

# ESPON BT 2050

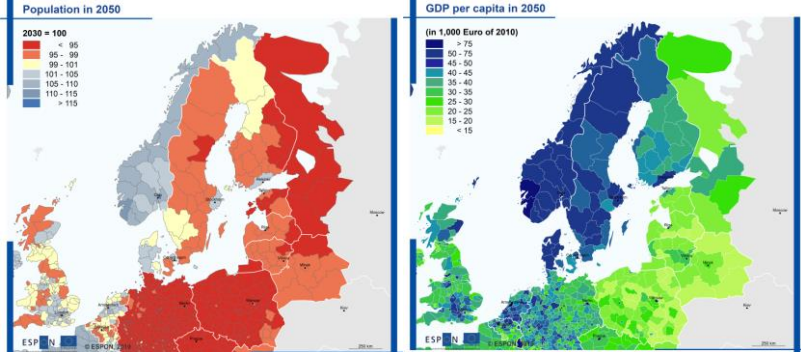
## Territorial Scenarios for the Baltic Sea Region

Gustaf Norlén, Nordregio

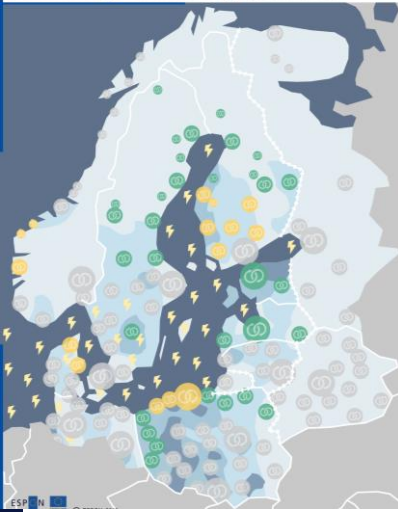
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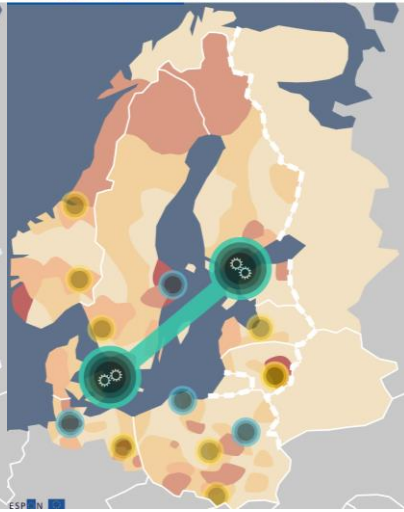
# The ESPON BT2050



Circular Economy in the Baltic Sea Region, Scenario 2050



Green-tech giants and global attractiveness in the Baltic Sea Region, Scenario 2050



Transport and urban hierarchy in the Baltic Sea Region, Scenario 2050



# Aim & outcomes

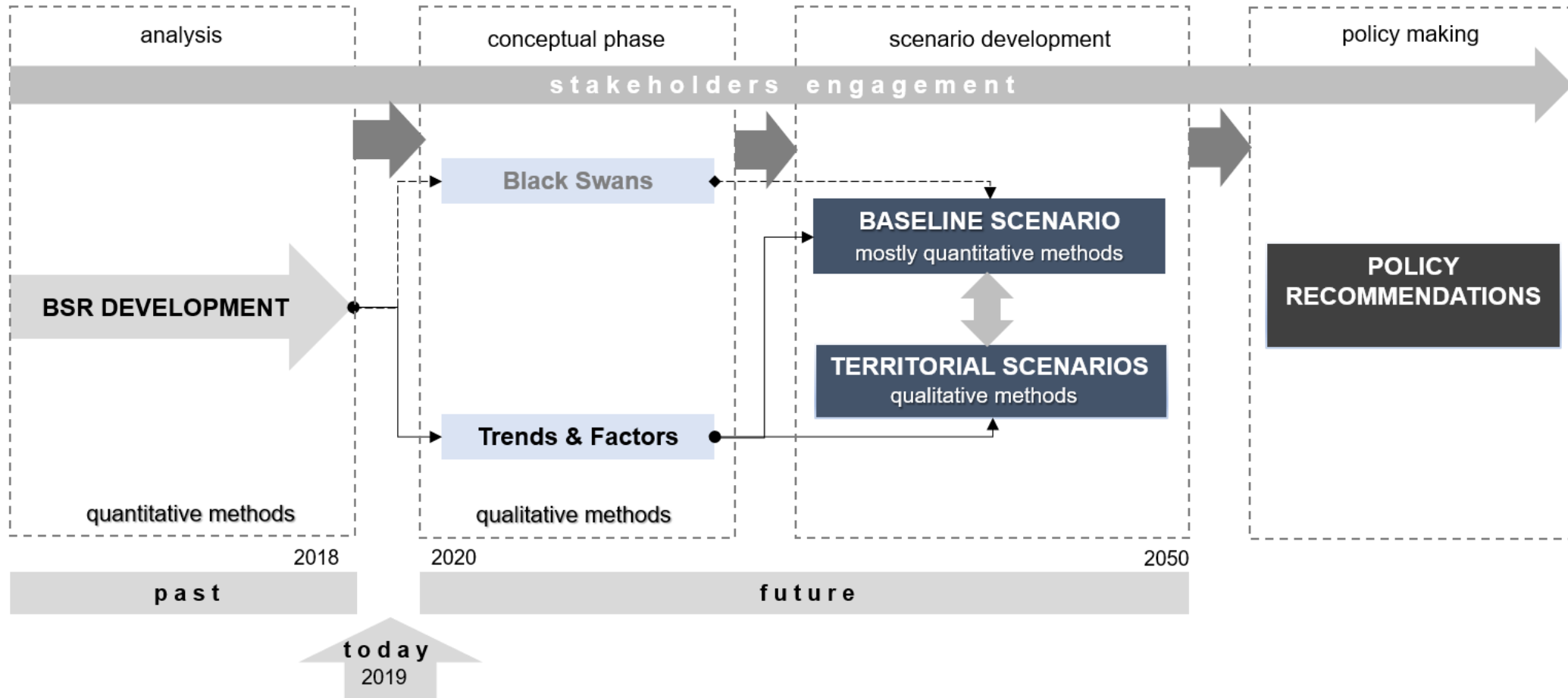
## Aim:

- Develop territorial scenarios for the BSR in order to increase evidence based on the territorial dimension
- Support the VASAB members in their work of designing and implementing sound policies for the future of the Baltic Sea Region

## Main outcomes:

- An overview of the development of the region based on recent data
- Baseline Scenario for the Baltic Sea Region for the years 2030 and 2050.
- Two alternative territorial scenarios for the BSR 2050.
- Policy recommendations for the future of the Baltic Sea Region

