

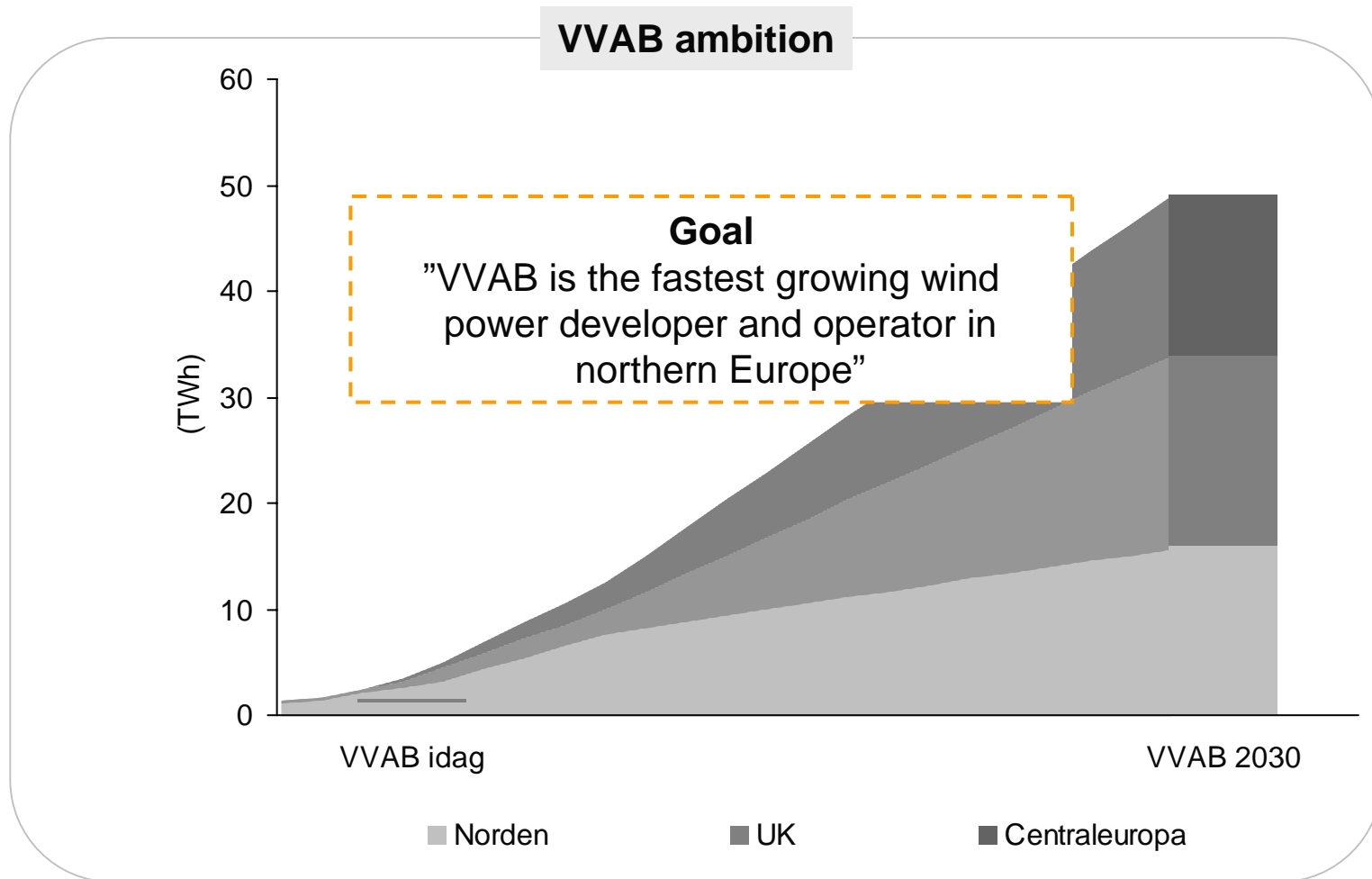
# Vattenfall Windpower Expansion Plans

May 26, 2009

Sven-Erik Thor



# Vattenfall has a 49 TWh-target in 2030 for wind power



# The Nordic pipeline is deemed sufficient to reach the 6,5 TWh target in 2016

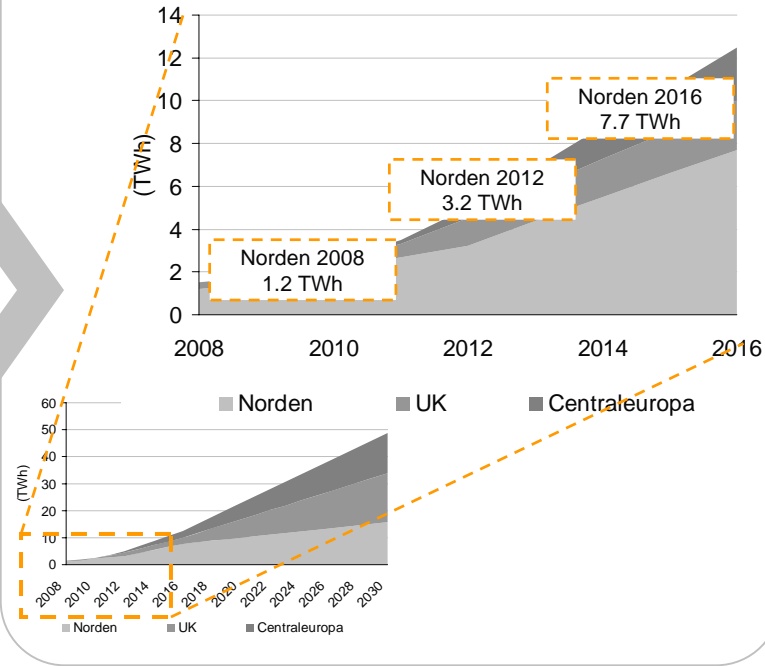
