Stakeholder views on Nordic energy policies and strategies

What kind of regulation is needed to meet the decarbonisation targets cost-efficiently?

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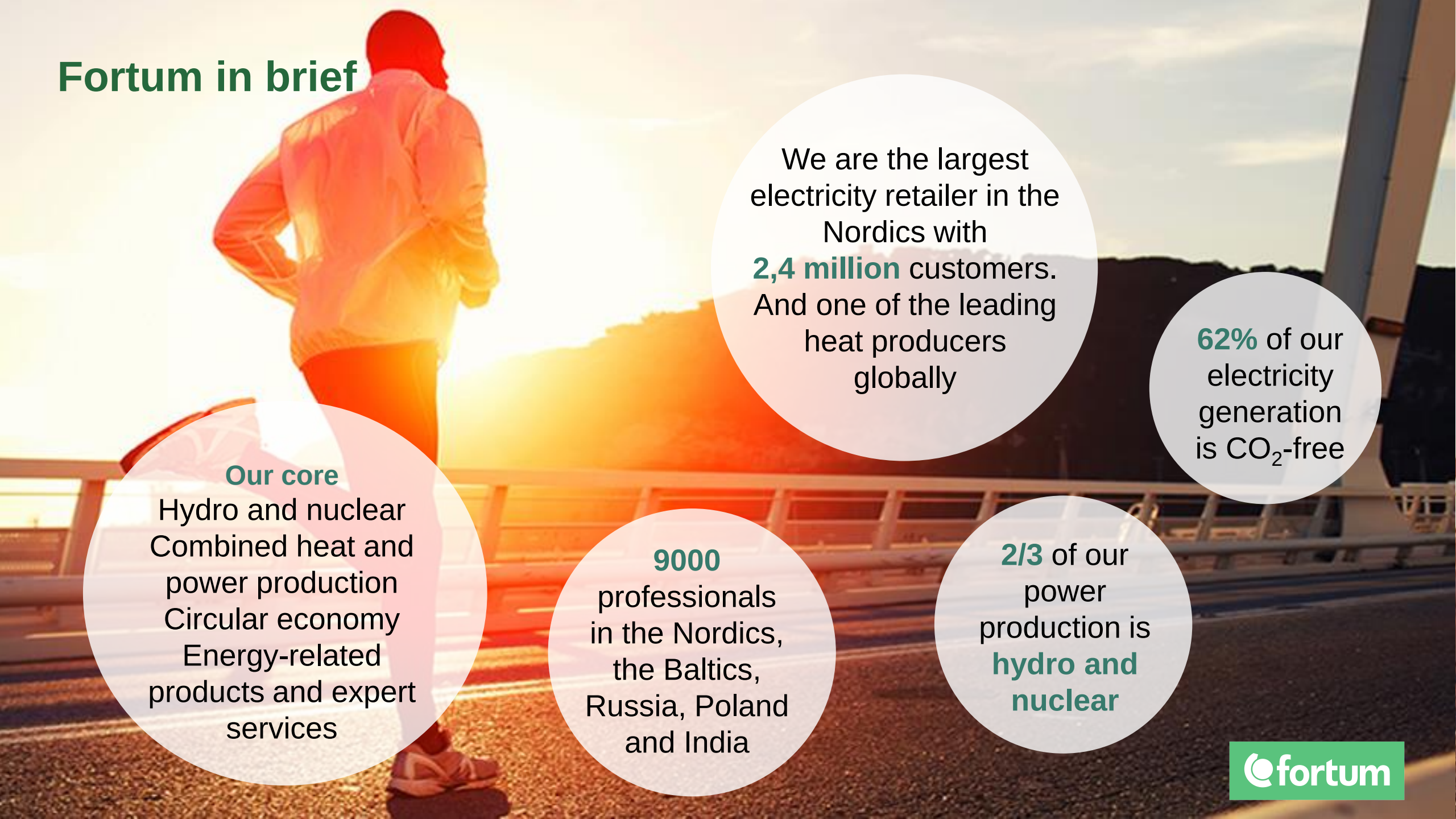
Fortum in brief



We are the largest electricity retailer in the Nordics with **2,4 million** customers. And one of the leading heat producers globally

62% of our electricity generation is CO_2-free

Our core
Hydro and nuclear
Combined heat and power production
Circular economy
Energy-related products and expert services

9000 professionals in the Nordics, the Baltics, Russia, Poland and India

2/3 of our power production is **hydro and nuclear**

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Short presentation of Fortum as a Nordic company

Power generation

Heat

Electricity sales

Nordic countries

Power generation* **	47.5 TWh
Heat sales* **	13.7 TWh
Electricity customers**	2.4 million

* Including Fortum's associated company Fortum Värme; power generation 1.2 TWh and heat sales 8.3 TWh.