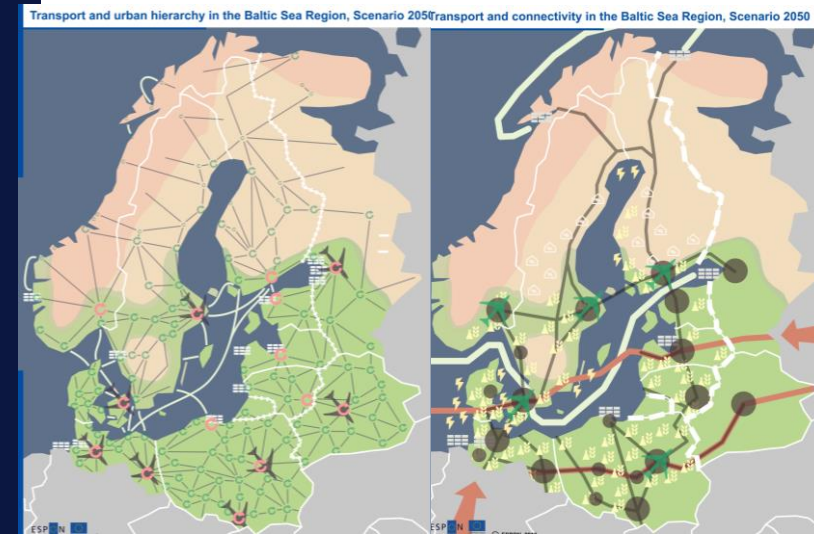
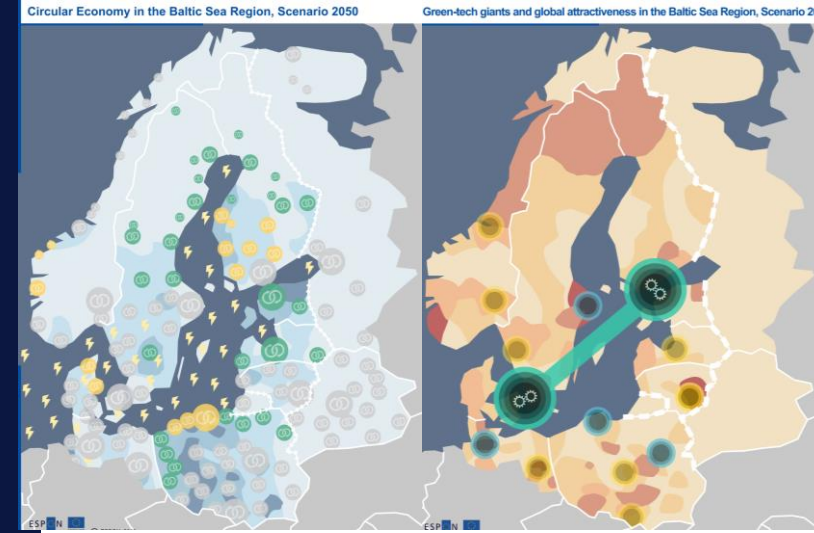
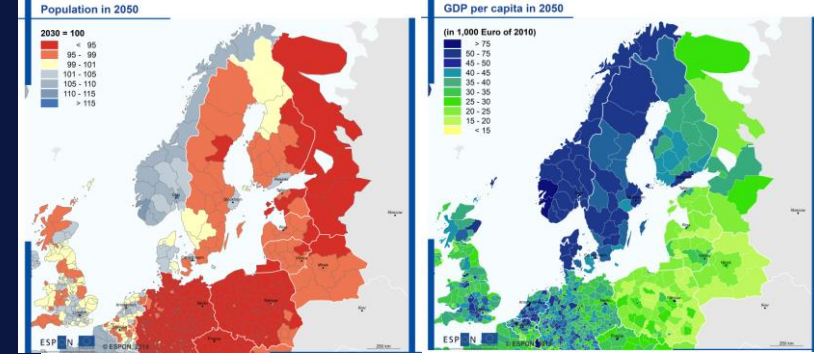
# ESPON BT 2050 – research framework



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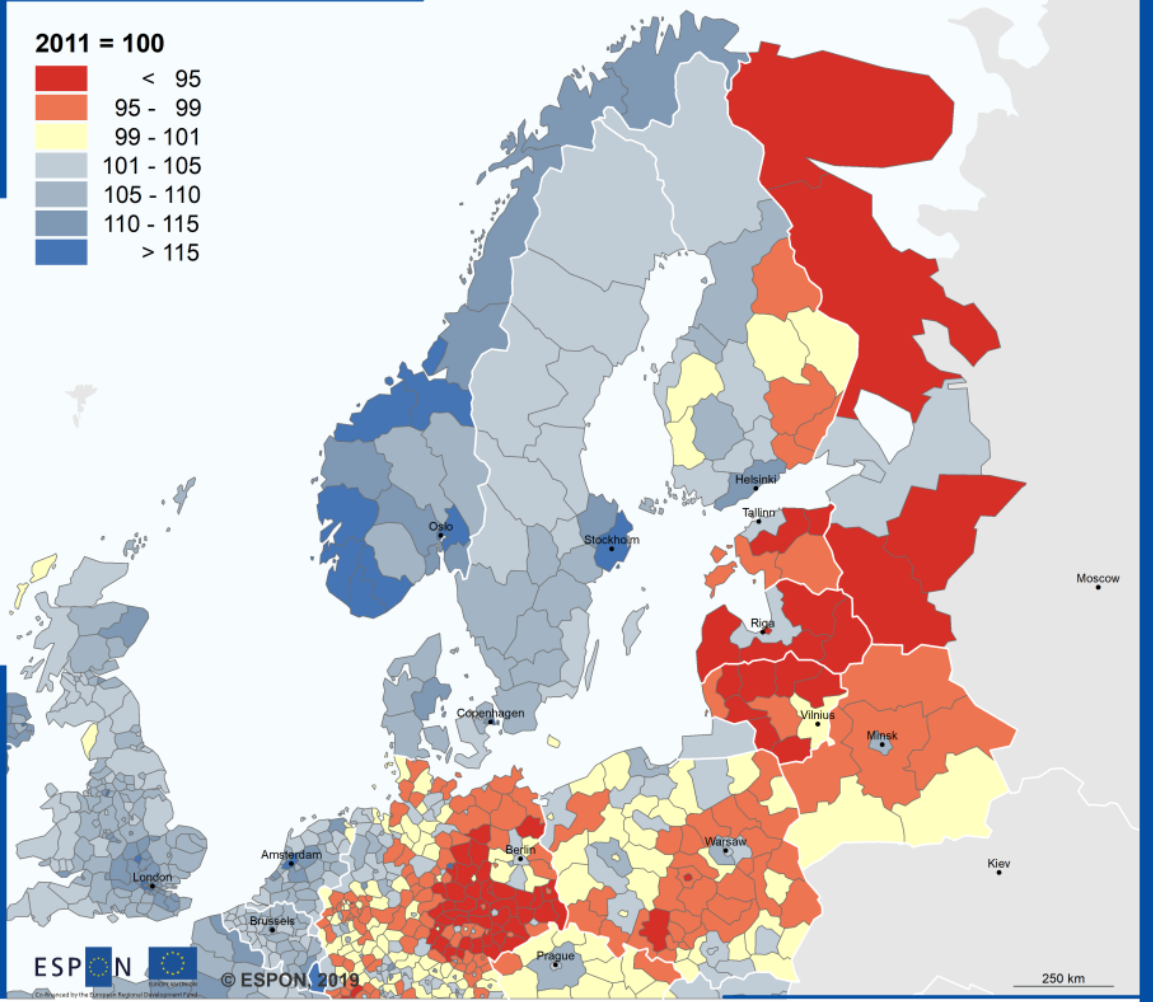
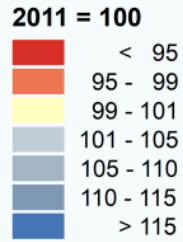
# BT2050: territorial perspectives

