



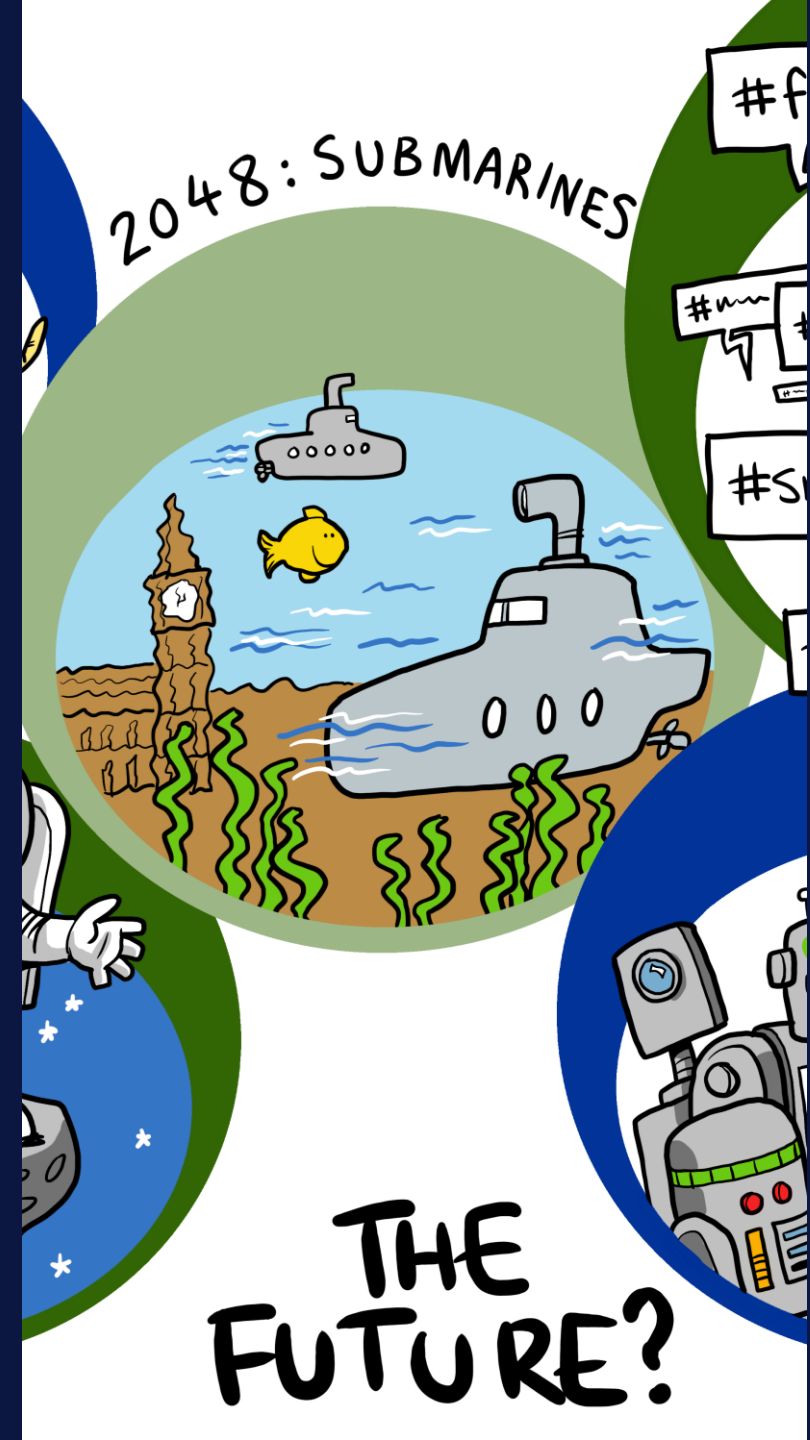
// What if Europe had only renewable energy by 2030? (territorial foresight)



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What if Europe

had a fully renewable energy
system by 2030?



