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ESPON seminar

Territorial perspective of green industrialisation

14-15 June 2023 in Luleå, Sweden

“Territorial perspective of green industrialisation”

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Content of the working paper

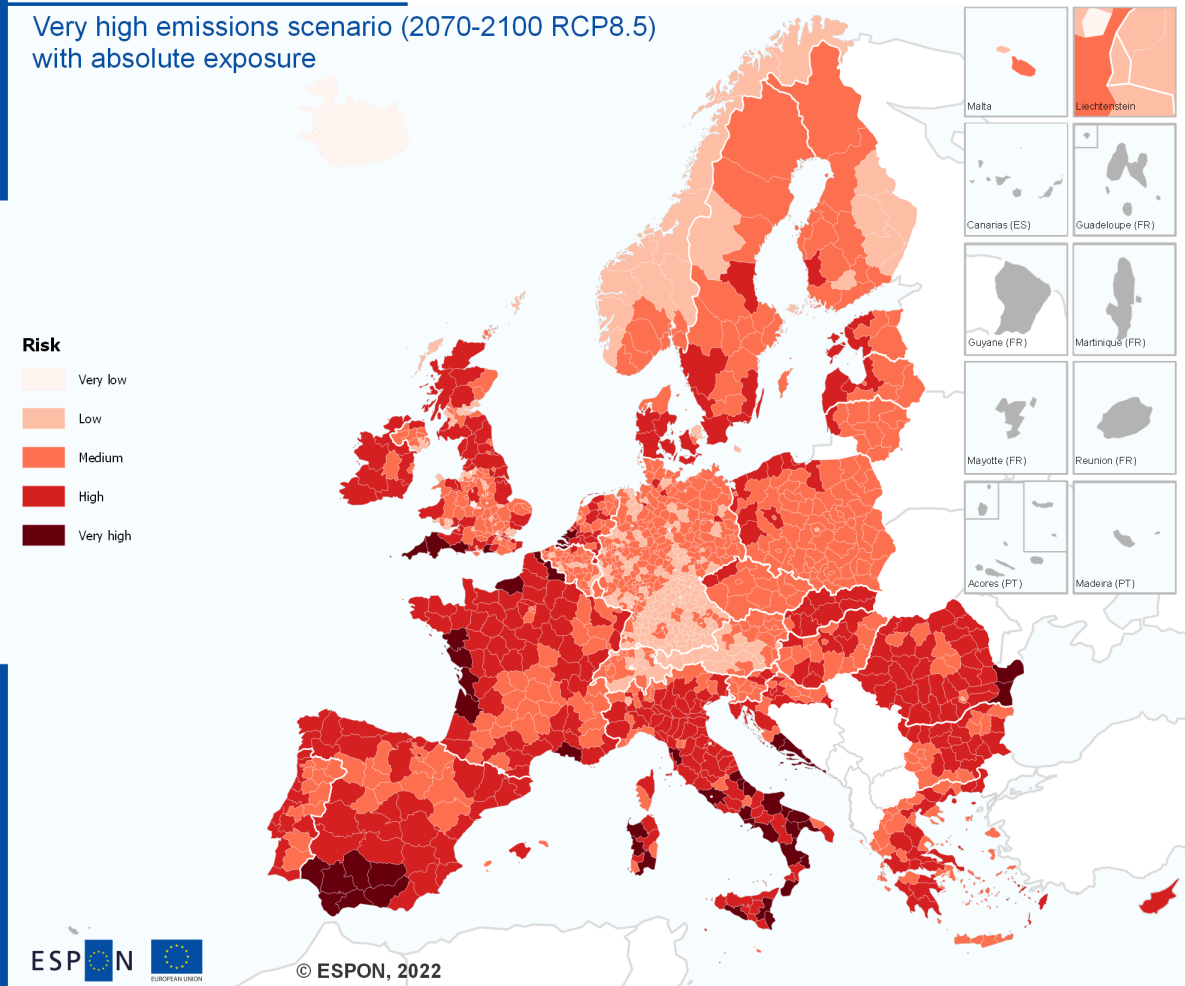
- Why do regions need green industrialisation? (chapter 1)
- Green industrialisation as part of the solution to global challenges (chapter 2)
- What do regions need for achieving green industrialisation? (chapter 3)
- Conclusions and policy recommendations (chapter 4)

Dealing with climate risks

- Increased risk for regions to be affected by climate induced hazards towards end of 21st century
 - ecosystems, economic sectors, human health and wellbeing continue to be adversely impacted
 - regions continuously need to improve their adaptive capacity
- European Green Deal aims at climate-neutral Europe by 2050
- Clean green/blue energy required to reduce GHG emissions

