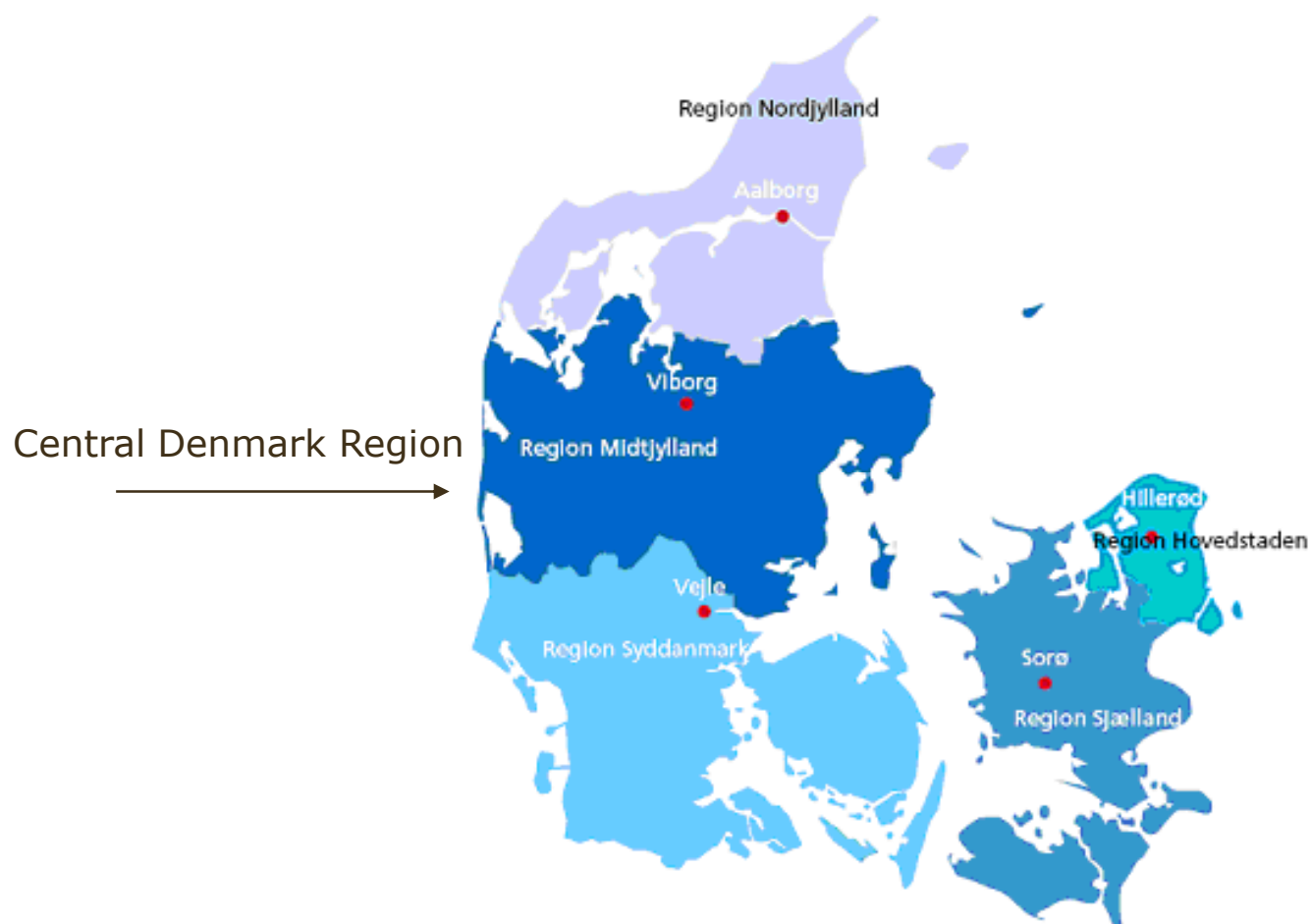




**Central Denmark Region as
The Leading Energy and
Environment Region in Denmark**

- Nanna Seidelin, Development officer, Regional Development



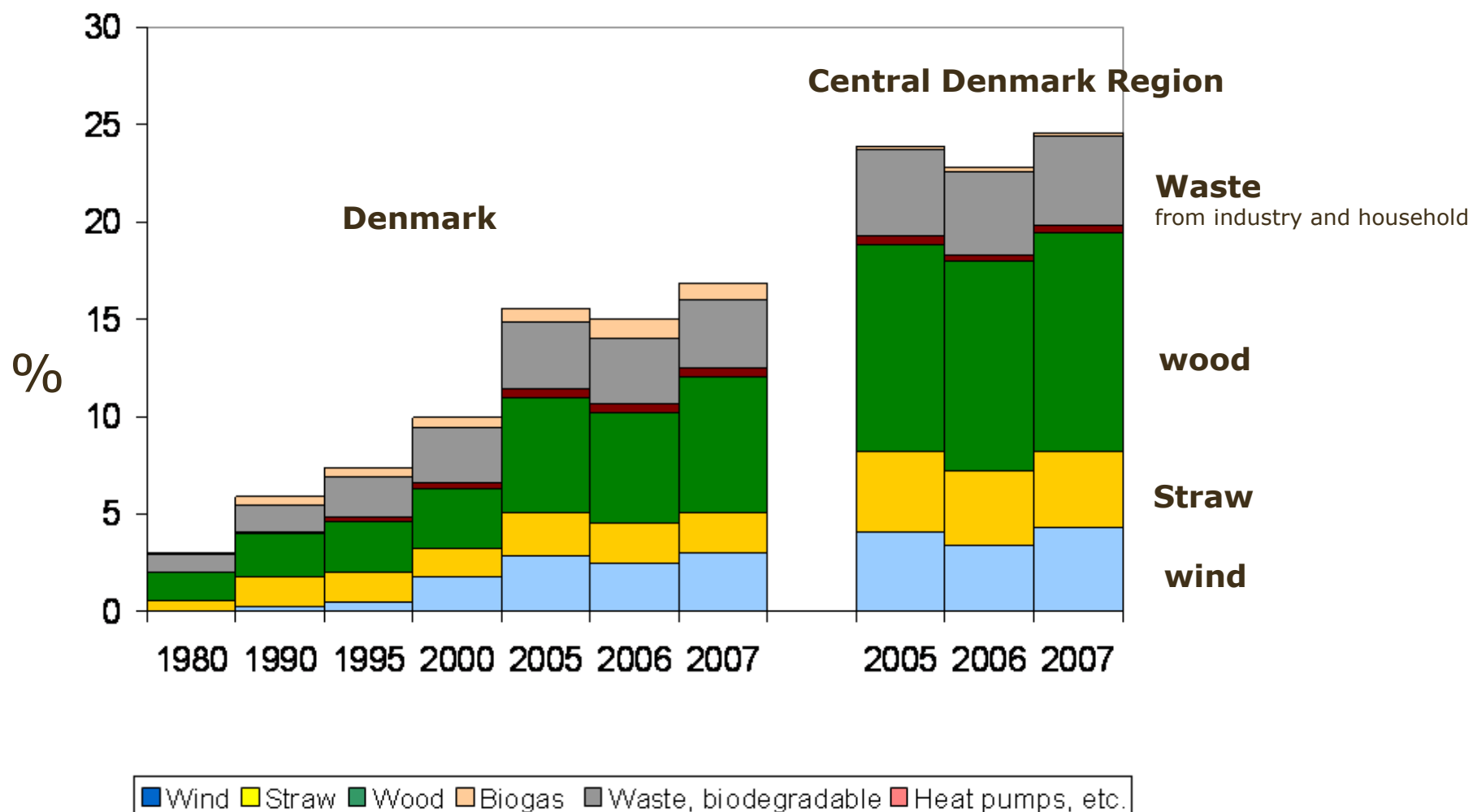


