



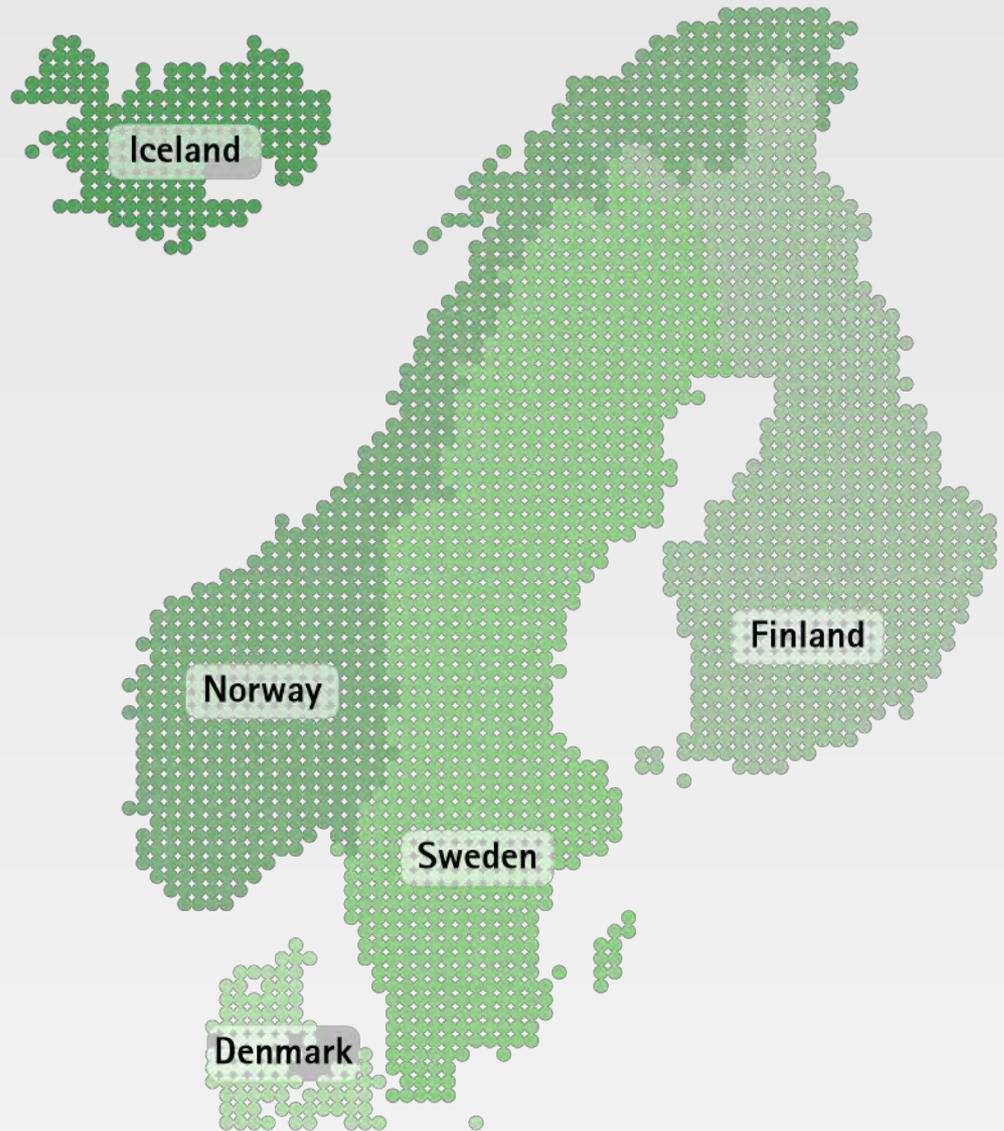
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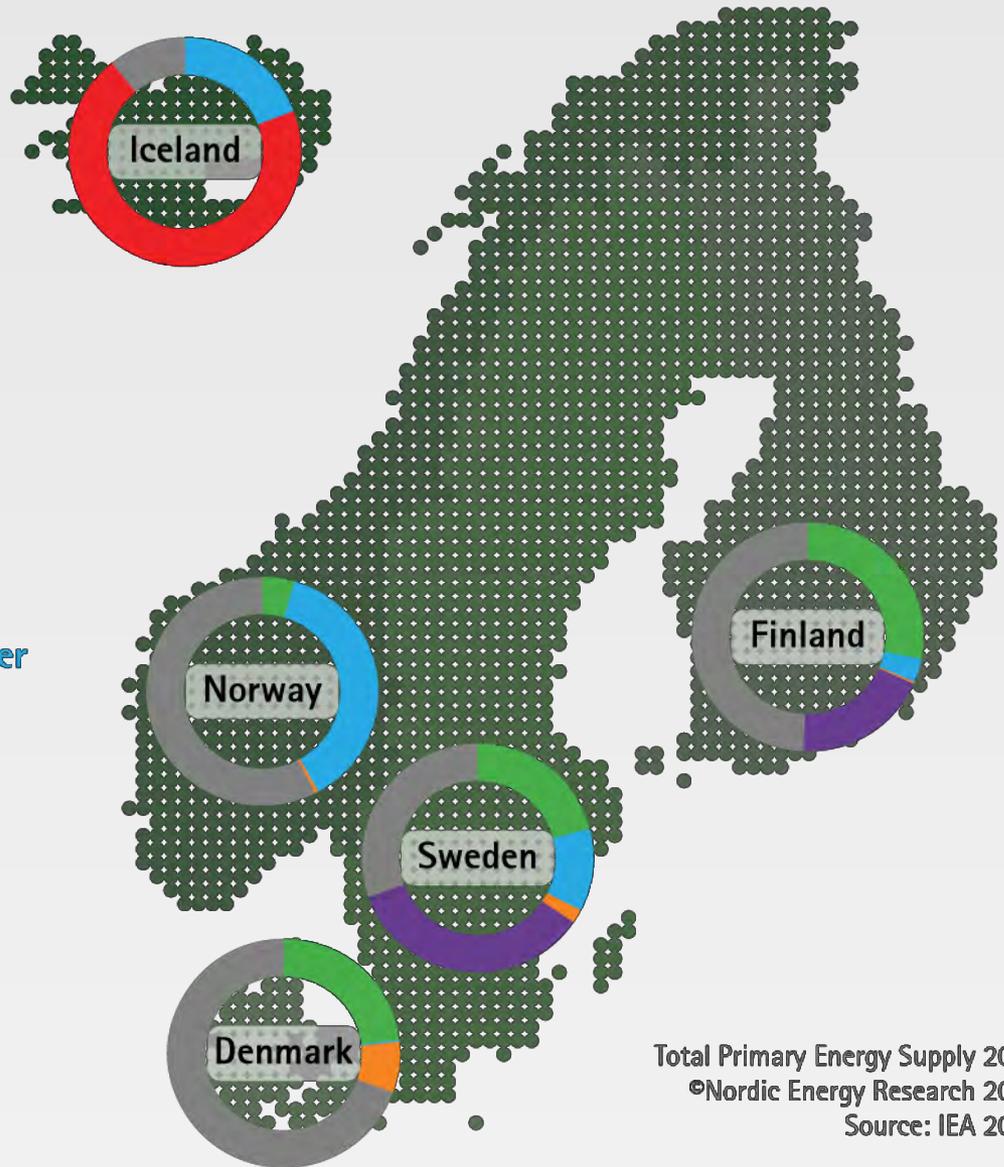
