

# Ready to **take offshore**



**Europe's premier address**  
for the offshore wind energy industry



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Jan Oelker: Installing a REpower 5M turbine at the Alpha Ventus offshore wind farm

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# “The power hub region”

Centre of the offshore wind energy industry

On both sides of the Weser river, from Bremen to Nordenham and Bremerhaven and on to the Elbe estuary at Cuxhaven – here lies the home of the offshore wind industry.



*“The power hub region” is close to wind and water, and has broad expertise in offshore wind energy to offer.*

The region has a lot more to offer besides water and an expanse of land – it boasts ports with heavy-load terminals and commercial space close to ports and in outlying areas, combined with a dense network of businesses and research institutions for the industry. Close by in the North Sea, Germany’s first offshore wind farms are generating electricity.

The region also owes much to its maritime tradition. The shipping and logistics industry has its roots here and provides a firm foundation for the growing wind energy industry. The first onshore wind farms were constructed here in the 1990s and more and more businesses have set up bases locally. The region is now advancing wind power even further – out onto the open sea.

By 2025, wind energy is expected to supply a quarter of Germany’s electricity needs. For this to happen, offshore production has an important role to play. Wind turbines with a capacity of around 25,000 megawatts are being planned for Germany’s North and Baltic seas by 2030.

Innovative business is called for to achieve these goals. Numerous companies engaged in the industry have already established themselves in the region, relying on optimum conditions for taking wind energy forward. Towns and municipalities have invested heavily to create an infrastructure to meet the needs of an industry that is without equal. Specially-constructed ports, ideally located industrial space and excellent research centres have made the region unique in the whole of Europe.



## What makes our region special

- ▶ **Well connected** – a strong regional network of producers, suppliers, research institutions and service providers all along the value-added chain
- ▶ **Rapid access to the sea** – a tailor-made port infrastructure for the offshore wind energy industry
- ▶ **Room for expansion** – industrial areas close to the ports and in surrounding areas, with an efficient transport infrastructure
- ▶ **At the forefront** – innovation through a unique network of specialist research institutions
- ▶ **The best minds** – highly-trained specialists available locally



## The entire value-added chain from the building of turbines to suppliers

The entire value creation chain for the offshore wind industry is represented between Bremen and Cuxhaven; businesses engaged in planning and developing wind farms have set themselves up in close proximity to project locations. Many of them have been active in the wind energy market for some time.

Bremen is home to wpd, Germany’s largest wind farm developer and operator. PNE Wind in Cuxhaven and WindMW in Bremerhaven have a number of offshore wind farms under development. Because of its good transport links, Bremen has established itself as a location for service providers as well as sales and opera-



*The M5000 offshore wind turbine was developed in Bremerhaven and is manufactured in series by AREVA Wind.*

tions specialists for the industry. Well-known companies such as BARD Engineering are based here. The turbine manufacturer ENERCON also directs its international sales operations from Bremen.

## Wind energy experts in the region

Experts engaged in complex planning processes can find what they need in the region – know-how, a network and their customers. Reputable firms in Cuxhaven, Bremerhaven, Bremen and elsewhere can provide advice in the planning phase, prepare wind assessments or certify offshore components.



*The gantry crane at Cuxhaven Steel Construction enables the offshore industry to handle components weighing up to 600 tonnes.*

## Manufacturers in direct proximity to deep water facilities

Turbine manufacturers are practical in their thinking and have chosen locations next to deep water facilities for good reason.

In Bremerhaven, REpower Systems and AREVA Wind have begun serial production of their five-megawatt and six-megawatt turbines. It was here too that the turbines for Germany’s first offshore wind farm, Alpha Ventus, were manufactured.

Foundations weighing up to 1,000 tonnes are being produced by WeserWind Offshore Construction Georgsmarienhütte in Bremerhaven and CSC Cuxhaven Steel Construction. AMBAU is constructing towers in Cuxhaven and Bremen, with Steelwind Nordenham soon following in their footsteps. Rotor blades for the offshore giants, measuring over 60 metres in length, are being produced by PowerBlades in Bremerhaven, and SGL Rotec is utilising former aircraft industry land in Wesermarsch for the construction of turbine blades.

## Strong regional network of suppliers

The region today already has a dense network of suppliers for the offshore industry. Companies with a long history of steel construction, electro-technology, plastics manufacturing or the maritime industry have geared themselves to the offshore sector and new ones are joining them. Firms such as Norddeutsche Seekabelwerke and nkt cables in Nordenham have been in the business of providing sea cabling for networking offshore wind farms for some time. Fassmer, the specialist shipbuilder based in Berne, is a manufacturer of nacelle and spinner housings.

It is evident that wind energy turbines are becoming ever more efficient and thus more complex. Wind farms at sea require very advanced control technology, making automation increasingly important. A large number of engineering companies in the region have specialised in wind farm technology and are working closely alongside turbine manufacturers. But even technology of the highest order requires maintenance from time to time. REETEC and Deutsche Windtechnik

*Handling of offshore components (including AMBAU tower segments) at the Cuxport multi-purpose terminal in Cuxhaven.*



in Bremen are two of the companies providing offshore servicing.

## Wind energy boom in the region

Thousands of new jobs have already been created – the region is benefiting greatly from the boom industry that is wind energy. But its development is only just beginning – numerous orders for commercial wind farms both in Germany and overseas make expansion vital. The region now counts as the most important offshore wind industry centre in Europe.

## Ports for offshore giants

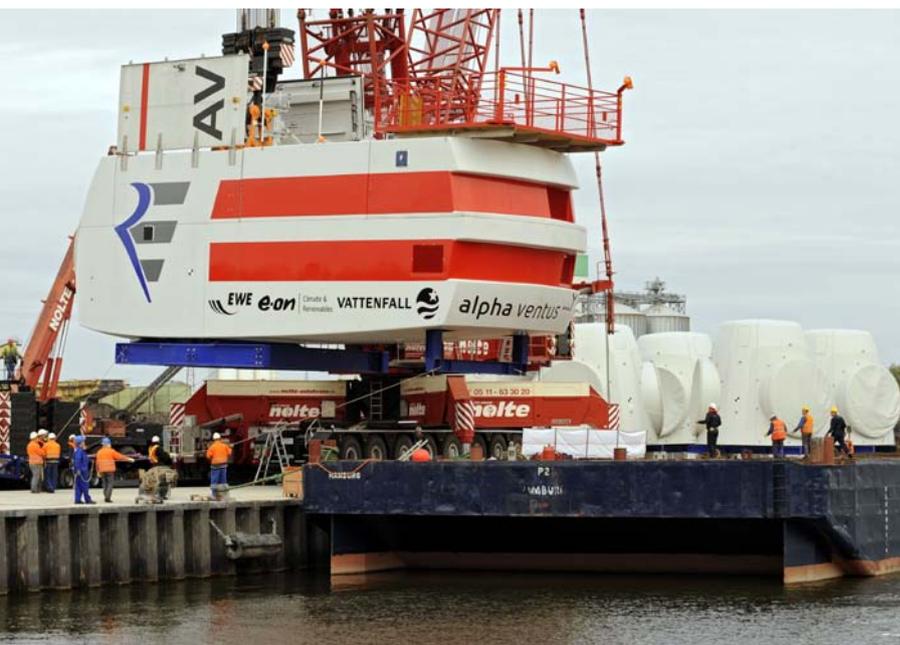
The industry needs ports equipped for the construction as well as service and mainte-

nance of wind farms. To this end, the region is responding with an infrastructure that is tailor-made. Shipping berths and quays suitable for heavy loads are in place, likewise workshops and storage areas. Companies with decades of maritime experience provide for logistics that are professional and trouble-free. Suppliers and service providers in the industry value the availability of quality commercial sites with excellent transport links.

## High-calibre research and qualified skilled workers

The region possesses a research infrastructure that is unique. The country’s leading institutions for wind energy research and development are based here, in particular the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES) in Bremerhaven. The Fraunhofer Institute in Bremen and the region’s technical colleges and universities are making wind energy a focus of their research.

A key factor for the industry is a well-qualified workforce. Diversity also means having on offer a broad spectrum of training and continuing education opportunities, from university courses to safety training. Colleges and universities have devised courses of study specifically for the industry or are tailoring their courses to its needs. Continuing education providers are training qualified skilled workers for the offshore wind industry and putting on special courses for all those engaged in working at sea.



*Efficient ports, equipped to meet the needs of the offshore wind industry, are a central link in the logistics chain from production and storage on land to wind farms at sea.*

## “The hub region” is well connected

It comes as no surprise that the region also organises zukunftsenergien nordwest, the biggest job and education fair for renewable energies. In addition, a trade fair focusing on the offshore wind energy industry will be held for the first time in Bremen in 2012.

But even when fairs are not taking place, networking carries on undiminished. Wind Energy Agency WAB, with over 350 members, fosters regular trade events and seminars, thematic working groups, international study tours and excursions to wind energy businesses in the region, and hosts foreign delegations seeking contacts and the exchange of information within the industry. Potential business

partners are able to continuously keep in touch at numerous local events. They represent the entire value chain of the wind energy sector, from research through production and installation to maintenance and upkeep. Beyond that, WAB has also established itself as the nationwide contact for Germany’s offshore wind industry and was accepted into the Networking for Innovation initiative as the first wind energy association. This grouping brings together the “most innovative and efficient” networks under the umbrella of Germany’s Ministry of Economics and Technology.