The Danish regions



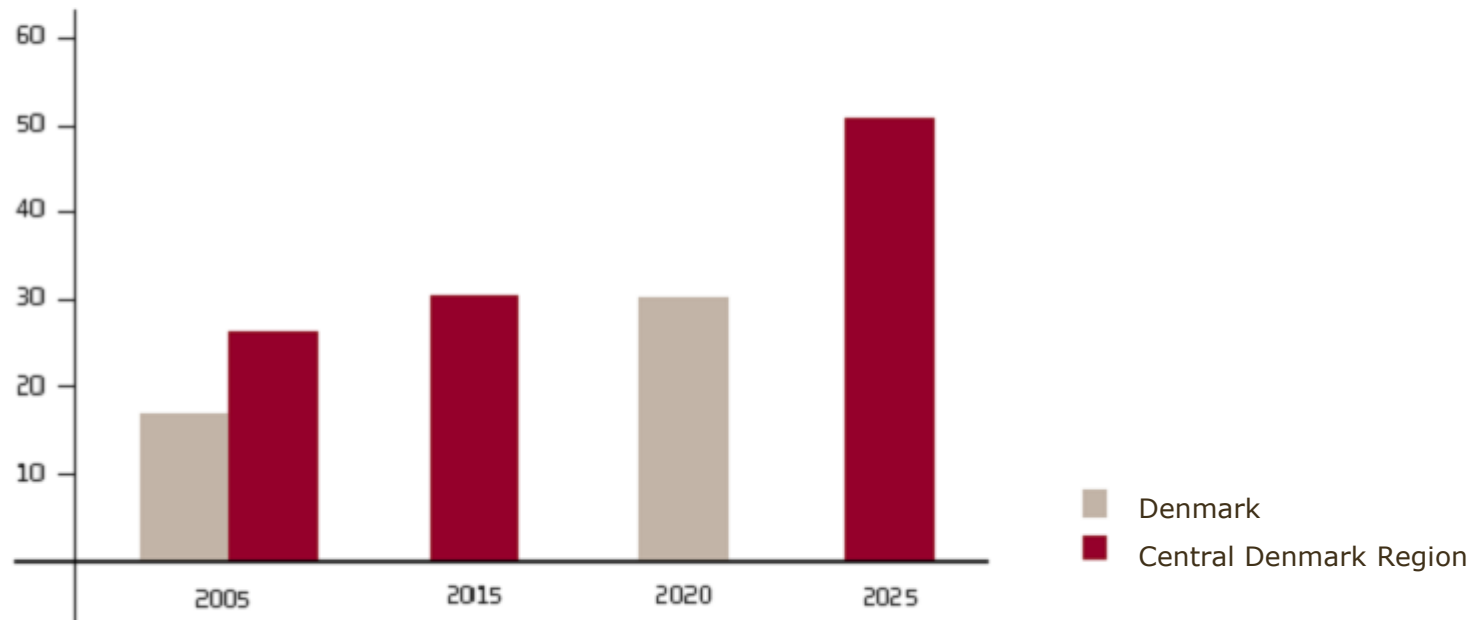
19 municipalities in Central Denmark Region

Shares of Renewable Energy



Renewable Energy- Visions for the future