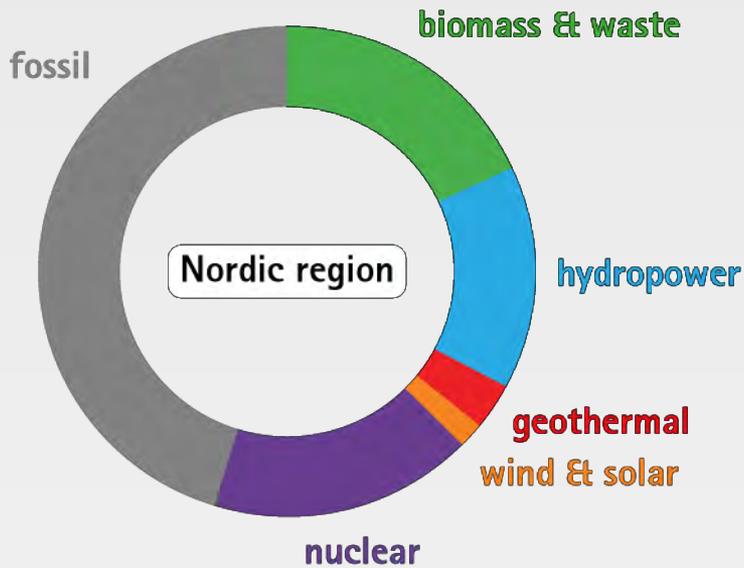
**What the Nordics have achieved  
in energy - and what they  
have yet to achieve**