## Baseline Scenario



# Baseline scenario - population development

Population in 2030



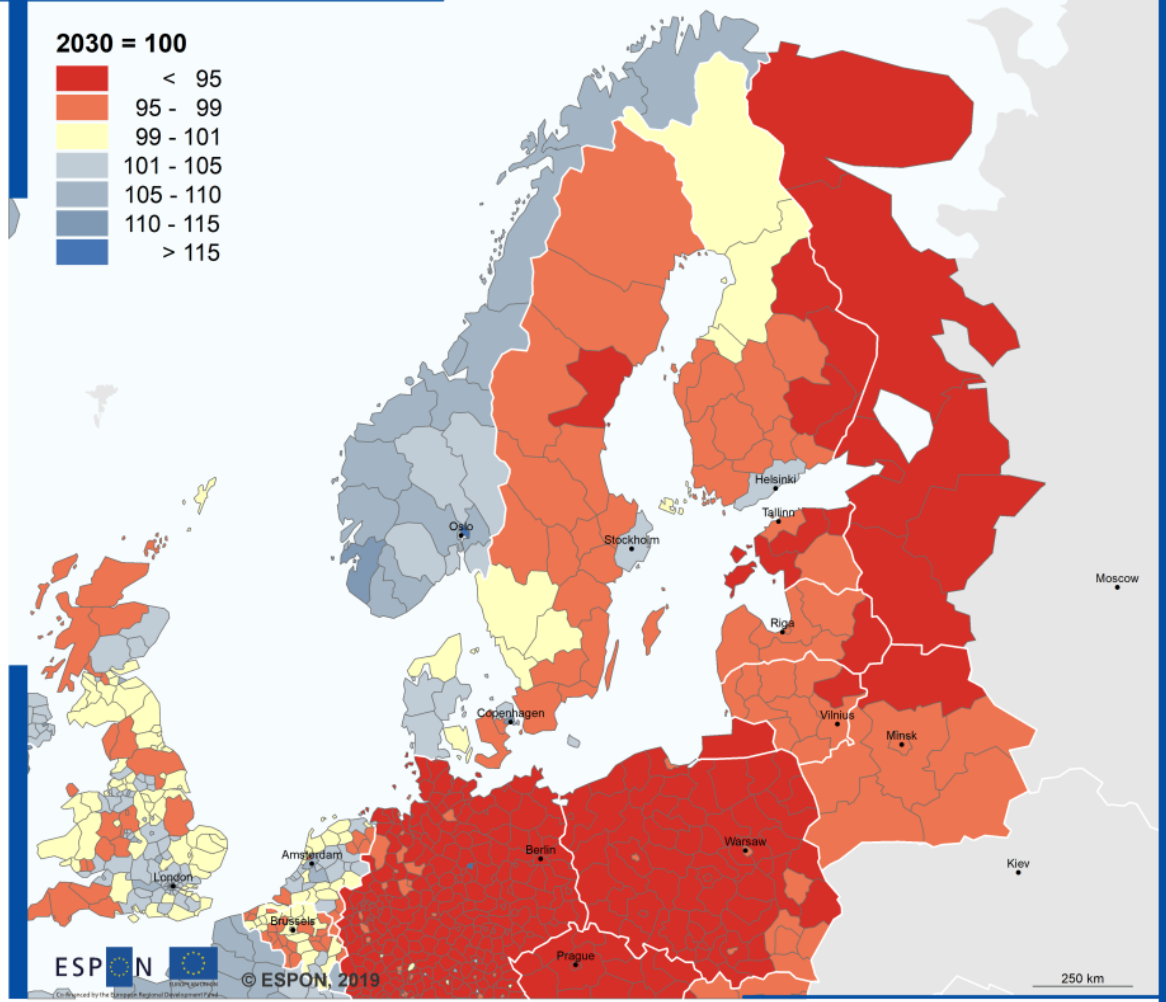
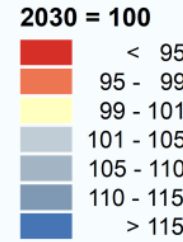
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250 km

Territorial level: NUTS 3 (Vers. 2016), SNUTS 2 (BY, RU)  
 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
 Urban and Regional Research (S&W), 2019  
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Map 1: Population in 2030 (2011=100) in the BSR  
 Source: S&W, SASI Model, 2019