Amount (percentage) of renewable energy production



 **KLIMAKOMMISSIONEN**
DANISH COMMISSION ON CLIMATE CHANGE POLICY

Green energy

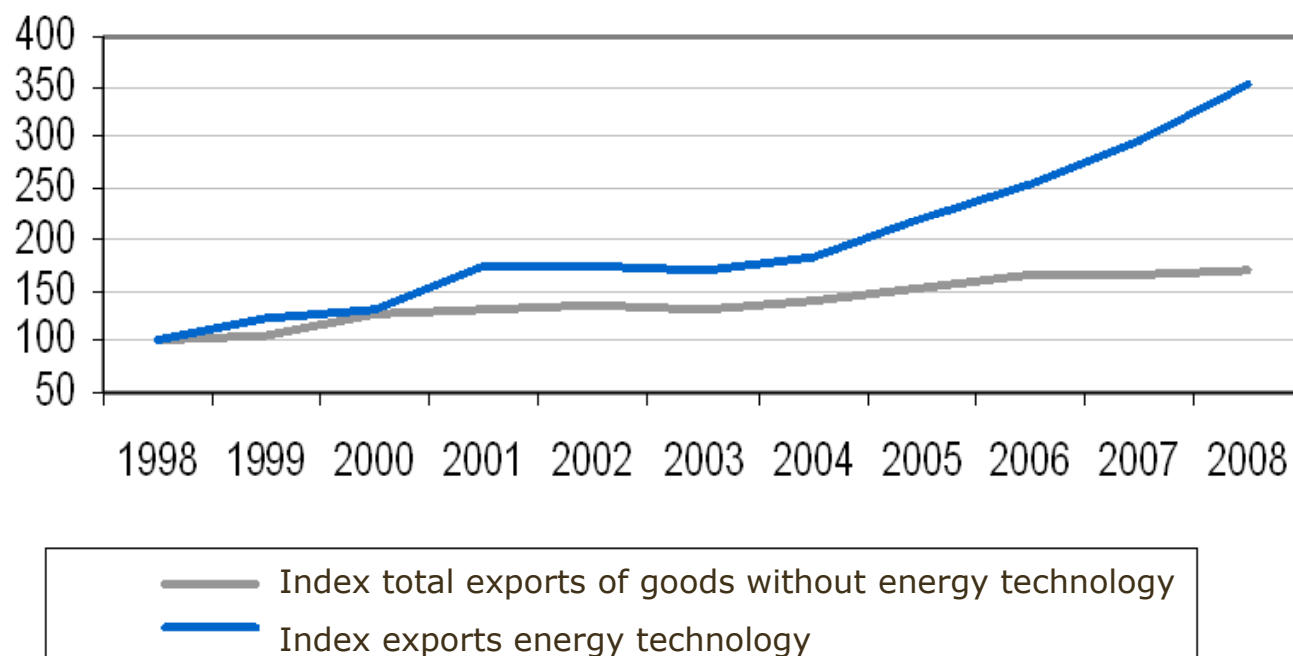
– the road to a Danish
energy system without
fossil fuels