**Hans Jørgen Koch**

Executive Director, Nordic Energy Research  
19.05.2016, Bonn



# The Nordic energy mix



Total Primary Energy Supply 2014  
©Nordic Energy Research 2015  
Source: IEA 2015

# Key energy trends

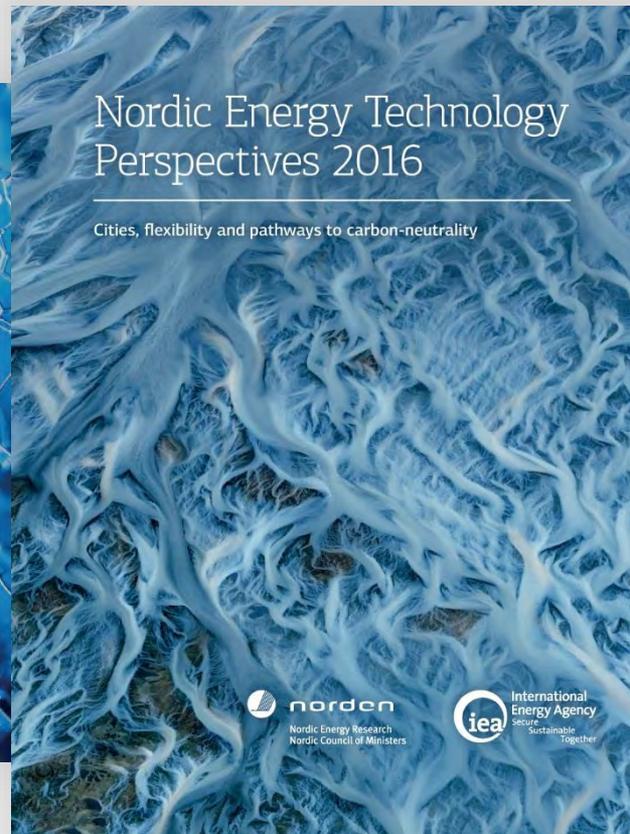
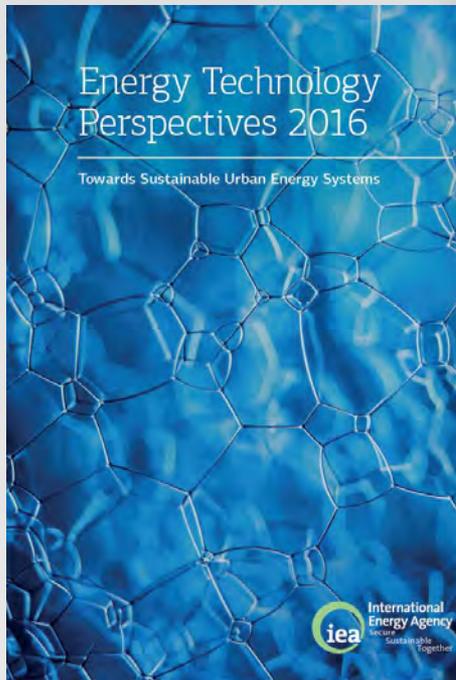
- Co-benefits drive policy
- Cities and regions lead
- Paris Agreement
- Renewables surge
- Decoupling of GDP and CO<sub>2</sub>
- Low oil prices
- Low electricity prices in Europe
- Energy Union