### Networks and events

- ▶ [www.wab.net](http://www.wab.net)
- ▶ [www.windforce2012.com](http://www.windforce2012.com)
- ▶ [www.zukunftsenergien-nordwest.de](http://www.zukunftsenergien-nordwest.de)
- ▶ [www.windpowercluster.de](http://www.windpowercluster.de)



*WAB’s highly regarded WINDFORCE conference in Bremerhaven will be held in 2012 for the first time in Bremen together with an international offshore wind trade fair.*

## Land of wind – land of recreation

The region on the river is not just an industrial location but also a holiday destination. Coasts, islands, beaches and sea, dykes and expanses of land turn this place of work into a recreational area when work is over. The reasonable price of land and the relatively low cost of living mean that living standards in the region are high.

The tidal flatlands of Lower Saxony's Wattenmeer National Park provide the region with a unique nature reserve, declared a world heritage site by UNESCO. From Cuxhaven as a departure point, it is wonderful to explore – one can walk on foot through intertidal mudflats to the islands of Neuwerk and Scharhörn.

*The coast, beaches, the sea, and numerous points of interest such as the German Emigration Center in Bremerhaven, make the region attractive for locals and tourists alike.*



Beach-lovers sunbathe on the Cuxland coast, cyclists have access to an extensive route network along the Weser or inland. For yachting enthusiasts, the Weser estuary near Bremerhaven and the Elbe estuary near Cuxhaven are perfect places for starting a sail out to islands in the North Sea. Visitors heading towards Helgoland, Germany's only island on the high seas, can depart from Bremerhaven or Cuxhaven.





Those lured by the big city head for the Bremen Theater or stroll through the historical Schnoor Quarter or along the Schlachte promenade overlooking the river Weser. The varied museum landscape is not just for rainy days. Highlights that attract visitors from other parts of Germany and overseas include the German Emigration Center, the Klimahaus® Bremerhaven 8° Ost, and the Bremer Kunsthalle art museum. Children love going to the Bremerhaven Zoo am Meer and the Universum Bremen science centre. ■■■■



*The exciting exhibition at the Klimahaus® Bremerhaven 8° Ost explains to a wide audience complex relationships in the development of climate and climate change, with information based on detailed research.*

## Infrastructure for offshore wind:

Ports and land areas specifically for the industry

The dawn of a new energy age has begun in the North Sea. Rotor blades on the wind turbines at Alpha Ventus and BARD Offshore 1, Germany's first offshore wind farms, rotate far out at sea.



*Rotor blades at the PowerBlades production facility, based in Bremerhaven since 2008.*

Some 25 wind farms have been licensed for construction in Germany's North Sea and applications have been made for more than 40 other projects. As many as 80 turbines per farm are expected to generate power. For these major projects, the industry needs ports that are a match for the logistical challenges it faces. The region has already equipped itself for this and is continuously expanding its infrastructure.

Bremerhaven and Cuxhaven serve today as base ports for the operators of Germany's first offshore wind farms. Other projects are in the preparation phase; transport and installation ships for the construction of the Nordsee 1 wind farm are awaiting their first deployment in Bremerhaven. Port infrastructure is currently being further expanded for the construction of the Global Tech 1 wind farm.

In Bremerhaven, at Labradorhafen, Container Terminal 1 and the ABC-Halbinsel in the car



*From 2014/2015, the Offshore Terminal Bremerhaven and nearby industrial areas will offer even more space for the production, handling and installation of giant offshore wind turbines.*

	<b>Heavy-load terminal Labradorhafen Bremerhaven</b>	<b>Offshore Terminal Bremer- haven</b>	<b>Container Terminal 1 Bremerhaven</b>	<b>ABC-Halbinsel Bremerhaven</b>	<b>Werfthafen Bremerhaven</b>
<b>Quay length</b>	1,132 metres	500 metres	500 metres	900 metres	380 metres
<b>Number of moorings</b>	2 to 3	2 to 3	2 to 3	3	2 to 3
<b>Water depth</b>	7.6 metres	10.8 metres	12.6 metres	10.5 metres	7.1 metres
<b>Heavy-load suitability</b>	Heavy-lift platforms up to 50t/m <sup>2</sup> : west side (100 x 16 metres), east side (60 x 15 metres)	Heavy-lift platform (500 x 70 metres), 25 hectares for pre-assembly	Heavy-lift platform 400 x 34 metres, 5 t/m <sup>2</sup>	20 t/m <sup>2</sup> heavy-lift platform, 6 - 8 t/m <sup>2</sup> terminal area, rail system available	Details upon request
<b>Lock restrictions</b>	182 x 35 metres	none	none	305 x 55 metres	182 x 35 metres
<b>Availability</b>	immediate	2014/ 2015	immediate	immediate	immediate
<b>Contact</b>	FBG Fischereihafen-Betriebsgesellschaft <a href="http://www.fbg-bremerhaven.de">www.fbg-bremerhaven.de</a>	City of Bremen – Senator for Economics, Labour and Ports <a href="http://www.wirtschaft.bremen.de">www.wirtschaft.bremen.de</a>	Eurogate Container Terminal Bremerhaven <a href="http://www.eurogate.de">www.eurogate.de</a>	BLG LOGISTICS GROUP <a href="http://www.blg.de">www.blg.de</a>	Petram Beteiligungs Company <a href="http://www.mwb-bremerhaven.de">www.mwb-bremerhaven.de</a>



*Cuxhaven already serves the offshore wind industry as a base today, and more projects are being planned.*

loading port, there are heavy-load quays (up to 50 t/m<sup>2</sup>) as well as areas for pre-assembly and storage. The offshore terminal in Bremerhaven planned for 2014/15 will provide even more space for the assembly, handling and storage of wind energy turbines.

In Cuxhaven, the heavy-load platform and two offshore terminals are equipped to handle components such as tower segments, nacelles and rotor blades for shipping. A large gantry crane enables massive construction components such as 70-metre long tower segments to be loaded.

From 2012, more wind farms are to be constructed out of Cuxhaven, and the Wesermarsch area is also gearing up for the offshore industry.

	Heavy-load platform Cuxhaven	Offshore Terminal 1 Cuxhaven	Offshore Terminal 2 Cuxhaven	Multi-purpose terminal Cuxhaven
<b>Quay length</b>	Area: 1,600 m <sup>2</sup>	360 meters	736 meters	Europakai: 840 metres; Steubenhöft: 250 metres
<b>Number of moorings</b>	1	3	4	Europakai: 4; Steubenhöft: 2
<b>Water depth</b>	up to 15.1 metres	up to 9.5 metres	up to 12.7 metres	Europakai: 13.5 or 15.1 metres; Steubenhöft: 14.5 or 11.5 metres
<b>Heavy-load suitability</b>	load capacity 90t/m <sup>2</sup>	up to 20 t/m <sup>2</sup>	no details available yet	see heavy-load platform
<b>Lock restrictions</b>	none	none	none	none
<b>Availability</b>	immediate	immediate	from 2012	immediate
<b>Contact</b>	Cuxport www.cuxport.de	Nports www.nports.de	Nports www.nports.de	Cuxport www.cuxport.de

Expansion of the Niedersachsenkai offshore terminal in Brake for heavy-load handling up to 1,000 tonnes has already been completed.

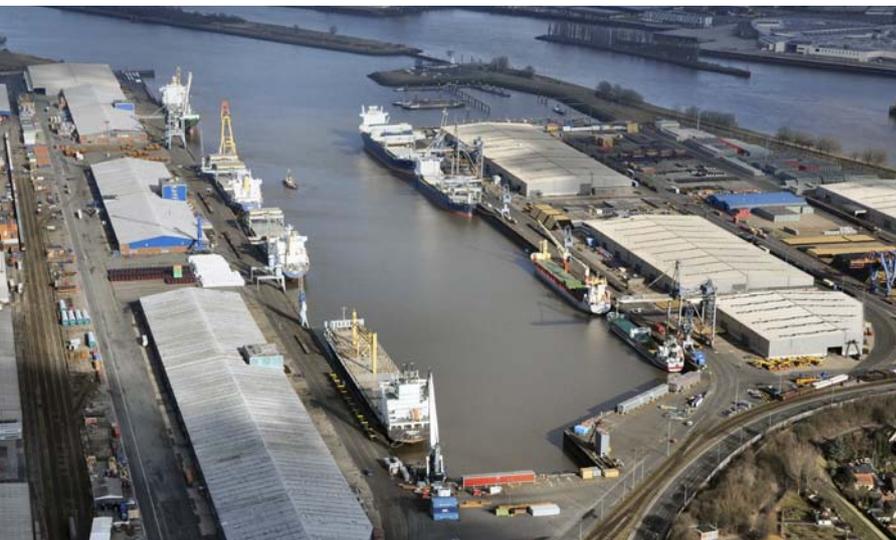
Nordenham is also expanding its port – Steelwind Nordenham is expecting its heavy-load platform for up to 1,000 tonnes to be completed by the end of 2013. The platform can be used as well by other businesses located in the Blexen industrial area along the river Weser.

In Nordenham, Rhenus Midgard is handling the sea cable logistics for Norddeutsche Seekabelwerke. In Nordenham-Blexen, industrial areas for production are available in direct proximity to the terminal, and additional storage space can be set up.