RISK - Aggregated risk

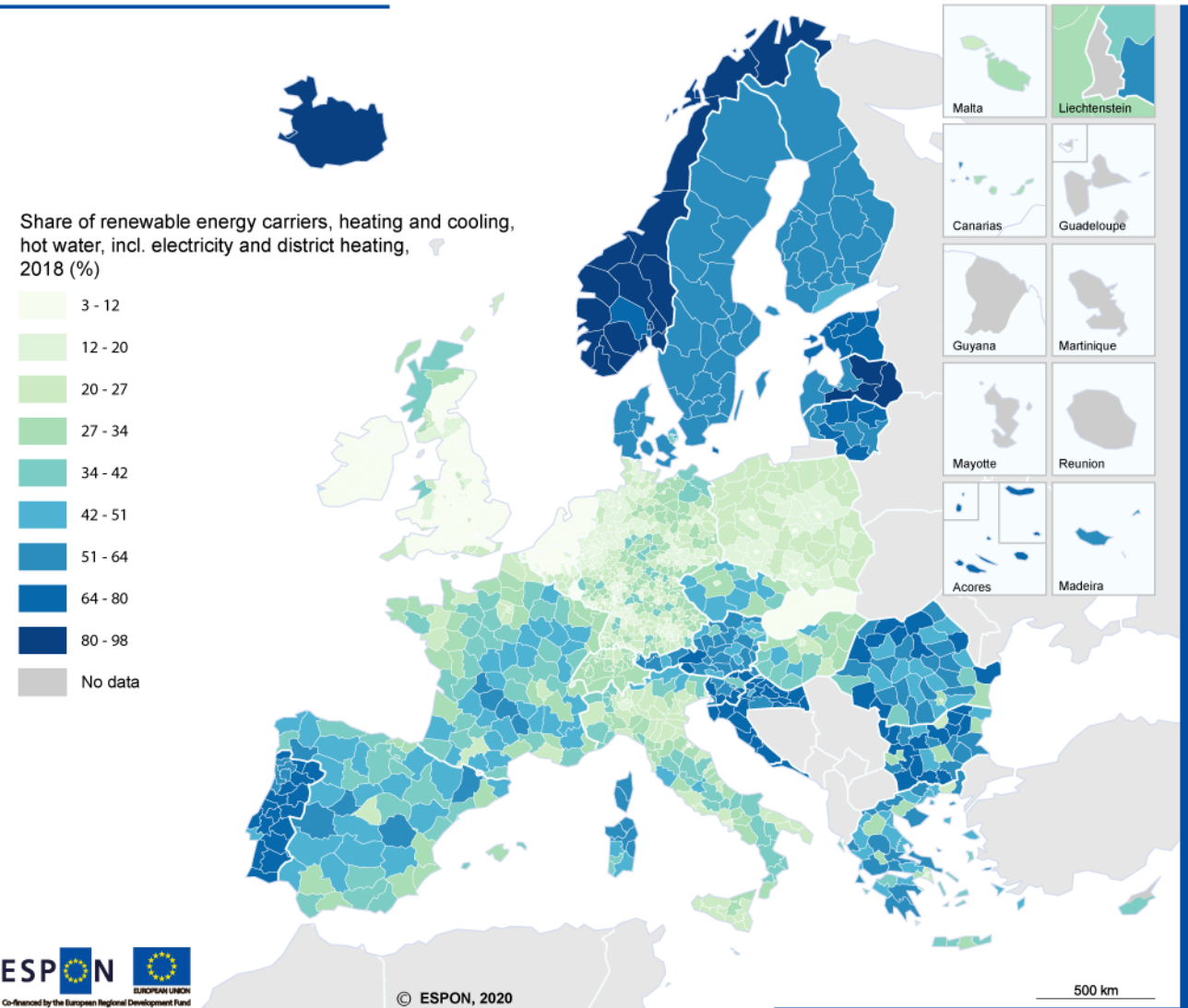
Very high emissions scenario (2070-2100 RCP8.5)
with absolute exposure



The clean energy challenge

- Higher energy prices in wake of Ukraine war accelerated need for energy transition
- ESPON research shows that energy transition advances at different rates across Europe but i altogether too slow
- Territorial potential for renewable energy deployment does not automatically correspond to high shares of renewable energy use
- Strong policies and market conditions are key i renewable energy deployment
- Green industrialisation plays vital role in energ transition

