



# Existing port and manufacturing infrastructure base



- Port
- Airport
- Wind Farm Zone
- Dutch Wind Farms
- Under development
- Designated Wind Farm Zones

# Existing port and manufacturing infrastructure base

## Port of Amsterdam and Amsterdam IJmuiden Offshore Port (AYOP)

The Amsterdam Port area is favorably located and has a lot of space for the transshipment, storage and assembly of wind turbines for wind farms at sea. In the area a tide-free cable hub for storage and transshipment is available. There is abundant experience in offshore activities.

### Key Port of Amsterdam highlights

#### Port basin characteristics

- Draught: 13.75 m SW / 14.05 m
- Access channel width: 45 m
- Non-tidal; max. dimensions governed by lock: beam 45 m x LOA 350 m. From 2019 beam 65 m x LOA 460 m

#### Quayside facilities

- Heavy mobile cranes available up to 1,200 ton
- Total length of quay for offshore: 1,700 m
- Bearing capacity quay: 20 ton/m<sup>2</sup>
- Jack-up possibilities (limited); number of mooring berths for jack-up vessels: 3
- Multiple berths on request

#### Port logistics

- Heliport available onsite (Amsterdam heliport)
- 30 km to Amsterdam Airport Schiphol

Further information can be found at [www.portofamsterdam.nl](http://www.portofamsterdam.nl)

## Port of Scheveningen – The Hague

The Port of Scheveningen focuses on the niche of offshore maintenance and has direct access to the North Sea. The current real estate developments along the quayside offer great opportunities for the offshore wind sector.

### Key Port of Scheveningen highlights

#### Port basin characteristics

- Draught: 7.5 m
- Access channel width: 100 m
- Average tidal range: 2.0 m

#### Quayside facilities

- Heavy mobile cranes available (third party)
- Total length of quay for offshore: 1,000 m
- Loading capacity quay: 20 ton/m<sup>2</sup>
- Total length of jetty for service vessels: on request
- Test locations – available

#### Port logistics

- Heliport available (< 10 km)
- 25 km to Rotterdam-The Hague Airport and 45 km to Amsterdam Airport Schiphol

### Further information can be found at

<https://www.denhaag.nl/en/residents/getting-there-and-around/to/Port-Authority-and-Traffic-Control-Centre.htm>

## Port of IJmuiden and Amsterdam IJmuiden Offshore Port (AYOP)

The port of IJmuiden has energy at its core, servicing the oil and gas supply chain as well as assembly, installation and maintenance for offshore wind farms.

### Key Port of IJmuiden highlights

#### Port basin characteristics

- Draught: 11 m LAT
- Access channel width: 120 m
- Average tidal range: 0.8 m
- Direct access, no bridges, no locks

#### Quayside facilities

- Heavy mobile cranes available (third party)
- Total length of quay for offshore: 1,200 m
- Loading capacity quay: 16.5 - 23.5 ton/m<sup>2</sup>, depending on position on the quay. Two concrete reinforced platforms are available at the waterfront, loading capacity: 700 ton/m<sup>2</sup>
- Jack-up possibilities; number of mooring berths for jack-up vessels: 3
- Total length of jetty for service vessels: floating jetty system on conventional quay side and 3 boat landings for offshore wind service vessels
- Test locations - ECN test farm < 35 km

#### Port logistics

- Heliport available at Amsterdam heliport
- 25 km to Amsterdam Airport Schiphol

Further information can be found at [www.zeehaven.nl](http://www.zeehaven.nl)

## Port of Vlissingen/ Zeeland Seaports

This port has been a market leader for offshore operations with companies such as Bow Terminal and Verbrugge Terminals offering the space, facilities and equipment needed for all the operations involved in the final construction and maintenance of offshore wind farms.

### Key Port of Vlissingen - Zeeland Seaports highlights

#### Port basin characteristics

- Draught: 16.5 m
- Access channel width: 350 m
- Average tidal range: 4.5 m

#### Quayside facilities

- Heavy mobile cranes available
- Total length of quay for offshore: 4,740 m
- Loading capacity quay: Up to 15 ton/m<sup>2</sup>
- Jack-up possibilities; number of mooring berths for jack-up vessels: > 10
- Total length of jetty for service vessels: approx. 500 m
- Test locations - Not yet (negotiable)

#### Port logistics

- Heliport available at Zeeland Airport (3,5 km)
- 85 km to Antwerp Airport, 130 km to Rotterdam-The Hague Airport, 120 km to Brussels Airport

Further information can be found at [www.zeelandseaports.com](http://www.zeelandseaports.com)

## Port of Rotterdam

The Port of Rotterdam is the biggest port in Europe and offers a 24/7 complete maritime cluster with a variety of shipyards, breakbulk terminals, specialised offshore service providers and industrial equipment suppliers.

