

# Industry Network & Innovation Cluster WAB e.V.

## “German Offshore: Current Status”

1 March 2022



Gefördert durch:

Die Senatorin für Wirtschaft,  
Arbeit und Europa

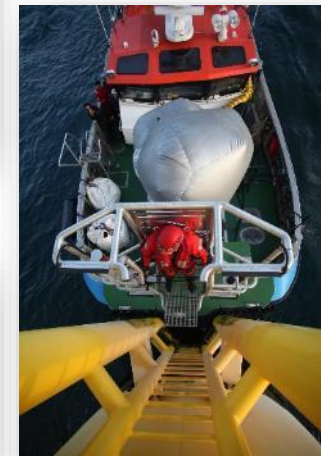
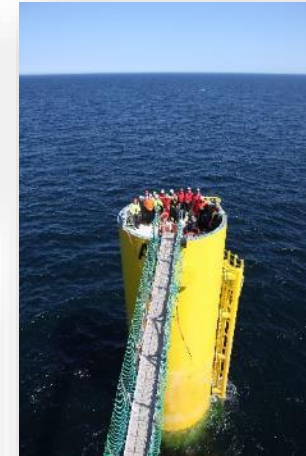


Die Senatorin für Klimaschutz,  
Umwelt, Mobilität, Stadtentwicklung  
und Wohnungsbau



# Agenda

- I. About WAB e.V. – Since 2002 in Bremerhaven, fostering wind energy
- II. German Market Perspectives
- III. EU Perspectives



**OFFSHORE**  
Deutschlands Windstärke

**OFFSHORE**  
FOUNDATION OF THE  
ENERGY TURNAROUND





# I. Kurzvorstellung – WAB e.V.

# I. Krótkie wprowadzenie - WAB e.V.

Bremerhaven-based WAB is the nationwide contact partner for the offshore wind industry in Germany and the leading business network for onshore wind energy in the north-west region. The association fosters the production of “green” hydrogen from wind energy. It comprises some 250 smaller and larger businesses as well as institutes from all sectors of the wind industry, the maritime industry as well as research.

WAB, z siedzibą w Bremerhaven, jest ogólnokrajowym punktem kontaktowym dla branży morskiej energetyki wiatrowej, sieci lądowej w regionie północno-zachodnim oraz promuje produkcję "zielonego" wodoru z energii wiatrowej. Do stowarzyszenia należy około 250 mniejszych i większych firm, a także instytucji ze wszystkich dziedzin przemysłu wiatrowego, morskiego i badawczego.



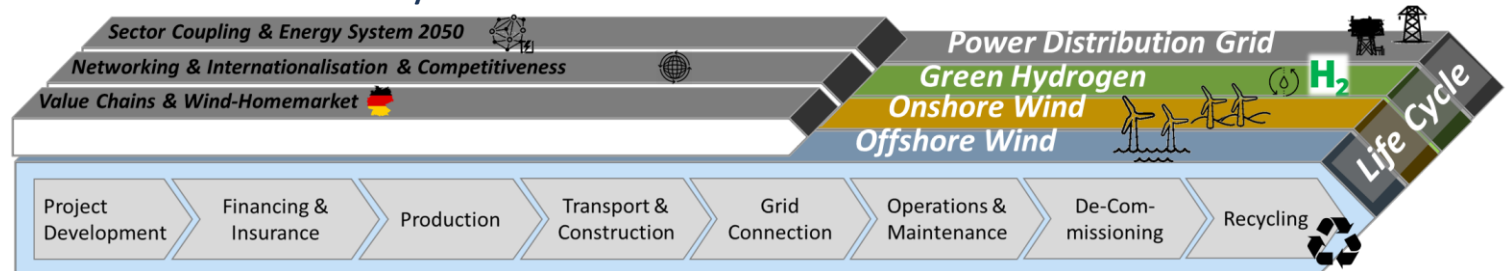
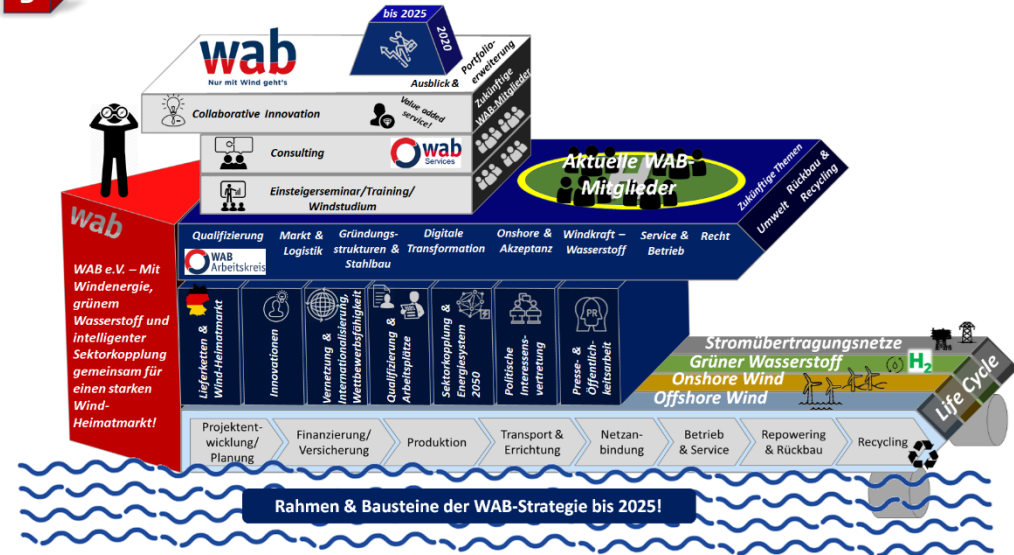
# I. Strategy – WAB e.V.