## Gross pipeline 4.1 GW

- Onshore Denmark
- Offshore Sweden

## Net pipeline 2.1 GW

- Onshore Swe
- Repower Dk
- Offshore Dk

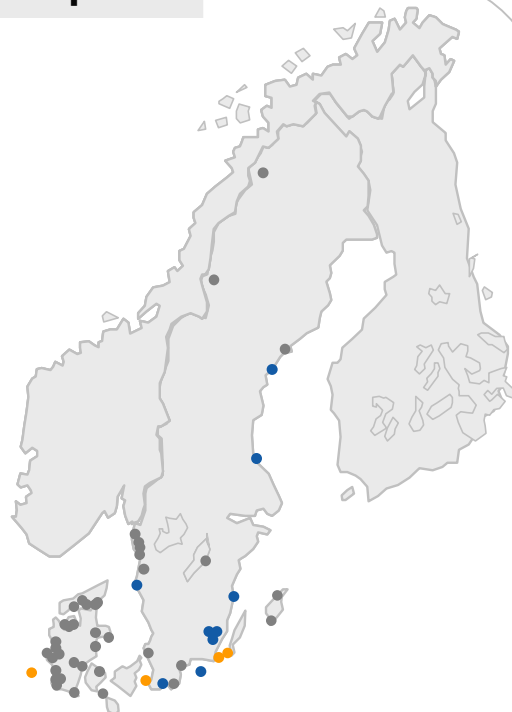
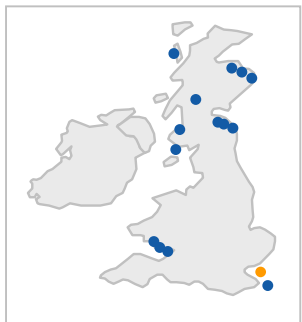
### VVAB Nordic targets



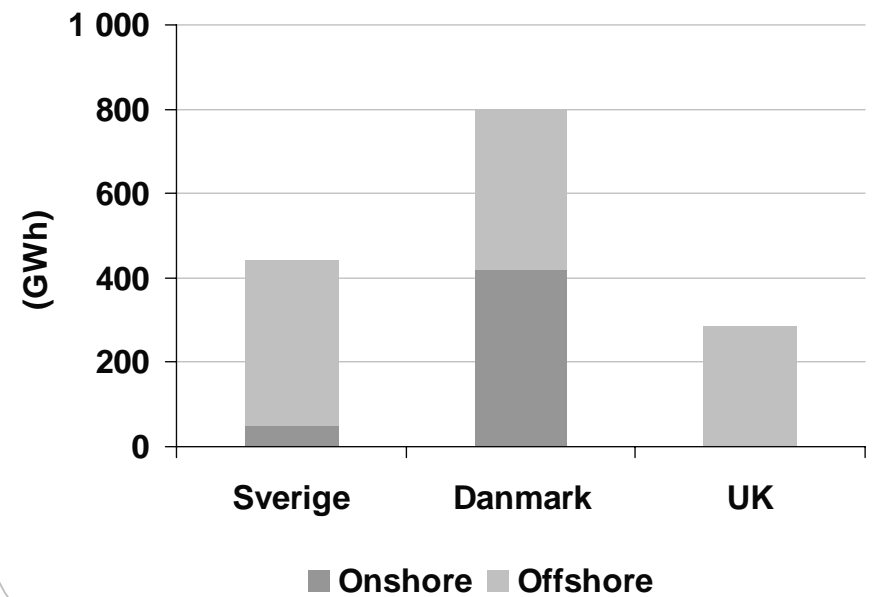
# Parks and projects in the Nordics and in the UK