Fully renewable energy system

- Regional renewable energy generation
- Reduction in energy consumption
- Regional production systems
- Regional transport and mobility

by 2030



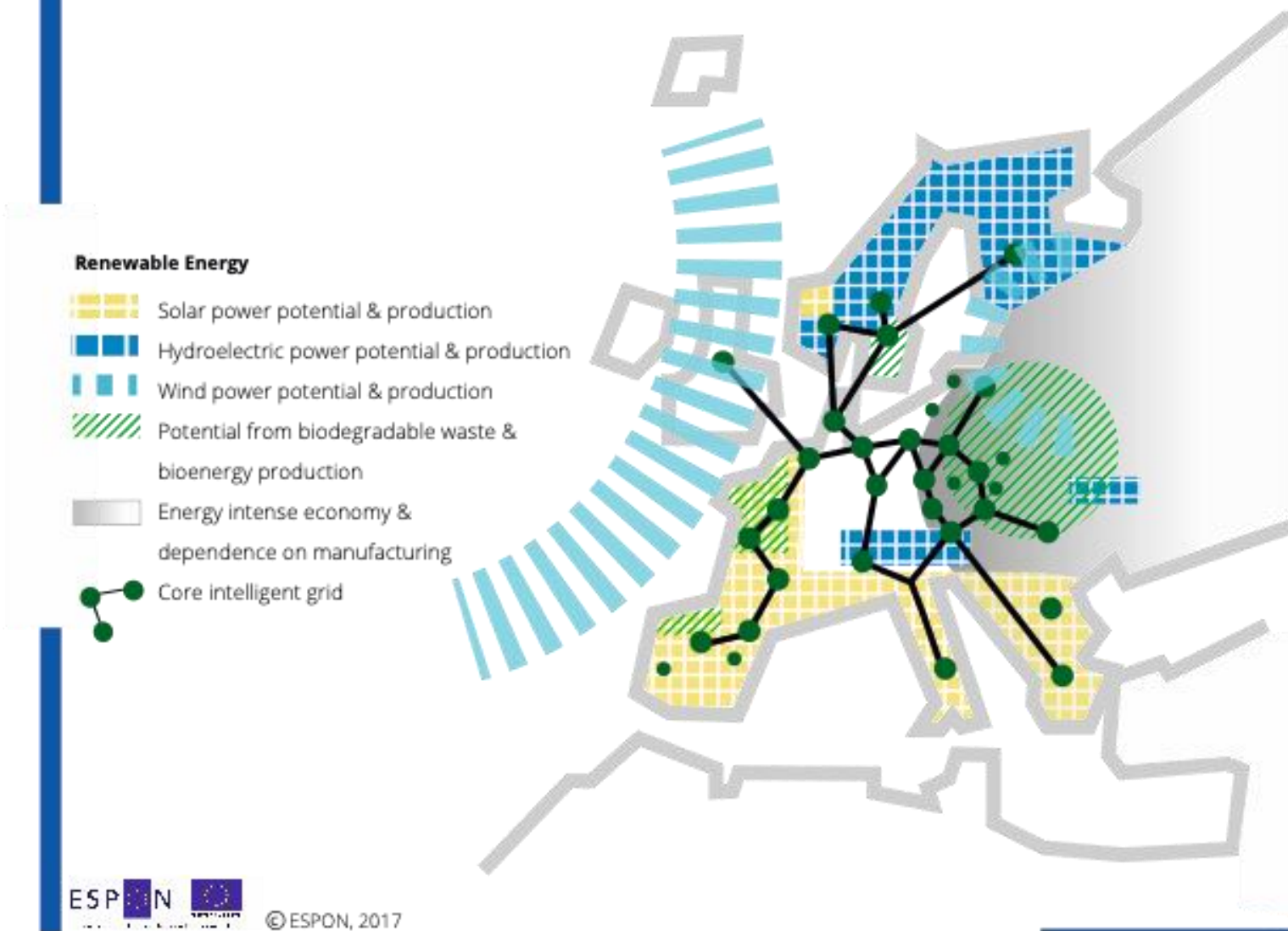
**More
renewable
energy**



**Less energy
consumption**

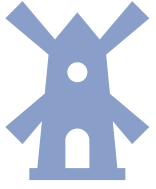


Renewable Energy: Integrated Place-based & Network-based Territorial Foresight



Source: MCRIT, Spatial Foresight,
Possible European Territorial Futures (2017)









Regional renewable energy generation

Territorial implications

- Benefit for regions with high potentials for production for renewable energy
- Land use and environmental conflicts in densely populated areas with high potentials for production for renewable energy
- Transition is easier for regions with already high levels of production of renewable energy
- Regions with low economic performance will find it harder to mobilise the huge investments needed