## I. Strategia – WAB e.V.



WAB e.V. supports the implementation of growing, complete and cost-efficient value chains in the offshore wind industry, the onshore wind industry and is committed to the emerging market for "green" hydrogen in Germany and other regions.

WAB e.V. wspiera realizację rozwijających się, kompletnych i efektywnych kosztowo łańcuchów wartości w branży morskiej i lądowej energetyki wiatrowej oraz angażuje się we wschodzący rynek "zielonego" wodoru w Niemczech i innych regionach.



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Europäisc  
Investition  
Europäisc  
regionale



Europäische Union  
Investition in Bremens Zukunft  
Europäischer Fonds für  
regionale Entwicklung



Die Senatorin für Klimaschutz,  
Umwelt, Mobilität, Stadtentwicklung  
und Wohnungsbau



**wab**  
It's only possible with offshore

## I. WAB Board

## I. Rada WAB



Jens Assheuer  
Chairman WAB  
Executive Board  
Assheuer  
Entwicklungsgs. mbh



Irina Lucke  
WAB Vice-Chairwoman  
Omexom Renewable  
Energies Offshore  
GmbH



Tim Meyerjürgens  
WAB  
Executive Board  
TenneT Offshore GmbH



Markus Lesser  
WAB Executive  
Board  
PNE AG



Jean Huby  
WAB Executive Board  
Ocean Breeze Energy  
GmbH & Co. KG



Matthias Brandt  
Member of the WAB  
Executive Board  
Deutsche  
Windtechnik AG



Dr. Dennis Kruse  
Member of the WAB  
Executive Board  
Deutsche WindGuard  
GmbH



Nils Schnorrenberger  
WAB Executive Board  
BIS Bremerhavener  
Gesellschaft f.  
Investitionsförderung  
u. Stadtentwicklung



Dr. Antje Wagenknecht  
WAB Executive Board  
Fachagentur  
Windenergie  
an Land e.V.



Norbert Giese  
WAB Executive Board  
GefuE Verwaltungs- und  
Betriebsführungs GmbH

## OFFSHORE

Deutschlands Windstärke



All capabilities on board:

- ✓ Wind power at sea
- ✓ Wind power on land
- ✓ "Green" hydrogen

The WAB board consists of 10 industry representatives elected by the member companies and defines the strategic direction of the association.



# I. WAB-Team

## I. Zespół WAB

**Goal:** "Cluster Management Excellence Gold" certification by the European Cluster Excellence Initiative as part of the goCluster initiative of the BMWi (BMWK) for increasing member satisfaction.