## VVABs parks

- Onshore
- Offshore
- Projects



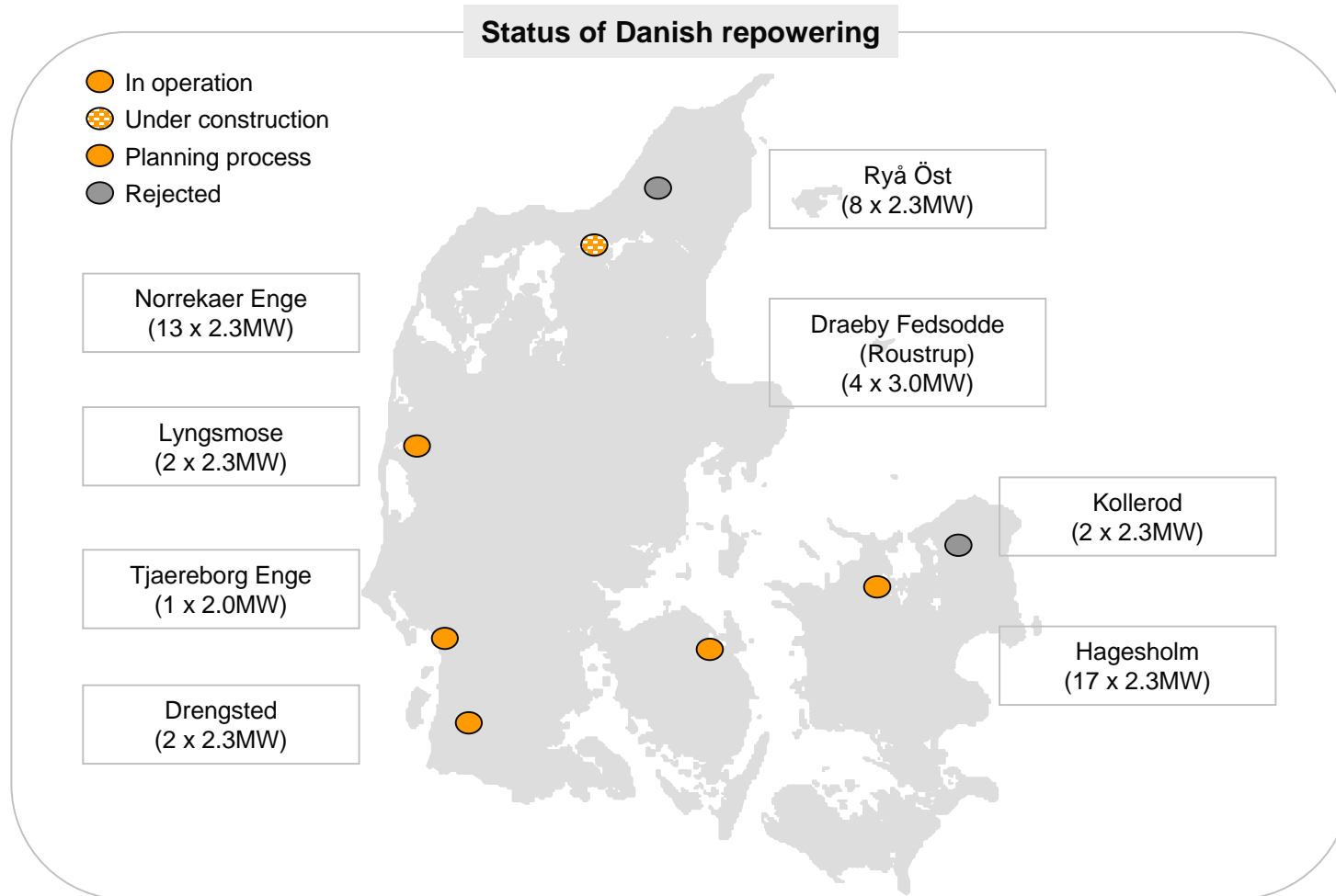
## Annual Production



# Projects in Sweden

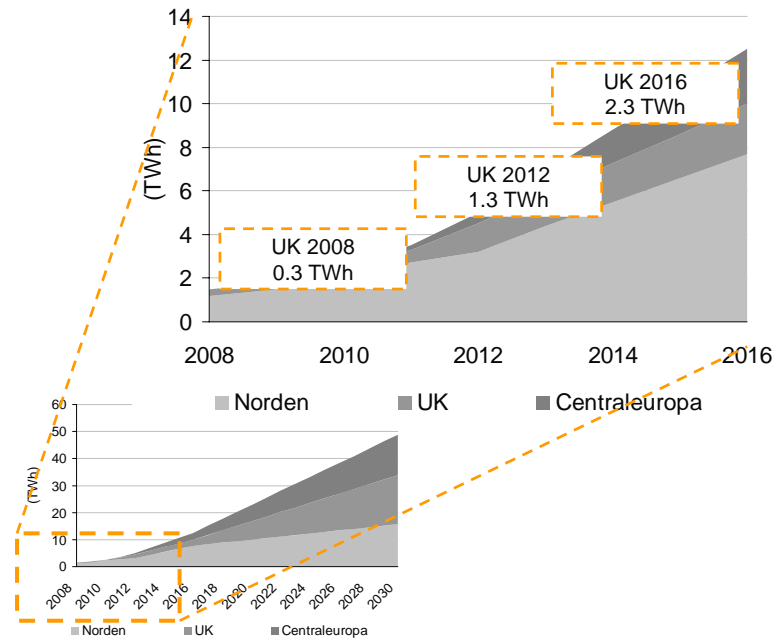