### Key Port of Rotterdam highlights

#### Port basin characteristics

- Draught: 23.6 m
- Access channel width: 600 m
- Average tidal range: 1.2 m

#### Quayside facilities

- Heavy mobile cranes available (up to 1,800 tons)
- Total length of quay for offshore: 6,500 m
- Loading capacity quay: min. 10 ton/m<sup>2</sup>
- Jack-up possibilities; number of mooring berths for jack-up vessels: 8
- Graving docks: 6 (max 405 x 90 x 11.60 m)
- Floating docks: 6 (max 217 x 32 x 9.5 m)
- Total length of jetty for service vessels: on request at several terminals
- Test locations – available

#### Port logistics

- 10 km to Rotterdam-The Hague Airport (Heliport at the airport)

#### Future outlook

- Creation of offshore center at Maasvlakte II
- Area: 30 ha
- Water depth: 18 m
- Loading capacity quay: min. 10 ton/m<sup>2</sup>
- Jack-up possibilities

Further information can be found at [www.portofrotterdam.nl/offshore](http://www.portofrotterdam.nl/offshore)

## Port of Den Helder

The Port of Den Helder has been the home base for offshore-related businesses for decades due to its close proximity to the energy assets at the North Sea. As such Port of Den Helder has proven its pit-stop character.

### Key Port of Den Helder highlights

#### Port basin characteristics

- Draught:
  - Port entrance till quay 42: 9 m (till Moorman Bridge)
  - Quay 43 till 55: 7 m (after Moorman Bridge)
- Access channel width: 230 m
- Average tidal range: 1.80 m

#### Quayside facilities

- Total length of quay for offshore: 3,360 m, total length of quay: 7,630 m
- Loading capacity quay: 4 ton/m<sup>2</sup>; any loading capacity of mobile cranes is possible with adequate measures relating to the overall loading capacity of 4 ton/m<sup>2</sup> and even more on present heavy lifting platforms on the quay
- Jack-up possibilities (negotiable but no mooring berths as yet)
- Total length of jetty for service vessels: 695 m
- Test location available - not yet but negotiable

#### Port logistics

- Heliport available (Den Helder Airport and Amsterdam Airport Schiphol)
- 0-4 km to Den Helder Airport and 80 km to Amsterdam Airport Schiphol

Further information can be found at [www.northseaenergygateway.com](http://www.northseaenergygateway.com)

## Port of Eemshaven/ Groningen Seaports

Perfectly situated as an offshore hub, the Seaport Eemshaven in the Province of Groningen is a commercial and industrial port complex (in an area reclaimed from the sea), which offers a wide range of opportunities for the offshore wind sector.

### Key Port of Eemshaven/Groningen Seaports highlights

#### Port basin characteristics

- Draught: 1 m (expanding to 14 m in 2017)
- Access channel width: 200 m
- Average tidal range: 2.5 m

#### Quayside facilities

- Heavy mobile cranes available
- Total length of quay for offshore: 5,085 m (private and public quays)
- Bearing capacity quay: 30 ton/m<sup>2</sup>
- Jack-up possibilities; number of mooring berths for jack-up vessels: 10
- Total length of jetty for service vessels: 700 m
- Test locations - 6 test locations for future offshore turbines

#### Port logistics

- Heliport ready in 2018
- 30 km to Groningen Airport, 160 km to Bremen Airport, and 200 km to Amsterdam Airport Schiphol

Further information can be found at [www.groningen-seaports.com](http://www.groningen-seaports.com)

## Port of Harlingen

The Port of Harlingen is focused on the niche of offshore maintenance. While it is a relatively small port, Harlingen's combination of large amounts of quay space for storage and offshore wind energy specialist companies provides a sound business case for maintenance activities.

### Key Port of Harlingen highlights

#### Port basin characteristics

- Draught: 7.5 m
- Access channel width: 40 m
- Average tidal range: 1.8 m

#### Quayside facilities

- Heavy mobile cranes available
- Total length of quay for offshore: 1,450 m
- Bearing capacity quay: 4 ton/m<sup>2</sup>
- Jack-up possibilities; number of mooring berths for jack-up vessels: 1
- Total length of jetty for service vessels: Negotiable
- Test locations – available

#### Port logistics

- Heliport available (< 10 km)
- 60 km to Den Helder Airport, 100 km to Eelde Airport, and 100 km to Drachten Airport

Further information can be found at [www.harlingenseaport.nl](http://www.harlingenseaport.nl)

