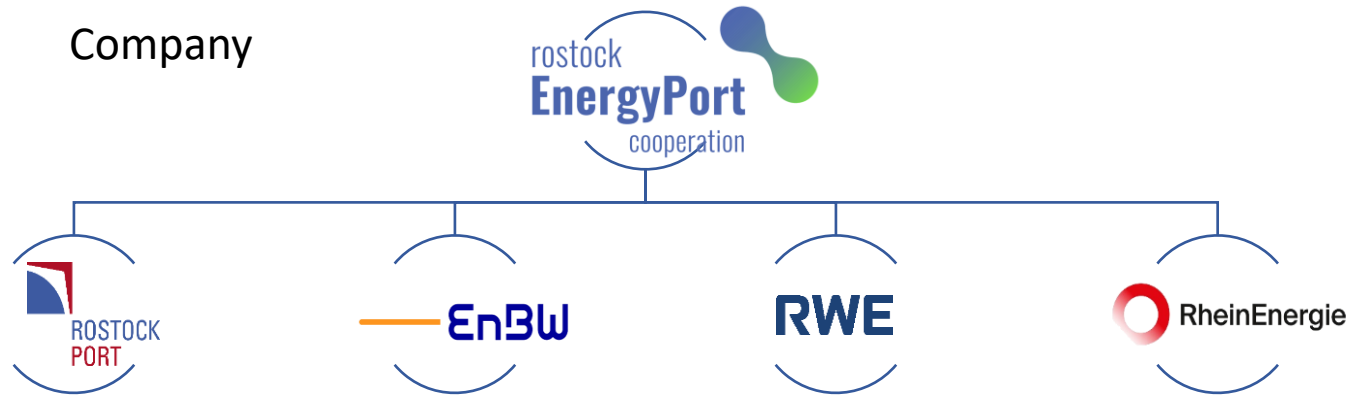
Industry and other Offtaker Projects as is in 2024