# \$13.5 trillion market for low-carbon technologies & efficiency to 2030

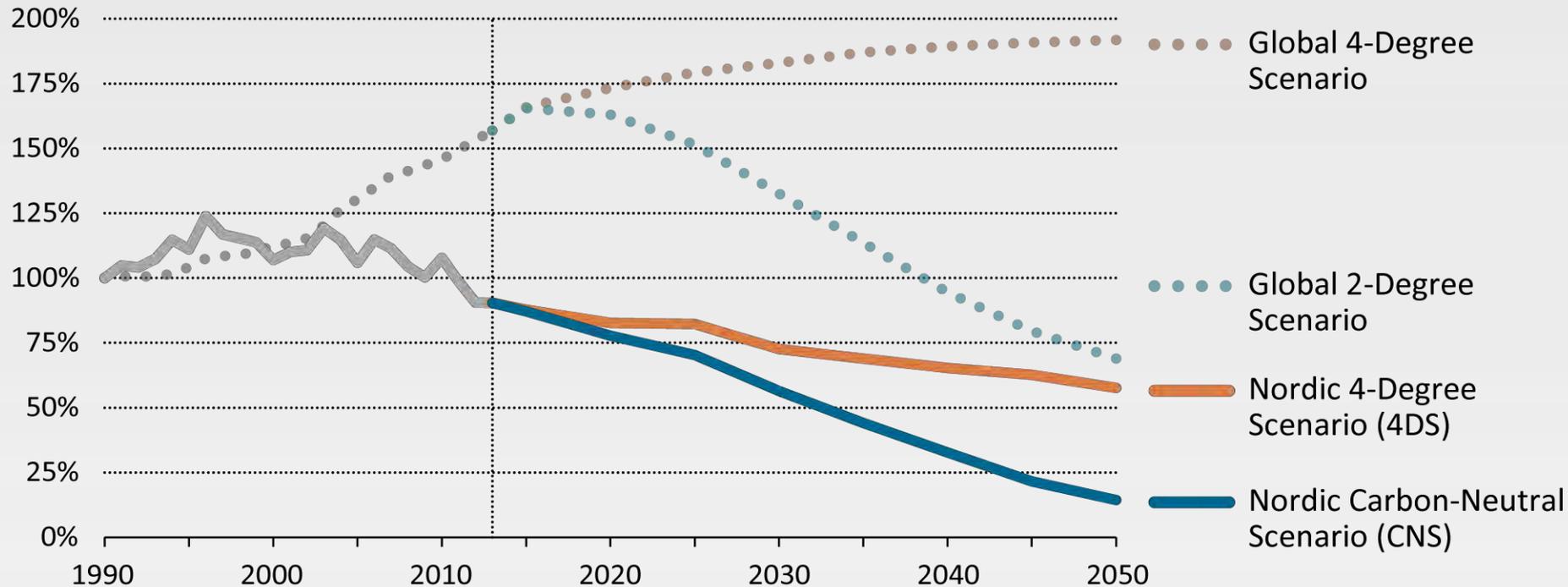


189 countries made pledges to the COP21 Paris climate agreement

# Bridging global and national analyses



# Nordic and global CO<sub>2</sub> emissions



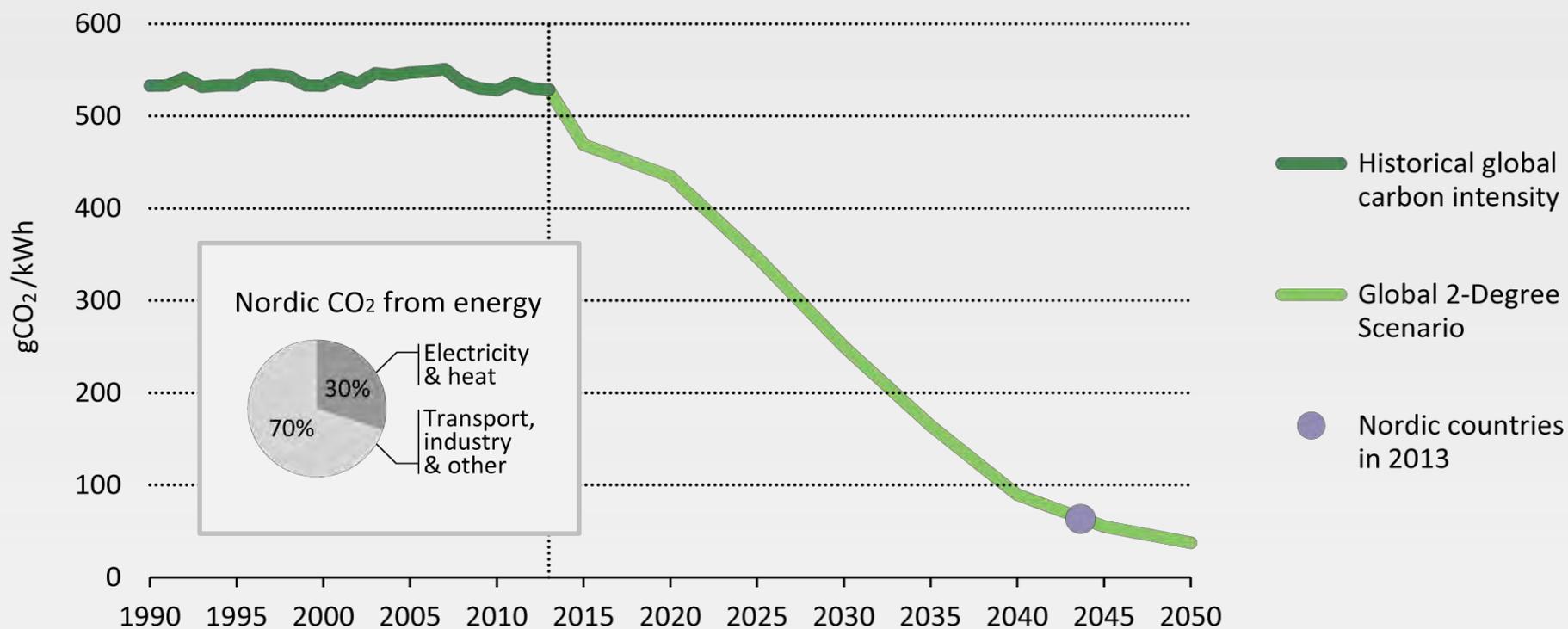
In the Carbon-Neutral Scenario (CNS), Nordic CO<sub>2</sub> emissions drop by 85% in 2050 compared with 1990 levels