*Commercial space with an infrastructure tailored to the industry is available to manufacturers and suppliers in Nordenham – directly adjacent to deep water.*

	Stadthafen Nordenham	Nordenham-Blexen	Heavy-load platform Steelwind Nordenham	Ochtum Port Wesermarsch District	Heavy-load Offshore Terminal Brake
<b>Quay length</b>	1,065 metres	600 metres	200 metres	130 metres	Niedersachsen Kai 450 metres multi-purpose quay facility
<b>Number of moorings</b>	5	2	2	1	2
<b>Water depth</b>	13.1 metres	12 metres	8 metres	4 metres (at high tide / capacity for inland waterway vessels)	11.9 metres (12.8 metres with Weser adjustment)
<b>Heavy-load suitability</b>	Suitable for storage and handling of offshore wind turbine components	Particularly suitable for roll-on/roll-off loading	Heavy-lift platform up to 1000t weight of components (200 x 25 metres)	Upgradable; present vertical load per mobile crane 100,000 kg	Heavy-lift capacity of up to 500t on a quay length of 330 metres; heavy-lift capacity of up to 1,000t on a quay length of 120 metres; land area of about 49 hectares
<b>Lock restrictions</b>	none	none	none	none	none
<b>Availability</b>	immediate	immediate	end of 2013	immediate	immediate
<b>Contact</b>	Rhenus Midgard www.rhenus.com	Rhenus Midgard www.rhenus.com	DH Nordenham Projekt/ Steelwind Nordenham www.dillinger.de	Lemwerder Municipality www.lemwerder.de	Niedersachsen Ports Brake www.niedersachsenports.de



*Excellent facilities and a reliable infrastructure have already proven their worth – large components for wind turbines have been handled and assembled for several years at the Neustaedter Hafen port in Bremen, Europe’s largest terminal for general and heavy cargo.*

	<b>Neustaedter Hafen Bremen</b>	<b>Terminals 1, 2 and 4 Weserport industrial harbour Bremen</b>
<b>Quay length</b>	2,600 metres	1,685 metres
<b>Number of moorings</b>	13	8
<b>Water depth</b>	10.3 - 11.3 metres	9.45 metres
<b>Heavy-load suitability</b>	Via crane rails up to 60t/running metre, 7 hectares for pre-assembly, up to 200t via floating cranes, mobile crane 104t, reach stacker 45t, covered storage area 25 hectares	Cranes able to be coupled up to 100t piece weight t/m <sup>2</sup> = on 200 metre length up to 100t/m <sup>2</sup>
<b>Lock restrictions</b>	none	230 metres x 33 metres
<b>Availability</b>	immediate	immediate
<b>Contact</b>	BLG LOGISTICS GROUP www.blg.de	Weserport www.weserport.de

In Bremen, components for the wind industry are being shipped out of the Neustaedter Hafen port and the Weserport Terminal.

Special offshore terminals enable the pre-assembly of turbine components, offering the necessary technology and sufficient space for optimum process and transport logistics. Commercial space for production and storage is available in the direct vicinity of the ports. The region’s port locations thus link production on land with installation at sea.

The ports are very well connected to other sea ports worldwide via efficient shipping lines – an ideal situation for importing and exporting. Car carriers, for instance, are increasingly transporting components for offshore wind energy turbines from Bremerhaven. Within a 200 nautical-mile radius of the Elbe and Weser estuaries, German as well as Dutch and Danish offshore wind farms are being planned or have already been constructed.

## Offshore wind energy – a logistics challenge

Offshore wind farms set a new benchmark in the dimension of power plants regarding logistics as well as the operation, service and maintenance of offshore turbines. In terms of logistics, manufacturers, project planners and operators face new – and expensive – challenges.

Some 20 to 25 percent of the costs involved in wind farms today are taken up with logistics. Everyone engaged in the offshore wind sector in the region can rely on the experience of the maritime industry and find an excellent infrastructure in place.

In all sectors of port, transport and maritime logistics, from the broker right down to the diver, there are competent businesses ready to serve the industry, such as the BLG LOGISTICS GROUP and Eurogate in Bremen and Bremerhaven, CuxPort in Cuxhaven, Rhenus Midgard in Nordenham and J. Müller in Brake.

The region's port operators and logistics specialists offer complete handling and special services such as supplier logistics, tug services, and storage and loading using large special cranes.

They deploy the special technical equipment needed for the industry – transport ships, tugs, heavy-load cranes on water and on land, and other special vehicles. RWE Innogy chose to use Bremerhaven as the base port for constructing its Nordsee 1 offshore wind farm.

## Infrastructure for innovative service systems

The region's ports also provide the necessary infrastructure for innovative operational and service systems, which include moorings for special ships with rapid access to wind farms out at sea, and workshops and storage areas on the waterfront for the cost-effective coordination and execution of service and maintenance.



*Loading submarine cables aboard the Nostag 10 cable-laying barge at the NSW work pier in Nordenham.*



*The region has responded to the industry's needs – the Niedersachsenkai port in Brake boasts a heavy-load terminal.*

Cooperation partners with experience in the service and maintenance of maritime technology have been based here for decades. This establishes a firm foundation for additional service facilities to be set up here in future, for example base stations for the control and monitoring of offshore wind farms, and service stations for technicians that need special ships or helicopters, for example from Sea Airport Cuxhaven Nordholz, to reach their work.

## Rapid access to water – commercial areas with good transport links

The offshore wind industry needs lots of space – and areas that grow with it. The generous provision of storage and assembly capacity in direct proximity to ports is already being used to advantage by turbine manufacturers based here. They have set up close to the ports where they pre-assemble and store components. Short distances and an effective transport infrastructure are two features that are attractive for

existing businesses and those seeking to set up new enterprises. Roads and quays capable of taking heavy loads, rail network links and accessibility for inland waterway vessels are also part of the system.

A dense network of manufacturers, suppliers and service providers creates synergies, with logistics and maintenance businesses on hand to offer the services required.

Industrial areas close to the ports are in Brake, Nordenham, Cuxhaven, Bremen and Bremerhaven. Other areas for suppliers, logistics and service providers with direct transport links to the ports are also in the region, for example in Langen, Schiffdorf, Loxstedt, Hagen, Dorum and in the Wesermarsch district.

Special attention is paid to the offshore industry with regard to the development of industrial areas. New firms find themselves in good company here alongside manufacturers and suppliers in the industry. Businesses such as REpower Systems, AREVA Wind, WeserWind Offshore Construction Georgsmarienhütte and PowerBlades have located to Bremerhaven's commercial area of Luneort. In Nordenham's Blexen industrial park, currently undergoing extensive redevelopment, Rhenus Midgard is offering services for the offshore wind industry at its handling and roll-on/roll-off facilities. Steelwind Nordenham will be producing offshore foundations here. In Cuxhaven, CSC Cuxhaven Steel Construction and AMBAU are just two of the companies to have established bases. It is here that STRABAG Offshore Wind will manufacture the first offshore gravity foundations made of concrete, starting in 2012.



*Among the strengths of the power hub region is a good supply of commercial space along deep water ports and close to major arterial roads in the hinterland, such as in Loxstedt on the A27 autobahn.*

## Short distances to the hinterland

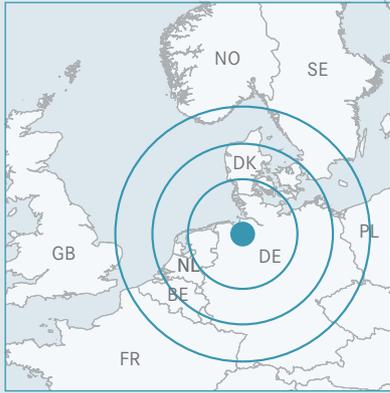
On the region's sea side, the North Sea lies on the doorstep to all of Europe; on the land side, the region has excellent road and rail links. The A27, A28 and A29 autobahn systems are rapidly accessible. The Weser Tunnel serves as a regional cross-over point and facilitates rapid east-west transit, added to which are the Weser ferries that operate regularly. The planned A20 coastal autobahn will further improve transport connections and link up the region directly with major economic centres such as Hamburg. Furthermore, business locations and ports are well connected to German and European inland waterway networks.

A well-functioning rail network with lines leading directly into ports provides for rapid goods and passenger transport. As an industrial and service-providing location for the region, Bremen is linked to the Deutsche Bahn's ICE high-speed train network and has an international airport. ■■■■