### WAB-Team:

- Senior Cluster Manager / Innovation: Steffen Schleicher
- Senior Cluster Manager R&D: Eike Grünhagen
- Cluster Manager Member Service / Assistant to the Managing Director: Bettina Bittner,
- Marketing & Communication: Hans-Dieter Sohn
- Event & Administration: Laura Plewinski
- Managing Director & Public Affairs: Heike Winkler



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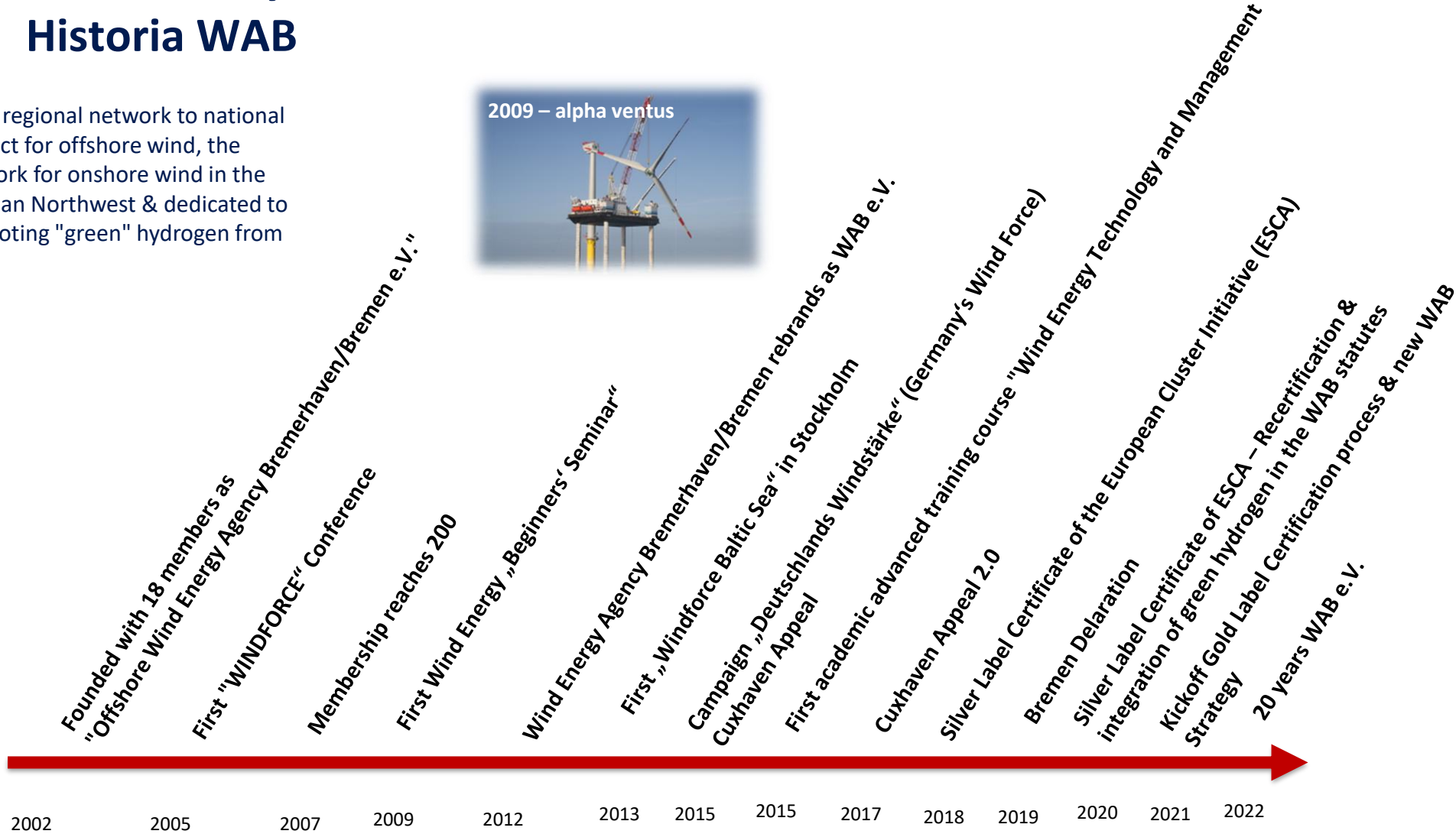
# I. WAB History

## I. Historia WAB

From regional network to national contact for offshore wind, the network for onshore wind in the German Northwest & dedicated to promoting "green" hydrogen from wind.



2009 – alpha ventus



## I. WAB: Network and a pressure group

## I. WAB: sieć i grupa nacisku

WAB e.V. fosters the wind industry in two ways: As a network and as a pressure group for the German offshore wind industry.

WAB e.V. wspiera przemysł wiatrowy na dwa sposoby: jako sieć oraz jako grupa nacisku na niemiecki przemysł morskiej energetyki wiatrowej.