Population in 2050



© ESPON, 2019

250 km

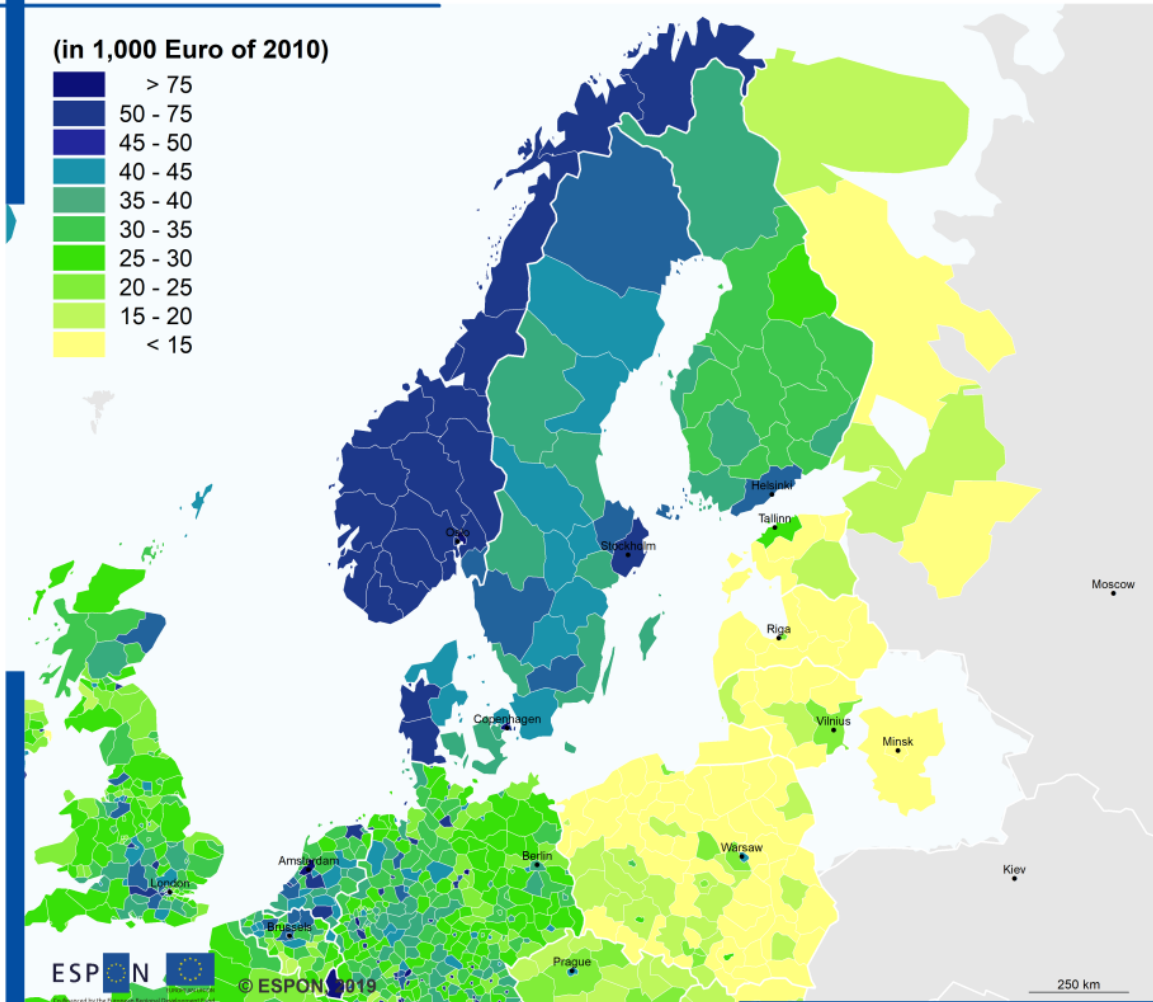
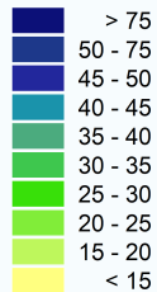
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 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
 Urban and Regional Research (S&W), 2019  
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Map 2: Population in 2050 (2030=100) in the BSR  
 Source: S&W, SASI Model, 2019

# Baseline scenario – GDP 2030

## GDP per capita in 2030

(in 1,000 Euro of 2010)



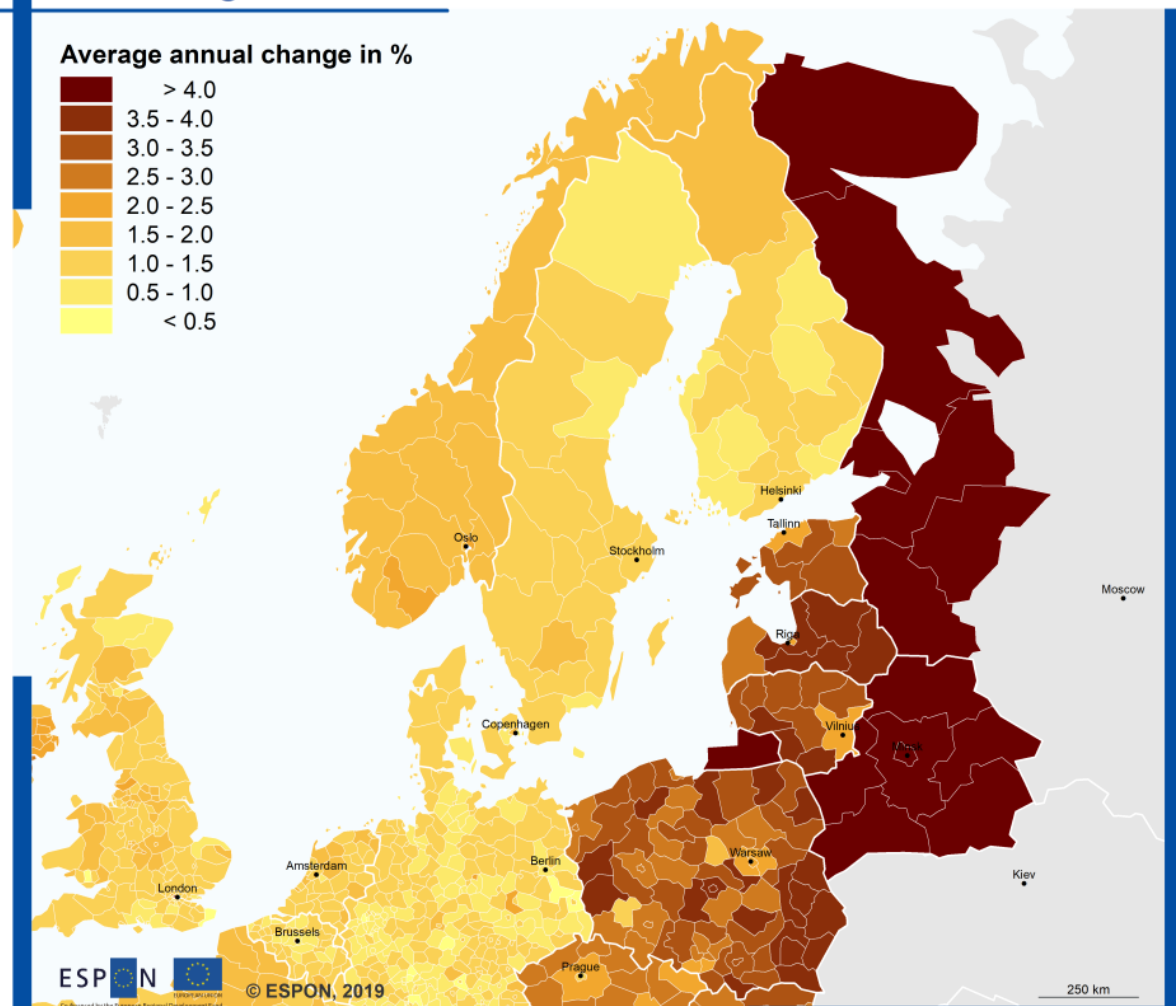
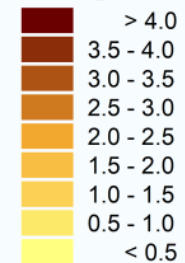
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Territorial level: NUTS 3 (Vers. 2016), SNUTS 2 (BY, RU)  
 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
 Urban and Regional Research (S&W), 2019  
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Map 3: GDP per capita in 2030 (in 1,000 Euro of 2010) in the BSR  
 Source: S&W, SASI Model, 2019