Summary of the work, results and recommendations
of the Danish Commission on Climate Change Policy

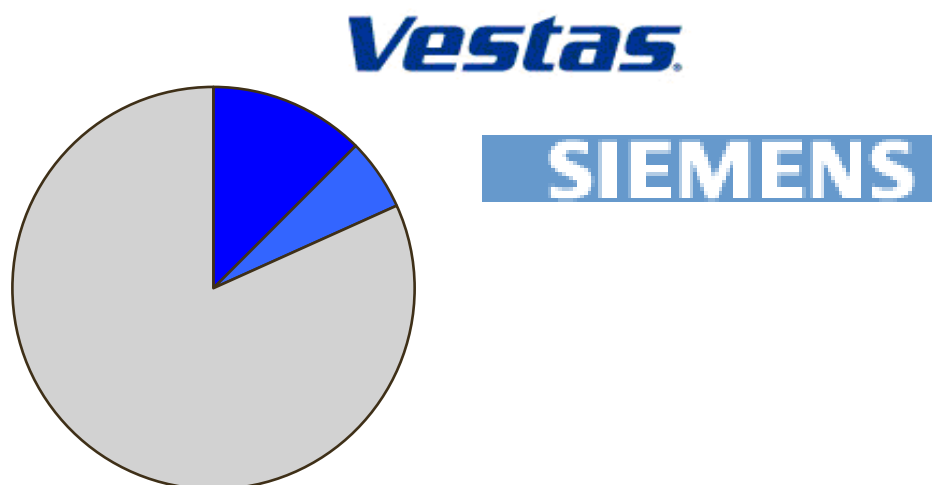
28 September 2010



Growth energy technology exports Denmark



Wind power industry in Central Denmark Region



18,4 % of the wind turbine power installed worldwide in 2009 were delivered by Vestas Wind Systems and Siemens Wind Power.