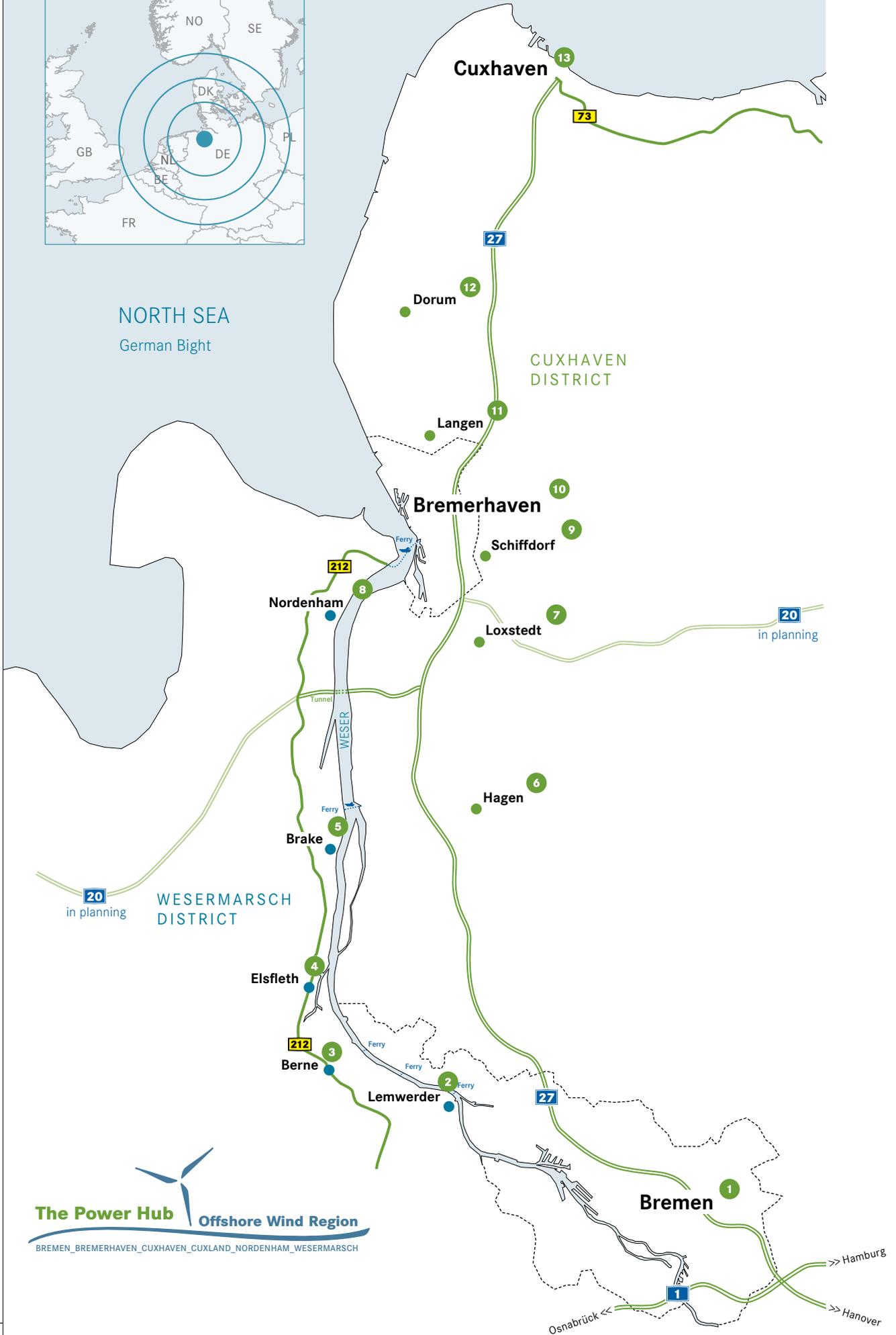
Location	Commercial space available in hectares	Availability	Access to water	Distance to autobahn
Brake	57	immediate	yes	5
Brake	68	as required	yes	5
Bremen	161.6	immediate		0.5
Bremen	2.4	immediate	yes	2
Bremerhaven	80	2013	yes	3.5
Bremerhaven	200	as required	yes	4
Bremerhaven	20	immediate	yes	3.5
Cuxhaven	68	as required	yes	0.8
Cuxhaven	40	end of 2013	yes	0.8
Cuxhaven	12	immediate	yes	0.8
Dorum	6.4	immediate		5
Dorum	9.4	as required		5
Hagen	15	immediate		6
Hagen	10	immediate		0.5
Langen-Debstedt I	5.3	immediate		0.2
Langen-Debstedt II	65	as required		0.2
Langen-Imsum	150	as required		10
Lemwerder	8	immediate	yes	10
Lemwerder	92	as required	yes	10
Loxstedt	59	immediate		0.5
Nordenham	37	as required	yes	5
Nordenham	15.7	immediate	yes	5
Schiffdorf	37	as required		1.5



*Attractive property and real estate with maritime flair for service businesses are located in Bremen's Überseestadt district.*



NORTH SEA  
German Bight



**The Power Hub** Offshore Wind Region  
 BREMEN\_BREMERHAVEN\_CUXHAVEN\_CUXLAND\_NORDENHAM\_WESERMARSCH

# The power hub region at a glance

An overview of what the region offers to the offshore wind energy industry – infrastructure, available commercial space and a selection of businesses based in various locations.

## Bremen

Commercial area available: 164 ha

1

### Wind energy business

- AMBAU Windservice
- ALSTOM Grid Bremen branch
- Bard Engineering
- WPD think energy
- Deutsche Windtechnik
- REETEC
- Energiekontor
- Enercon
- Lloyd Dynamowerke
- Siemens Wind Power

### Research institutions / Technology centres

- Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM)
- Faserinstitut Bremen (FIBRE)
- Foundation Institute of Materials Science (IWT)
- Bremen Center of Mechatronics (BCM)
- Bremen Institute for Production and Logistics (BIBA)
- University of Bremen (Uni Transfer), ForWind

### Infrastructure

- Neustaedter Hafen port
- Weserport Terminals 1, 2 and 4
- City Airport Bremen (national/international)
- ICE high-speed rail link

## Lemwerder

Commercial area available: 100 ha

2

### Wind energy business

- Abeking & Rasmussen Schiffs- und Yachtwerft
- Heinicke Maschinen- und Metallbau
- SGL Rotec

### Infrastructure

- Ochtrum/Lemwerder port

## Berne

3

### Wind energy business

- Fr. Fassmer
- Schiffs- und Stahlbau Berne

## Hagen

Commercial area available: 25 ha

6

### Wind energy business

- Dipl.-Ing H. Sitte Unternehmensgruppe
- Georg Mehrtens Ingenieurbau
- Elektrotechnik HASO
- Trauthoff

## Bremerhaven

Commercial area available: 300 ha

10

### Wind energy business

- AREVA Wind
- REpower Systems
- PowerBlades
- WeserWind Offshore Construction Georgsmarienhütte
- PowerWind
- BLG LOGISTICS GROUP
- Wind MW
- Falck Nutec Offshore Training Centre

### Research institutions / Technology centres

- Bremerhaven University of Applied Sciences (courses of study in wind energy, logistics and the maritime sector)
- fk wind – Institut für Windenergie
- Fraunhofer Institute for Wind Energy and Energy System Technology (IWES)
- Deutsche WindGuard Engineering – Wind Tunnel Centre
- Institute of Shipping Economics and Logistics (ISL)
- Wind Energy Agency WAB
- TKB Technologie Kontor Bremerhaven [research and development company]

### Infrastructure

- Labradorhafen heavy-load terminal
- Container Terminal 1
- ABC-Halbinsel terminal
- Offshore Terminal Bremerhaven (2014/15)
- Werfthafen port

## Elsfleth

4

### Wind energy business

- Maritimes Kompetenzzentrum Elsfleth (MARIKOM)
- Maritimes Trainingszentrum Wesermarsch
- Elsflether Zentrum für Maritime Forschung

### Research institutions / Technology centres

- Jade University of Applied Sciences Wilhelmshafen/Oldenburg/Elsfleth, Department of Seefaring
- Maritimes Forschungsinstitut [research institute]
- OFFIS Institute for Information Technology

## Brake

Commercial area available: 125 ha

5

### Wind energy business

- J. Müller Breakbulk Terminal
- Niedersachsen Ports
- Bassenberg / Schwarting

### Infrastructure

- Heavy-load Offshore Terminal Brake

## Cuxhaven

Commercial area available: 120 ha

13

### Wind energy business

- AMBAU
- Cuxhaven Steel Construction
- DL Helicopter
- PNE Wind
- STRABAG Offshore Wind
- Cuxport
- Otto Wulf
- Niedersachsen Ports
- Offshore Marine Service

### Research institutions / Technology centres

- DEWI OCC Offshore Certification Centre

### Infrastructure

- Offshore Terminals I + II
- Heavy-load platform
- Deep water multi-purpose terminal
- Sea Airport Cuxhaven / Nordholz

## Nordenham

Commercial area available: 52.7 ha

8

### Wind energy business

- Norddeutsche Seekabelwerke
- A&T Technics
- Rhenus Midgard
- ntk cables
- Steelwind Nordenham
- TAGU
- Premium AEROTEC

### Research institutions / Technology centres

- Technologiezentrum Nordenham

### Infrastructure

- Nordenham Stadthafen port
- Nordenham-Blexen port
- Steelwind Nordenham heavy-load platform (end of 2013)

## Dorum

Commercial area available: 15,8 ha

12

### Wind energy business

- Tief- und Rohrleitungsbau Wilhelm Waehler GmbH

## Langen

Commercial area available: 220,3 ha

11

## Schiffdorf

Commercial area available: 37 ha

9

## Loxstedt

Commercial area available: 59 ha

7

### Wind energy business

- MIS Marine + Industrie-Service
- Emery Oleochemicals
- Vetter Stahlhandel

## Know-how for offshore wind:

Cutting-edge research and knowledge transfer

The region is in the top league in wind energy research – a dense network of research facilities, institutes and test centres is moving the industry forward.



*Rotor blades up to 90 metres long can be tested at the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES) in Bremerhaven. From 2012, a new nacelle test stand will expand IWES' range of services for the wind industry.*

Leading establishments like the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES) in Bremerhaven have set up base in the region; in the medium term more than 120 researchers and scientists will work there in the service of wind energy. In its rotor blade centre, unique in Germany, IWES is testing rotor blades measuring up to 90 metres in length; a nacelle test stand is also planned for 2012.

Research and development is also well served by the unique qualifications of the wind tunnel centre at Deutsche WindGuard in Bremerhaven, where segments of rotor blades and models of wind farms are tested in an acoustically optimised wind tunnel. Industry and science are working closely together in the region, and in joint projects are continuing to further develop still relatively new offshore wind technology.

## Unique science and research network

The region's diverse research infrastructure encompasses virtually all aspects of offshore wind energy. To this end, the Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM) in Bremen is engaged in materials research and adhesive technology, the Bremen Institute for Production and Logistics (BIBA) is conducting research into automation, the Institute of Shipping Economics and Logistics (ISL) in Bremen/Bremerhaven is researching logistics.