# Repowering projects in Denmark

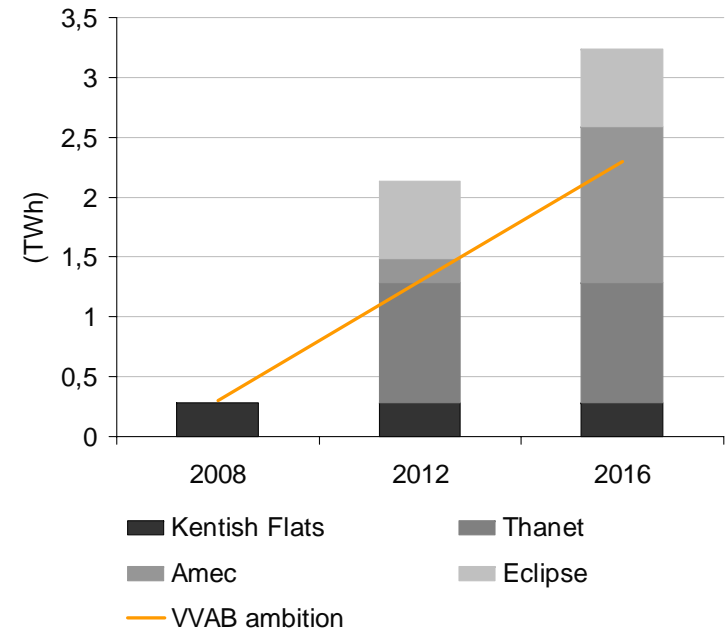


# Acquisitions enables future growth in the UK

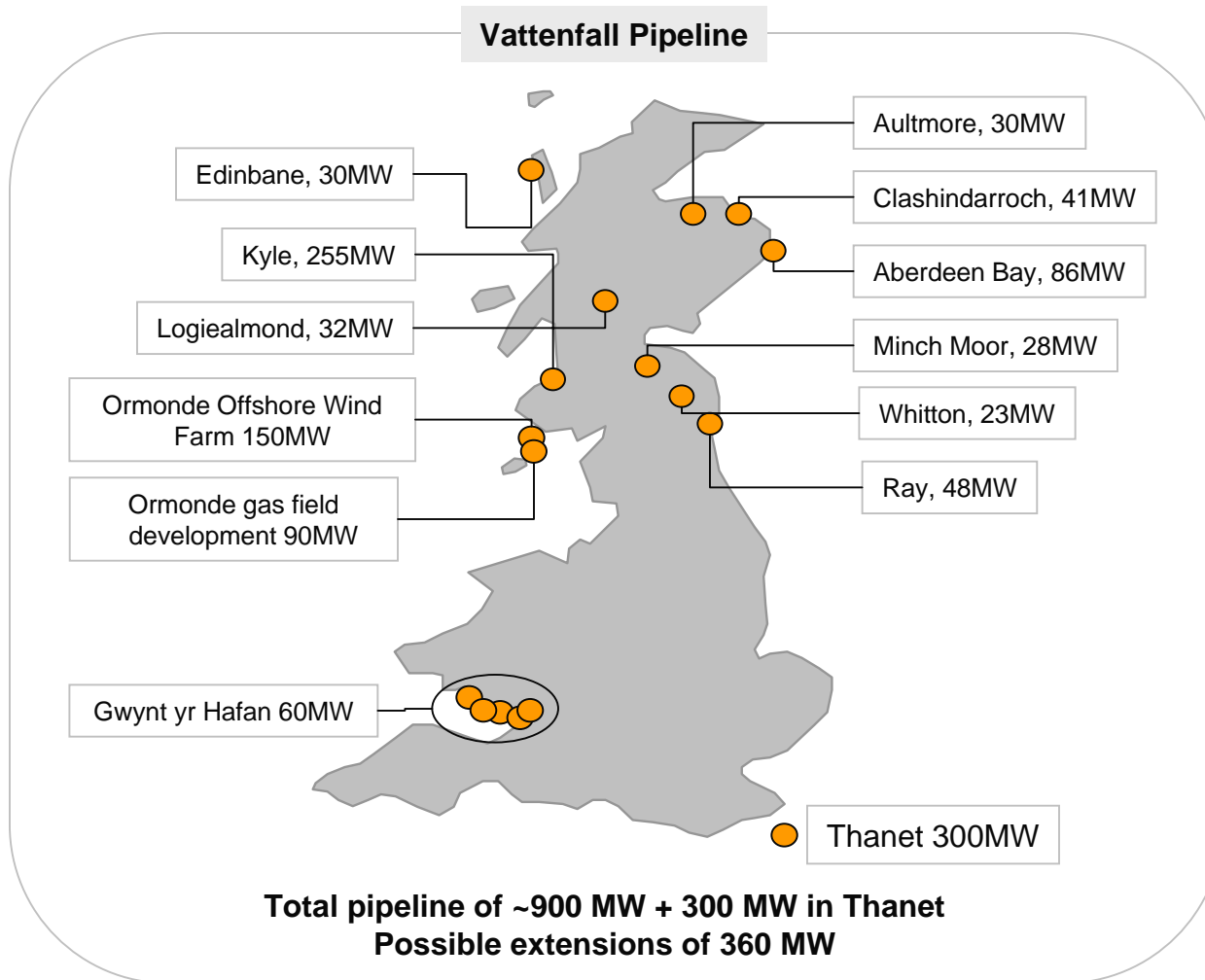
## VVAB UK targets



## Present and future UK-portfolio



# Vattenfall has in addition to the 3 000 MW Joint Venture with ScottishPower Renewables a solid wind project pipeline in the UK