### WABs Mission

#### WAB as a network - WAB jako sieć

Services to support and strengthen the position of our members:

- Internationalisation/delegational visits
- Co-operation/Networking/ Regulars' tables
- Education and training
- Innovation projects
- Industry Communication

#### WAB as pressure group - WAB jako grupa nacisku

Creating a positive image of the offshore wind industry for national policy and the public :

- Press releases
- Position papers / Consultations
- Events
- Information leaflets
- Coordination with other interest groups in the sector



## I. WAB e.V. Offerings

### I. Oferta WAB e.V.

1

#### Cooperation

- ▶ Consulting  
(Industry)  
Associations  
(national & int'l)
- ▶ WAB Events  
(e.g. Regulars' Table)
- ▶ WAB Working Groups

2

#### Internationalisation

- ▶ Joint Stands
- ▶ Strategies,  
Market Insights
- ▶ Study Tours
- ▶ Delegational Visits
- ▶ WINDFORCE  
Conference

3

#### Innovation

- ▶ Support and  
Realisation of  
R&D Projects
- ▶ Inn2Power Project –  
Interreg Programme
- ▶ Marketing
- ▶ Innovation Tours

4

#### Qualification

- ▶ Beginners'  
Seminar
- ▶ Postgraduate  
Wind Studies
- ▶ Qualification  
Working Group



**WINDFORCE**



5

#### Information & Communication

6

Regular association meetings & exchange on current developments with associations and policymakers

# I. Member structure across the value chain

**OFFSHORE**  
Deutschlands Windstärke

Strongest in members among Germany's offshore wind pressure groups: WAB e.V., e.

Wind Power Management

8.2 | The Experts in  
Renewable Energy

DEUTSCHE  
**WINDGUARD**

**bremenports**  
Bremen Bremerhaven GmbH & Co. KG

**SIEMENS**  
energy

project experts  
**CARNEADES**

**DEME**  
OFFSHORE

**sensorise**

**Green Giraffe**

**LOC**

**FASSMER**  
INDUSTRIAL SERVICE



**Deutsche Windtechnik**

**SEAPORTS**  
niedersachsen

**B-OFFSHORE**

**WINDEA**  
OFFSHORE

**mh**  
OFFSHORE  
SERVICE & CONSULTING

**Fraunhofer**  
IWES

**BLG**



**Tennet**  
Taking power further

**ROBUR WIND**  
YOUR WIND SERVICE SPECIALIST

Bremerhavener Gesellschaft  
für Investitionsförderung  
und Stadtentwicklung mbH **bis**

**amprion**

**CM**  
OFFSHORE  
GmbH

**SIEMENS Gamesa**  
RENEWABLE ENERGY

**TRIDENT**  
Archäologie

**wind:research**

**BALTIC**  
ROSTOCK  
**TB**  
TAUCHER-UND BERGUNGSBETRIEB GMBH

**wpd**  
think energy

**Wölfel**

**WindMW**

**HYTORC**  
BARBARINO & KILP GMBH

**clockworkx**

**ela[container]**



**pwc**

**NORD/LB**

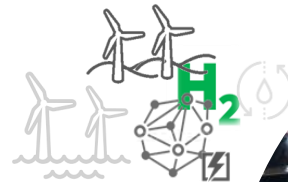
**EIFFAGE**  
**SMULDERS**

# I. WAB innovation-cluster: working groups

## Working Groups



Offshore			Offshore and Onshore		
<b>Foundations &amp; Steel-Structures</b> Head: Dr. Sigurd Weise Coordination: WAB	<b>Service &amp; Operations</b> Head: Irina Lucke Coordination: WAB	<b>Market &amp; Logistics</b> Head: Dirk Briese Coordination: WAB	<b>Legal</b> Head: Dr. M. Stoevesandt + Rainer Heidorn Coordination: WAB	<b>Qualification</b> Head: Telsche Nielsen-Lange + Dr. Sandra Peters-Erjawetz Coordination: WAB	<b>Onshore</b> Head: Dr. Antje Wagenknecht + Norbert Giese Coordination: WAB



**Wind Power - Hydrogen**  
 Head: Claas Schott (H2BX) +  
 Heike Winkler  
 Coordination: WAB

**Digital Transformation**  
 Head: Frank Lagemann +  
 Sascha Harbrecht  
 Coordination: WAB

**New in 2020 / 2021**

**Recycling & Dismantling**  
 Head: Dr. Dennis Kruse  
 Coordination: WAB &  
 RDR Wind e.V.

**INNOVATION / New Business**  
 Head: TBD  
 Coordination: WAB

**Political Communication**  
 Head: Anna Schlag  
 Coordination: WAB

- New working groups:
- Innovation +
- Circular Economy
- Political communication





# I. WINDFORCE Conference – WAB offshore conference is each year an offshore wind „class reunion“



# I. **wab** cooperates nationally and in Europe for innovations!

A selection...