The region's colleges and universities are also focusing on wind energy research. The ForWind research association, to which the University of Bremen belongs, has championed the cause of interdisciplinary research into wind energy.



*The acoustically-optimised wind tunnel of Deutsche WindGuard GmbH in Bremerhaven provides ideal conditions for experimentation involving aerodynamic constructions and components.*



*Height safety training in the Edwin Academy training tower.*

At the Bremerhaven University of Applied Sciences, the fk wind research institute is working on specific areas relating to engineering science and wind energy. In future, Jade University of Applied Sciences in Elsfleth will also be placing greater emphasis on wind energy issues.

## Companies are engaged in joint development projects

Test sites in Bremerhaven and Cuxhaven make it possible for manufacturers to monitor their turbines in conjunction with the world of science and research. It is here that prototypes of multi-megawatt offshore turbines are closely analysed while in operation. Further test sites are to be designated in Bremerhaven, Norden-

ham, Brake and Lemwerder. In the region's technology centres, businesses are engaged in joint development projects. This is the case in Nordenham, where research is going into the processing of carbon fibre reinforced plastics. Findings in this area are valuable to the wind energy industry as well.

The DEWI-OCC Offshore and Certification Centre in Cuxhaven is known internationally for the certification of onshore and offshore wind energy turbines.



*Preparation for rotor blade testing at Fraunhofer Institute for Wind Energy and Energy System Technology in Bremerhaven.*

## Research and Development at a glance:

	<b>AWI Alfred-Wegener-Institut für Polar und Meeresforschung</b> Am Handelshafen 1   27570 Bremerhaven	<a href="http://www.awi.de">www.awi.de</a>
	<b>BCM Bremer Centrum für Mechatronik</b> Otto-Hahn-Allee 1   28359 Bremen	<a href="http://www.mechatronic-bcm.de">www.mechatronic-bcm.de</a>
	<b>BIBA - Bremer Institut für Produktion und Logistik GmbH</b> Hochschulring 20   28359 Bremen	<a href="http://www.biba.uni-bremen.de">www.biba.uni-bremen.de</a>
	<b>Bremer Energie Institut</b> College Ring 2 (Research V)   28759 Bremen	<a href="http://www.bremer-energie-institut.de">www.bremer-energie-institut.de</a>
	<b>CEON GmbH</b> Robert-Hooke-Strasse 7   28359 Bremen	<a href="http://www.ceon-bremen.de">www.ceon-bremen.de</a>
	<b>DEWI OCC Offshore Certification Centre GmbH</b> Am Seedeich 9   27472 Cuxhaven	<a href="http://www.dewi-occ.de">www.dewi-occ.de</a>
	<b>Faserinstitut Bremen e.V.</b> Am Biologischen Garten 2   28359 Bremen	<a href="http://www.faserinstitut.de">www.faserinstitut.de</a>
	<b>fk:wind Institut für Windenergie</b> An der Karlstadt 8   27568 Bremerhaven	<a href="http://www.fk-wind.de">www.fk-wind.de</a>
	<b>Fraunhofer - Institut für Fertigungstechnik und Angewandte Materialforschung IFAM – Klebtechnik und Oberflaechen</b> Wiener Strasse 12   28359 Bremen	<a href="http://www.ifam.fhg.de">www.ifam.fhg.de</a>
	<b>Fraunhofer - Institut für Windenergie und Energiesystemtechnik (IWES)</b> Am Seedeich 45   27572 Bremerhaven	<a href="http://www.iwes-fraunhofer.de">www.iwes-fraunhofer.de</a>
	<b>German Wind GmbH – eine Tochter der WAB e.V.</b> Barkhausenstrasse 2   27568 Bremerhaven	<a href="http://www.windpowercluster.com">www.windpowercluster.com</a>
	<b>Hochschule Bremen</b> Neustadtswall 30   28199 Bremen	<a href="http://www.hs-bremen.de">www.hs-bremen.de</a>
	<b>Hochschule Bremerhaven</b> An der Karlstadt 8   27568 Bremerhaven	<a href="http://www.hochschule-bremerhaven.de">www.hochschule-bremerhaven.de</a>
	<b>ISL – Institut für Seeverkehrswirtschaft und Logistik</b> Universitaetsallee 11–13   28359 Bremen Barkhausenstrasse 2   27568 Bremerhaven	<a href="http://www.isl.org">www.isl.org</a>



**ISL – Institut für Seeverkehrswirtschaft und Logistik – Logistische Systeme**

[www.isl.org](http://www.isl.org)

Barkhausenstrasse 2 | 27568 Bremerhaven  
Universitätsallee 11-13 | 28359 Bremen



**Jade Hochschule Wilhelmshaven/ Oldenburg/ Elsfleth Fachbereich Seefahrt**

[www.jade-hs.de](http://www.jade-hs.de)

**Maritimes Forschungsinstitut e.V.**  
An der Weinkaje 4 | 26931 Elsfleth

[www.jade-hs.de/fachbereiche/seefahrt/forschung/](http://www.jade-hs.de/fachbereiche/seefahrt/forschung/)



**Stiftung Institut für Werkstofftechnik IWT**  
Badgasteiner Strasse 3 | 28359 Bremen

[www.iwt-bremen.de](http://www.iwt-bremen.de)



**Technologiezentrum Nordenham**  
Visitor adress: Werftstrasse  
Postal adress: Walther-Rathenau-Strasse 25 | 26954 Nordenham

[www.tzn-nordenham.de](http://www.tzn-nordenham.de)



**TKB Technologiekontor Bremerhaven**  
Elbinger Platz 1 - Hafenhause | 27570 Bremerhaven

[www.technologiekontor-bremerhaven.de](http://www.technologiekontor-bremerhaven.de)



**ttz Technologie Transfer Zentrum Bremerhaven**  
An der Karlstadt 10 | 27568 Bremerhaven

[www.ttz-bremerhaven.de](http://www.ttz-bremerhaven.de)



**Universität Bremen - UniTransfer**  
Enrique-Schmidt-Strasse 7 | Geb. SFG | 28359 Bremen

[www.unitransfer.uni-bremen.de](http://www.unitransfer.uni-bremen.de)



**Windkanalzentrum der Deutsche Wind Guard GmbH**  
Überseering 7 | 27580 Bremerhaven

[www.windguard.de](http://www.windguard.de)



*Cooperation between wind energy industry and science: The innovation cluster “MultiMaT” of Fraunhofer Society works on questions of use of sensors in the offshore sector, miniaturized sensors and integration of sensor systems. It also examines behaviour and lifespan of materials under extreme conditions.*

## A highly-skilled specialist workforce is on hand

Qualified skilled workers and management staff are the foundation of the offshore wind industry. Colleges and universities in the region are educating the industry's workforce of tomorrow. At the Elsfleth-based Jade University of Applied Sciences, future experts in maritime and international logistics are taking courses of study. The University of Bremen places special emphasis on various areas of the engineering sciences where, for example, wind energy features prominently in the course of study for systems engineering. Courses of study in wind energy at the Bremerhaven University of Applied Sciences are preparing students to become wind energy experts, with qualifications at Bachelor and Master degree levels. Students receive thorough theoretical and practical training and education, laying the groundwork for careers in the wind energy industry as skilled workers or in middle and senior management.

The continuing studies programme in wind energy technology and management provided by Wind Energy Agency WAB, in conjunction with ForWind, enables those changing careers to become skilled for work in the industry. From 2012, another continuing studies course that equips skilled workers and managers with the know-how needed for the offshore sector will be added to the programme. The international postgraduate course entitled European Wind Energy Master, involving European and non-European partners, is also being offered.

The region's training and continuing education providers are also geared to the needs of

the industry. They train skilled workers required for the offshore wind industry, such as wind energy service technicians, mechatronic specialists, plastics processors or welders. The Falck Nutec Offshore Training Centre in Bremerhaven, the MARIKOM Maritimes Kompetenzzentrum Elsfleth, the Lower Saxony Association of Adult Education Centres in Cuxhaven, the edwin Academy, the bfw vocational training centres in Bremen and Bremerhaven, and other regional institutions provide further opportunities for training and continuing education.

Those engaged in the industry are able to receive safety training for work on and around offshore wind turbines, and attend diving workshops and special maritime training courses at the offshore safety training centres in Bremerhaven, Cuxhaven and Elsfleth. ■■■■



*In the region's offshore safety training centres, such as here at Falck-Nutec in Bremerhaven, trainees learn how to work safely at sea.*