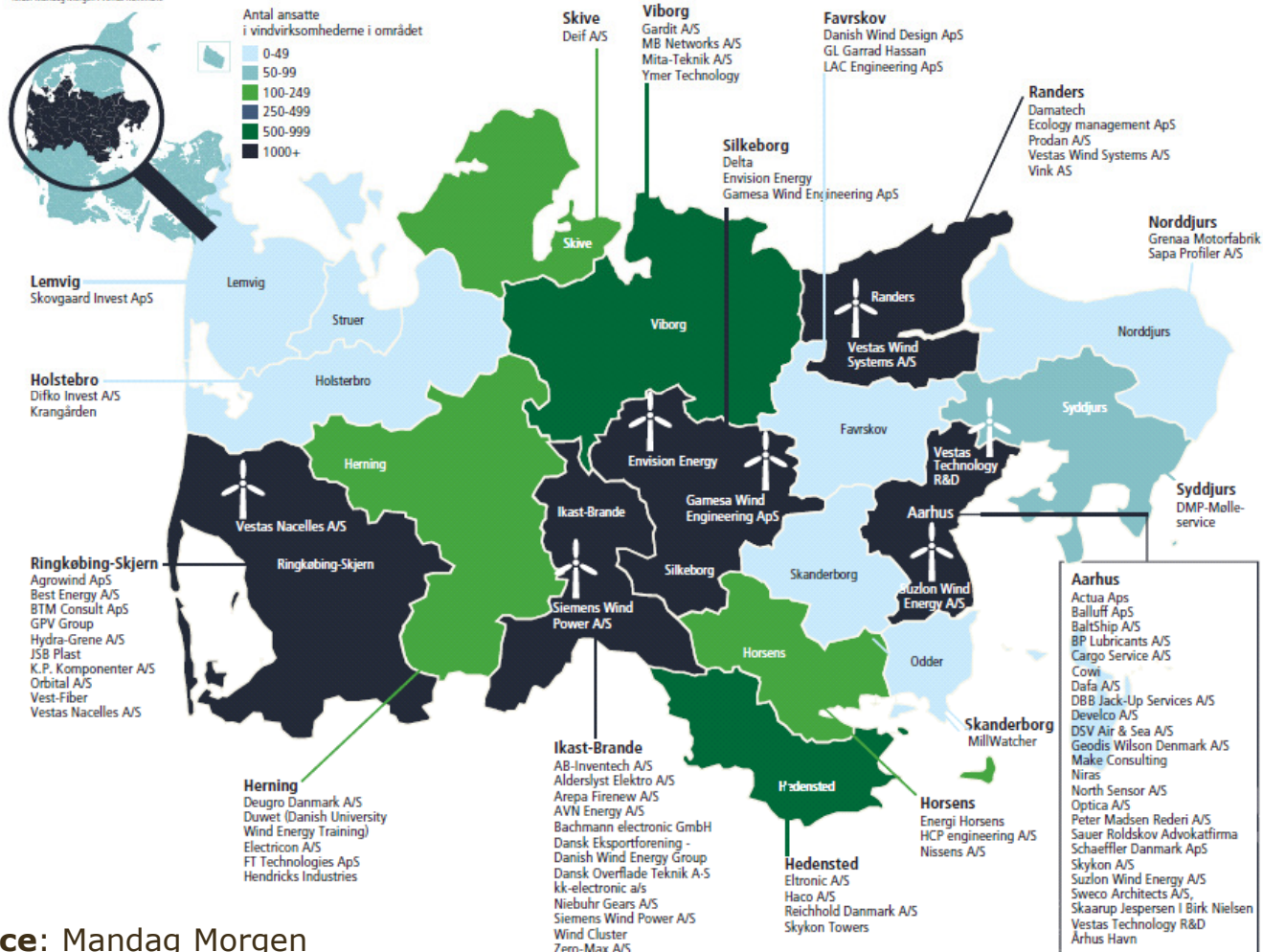
Global market share: Vestas 12,5 % and Siemens 5,9 %

Global Wind industry headquarter

Den globale vindmølleindustri styres fra Midtjylland

Intet andet sted i verden er virksomheder i vindindustrien placeret så koncentreret som her. Selskaberne omsætter for 45 mia. kr. og har 14.000 ansatte.

Kilde: Mandag Morgen / Århus Kommune



Source: Mandag Morgen

Bio energy business in Central Denmark Region

- Large areas of farmland.
- Large animal and food production.
- Many companies producing technology for the production of energy from biomass.
- Universities and knowledge institutions in the area of bio energy.



Biogas analyses

Main Goals for Central Region Denmark:

- Maintenance and enlargement of the strong commercial and technological position on energy technology
- Increased production and improved utilization of renewable energy (50% renewable energy in 2025)

How to reach the regional goals



Cluster in the Wind Turbine Industry



Network for Subcontractors to the Wind Turbine Industry:

- Research and development
- Recruitment of new employees
- Education of employees
- System supplies

Technological development in SMEs



Program to support development of technology products concerning:

- Energy production based on renewable energy sources
- Energy consumption and energy savings
- Environmental issues related to energy

Biofuel in transportation

- 2. generation biodiesel



The DAKA Biodiesel plant – production of biodiesel from slaughterhouse waste.



Pilot project: 75 filling stations is supplied with 5% biodiesel.

Willow as Energy Crop

Large scale project demonstrates use of willow wood chips in energy production.

Reduce the leaching of nutrients to the water environment.



District Heating of the future

A sustainable district heating system in a new residential area.

Integration of solar energy and heat pumps in the heating system.