Key figures 2016

Sales	EUR 3.6 bn
Comparable operating profit	EUR 0.6 bn
Balance sheet	EUR 22 bn
Personnel	8,100

Russia

OAO Fortum

Power generation	25.5 TWh
Heat sales	20.7 TWh

Poland

Power generation	0.6 TWh
Heat sales	3.6 TWh

Baltic countries

Power generation	0.7 TWh
Heat sales	1.3 TWh

India

Power generation	29 GWh

** Pro forma figures including parts of Hafslund and Klemetsrud plant; 1.1 million electricity customers, heat sales 1.7 TWh and CHP power generation 0.1 TWh

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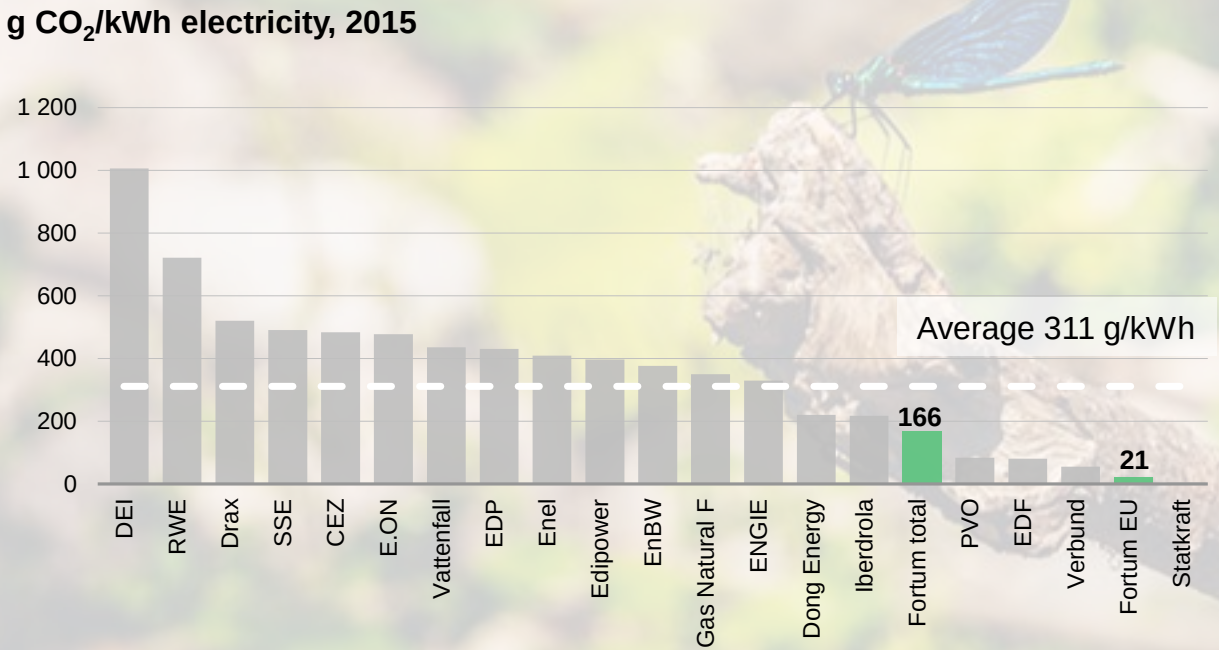
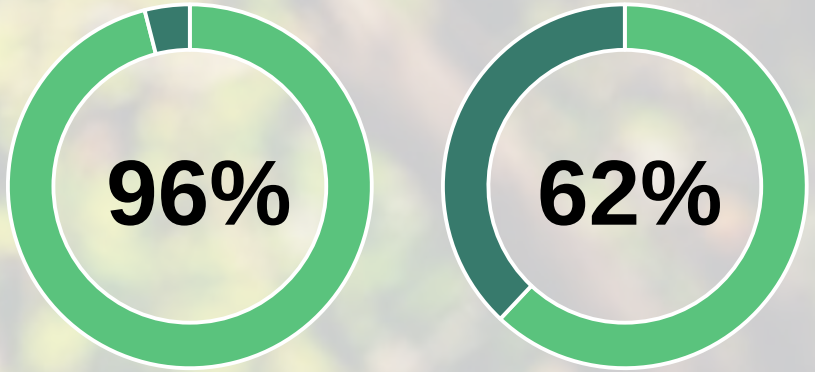
Our carbon exposure is among the lowest in Europe

Fortum's specific emissions of the power generation in the EU in 2016 were 28 g/kWh and in total 173 g/kWh



Share of CO_2-free power in Fortum's generation in 2016



Fortum in the EU **Fortum total**

Momentum for re-invigorating the Nordic Energy Cooperation – the ”Ollila Report” – now we need an implementation plan

Common vision for the Nordic energy cooperation

Peer reviews and policy coordination

More strategic approach towards the EU

Optimisation of investment environment

Electricity market development – how to continue the success story?