## Training and continuing education at a glance:

	<p><b>Berufliche Bildung Bremerhaven GmbH</b> Lloydstrasse 15   27568 Bremerhaven <i>Training, retraining, vocational preparation, qualification</i></p>	<p><a href="http://www.bb-bremerhaven.de">www.bb-bremerhaven.de</a></p>
	<p><b>Berufsbildungs- und Technologiezentrum der Kreishandwerkerschaft Bremerhaven-Wesermünde (BTZ)</b> Columbusstrasse 2   27570 Bremerhaven <i>Training and continuing education in the commercial/technical field</i></p>	<p><a href="http://www.-btz-bremerhaven.de">www.-btz-bremerhaven.de</a></p>
	<p><b>Berufsbildungswerk des DGB (bfw) Windzentrum Bremerhaven</b> Knurrhahnstraße 25-27   27572 Bremerhaven <i>Training and job qualification for the wind energy industry</i></p>	<p><a href="http://www.bfw.de">www.bfw.de</a></p>
	<p><b>Bildung v Beratung</b> Hermann-Prüser-Strasse 4   28237 Bremen <i>Continuing education with focus on wind energy, plastics industry and metal technology</i></p>	<p><a href="http://www.bub-bremen.de">www.bub-bremen.de</a></p>
	<p><b>BNVHS GmbH – Weiterbildungszentrum Cuxhaven</b> Niedersachsenstrasse Halle IX 2.OG   27472 Cuxhaven <i>Training and continuing education in the commercial/technical field, for example training for construction mechanics and welders</i></p>	<p><a href="http://www.bnvhs.de">www.bnvhs.de</a></p>
	<p><b>edwin Academy</b> Hüttenstrasse 20a   28237 Bremen <i>Professional retraining for the job-creating wind energy sector</i></p>	<p><a href="http://www.edwin-academy.de">www.edwin-academy.de</a></p>
	<p><b>Falck Nutec A/S</b> Am Handelshafen 8   27570 Bremerhaven <i>Offshore safety training</i></p>	<p><a href="http://www.falcknutec.de">www.falcknutec.de</a></p>
	<p><b>Hochschule Bremerhaven</b> An der Karlstadt 8   27568 Bremerhaven <i>Bachelor degree course in "Maritime technologies", Masters degree course in "Process engineering and energy technology", Bachelor degree course in "Sustainable energy and environmental technology", Masters degree course in "Wind energy technology"</i></p>	<p><a href="http://www.hs-bremerhaven.de">www.hs-bremerhaven.de</a></p>
	<p><b>INASEA – Institut für nachhaltige Aktivitäten auf See</b> Kirchlintelner Strasse 3   28325 Bremen <i>Maritime safety courses for the offshore wind energy industry as well as for the oil and gas industry</i></p>	<p><a href="http://www.inasea.de">www.inasea.de</a></p>
	<p><b>InCoTrain Bremerhaven GmbH</b> Columbusstrasse 2   27570 Bremerhaven <i>Engineering services, coaching, training, qualification und continuing education</i></p>	<p><a href="http://www.incotrain-bhv.de">www.incotrain-bhv.de</a></p>

**Jade Hochschule – Wilhelmshaven/Oldenburg/Elsfleth**[www.jade-hs.de](http://www.jade-hs.de)

Weserstrasse 4 | 26931 Elsfleth

Maritime shipping: Bachelor degree courses in “International transport management”, “Nautical sciences”, “Maritime transport and port industry”, Masters degree course in “Maritime management”, joint course in “Nautical sciences/ship’s mechanic training”

**M.S.T.I. Maritime Safety Training Institute Cuxhaven**[www.msti-cuxhaven.jimdo.com](http://www.msti-cuxhaven.jimdo.com)

Training for maritime safety and offshore personnel

**MARIKOM – Maritimes Kompetenzzentrum Elsfleth gGmbH**[www.marikom-elsfleth.de](http://www.marikom-elsfleth.de)

An der Weinkaje 1 | 26931 Elsfleth

Training and continuing education in the commercial/technical field: training for offshore safety, heavy-lift crane simulator; ship’s mechanic training; STCW-accredited courses; courses in welding, machining, pneumatics

**Martrick GmbH**[www.martrick.com](http://www.martrick.com)

Rosental 1 | 28359 Bremen

Many years’ experience in the oil and gas industry; inspections, training, qualification and personnel support

**Offshore Kompetenzzentrum Cuxhaven**[www.offshorekompetenz.de](http://www.offshorekompetenz.de)

Pestalozzistr. 44 | 27472 Cuxhaven

BOSIET-equivalent safety training for the offshore industry, qualification training for other safety areas

**PSA Zentrale – Dienstleistungen am Seil**[www.psa-zentrale.de](http://www.psa-zentrale.de)

Plantage 9 | 28215 Bremen

Training for climbing operatives for onshore and offshore work

**Siemens Wind Power GmbH**[www.siemens.com/energy](http://www.siemens.com/energy)

Cuxhavener Strasse 10a | 28217 Bremen

Safety und quality in daily work; product-specific training for wind turbines of the 2.3 megawatt class; operational reliability and high technical availability of wind turbines

**Technologiezentrum Nordenham (Technologiewerkstatt) Zeit & Service GmbH**[www.zeit-und-service.de](http://www.zeit-und-service.de)

Werftstrasse 1 | 26954 Nordenham

Continuing vocational education for unemployed and employed persons in the field of fibre composite technology

**Zeit & Service GmbH**[www.zeit-und-service.de](http://www.zeit-und-service.de)

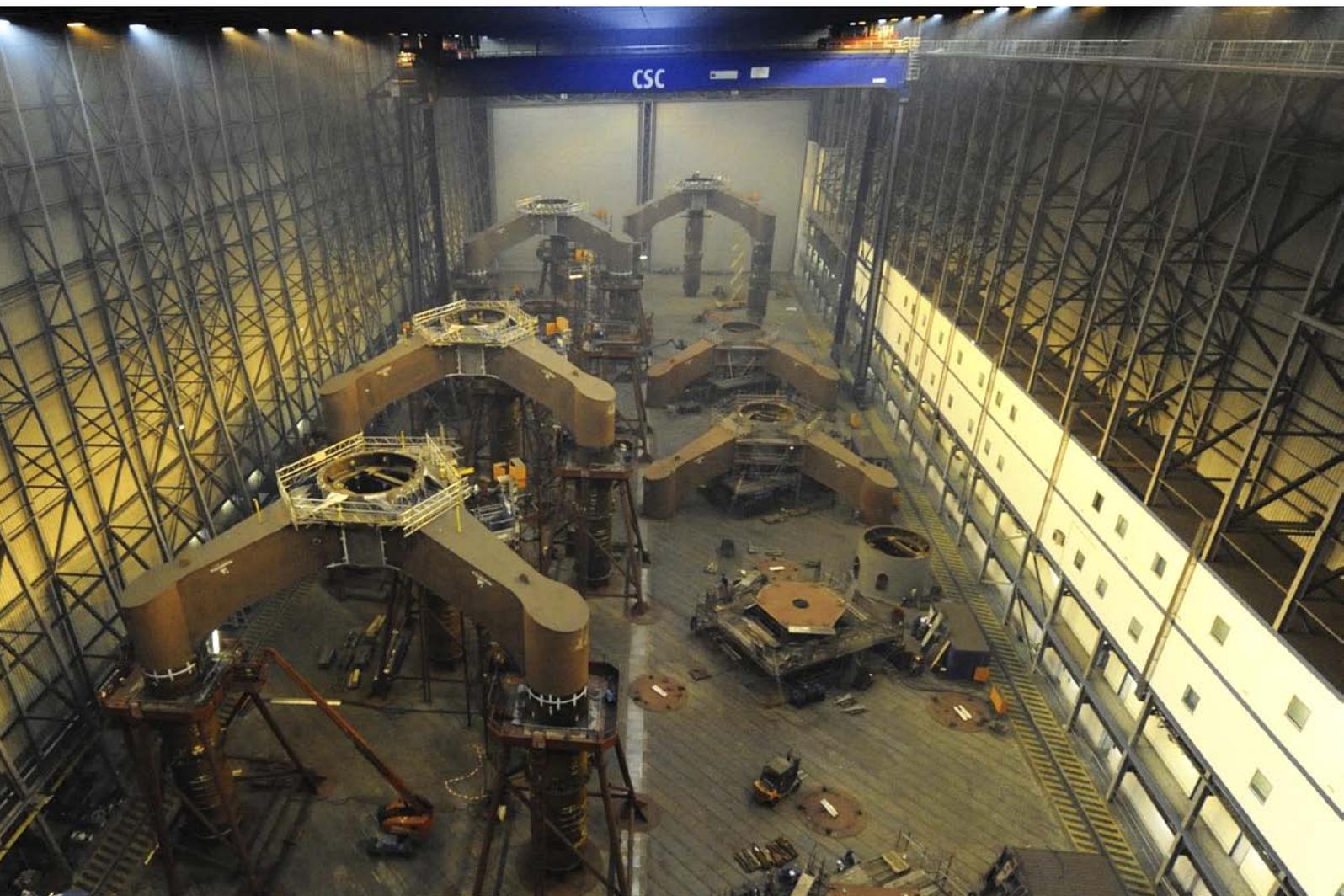
Hafenstrasse 2 | 26919 Brake

Continuing education in the commercial/technical field, e.g. fibre composite technology practitioners, Chamber of Commerce-accredited training in CFRP fibre composite materials, DVS®/EAE European adhesive bonder

## Businesses in the region

From project planners to turbine manufacturers  
to service technicians

The hub region boasts the entire value creation chain for offshore wind energy. Numerous enterprises engaged in various sectors of the industry have set up their businesses here.



