



 MUNICIPALITY OF  
norddjurs

# CENTRAL DENMARK

The World's  
Tightest Wind  
Cluster



# INTELLIGENT ENERGY SYSTEM BASED ON WIND ENERGY

## > Energy system

Denmark was a first mover in the field of wind energy. Every third wind turbine in the world is Danish manufactured. The Danish based manufacturers and suppliers have gained extensive knowledge and experience in wind turbines, and no other place in the world sees the same concentration of manufacturers and suppliers as the Central Denmark Region.

- Today Denmark is also world leader of effective integration of wind power in the grid
- 40 years of accumulated wind turbine knowledge
- 20 years of off-shore experience
- More than 25 % wind energy in the electricity grid

# STRONG TRADITIONS IN RESEARCH AND DEVELOPMENT

## > R&D

In Denmark the technological development in the wind power industry - onshore as well as offshore - is anchored in the triple helix model of innovation in which businesses, authorities, and scientific institutions collaborate closely.

The Central Denmark region is home to some of the world's biggest manufacturers of wind turbines. They have large R&D departments placed here, and Danish Universities have provided knowledge and resources for the wind power industry for many years.

- The first off-shore park was in operation in 1991. Anholt Offshore Windfarm is Denmark's largest offshore wind farm, which cover 4% of Denmark's total power consumption based on CO2-free power.
- More than 90% of off-shore turbines in operation globally is Danish design and with Danish suppliers of foundations and installation
- Excellent test facilities are available



"Companies around the world know the Danish offshore wind industry benefit from an excellent strategic location close to the fast growing markets in the Northern European waters. Being located in Denmark means that your business is close to an experienced workforce, world leading test facilities and a political system dedicated to green growth."

Jan Hylleberg, CEO, The Danish Wind Industry Association



DENMARK  
- The World's Tightest  
Wind Cluster

CENTRAL  
DENMARK

ANHOLT OFFSHORE WINDFARM

COPENHAGEN

HAMBURG

 = Wind Turbine Manufacturer



CROSS-SECTION  
OF BUSINESSES  
- the Entire Value Chain  
within a Radius of 100 km



## A COMPLETE VALUE CHAIN WITH GLOBAL EXPERIENCE

### > Value Chain

One of the strongest assets of the Danish wind turbine cluster is the great number of suppliers to the industry. Suppliers are no longer confined to delivering individual components but play an increasingly active role in the development of new designs and solutions. Suppliers therefore collaborate closely with manufacturers' researchers and developers.

Both the manufacturers and the suppliers are placed in the Central Denmark Region, and the area is therefore home to the biggest concentration of chain suppliers in the global wind industry.

- 87 % of Denmark's combined turnover and export from wind energy is generated by businesses in Central Denmark Region
- More than 1/3 of all Danish wind companies are located in the Central Denmark Region
- 63% of the Danish suppliers in the wind energy industry experience a positive scope of R&D activities

**midt**  
regionmidtjylland  
Central Denmark Region

Integration  
of wind  
energy

Project  
develop-  
ment

Turbine  
design

Compo-  
nent  
design

Manu-  
facturing

Logistics

On site  
construc-  
tion and  
cabling

Service  
and  
mainte-  
nance

Central Denmark Region is the Silicon Valley of Wind Energy. The region has a very strong wind triple helix cooperation between industry, public authorities and universities. 15,000 very competent employees work in the regional wind industry. The Region is a perfect place to do business: there is a strong support to the regional industry and possibilities to participate in wind business networks. The focus of Central Denmark Region is to combine business development in the sustainable energy sector with very ambitious goals for a future sustainable energy system.

# THE RIGHT PEOPLE MAKE THE DIFFERENCE

## > People

In all levels of the value chain you find people, who were born and raised in the wind energy industry. They have a thorough understanding of how wind turbines work and are able to look ahead.

Most are employed by the major manufacturers, but many jobs are also found in other parts of the supply chain. Around half are employed in production jobs, 20 % are within research, testing and quality control, and 20 % are in sales and services.