Test facilities



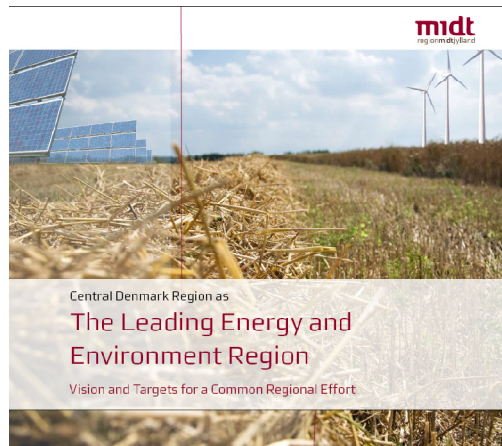
Technical University of Denmark:
*Høvsøre wind power test centre.
Another test facility is planned*



University of Aarhus:
*Foulum research centre for
biogas and biomass technology.*

Thank you for your attention

For further information:



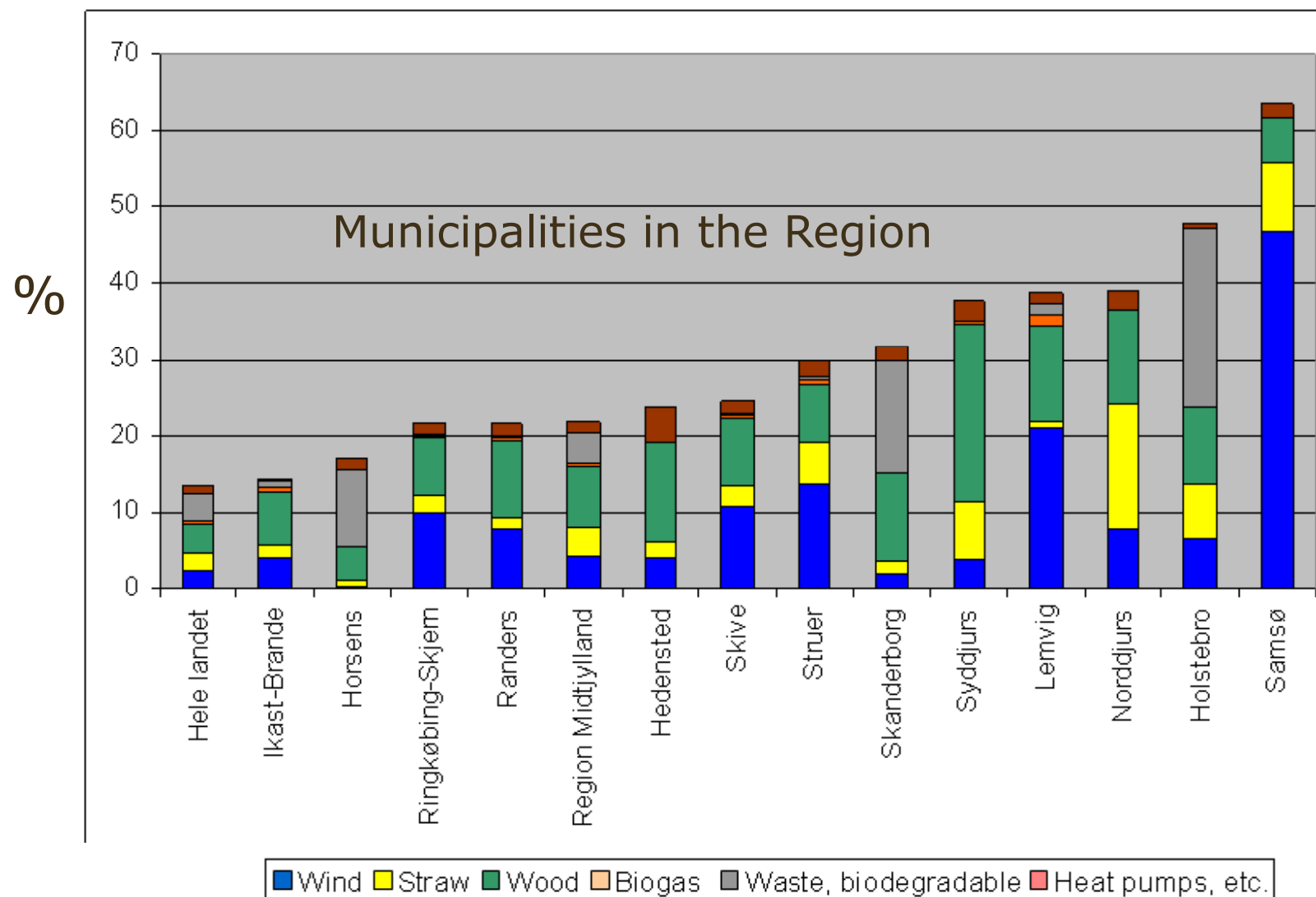
Central Denmark Growth Forum
April 2008



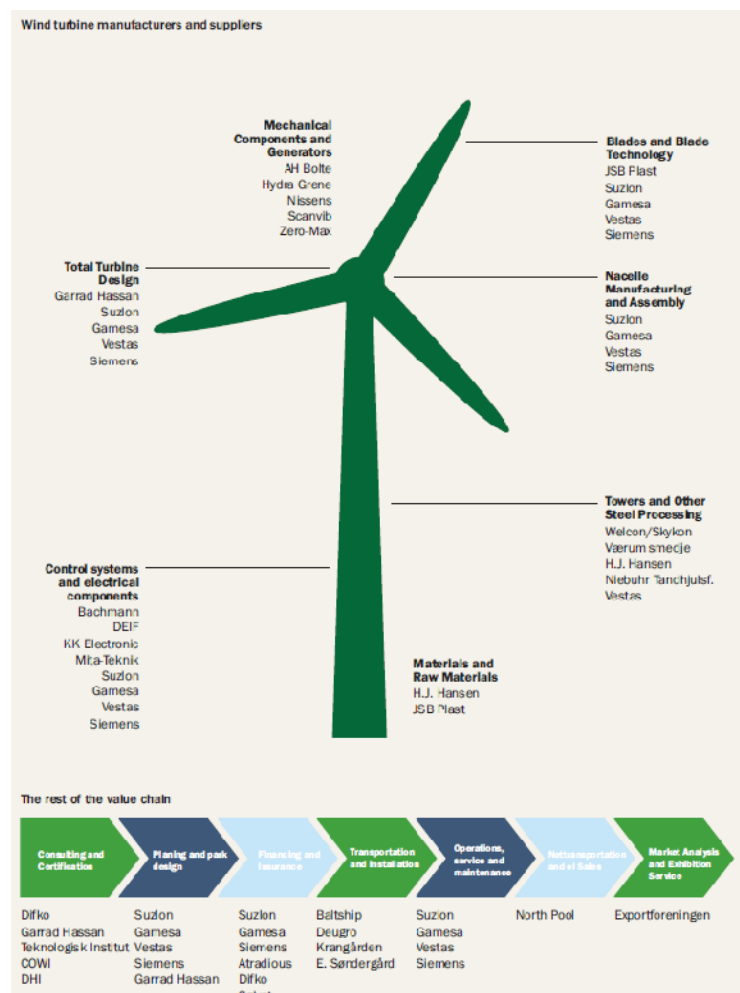
Questions?

Back up slides

Shares of Renewable Energy

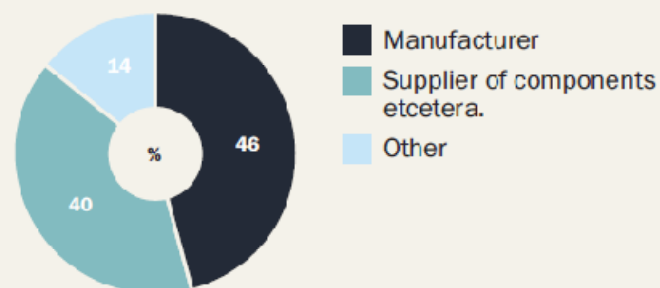


Wind Power value chain

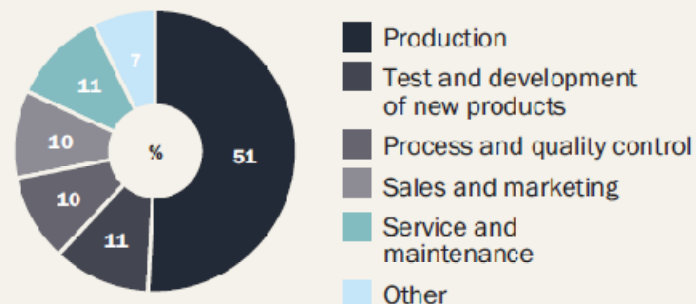


Wind Industry Workforce

Wind industry employees after company type, percent



Wind industry employees after job type, percent



Kilde: Analyse foretaget af Mandag Morgen for Århus Kommune

Hydrogen and Fuel Cells

Pilot testing vehicles using fuel cells supplied with hydrogen.



Other projects

- Flexible use of electricity in companies
- Use of cars driven by electric batteries
- Detailed mapping of biomass to use for energy