## GDP change 2016-2030

Average annual change in %



ESPON © ESPON, 2019

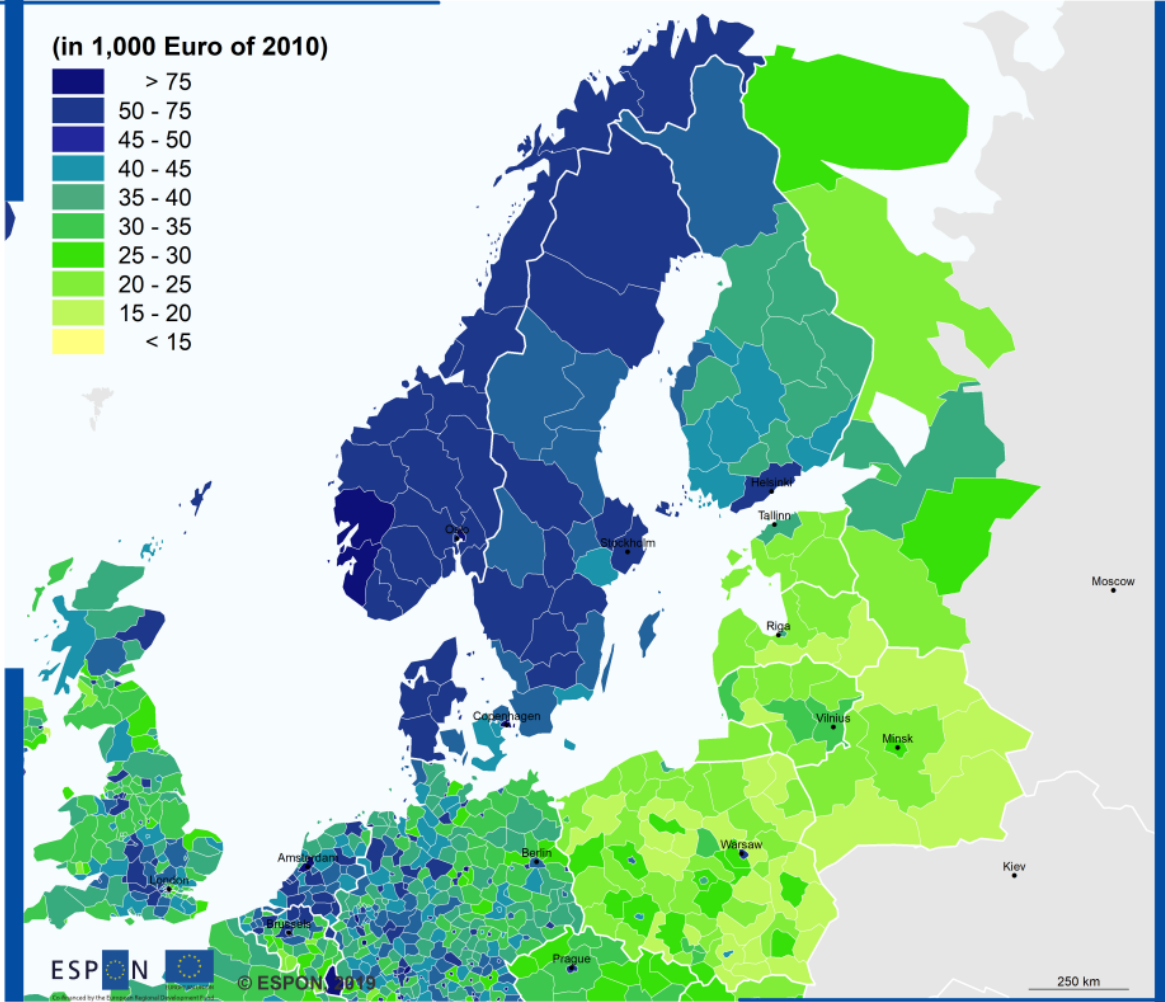
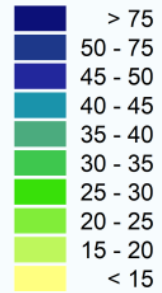
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 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
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Map 4: GDP change 2016-2030 (average annual change in %) in the BSR  
 Source: S&W, SASI Model, 2019

# Baseline scenario – GDP 2050

## GDP per capita in 2050

(in 1,000 Euro of 2010)