# Initiation Project HyTechHafen

## Company and Scope

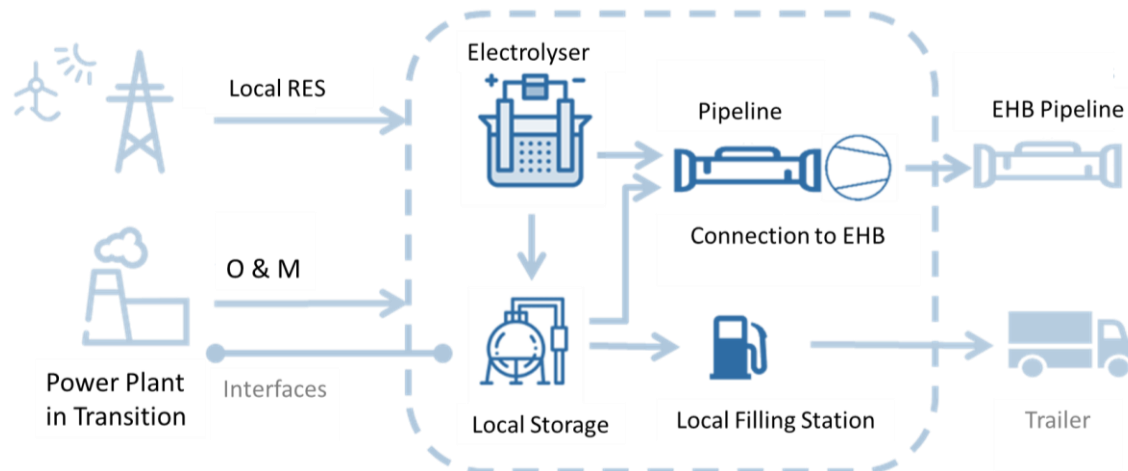
### Company



### Advisory Board



### Project Scope

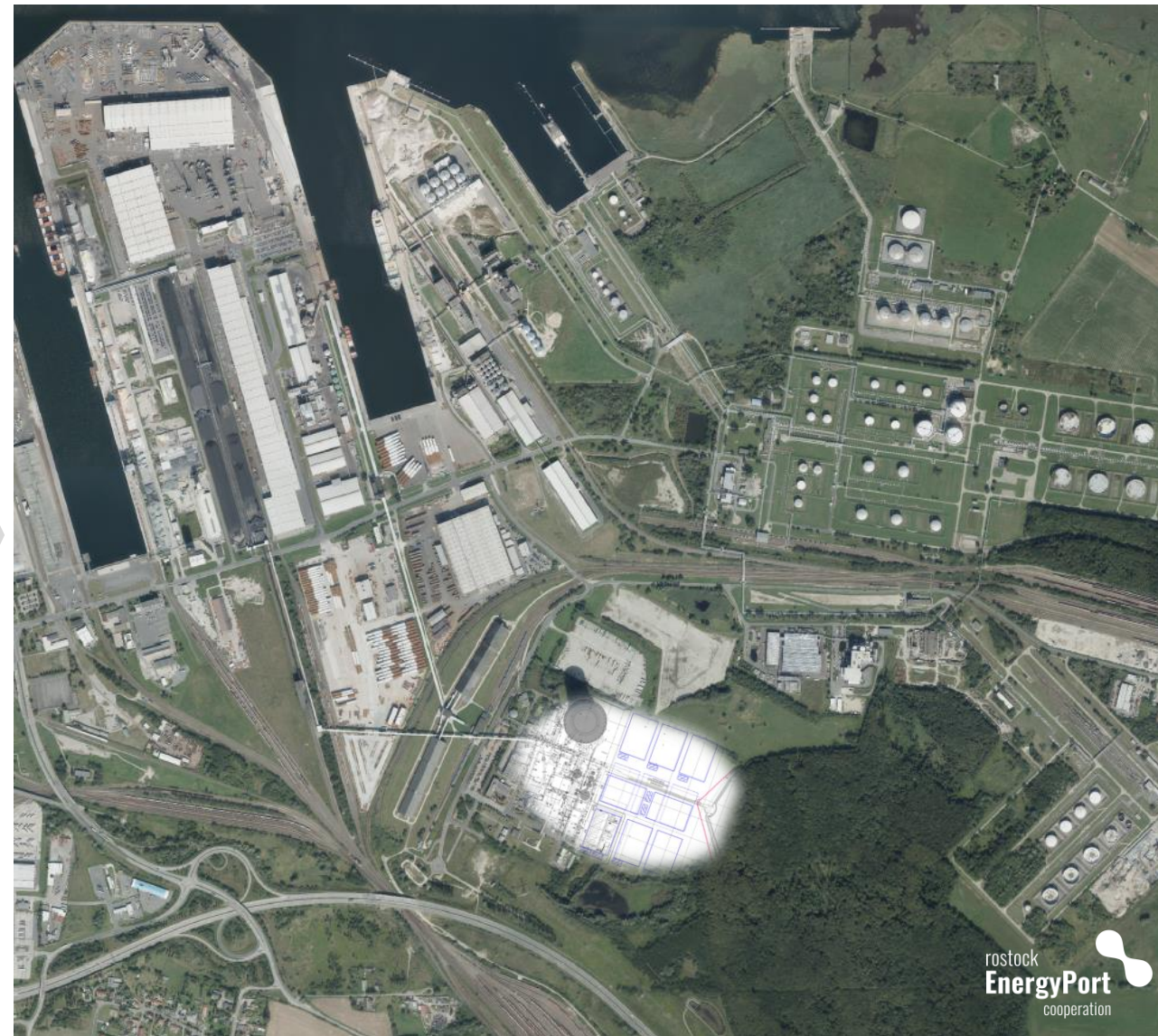


1. 100MW capacity
2. > 7.000 t H<sub>2</sub> annually
3. Several hundred million invest
4. IPCEI Hydrogen
5. Infrastructure Wave
6. EPC partnering



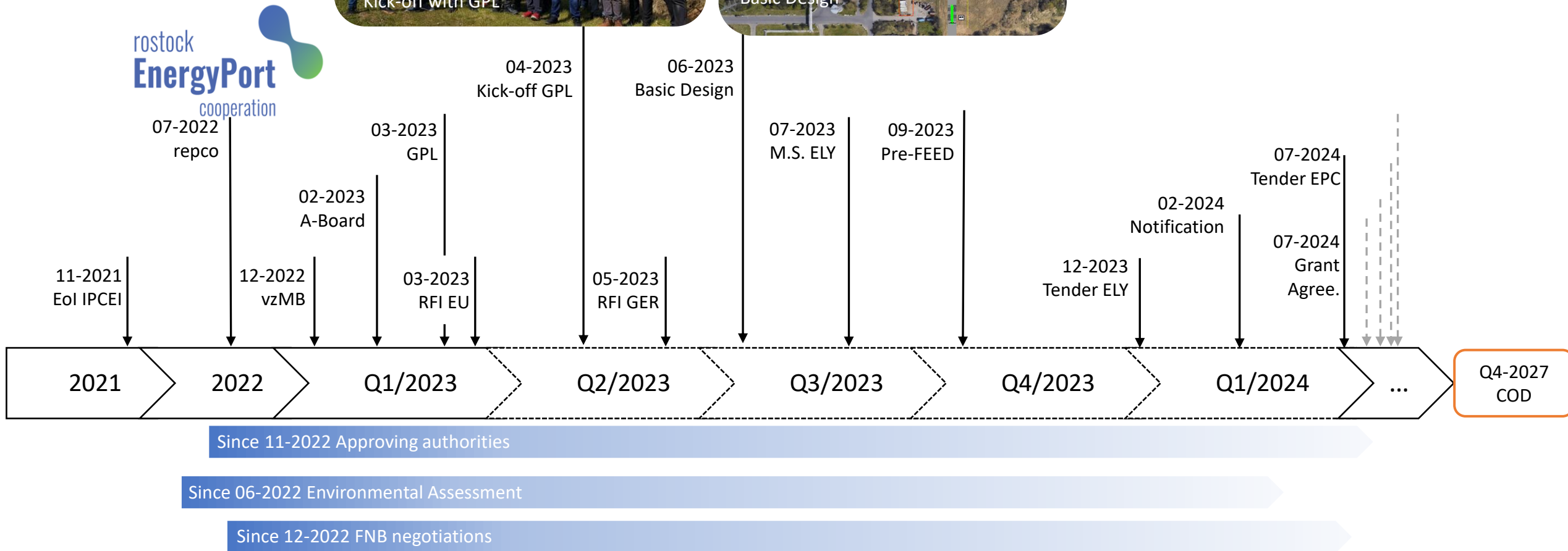
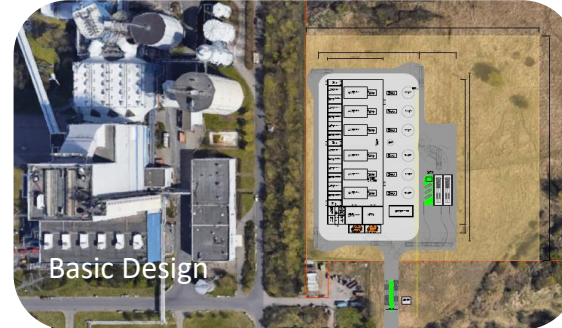
# Initiation Project HyTechHafen

Site



# Milestones HyTechHafen as is

## Project Timeline





# Thank you for your attention!

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