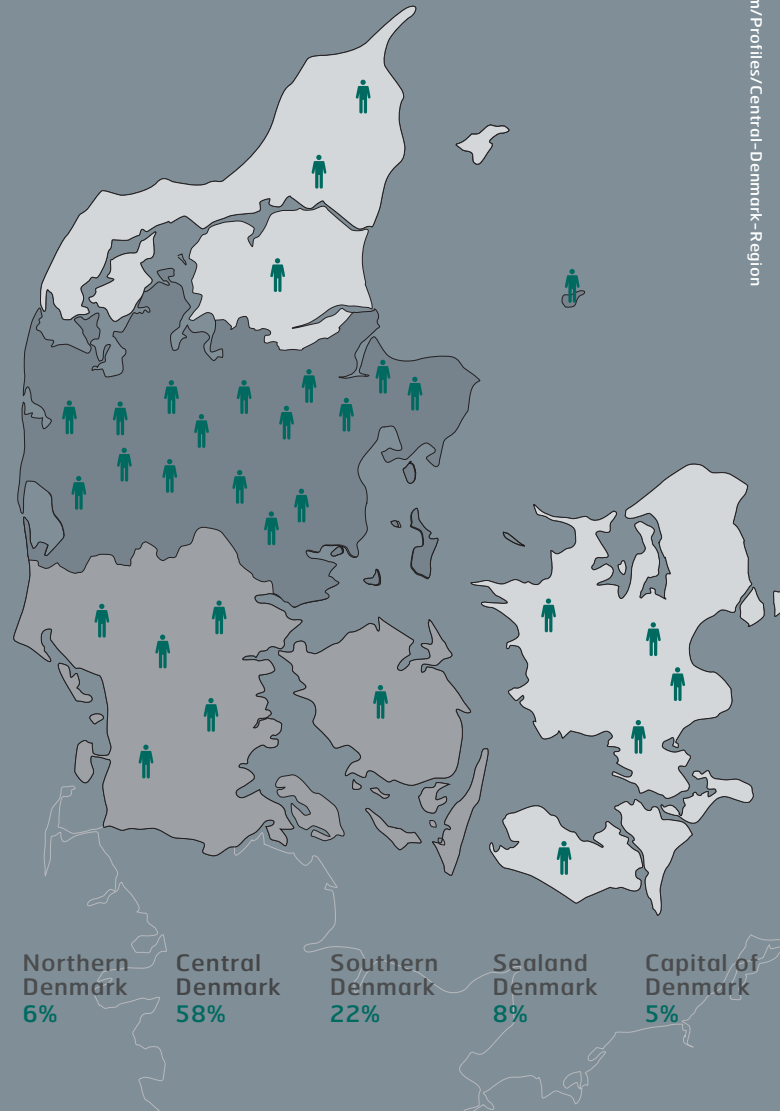
- More than 14.00 of Denmark's 25.000 wind turbine jobs are found in Central Denmark Region
- 57% of all top executives and more than half of other high-ranking employees work in the Central Denmark Region



“Denmark will remain the global center for Siemens Wind Power’s R&D activities, as well as house our largest manufacturing facilities.”

Henning Kruse, Head of Governmental Affairs, Siemens Wind Power A/S

## DISTRIBUTION OF EMPLOYEES - in the Danish Wind Energy Industry



## THE GREEN MINDSET

### > Awareness

A green mindset is well-known in most parts of the world and Norddjurs is without exception. We have entered into several climate agreements as it is our belief that responsible actions towards a healthy and sustainable environment are requisite for achieving high efficiency and living standards.


Norddjurs is a municipality in growth based on sustainable development, which especially focuses on energy with respect for the area's nature- and culture-values. Environmental awareness is thus one of the leading forces behind the idea of sustainable business development. We aspire to integrate green methods and techniques in our business- and local-community. Our overall aim of focus is to create jobs and to position our local area as leading growth and knowledge hubs in Denmark. Norddjurs offers a wide range of workplaces within most professions.

## CHARTING THE GREEN COURSE

### > Infrastructur

Grenaa Port is a modern commercial port and viewed from the sea it is the most central placed port in Denmark with all the advantages this entails for the ship traffic. The port thus ensures businesses an optimal access to the so-called "blue freeway" and at the same time operates within a sustainable economic, environmental and societal framework. It also contributes to the regional and national growth, industrial development and employment. Today Grenaa Port serves as the natural center for wind turbine and offshore activities and business within the environment - and energy sector.

According to Mayor Jan Petersen there is no doubt that "our strength is our extremely well-situated port with shipping routes that are easy to navigate. We also benefit from the fact that the port is located at some distance from the historic town, which provides unique opportunities for expansion," says Petersen.



"With more than 20 years' experience in offshore wind power, Denmark is a cluster for offshore wind, hosting a first-moving supply chain and know-how to build on its leading position."

Senior Vice President in  
DONG Energy Wind Power,  
Lars Thaaaning Pedersen





## ATTRACTIVE BUSINESS SITES **IN NORDDJURS**

### > Industrial area

The towns of Grenaa and Auning stand as the most significant areas for business development in Norddjurs. With its favourable location by the sea, Grenaa offers highly attractive business sites around the port and along the town's main road. The port has large available areas that are well-situated as regards to the supply of building materials and other supplies (deep water, harbour, good roads, etc.). This particular area is part of a major industrial area close to Grenaa and is a unique place for businesses, which have distance demanding and special location needs. Large and available areas for setting up business or industry are available and these sites can meet all demands to almost every business category.



# IF YOU WANT MORE INFORMATION **WE ARE HERE TO HELP YOU**

Invest in Denmark advice international companies. Our specialized staff across the globe has the corporate background, industry insight and local network to advise you on every aspect of doing business in Denmark, and as your business grows. Invest in Denmark is part of the Danish Ministry of Foreign Affairs.



**The municipality of Norddjurs has a thriving business environment due to our close cooperation with local businesses and global partners.**

In Norddjurs you find well-situated industrial areas which serve as service hubs for overall green technology projects and businesses with a high level of expertise in facilities, engineering, manufacturing and overall on- and offshore projects.

A professional service team is ready to help you to set-up business in our area.

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