# Partners in Nordic Energy Technology Perspectives 2016



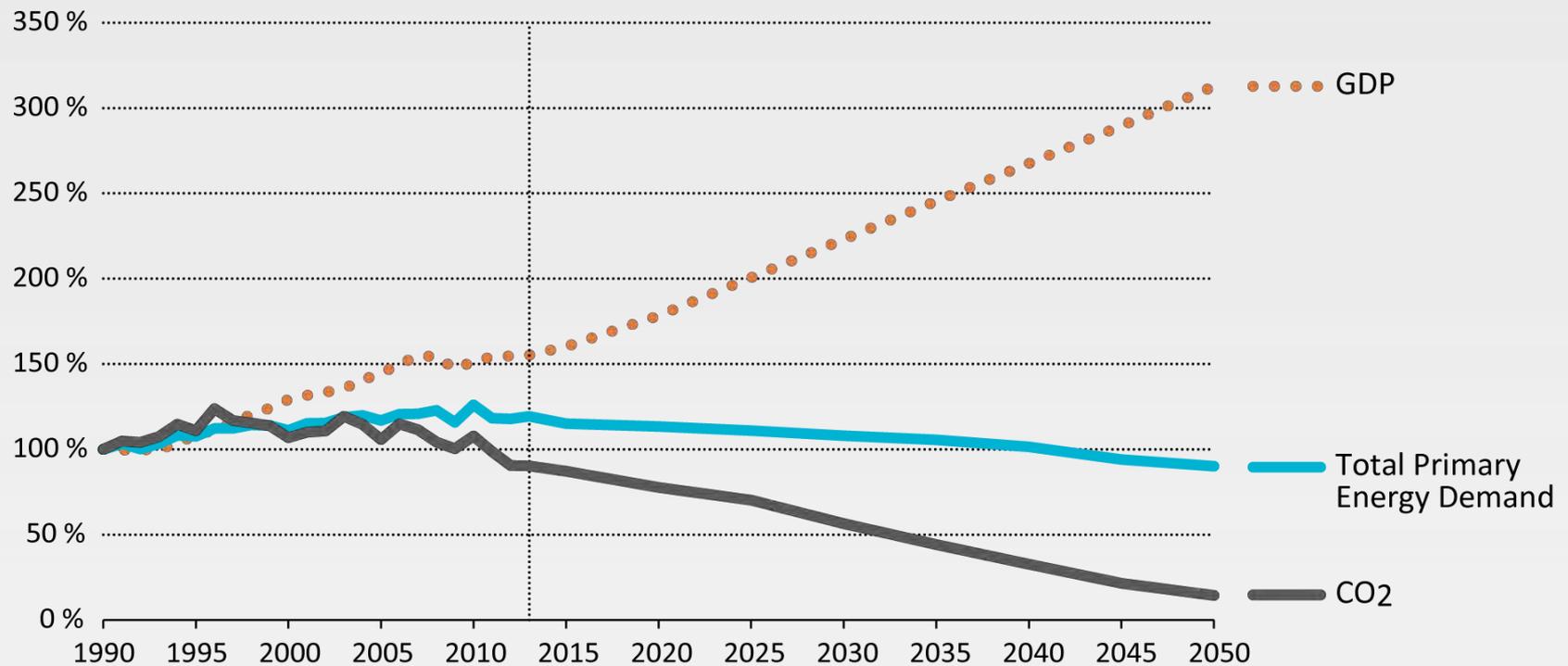
# 30 years ahead on electricity

## Global carbon intensity of electricity (gCO<sub>2</sub>/kWh)



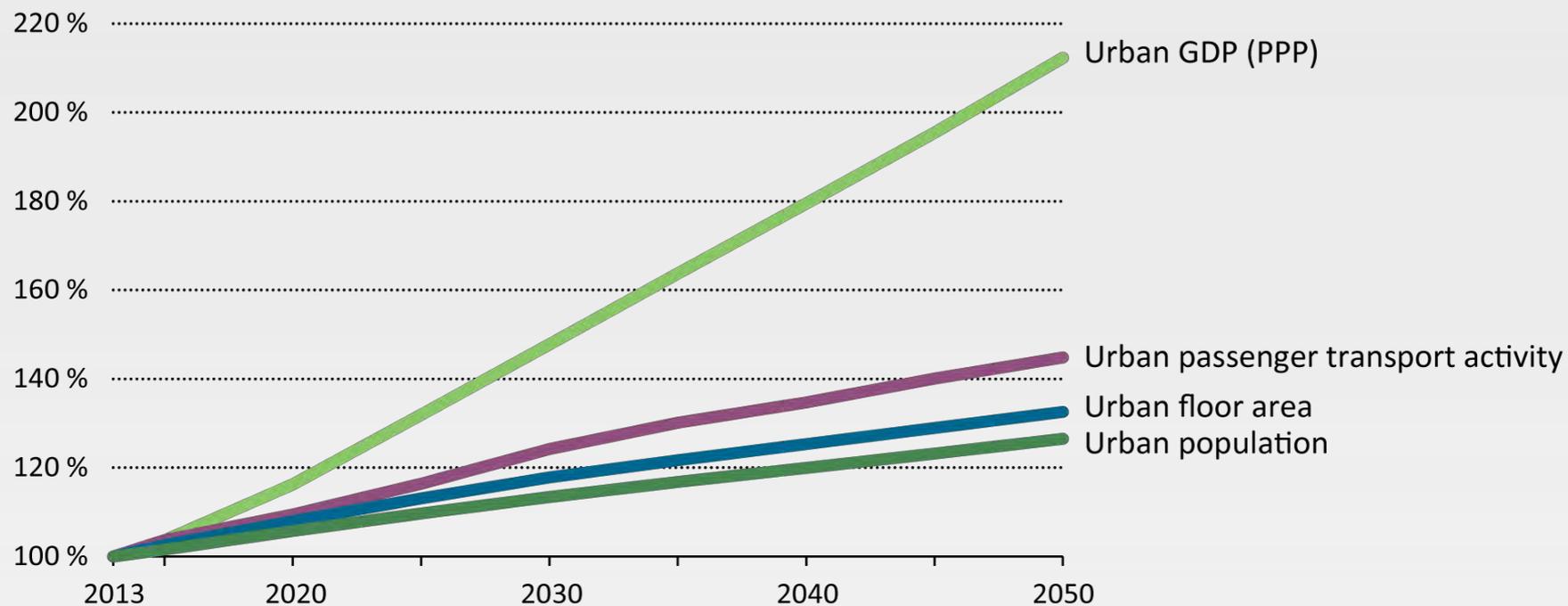