# Combined offshore pipeline Vattenfall and Nuon

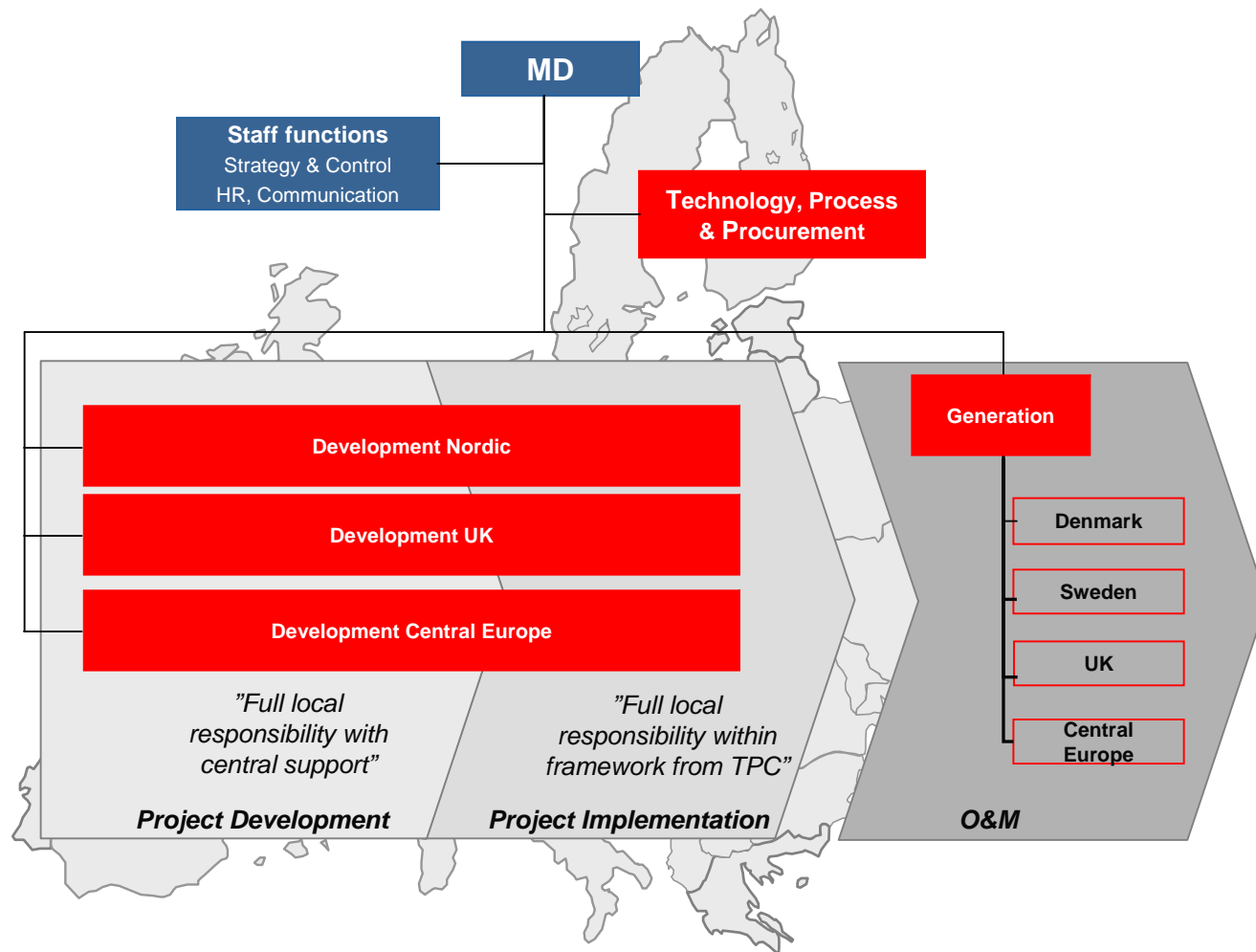


1. Ormonde
  - 150 MW
2. Thanet
  - 300 MW
3. Seal
  - 480 MW (Vattenfall Nuon share: 50%)
4. Elnu
  - 726 MW (Vattenfall Nuon share: 30%)
5. Katwijk
  - 342 MW (Vattenfall Nuon share: 50%)
6. Trolleboda
  - 150 MW
7. Taggen
  - 300 MW (Vattenfall share: 50%)
8. Kriegers flak
  - 600 MW
9. Dan Tysk
  - 400 MW
10. Borkum Riffgrund
  - 360 MW (Vattenfall share: 24,5%, option to 43,5%)
11. Alpha Ventus
  - 60 MW (Vattenfall share: 26%)

TOTAL: 3868 MW (Vattenfall Nuon share: 2483 MW)

Note: Trading not included

# Wind Power Organisation



# Characteristics of future turbines

## Market Stimulation Program:

1. enable cost reductions of turbines
2. reduce investment and O&M risks
3. stimulate new suppliers on the market and develop supplier relations
4. show the market that VAB is a serious player in wind

## Market Stimulation Program – Present Status

- Kenersys 2.5MW prototype on Näsudden
  - Nordex N90 at Ryningsnäs on 80 and 100 towers
  - More to come
- and also
- Alpha Ventus, 12\*5MW in the North Sea

Thanks for listening!



Go green,  
go electricity