*In its special assembly plant, Cuxhaven Steel Construction has become the first company in Europe to build foundation structures in series for offshore wind farms.*

Planning / Design							
Engineering / Development							
Manufacturer Nacelles / Towers / Foundations / Rotor blades							
Suppliers							
Logistics / Installation							
Service / Maintenance / Operations							
	x		x	x			<b>A &amp; T Technics GmbH</b> Helgoländer Damm 75, 26954 Nordenham www.a-t-engineering.de
				x	x		<b>All for Offshore GmbH</b> Kurfürstenallee 23a, 28211 Bremen   www.allforoffshore.de
	x		x	x			<b>ALSTOM Grid GmbH Niederlassung Bremen</b> Otto-Lilienthal-Strasse 18, 28199 Bremen   www.alstom.de
		x		x	x		<b>AMBAU GmbH Stahl- und Anlagenbau</b> Hermann-Honorf-Str. 2, 27472 Cuxhaven www.ambau-gmbh.de
	x	x					<b>AMBAU Offshore GmbH</b> Am Werfttor 22, 28755 Bremen   www.ambau.com
	x	x					<b>AREVA Wind GmbH</b> Am Lunedeich 156, 27572 Bremerhaven   www.arevawind.com
x	x				x		<b>BARD Engineering GmbH</b> Otto-Lilienthal-Strasse 21, 28199 Bremen   www.bard-offshore.de
					x		<b>Bassenberg-Schwarting GmbH</b> Max-Planck-Strasse 13, 26919 Brake   www.bassenberg.com
	x						<b>BIBA</b> <b>Bremer Institut für Produktion und Logistik GmbH</b> Hochschulring 20, 28359 Bremen   www.biba.uni-bremen.de
				x			<b>BLG LOGISTICS GROUP AG &amp; Co. KG</b> <b>WindEnergy Logistics</b> Senator-Borttscheller-Strasse 1, 28197 Bremen   www.blg.de
				x			<b>Bremer Reederei E &amp; B GmbH</b> Anne-Conway-Str.1, 28359 Bremen   www.breb.de
			x				<b>BVT Bremen GmbH</b> Zur Westpier 40, 28755 Bremen   www.bvt-bremen.de
		x		x			<b>CSC Cuxhaven Steel Construction GmbH</b> Hermann-Honorf-Str. 1, 27472 Cuxhaven www.bard-offshore.de

Planning / Design						Engineering / Development						Manufacturer Nacelles / Towers / Foundations / Rotor blades						Suppliers						Logistics / Installation						Service / Maintenance / Operations							
x																																					<b>CuxHafEn GmbH</b> Cuxhavener Hafen Entwicklungsgesellschaft Gorch-Fock-Str. 29, 27472 Cuxhaven   <a href="http://www.cuxhafen-gmbh.de">www.cuxhafen-gmbh.de</a>
																																					<b>Cuxport GmbH</b> Neufelder Schanze 4, 27472 Cuxhaven   <a href="http://www.cuxport.de">www.cuxport.de</a>
																																					<b>D. Heinrichs Stauereibetrieb GmbH &amp; Co. KG</b> Zum Schuppen 22, 28197 Bremen   <a href="http://www.heinrichs-stauerei.de">www.heinrichs-stauerei.de</a>
																																					<b>DEWI-OCC</b> Offshore and Certification Centre GmbH Am Seedeich 9, D-27472 Cuxhaven   <a href="http://www.dewi-occ.de">www.dewi-occ.de</a>
x	x																																				<b>Deutsche Offshore Consult GmbH</b> Barkhausenstrasse 4, 27568 Bremerhaven Fahrenheitshaus III   Fahrenheitstrasse 11, 28359 Bremen <a href="http://www.deutscheoffshore.de">www.deutscheoffshore.de</a>
x	x																																				<b>Deutsche WindGuard Engineering GmbH</b> Überseering 7, 27580 Bremerhaven   <a href="http://www.windguard.de">www.windguard.de</a>
																																					<b>Deutsche Windtechnik AG</b> Hüttenstrasse 20a, 28237 Bremen <a href="http://www.deutsche-windtechnik.de">www.deutsche-windtechnik.de</a>
																																					<b>DH Nordenham Projekt GmbH / Steelwind Nordenham</b> Adolf-Vinnen-Strasse 30, 26954 Nordenham   <a href="http://www.dillinger.de">www.dillinger.de</a>
																																					<b>Dipl.-Ing. H.Sitte Unternehmensgruppe</b> Neue Landstrasse 3, 27628 Bramstedt   <a href="http://www.sitte.de">www.sitte.de</a>
																																					<b>DL Helicopter GmbH</b> Walter-Carsten-Strasse 1, 27637 Nordholz <a href="http://www.dlhelicopter.com">www.dlhelicopter.com</a>
x	x																																				<b>Dr. Möller GmbH</b> Herwigstrasse 10, 27572 Bremerhaven   <a href="http://www.ims-nord.de">www.ims-nord.de</a>
																																					<b>Elektrotechnik HASO KG</b> Wesermünder Strasse 13, 27628 Sandstedt <a href="http://www.elektrotechnik-haso.de">www.elektrotechnik-haso.de</a>
																																					<b>Emery Oleochemicals GmbH</b> Helmut-Neynaber-Strasse 49, 27612 Loxstedt <a href="http://www.emeryoleo.com">www.emeryoleo.com</a>

Planning / Design							
Engineering / Development							
Manufacturer Nacelles / Towers / Foundations / Rotor blades							
Suppliers							
Logistics / Installation							
Service / Maintenance / Operations							
x	x				x		<b>Energiekontor AG</b> Mary-Somerville-Strasse 5, 28359 Bremen www.energiekontor.de
x	x						<b>energy &amp; meteo systems GmbH</b> Schifferstrasse 10 - 12, 27568 Bremerhaven www.energymeteo.com
	x		x				<b>EnPro</b> <b>Engineering- und Produktionsgesellschaft mbH</b> Riedemannstrasse 3, 27572 Bremerhaven   www.enpro-bhv.de
	x		x				<b>EPLAX GmbH</b> Fritz-Thiele-Strasse 12, 28279 Bremen   www.eplax.de
				x			<b>F.W. Neukirch GmbH &amp; Co. KG</b> Zum Panrepel 37, 28307 Bremen   www.neukirch.de
					x		<b>FalckNutec Germany</b> Am Handelshafen 8, 27570 Bremerhaven   www.falcknutec.de
			x				<b>Fechner Stahl- und Metallbau GmbH</b> Zur Alten Schanze 8, 26954 Nordenham www.fechner-stahlbau.de
	x	x	x		x		<b>Fr. Fassmer GmbH &amp; Co. KG</b> Industriestrasse 2, 27804 Berne   www.fassmer.de
				x			<b>Friedrich Tiemann GmbH &amp; Co. KG</b> Grauwallring 13, 27580 Bremerhaven   www.tiemann.de
x	x				x		<b>GeFuE Verwaltungs- und Betriebsführungs GmbH</b> Herrlichkeit 2, 28199 Bremen   www.gefue.de
x	x						<b>GEO-ENGINEERING.org GmbH</b> Leobener Strasse, Marum Gebäude, 28359 Bremen www.geo-engineering.org
			x				<b>Georg Mehrtens Ingenieurbau GmbH</b> Industriesatrasse 8, 27628 Bramstedt   www.mehrtens-bau.de
	x		x		x		<b>HANSA-FLEX AG</b> Zum Panrepel 44, 28307 Bremen   www.hansa-flex.com

Planning / Design						Engineering / Development						Manufacturer Nacelles / Towers / Foundations / Rotor blades						Suppliers						Logistics / Installation						Service / Maintenance / Operations													
																																											<b>Heinicke Maschinen- und Metallbau GmbH</b> Ringstrasse 11, 27809 Lemwerder   <a href="http://www.eheinicke.de">www.eheinicke.de</a>
																																					<b>Hempel Shipping GmbH</b> Domsheide 3, 28195 Bremen   <a href="http://www.hempel-shipping.de">www.hempel-shipping.de</a>						
																																					<b>INNOVEN GmbH – Innovative Energy Systems</b> Westkai 34, 27572 Bremerhaven <a href="http://www.innoven-engineering.com">www.innoven-engineering.com</a>						
																																					<b>IPS GmbH</b> Otto-Lilienthal-Strasse 6, 28199 Bremen   <a href="http://www.ips-bremen.de">www.ips-bremen.de</a>						
																																					<b>J. H. Jaeger &amp; Eggers Handesgesellschaft mbH</b> Bernauer Strasse 5, 28219 Bremen   <a href="http://www.jaeger-eggers.de">www.jaeger-eggers.de</a>						
																																					<b>J. Müller AG</b> Neustadtstrasse 15, 26919 Brake   <a href="http://www.jmueller.de">www.jmueller.de</a>						
																																					<b>J.H.K. Anlagenbau und Service GmbH</b> Labradorstrasse 5, 27572 Bremerhaven   <a href="http://www.jhk.de">www.jhk.de</a>						
																																					<b>J.H.K. Engineering GmbH &amp; Co.KG</b> Labradorstrasse 5, 27572 Bremerhaven   <a href="http://www.jhk.de">www.jhk.de</a>						
																																					<b>JADEWIND – Ingenieurbüro für Windkraft</b> Sielstrasse 5, 26349 Jade   <a href="http://www.jadewind.de">www.jadewind.de</a>						
																																					<b>Kapitän H. J. Möller und Partner</b> Alter Fährweg 8, 27568 Bremerhaven   <a href="http://www.moeller-expert.de">www.moeller-expert.de</a>						
																																					<b>KOBAU Maschinenbau und Industrieservice GmbH</b> Coloradostrasse 7, 27580 Bremerhaven   <a href="http://www.kobau.com">www.kobau.com</a>						
																																					<b>Kronschnabel &amp; Franke Schwerlast Spedition GmbH</b> Dieselstrasse 16, 27574 Bremerhaven   <a href="http://www.kronschnabel.de">www.kronschnabel.de</a>						
																																					<b>Lenz-Kran Karl Lenz GmbH &amp; Co. KG</b> Mushardstrasse 16, 27570 Bremerhaven   <a href="http://www.lenz-kran.de">www.lenz-kran.de</a>						