# Decoupling pioneers

## Nordic GDP, energy demand and CO<sub>2</sub> emissions (indexed)



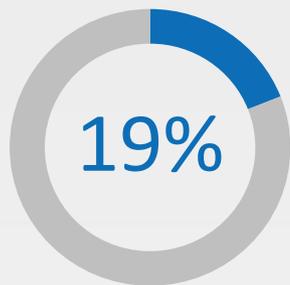


# Key drivers in Nordic urban areas

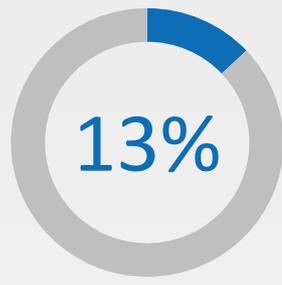


# Industrial CO<sub>2</sub> emissions, 2013

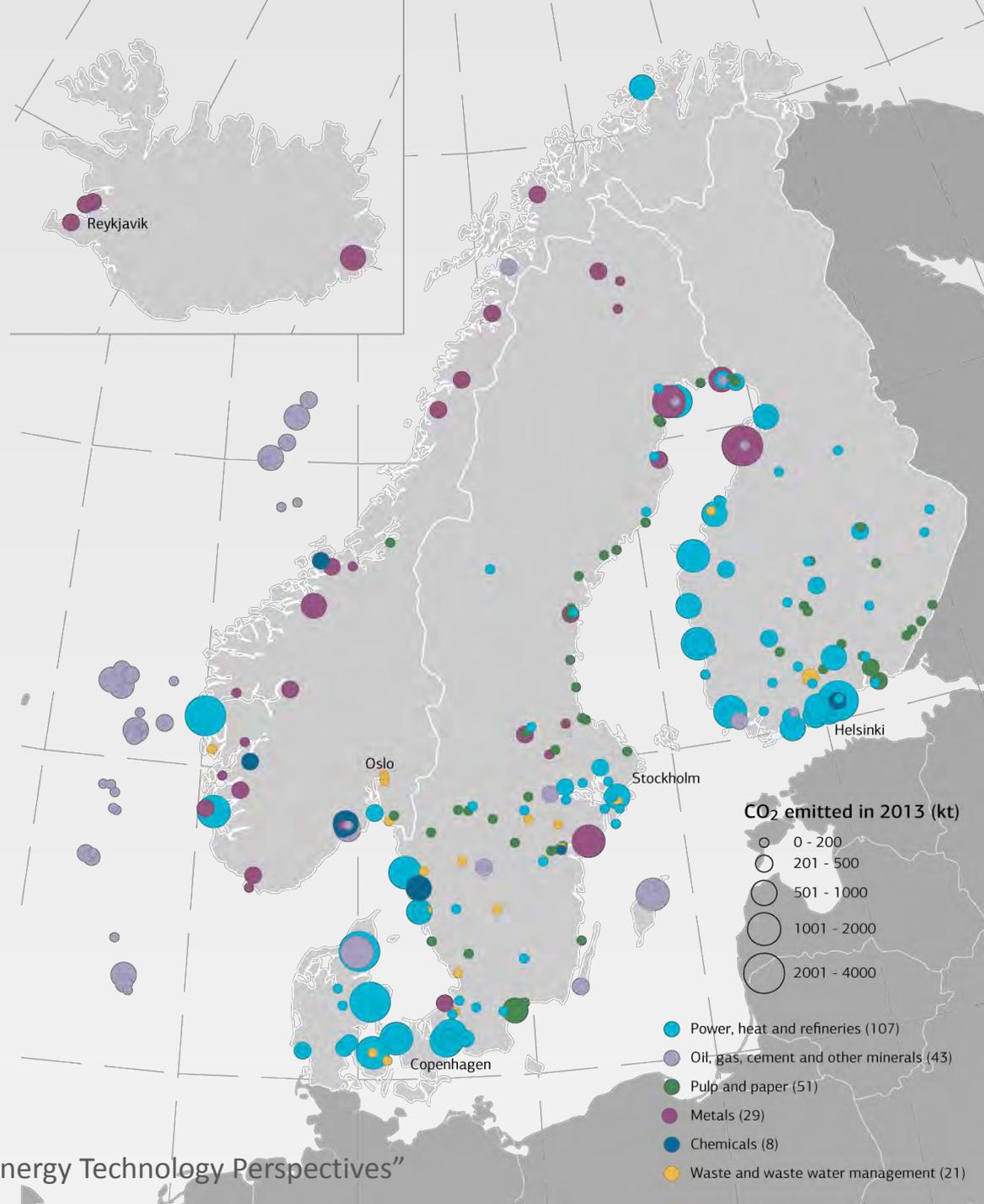
Process emissions as a share of industrial CO<sub>2</sub> emissions



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Thank you for your attention

More information at: [www.nordicenergy.org](http://www.nordicenergy.org)