RES in residential buildings, 2018





Picture source: Bastian Pudill, Unsplash

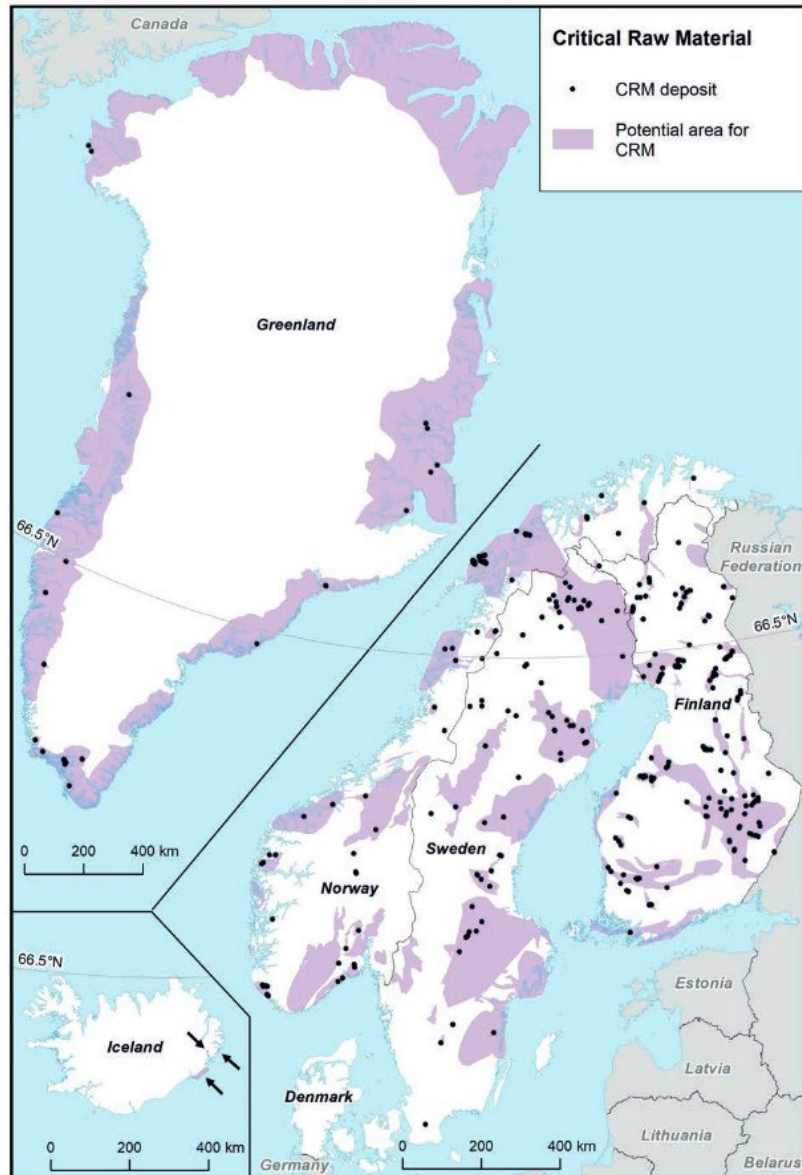
Green industrialization: A definition

- Green industries = promote sustainable patterns of production and consumption
- Important transformations:
 - From fossil fuel to renewable energy sources
 - Increase in resource efficiency
 - Transition to a circular economy

Benefits of a green industrialisation

- Deliver on climate goals
- Improve competitiveness
- Reduce costs and improve resilience
- Increase productivity
- Create jobs
- Attract/fix population to some areas
- Improve health and wellbeing
- ...





A transition on its way in Sweden

- -27% decline in greenhouse gas emissions from production since 2008
- More efficient production technologies, adoption of renewable energy sources, green innovation, changed consumption patterns
- Green investments in Norrland: around 98 billion Euro committed
- Key factors: Accessible and cheaper renewable energy and supply of raw materials
- Challenges: meeting the increasing demand for renewable energy, domestic material consumption

Source: Pasi et al. (2021)

Figure B. Locations of deposits with known critical raw material resources and areas with known or assumed potential for additional CRM resources in the Nordic countries.

Wrapping up

- Green industrialisation as enabler for sustainable development
- Involves **systems change**
- Brings opportunities but also challenges
- Requires planning and anticipation

Picture: Stockholm's Kungsgatan Street, September 3, 1967
First morning after 'Dagen H', the day when Sweden changed from driving on the left side to driving on the right
Source: @HistoryInPics



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Thank you!

Presentations can be downloaded from the ESPON website after the event.