Renewable Energy

-  Transport energy consumption & GVA/employment in transportation
-  Household energy consumption
-  Household energy consumption & high risk of energy poverty
-  Energy intense economy & dependence on manufacturing



Reduction in energy consumption

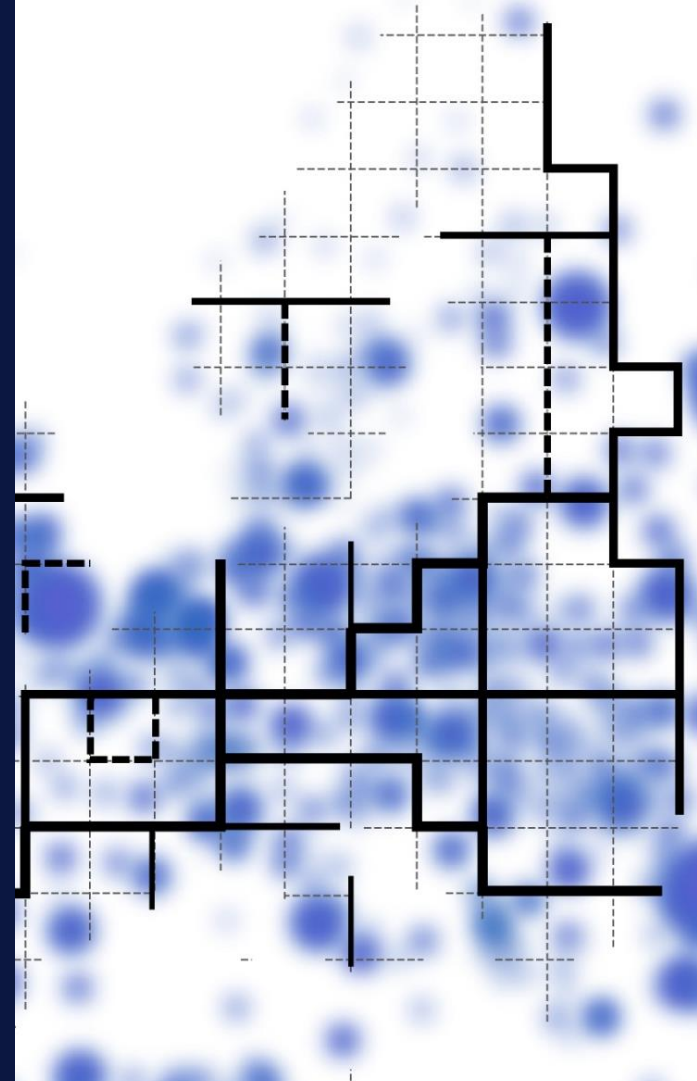
Territorial implications

- Risk of energy poverty in areas with high per capita household energy consumption and low disposable household income
- Energy-intense economies will be highly impacted and might see some of their industries move abroad
- Remote regions will experience a substantial loss in accessibility due to the increase in transport costs (no flights ?)
- Peripheral regions, remote tourism regions, transport hubs will be heavily affected by the transport cost increase



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Overall territorial consequences



Fully renewable energy system

- **Potential energy exporters**, regions with high renewable energy potential and sufficient
- **Inability to finance the necessary investments** in energy infrastructure may increase disparities
- **Mainly outside central-city locations**, house energy self-production will mostly benefit house owners
- **Peripheral areas** will suffer from higher transport costs
- **Just transition regions**, with energy-intensive industries, suffer



<p>SOCIO-ECONOMIC</p>	<p>←-----○ Ability to finance investments into additional energy production capacity and infrastructure</p> <p>←-----○ Increase in energy costs for households</p> <p>←-----○ Loss in GVA and employment created by the transport sector and freight transport hub function</p> <p>←-----○ Loss of accessibility as transportation becomes increasingly expensive and air transport uneconomical</p>
<p>DEMOGRAPHIC CHANGE</p>	<p>←-----○ Loss in GVA and employment created by the transport sector and freight transport hub function</p>
<p>ENVIRONMENT</p>	<p>←-----○-----→ Availability of additional RES potential and existing generation capacity</p> <p>←-----○ Obsolence of fossil fuel extraction and fossil fuel/nuclear-based energy production infrastructure</p> <p>←-----○ Ability to finance investments into additional energy production capacity and infrastructure</p>
<p>TECHNOLOGY</p>	<p>←-----○ Rising energy costs</p>

○ Most likely situation in 2030

→ In case of a 100% renewable energy, likely change towards territorial balance

←--- In case of a 100% renewable energy, likely change towards territorial imbalance

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As for the future ...