Getting ready for the high-RES future: demand response, real-time pricing, digitalised customer solutions, regional grid planning…

Nordic principles for the regional market design – a reference for regional market design in Europe

Towards a pan-Nordic retail electricity market

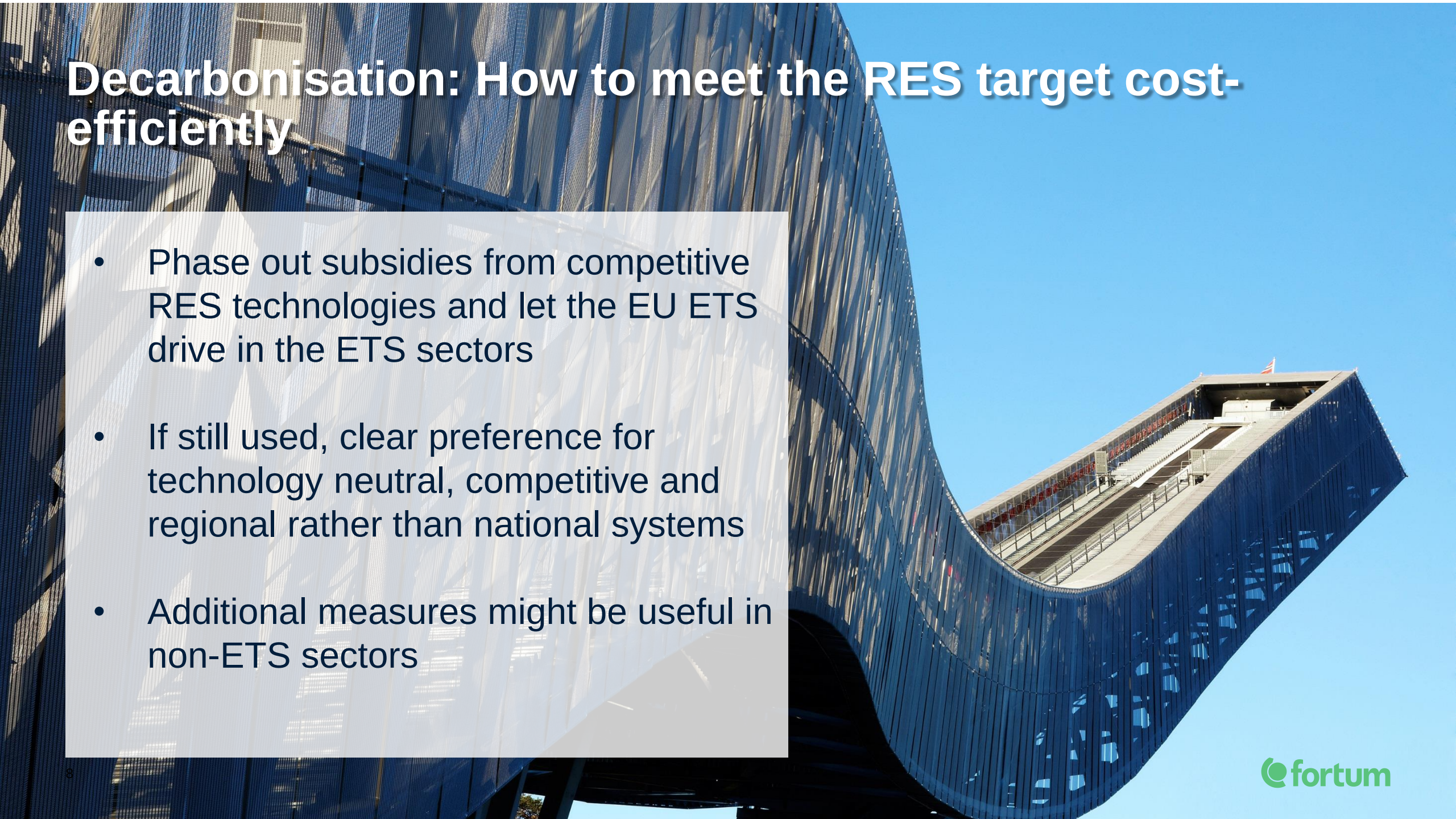
Nordic Stakeholder Forum to advise policy makers on power market development

Decarbonisation: How to meet CO2 target cost-efficiently

- EU ETS to be the key driver in the ETS sectors
- Rapid finalisation of the ETS reform
- Prevent overlapping policies from diluting the ETS (Governance)
- Strong Nordic voice in Brussels