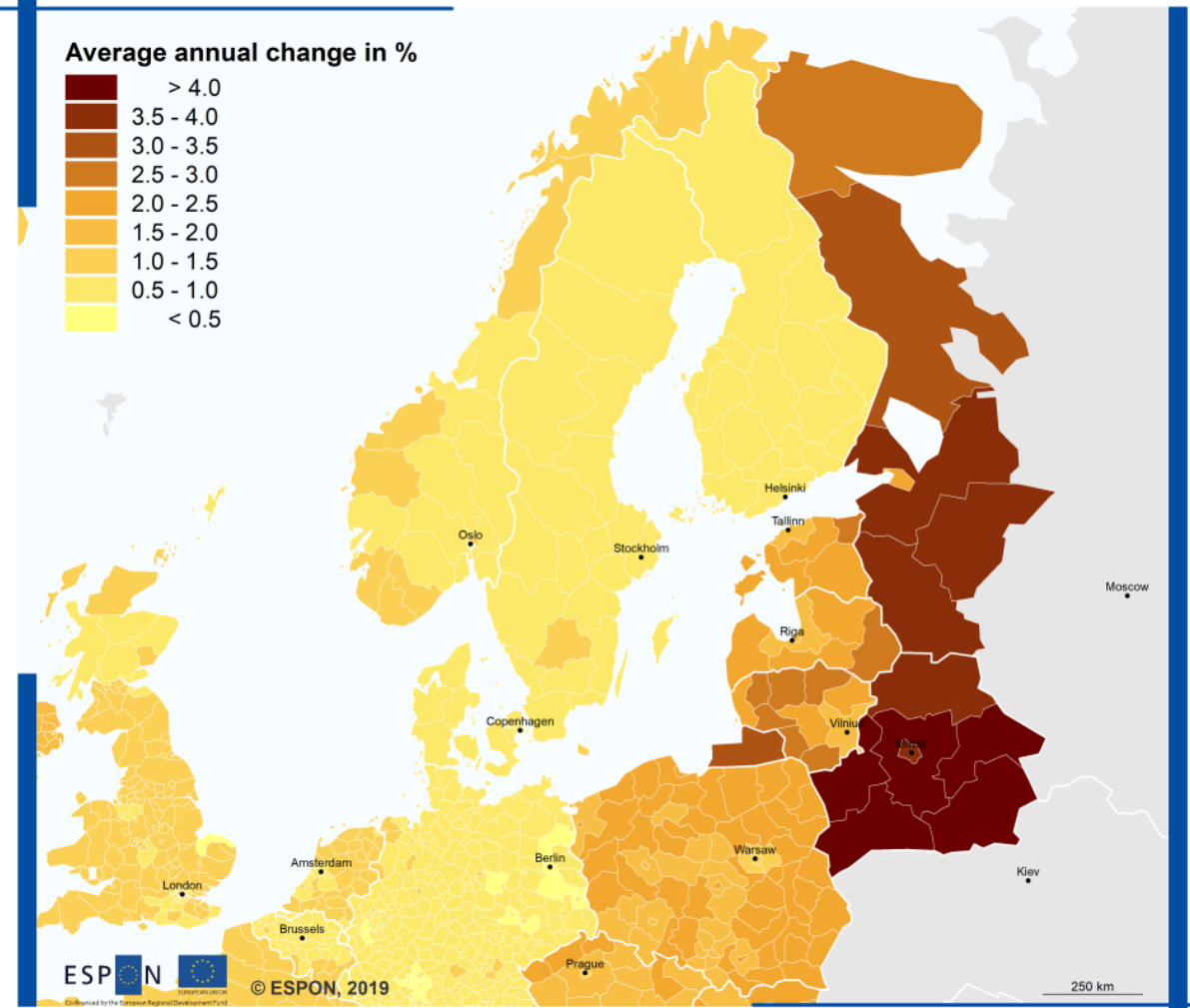
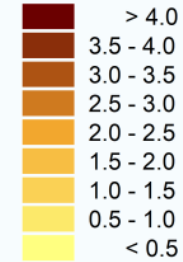
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Territorial level: NUTS 3 (Vers. 2016), SNUTS 2 (BY, RU)  
 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
 Urban and Regional Research (S&W), 2019  
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Map 5: GDP per capita in 2050 (in 1,000 Euro of 2010) in the BSR  
 Source: S&W, SASI Model, 2019

## GDP change 2030-2050

Average annual change in %



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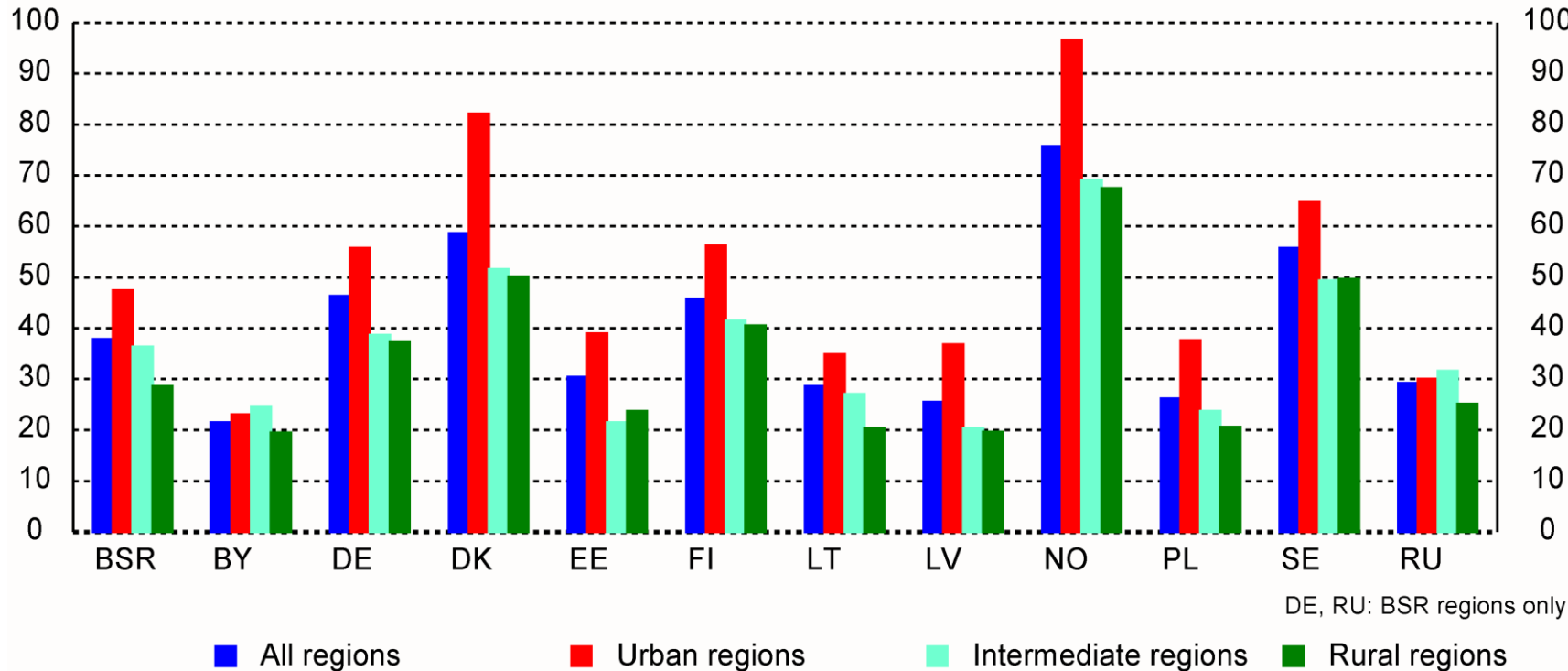
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 Source: ESPON BT2050, 2019  
 Origin of data: SASI Model, Spiekermann & Wegener,  
 Urban and Regional Research (S&W), 2019  
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Map 6: GDP change 2030-2050 (average annual change in %) in the BSR  
 Source: S&W, SASI Model, 2019



# Baseline Scenario: territorial implications

GDP per capita, 2050  
(in 1,000 Euro of 2010)

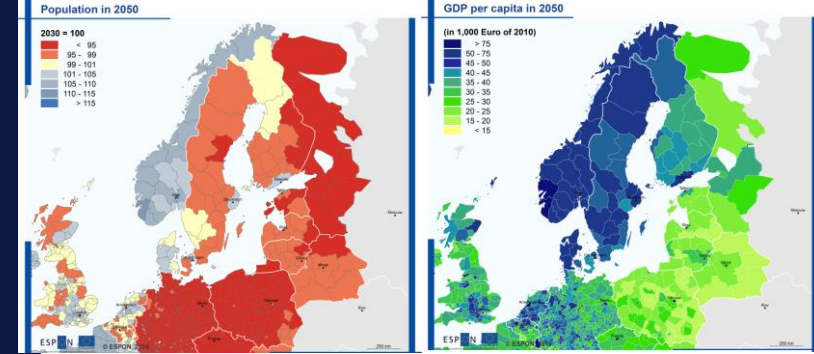


- Urban areas have much higher GDP per capita than intermediate and in particular rural areas.
- Urban areas of the Nordic countries have the highest economic performance by 2050, one of the reasons for the positive population development there.

