

1990

European green deal

Fit for 55: 2030 : 55%

2050

European grid of the future

Presentation for Nexans seminar,
September 21, 2021

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New from oct 2021: EVP head of Offshore grid development, Statnett SF

Chairman of Research, Development & Innovation Committee, ENTSO-E

The Green shift is now!



10x wind & solar

Zero target gives radical changes of the power system in Europe

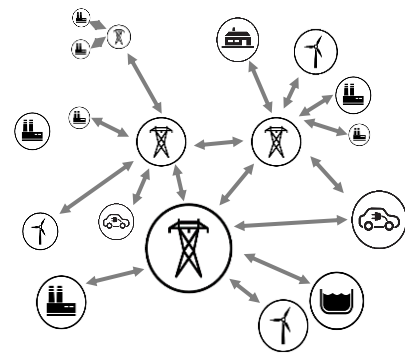
Much more flex needed

Increased integration & cooperation between countries and sectors



Accelerated innovation is key

New technology and digital solutions makes the transformation possible

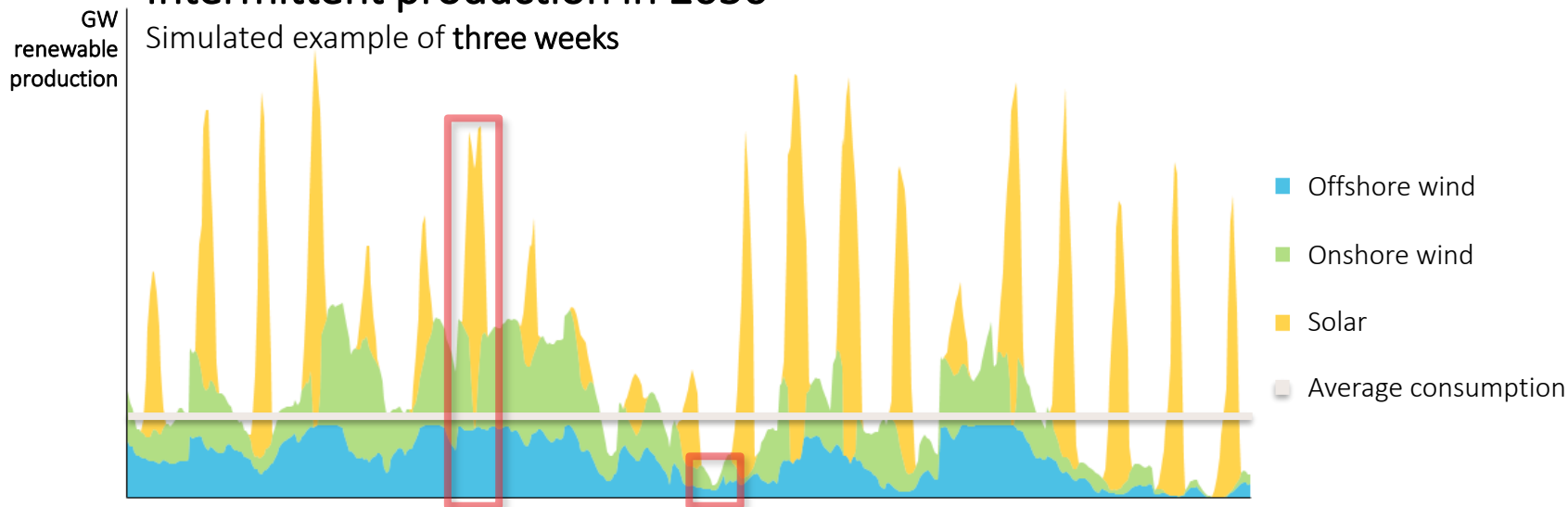


Variation from massive surplus to painful shortages

Building a renewable and resilient energy system is hard – flexibility is key

Intermittent production in 2050

Simulated example of three weeks



How to handle jumps of **many 100 GWs** of production?

We need more grid – a lot will be offshore

Connecting markets and sharing resources benefits all

EU offshore strategy

Capacity goals

In 2021:



By 2030:



By 2050:



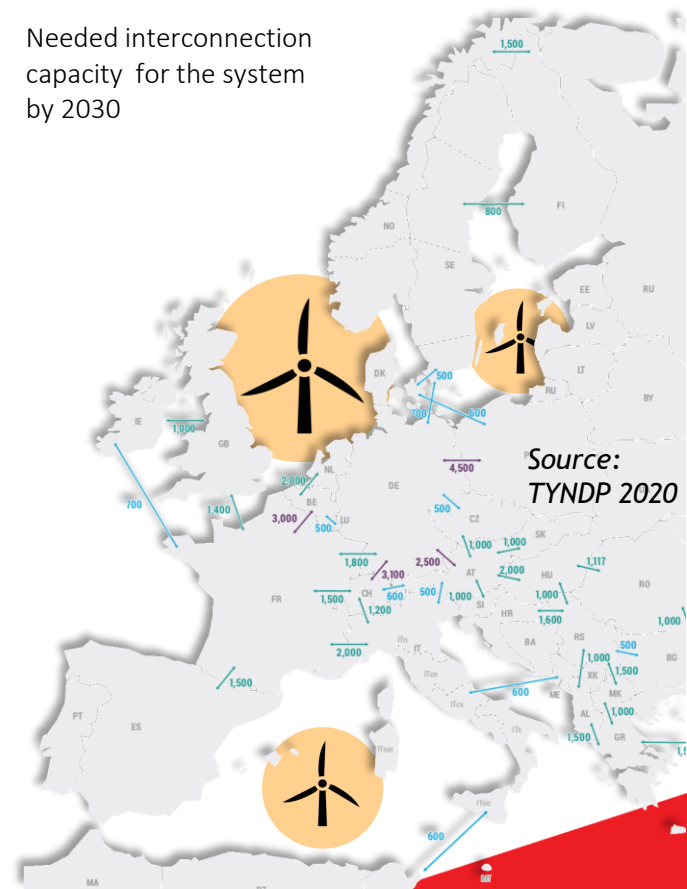
Fit for 55

55% reduction in 2030

EU's solution to global warming

- Higher renewables targets
- Higher carbon pricing
- Higher emissions reductions targets
- More green energy pushes sector coupling and digitalization

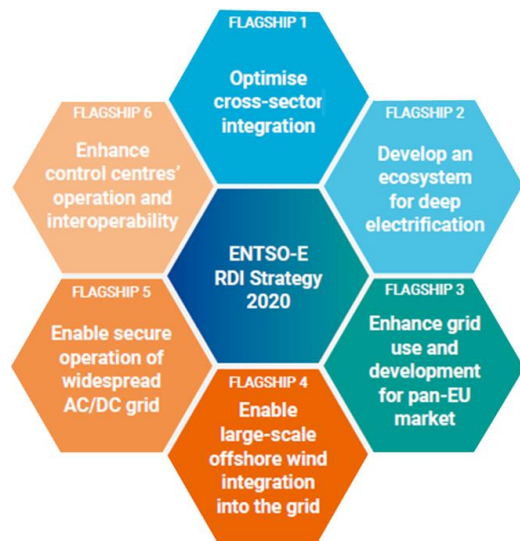
Needed interconnection capacity for the system by 2030



Acceleration of innovation implementation

Crucial to reach decarbonization targets

Knowledge building



- ENTSOE RDI Roadmap 2020-2030
- Implementation Report
- Position papers

Demonstration



- Focused RDI programs
- Effective Partnerships
- Cross national perspective

Investments



- Natural environment for efficiency investments, Risk taking, Social welfare creation, ...