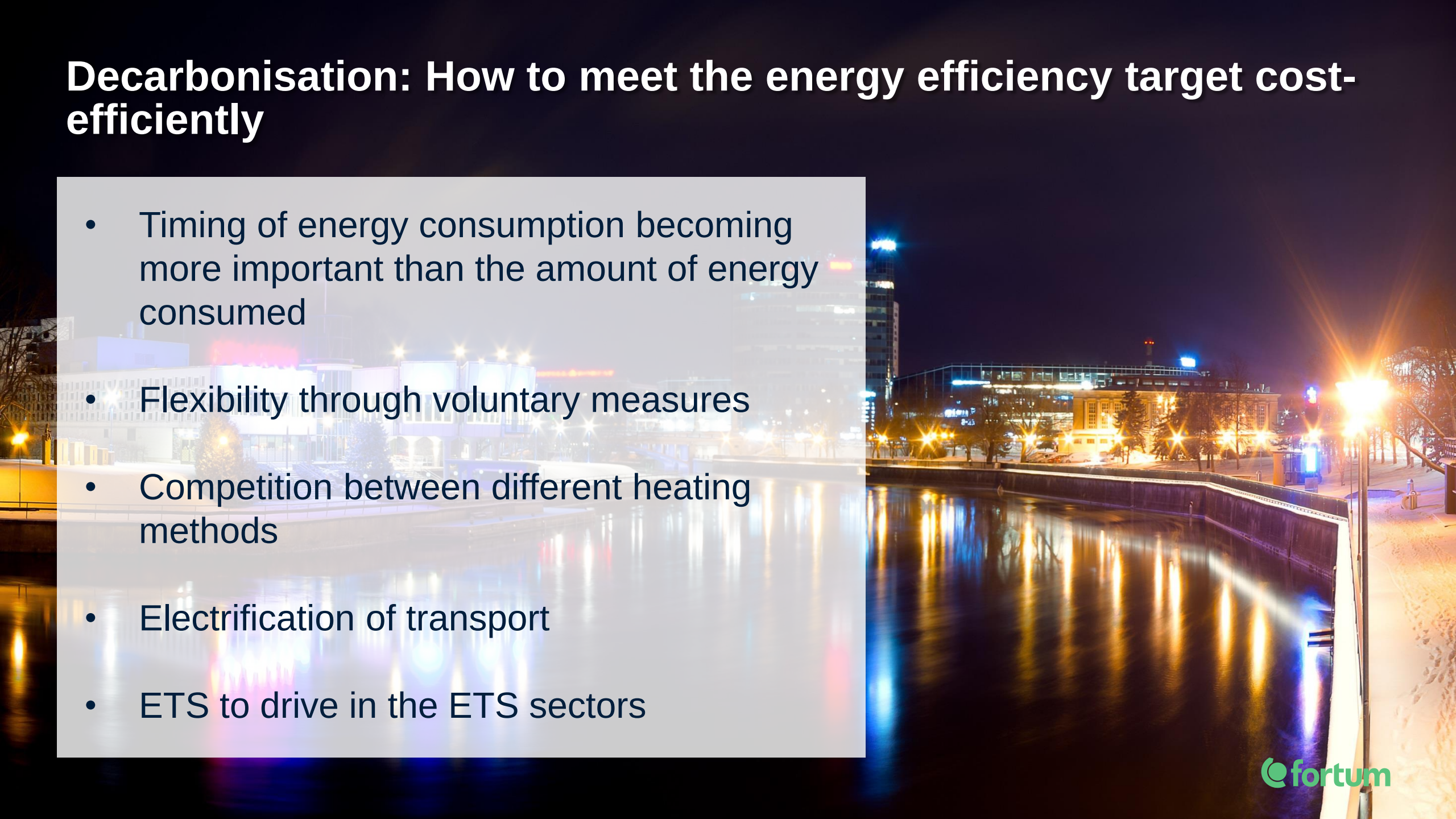
Decarbonisation: How to meet the RES target cost-efficiently

- Phase out subsidies from competitive RES technologies and let the EU ETS drive in the ETS sectors
- If still used, clear preference for technology neutral, competitive and regional rather than national systems
- Additional measures might be useful in non-ETS sectors



Decarbonisation: How to meet the energy efficiency target cost-efficiently

- Timing of energy consumption becoming more important than the amount of energy consumed
- Flexibility through voluntary measures
- Competition between different heating methods
- Electrification of transport
- ETS to drive in the ETS sectors



Key take-aways

Better reliance on market mechanisms: ETS and competitive regional electricity market

Decisions and policy choices made in one country will have an impact on other countries in integrated and interconnected regional power market

Moving from national to regional solutions would help to increase cost-efficiency

Thank you!

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