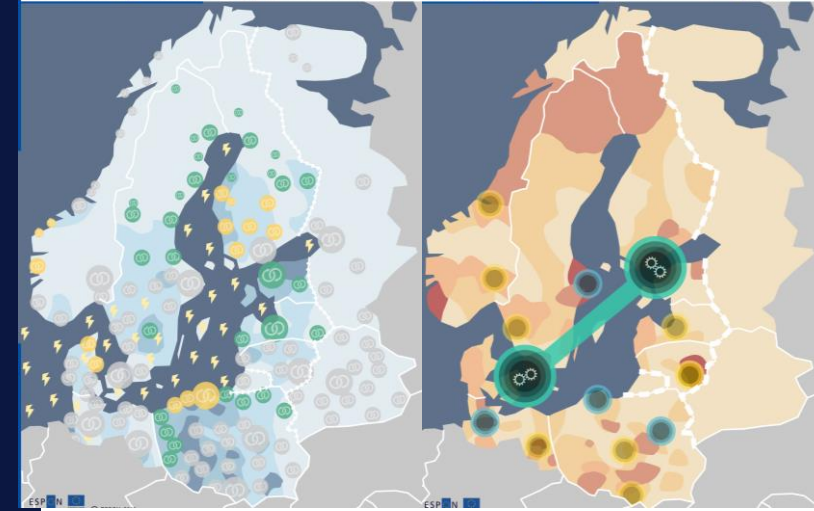
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# BT2050: territorial perspectives