Planning / Design						Engineering / Development						Manufacturer Nacelles / Towers / Foundations / Rotor blades						Suppliers						Logistics / Installation						Service / Maintenance / Operations							
			x																																		<b>Lloyd Dynamowerke GmbH &amp; Co. KG</b> Hastedter Osterdeich 250, 28207 Bremen   <a href="http://www.LDW.de">www.LDW.de</a>
x																																					<b>LSA Logistik-Service-Agentur GmbH</b> Am Seedeich 45, 27572 Bremerhaven <a href="http://www.logistik-service-agentur.de">www.logistik-service-agentur.de</a>
																																					<b>Metallbau Peters GmbH</b> Molkereistrasse 15b, 26935 Rodenkirchen <a href="http://www.peters-metallbau.de">www.peters-metallbau.de</a>
																																					<b>MIS Marine + Industrie-Service GmbH</b> Robert-Bosch-Strasse 5, 27612 Loxstedt   <a href="http://www.mis-gmbh.de">www.mis-gmbh.de</a>
x																																					<b>NewEn Projects GmbH</b> Konsul-Smidt-Strasse 8k, 28217 Bremen   <a href="http://www.newen.de">www.newen.de</a>
x																																					<b>Niedersachsen Ports GmbH &amp; Co. KG</b> Niederlassung Cuxhaven: Am Schleusenpril 2, 27472 Cuxhaven Niederlassung Brake: Brommystrasse 2, 26919 Brake <a href="http://www.niedersachsenports.de">www.niedersachsenports.de</a>
																																					<b>nkt cables GmbH</b> Helgoländer Damm 75, 26954 Nordenham   <a href="http://www.nktcables.de">www.nktcables.de</a>
																																					<b>Nordenhamer Bereederungs GmbH &amp; Co. KG</b> <b>Norba Shipping GmbH</b> Marktplatz 1, 26954 Nordenham   <a href="http://www.baumco.de">www.baumco.de</a>
																																					<b>Nordseetaucher GmbH</b> Fladengrund 36, 27572 Bremerhaven   <a href="http://www.nordseetaucher.de">www.nordseetaucher.de</a>
x																																					<b>Nordwest Assekuranzmakler GmbH</b> Herrlichkeit 5-6, 28199 Bremen   <a href="http://www.nw-assekuranz.de">www.nw-assekuranz.de</a>
x	x																																				<b>Norddeutsche Seekabelwerke GmbH</b> Kabelstrasse 9 - 11, 26954 Nordenham   <a href="http://www.nsw.com">www.nsw.com</a>
x	x																																				<b>O.F. Management Support</b> Contrescarpe 34, 28203 Bremen <a href="http://www.of-management-support.de">www.of-management-support.de</a>
																																					<b>Offshore Marine Service GmbH (Standort Cuxhaven)</b> Schlachte 12/13, 28195 Bremen   <a href="http://www.offshoremm.com">www.offshoremm.com</a>

Planning / Design						Engineering / Development						Manufacturer Nacelles / Towers / Foundations / Rotor blades						Suppliers						Logistics / Installation						Service / Maintenance / Operations													
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																																											<b>Planen Service Nord</b> Neustädterstrasse 48, 26939 Ovelgönne <a href="http://www.planen-service-nord.de">www.planen-service-nord.de</a>
																																											<b>PNE Wind AG</b> Peter-Henlein-Strasse 2-4, 27472 Cuxhaven   <a href="http://www.pnewind.com">www.pnewind.com</a>
																																											<b>PowerBlades GmbH</b> Am Luneort 70, 27572 Bremerhaven   <a href="http://www.powerblades.de">www.powerblades.de</a>
																																											<b>PowerWind GmbH</b> Grauwallingring 11, 27580 Bremerhaven   <a href="http://www.powerwind.de">www.powerwind.de</a>
																																											<b>Premium AEROTEC GmbH</b> Bergstrasse 4, 26954 Nordenham   <a href="http://www.premium-aerotec.com">www.premium-aerotec.com</a>
																																											<b>Prof. Bellmer Ingenieurgruppe GmbH</b> Henrich-Focke-Strasse 13, 28199 Bremen   <a href="http://www.pb-plus.de">www.pb-plus.de</a>
																																											<b>REETEC GmbH</b> Cuxhavener Strasse 10, Speicher 17, 28217 Bremen <a href="http://www.reetec.de">www.reetec.de</a>
																																											<b>REpower Systems SE</b> Labradorstrasse 18 - 22, 27572 Bremerhaven   <a href="http://www.repower.de">www.repower.de</a>
																																											<b>RF Forschungsschiffahrt GmbH</b> Blumenthalstrasse 15, 28209 Bremen   <a href="http://www.rf-bremen.de">www.rf-bremen.de</a>
																																											<b>Rhenus Midgard GmbH &amp; Co. KG</b> Midgardstrasse 50, 26954 Nordenham   <a href="http://www.rhenus.com">www.rhenus.com</a> Hüttenstr. 20, 28237 Bremen   <a href="http://www.rhenus-midgard.de">www.rhenus-midgard.de</a>
																																											<b>Rolf Lübbe GmbH Hebe- und Zurrsysteme</b> Am Lunedeich 139, 27532 Bremerhaven   <a href="http://www.rolf-luebbe.de">www.rolf-luebbe.de</a>
																																											<b>Sea Airport Cuxhaven/Nordholz Flughafen-Betriebsgesellschaft</b> Walter-Carsten-Strasse 1, 27637 Nordholz   <a href="http://www.sea-airport.de">www.sea-airport.de</a>

Planning / Design							
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Manufacturer Nacelles / Towers / Foundations / Rotor blades							
Suppliers							
Logistics / Installation							
Service / Maintenance / Operations							
		x					<b>SGL Rotec GmbH &amp; Co. KG</b> Flughafenstrasse 6, 27809 Lemwerder   <a href="http://www.sgl-rotec.com">www.sgl-rotec.com</a>
					x		<b>Siemens Wind Power GmbH</b> Cuxhavener Str. 10 a, 28217 Bremen <a href="http://www.siemens.com/energy">www.siemens.com/energy</a>
		x					<b>STRABAG Offshore Wind GmbH</b> Segelckeestr. 45-47, 27472 Cuxhaven <a href="http://www.strabag-offshore.com">www.strabag-offshore.com</a>
			x				<b>Strako Strahlarbeiten und Korrosionsschutz GmbH</b> Grönlandstrasse 3, 27572 Bremerhaven   <a href="http://www.strako-bhv.de">www.strako-bhv.de</a>
					x		<b>swb Crea GmbH</b> Rickmersstrasse 90, 27568 Bremerhaven   <a href="http://www.swb-gruppe.de">www.swb-gruppe.de</a>
x				x			<b>TAGU GmbH</b> Strandallee 17, 26954 Nordenham   <a href="http://www.tagu.de">www.tagu.de</a>
				x			<b>TeamShip Management GmbH &amp; Co. KG</b> Fischkai 23, 27572 Bremerhaven   <a href="http://www.teamship.de">www.teamship.de</a>
x	x						<b>TKB Technologie Kontor Bremerhaven GmbH</b> Hafenhaus – Elbinger Platz 1, 27570 Bremerhaven <a href="http://www.tkb-gmbh.de">www.tkb-gmbh.de</a>
	x						<b>ThyssenKrupp System Engineering GmbH</b> Richard-Taylor-Strasse 89, 28777 Bremen <a href="http://www.thyssenkrupp-systemengineering.com">www.thyssenkrupp-systemengineering.com</a>
					x		<b>Trauthoff GmbH</b> Eichenkamp 16, 27628 Wulsbüttel   <a href="http://www.trauthoff.de">www.trauthoff.de</a>
x	x		x				<b>Tief- und Rohrleitungsbau Wilhelm Wähler GmbH</b> Im Speckenfeld 3a, 27632 Dorum   <a href="http://www.waehler.de">www.waehler.de</a>
x				x			<b>Umwelt Management AG UMaAG</b> Alter Weg 23, 27478 Cuxhaven   <a href="http://www.umwelt-management.de">www.umwelt-management.de</a>
				x	x		<b>Unterweser Reederei GmbH</b> Blumenthalstrasse 16, 28209 Bremen   <a href="http://www.urag.de">www.urag.de</a>

Planning / Design	Engineering / Development	Manufacturer Nacelles / Towers / Foundations / Rotor blades	Suppliers	Logistics / Installation	Service / Maintenance / Operations		
			x				<b>USM Unterweser Stahl- und Maschinenbau GmbH</b> Am Lunedeich 143, 27572 Bremerhaven   <a href="http://www.usm-bhv.de">www.usm-bhv.de</a>
			x				<b>Vetter Stahlhandel GmbH</b> Zur Siedewurth 2, 27612 Loxstedt   <a href="http://www.vetter-stahlhandel.de">www.vetter-stahlhandel.de</a>
	x	x					<b>WeserWind GmbH</b> <b>Offshore Construction Georgsmarienhütte</b> Riedemannstrasse 1, 27572 Bremerhaven   <a href="http://www.weserwind.de">www.weserwind.de</a>
x							<b>wind:research</b> Barkhausenstrasse 4, 27568 Bremerhaven <a href="http://www.windresearch.de">www.windresearch.de</a>
x					x		<b>WindMW GmbH</b> Barkhausenstrasse 1, 27568 Bremerhaven   <a href="http://www.windmw.de">www.windmw.de</a>
x	x				x		<b>wpa AG</b> Kurfürstenallee 23a, 28211 Bremen   <a href="http://www.wpa.de">www.wpa.de</a>

Representing the entire value chain of the offshore wind energy industry, the above list (with no claim to being complete) shows a selection of businesses in the power hub region.

For more information, kindly contact the person responsible in the relevant municipality office (following page).



## Your contact persons



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**The Power Hub** | **Offshore Wind Region**

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