#TerritorialAgenda

A future for all places

A future for all places #TerritorialAgenda

Territorial Agenda 2030

Draft Priorities

www.territorialagenda.eu



Balanced Europe

Better balanced territorial development and less inequalities in Europe

Functional Regions

Local and regional development and less inequalities between places

Integration beyond borders

Living and working across borders

Healthy Environment

Better common ecological livelihoods and climate neutral cities and regions

Circular Economy

Strong and sustainable local economies in a globalised world

Sustainable Connections

Sustainable digital and physical connectivity of places





EUROPEAN UNION

Co-financed by the European Regional Development Fund

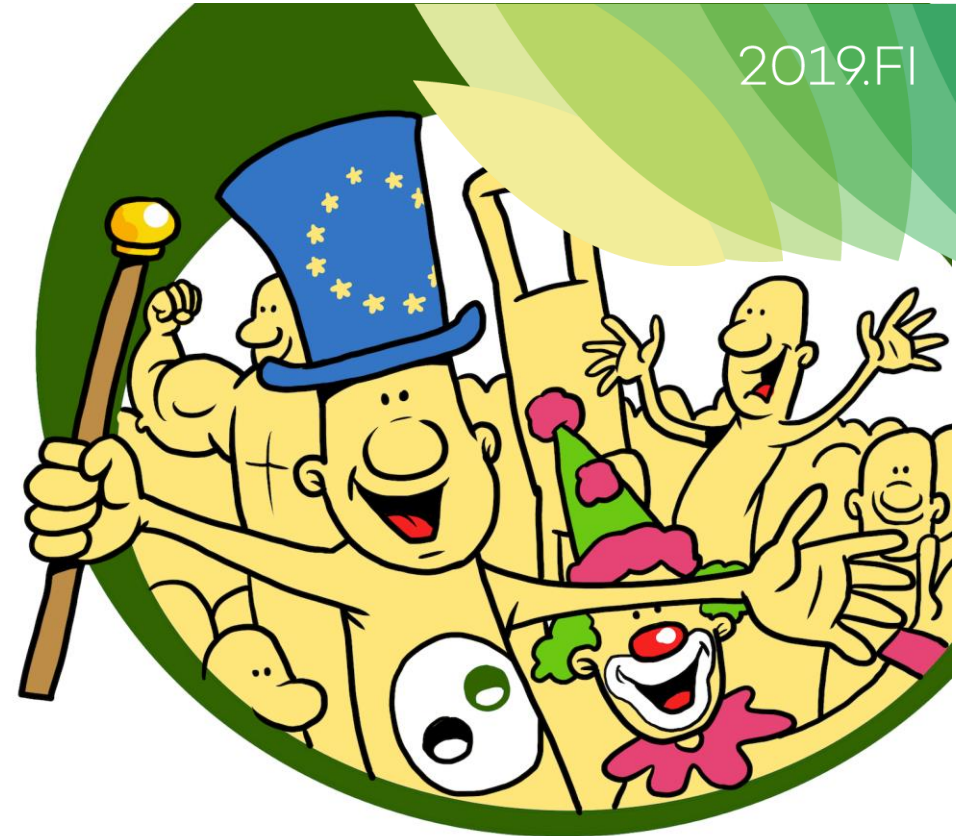
Inspire Policy Making with Territorial Evidence

// Thank you

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This presentation will be made available at: www.espon.eu/Helsinki-2019

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- holds PhD in Management Science from the University of Nijmegen (Netherlands) and a Masters in Spatial Planning from the University of Dortmund (Germany)
- specialises in European regional and territorial research and policies, international comparative studies in the fields of regional development policies, spatial planning, territorial governance and territorial impacts of sector policies
- has a truly European background and considerable experience in policy advice at European and national level as well as in the management of international applied research and consultancy projects
- Works currently on the drafting of the new renewed Territorial Agenda to be adopted in December 2020