**wab**



NORTHERN NETHERLANDS  
OFFSHORE WIND



Member of:



Gefördert durch:

Die Senatorin für Wirtschaft,  
Arbeit und Europa



Europäische Union  
Investition in Bremens Zukunft  
Europäischer Fonds für  
regionale Entwicklung



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## II. Status Quo - Germany: Expansion & value creation

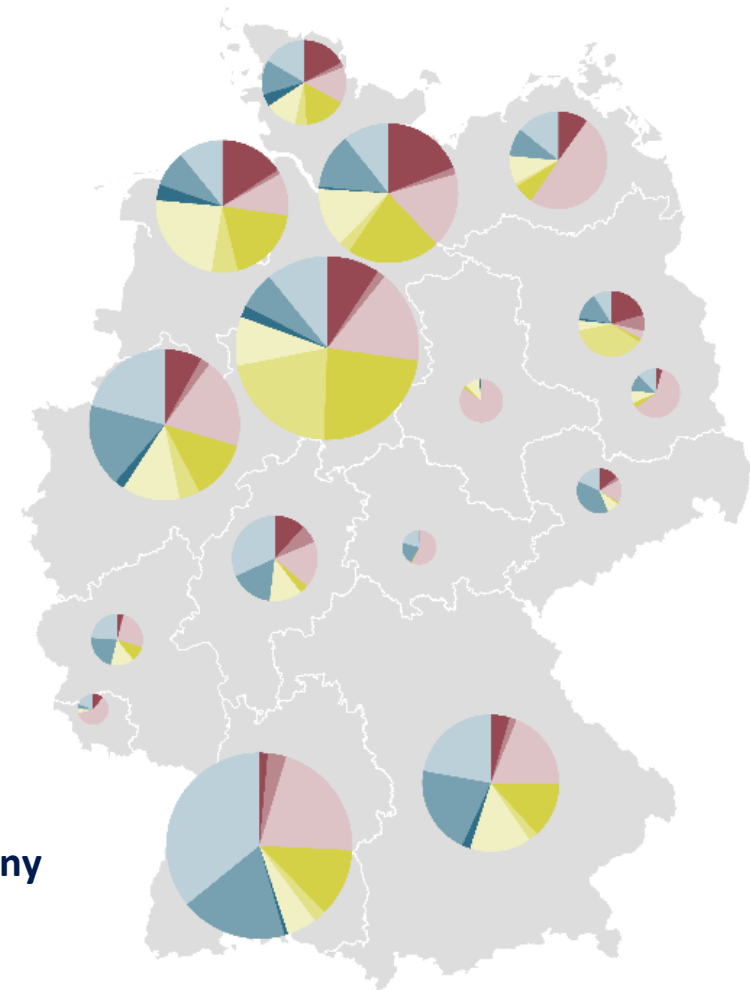
## II. Status Quo - Niemcy: Ekspansja i tworzenie wartości

862 market participants (incl. branches) in Germany who are active in the offshore wind energy sector, of which 23.8% (2019: 33%) are exclusively active in offshore wind energy, the other two thirds are also active in onshore wind energy or other areas.

The market participants have approx. 21,400 employees working full-time in offshore wind energy in 2020. They generate around 7.4 billion euros in turnover in 2020. This includes turnover that is exported.

Market participants abroad and thus turnover that was imported was not the subject of the study, which focuses on value creation within Germany.

**wind:research 2021: Value creation of offshore wind energy in Germany**





## II. Around 7.7 gigawatts installed in the German North and Baltic Seas

## II. Około 7,7 gigawatów zainstalowanych w niemieckim Morzu Północnym i Bałtyckim

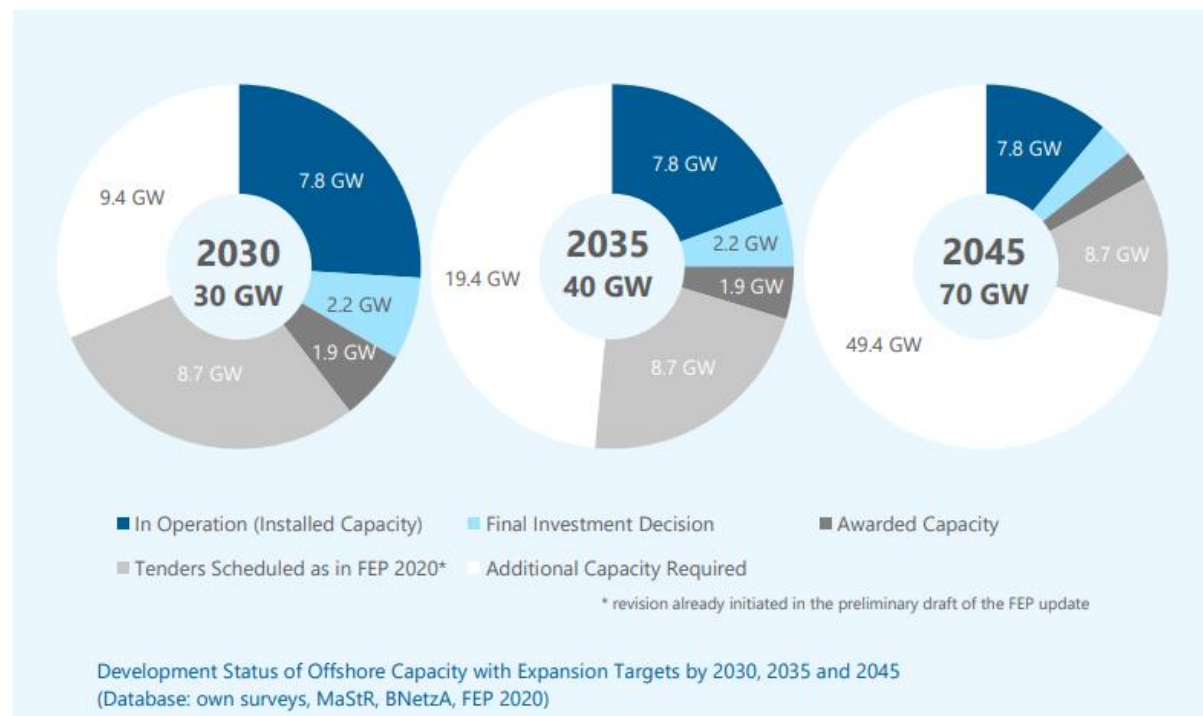
### Goals:

- WindSeeG: at least 20GW by 2030 (coalition agreement 2021/Latest Ministry Proposal: at least 30GW).
- WindSeeG: at least 40GW by 2040 (coalition agreement 2021: at least 40GW by 2035 / Latest Ministry Proposal: at least 40(50)GW until 2035).

In parallel: Energy production at sea for green hydrogen (kick-off SEN-1)

- By 2045 Coalition Agreement 2021/Ministry Proposal: at least 70 GW.

Increased targets must now be written into law and planned by the relevant authorities.



## II. Status Quo - Germany: Expansion & value creation

## II. Status Quo - Niemcy: Ekspansja i tworzenie wartości

- 27 Projects in operation
- Upgrades in 2 projects in 2021
- FID for 5 projects
- Project rights awarded:  
Windanker, Nordsee Two and N-3.7
- Start of in-water construction expected  
in 2022: Kaskasi, Arcadis Ost 1

### Overview of awarded projects

OWP	Status	Expected Commissioning	Capacity [MW]**
Kaskasi*	FID	2022	342
Arcadis Ost 1	FID	2023	247
Wikinger Süd	Awarded	2023	10
Baltic Eagle	FID	2024	476.25
Gode Wind 3	FID	2024	241.75
Borkum Riffgrund 3	FID	2025	900
EnBW He Dreiht	Awarded	2025	900
N-3.7	Awarded	2026	225
Nordsee Two	Awarded	2026	433
Windanker	Awarded	2026	300





## III. European market perspectives

### More Offshore Wind for the “European Green Deal”

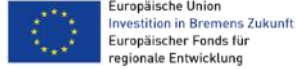
- 60GW until 2030
- 300GW offshore wind until 2050  
(340GW Offshore Renewable Energy)
- Until 2050 more than 10 times the offshore wind capacity installed today
- Green Hydrogen will be needed with respect to sustainability (climate goals),



- To achieve net zero emissions by 2050, Europe needs to decarbonise sectors that are difficult to tackle such as heavy transport, steel, chemicals, aviation and shipping.
- Offshore wind energy has the high number of full load hours required for cost-efficient electrolyser operation, low electricity costs and high public acceptance.
- Germany and UK currently account for almost 80% of installed capacity in Europe

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und Wohnungsbau



**Bardzo dziękuję za uwagę! / Thank you very much for your attention!**



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