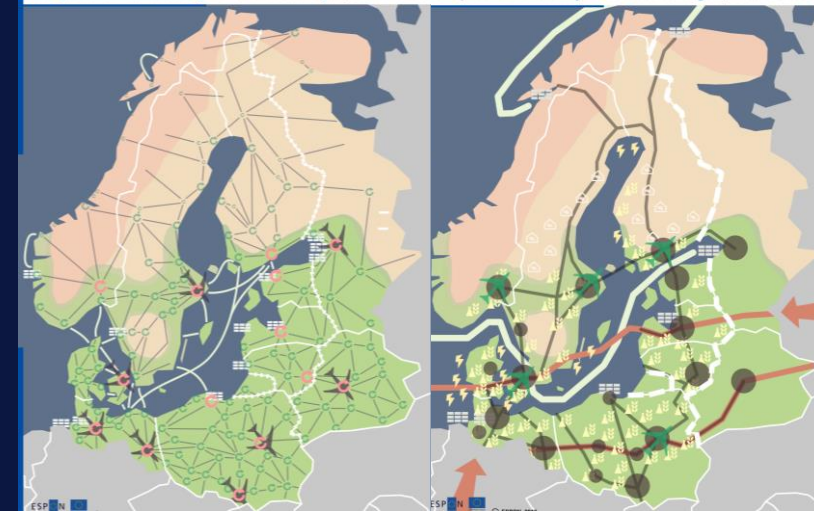
# Territorial Scenarios



Circular Economy in the Baltic Sea Region, Scenario 2050



Transport and urban hierarchy in the Baltic Sea Region, Scenario 2050

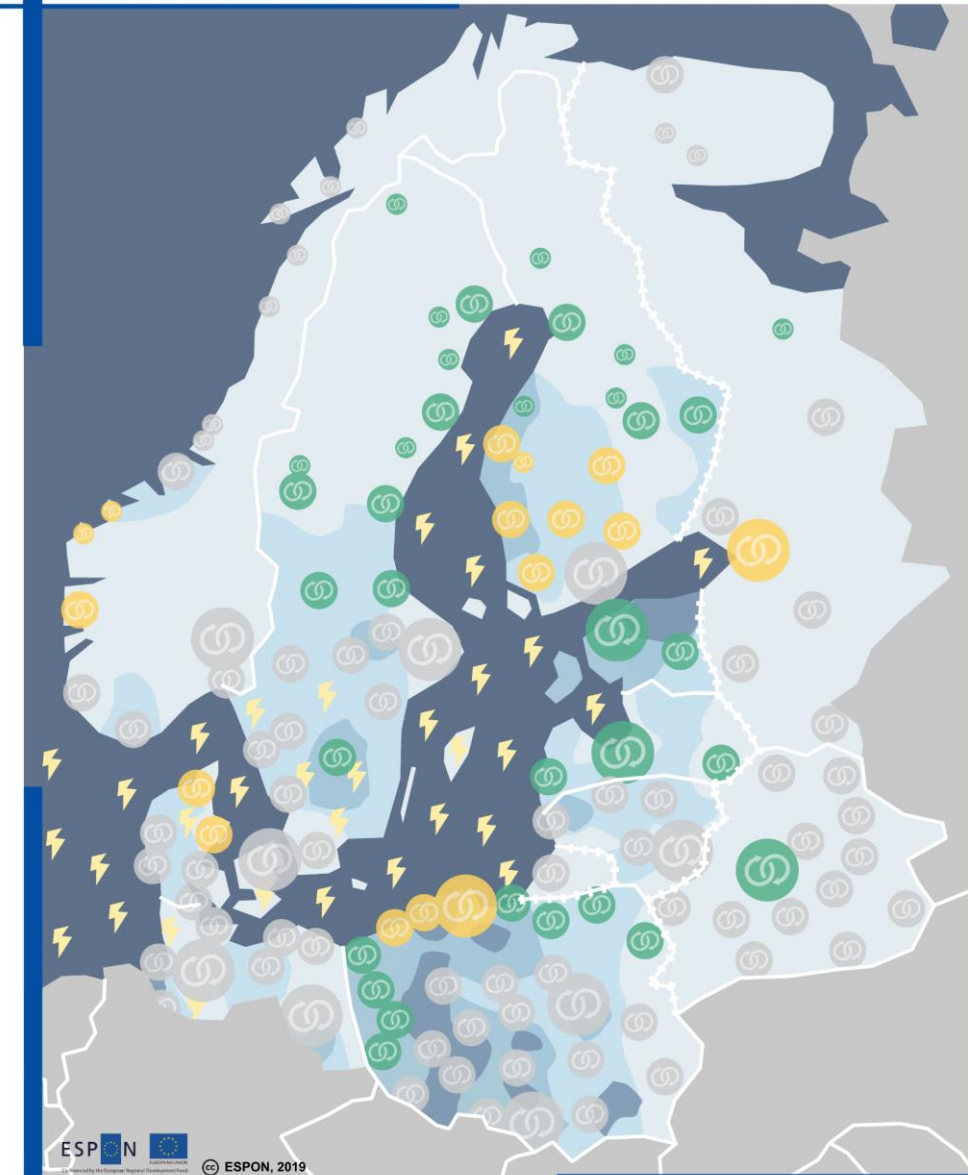


# Well-being in a Circular Economy: a RE-mind for a good life

- In 2050 the Baltic Sea Region has developed into a sharing and circular economy region, where citizens have consciously decided to change the existing linear economic model in favour of a better quality of life.
- A repairing and sharing culture, manufacturing and re-industrialisation and technology play a key role in this scenario.
- Bio and organic agricultural production is in focus, while agricultural practices have become less intensive.

# Well-being in a Circular Economy: a RE-mind for a good life

- Decentralised patterns: second and third tier cities and towns become the main centres, reducing the importance and concentration in metropolitan and large urban areas.
- Regional manufacturing networks with high potential are found in the north and the west of Poland, in the north east of Estonia and in some parts in Latvia and Lithuania, south of Sweden and South of Finland.
- Material and technology economic centres - in Aarhus and Aalborg in Denmark, in Gdynia and Gdansk in Poland, in Bergen, Norway, and in Finland - Turku, Tampere and Kuopio among others.



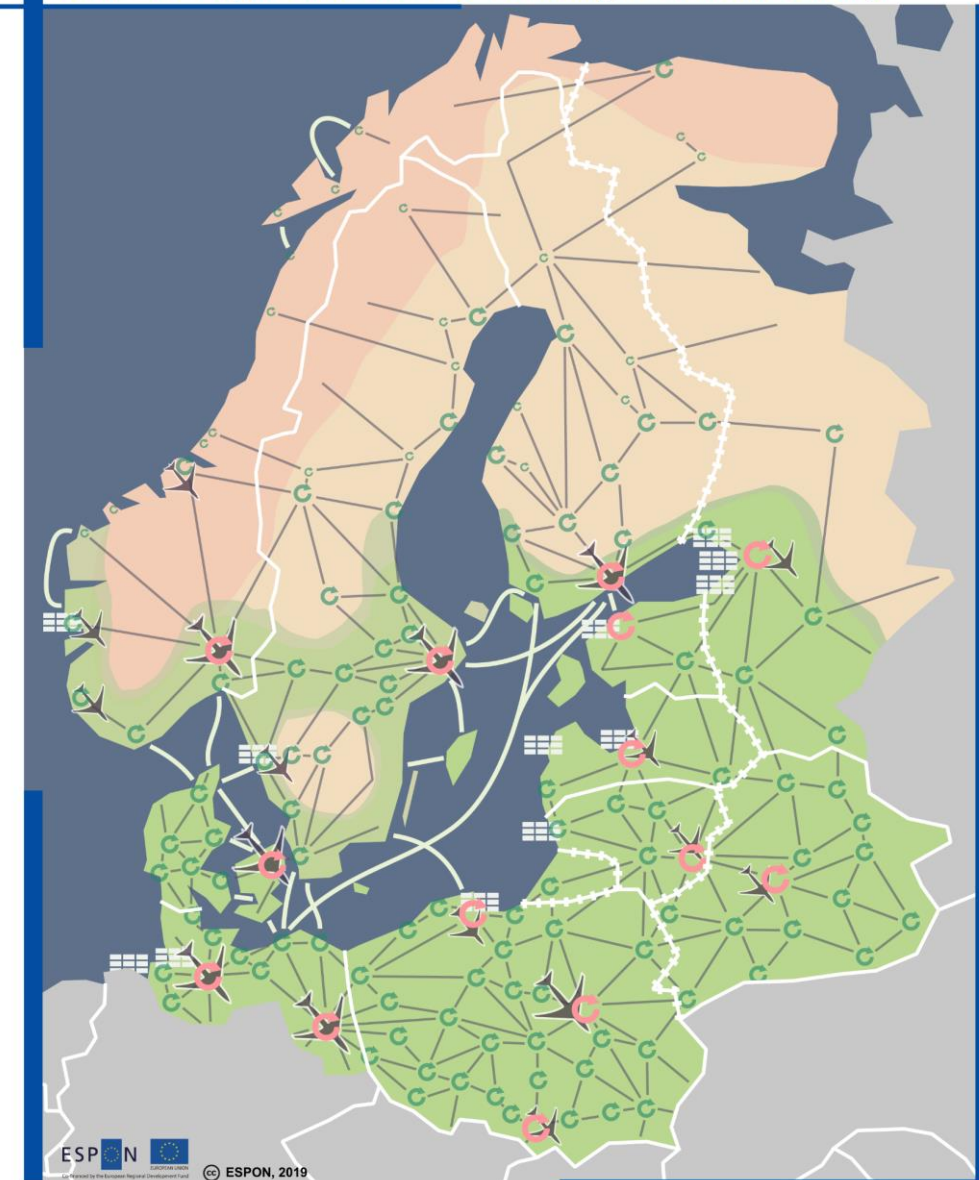
## Legend

- Economy with a focus on technology provision
- Economy with a focus on providing material
- Diversified circular economy
- ⚡ Renewable energy production
- High potential for regional manufacturing networks
- Low potential for regional manufacturing networks
- ★ Cooperation on external borders

Regional level: NUTS 0  
Source: ESPON BT2050 project, Spatial Foresight, 2019  
Origin of data: based on different quantitative and qualitative sources, such as Eurostat data, ESPON and VASAB reports, and BSR, national and regional studies  
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# Well-being in a Circular Economy: a RE-mind for a good life

- The importance of global and European airports in the region declines
- Agricultural and arable land in the southern part of the BSR (Poland, Lithuania, Latvia, north of Germany, parts of Russia and Belarus)
- The improvement of the environmental situation of the BSR is a priority of the citizens and governments



## Legend

- |   |                                 |   |                         |
|---|---------------------------------|---|-------------------------|
|  | Declining metropolis            |  | Declining large air hub |
|  | Gaining regional centre         |  | Declining small air hub |
|  | Regionalised transport network  |  | Declining sea hub       |
|  | Remaining sea routes            |  | Food production zone    |
|  | Cooperation on external borders |  | Limited food production |

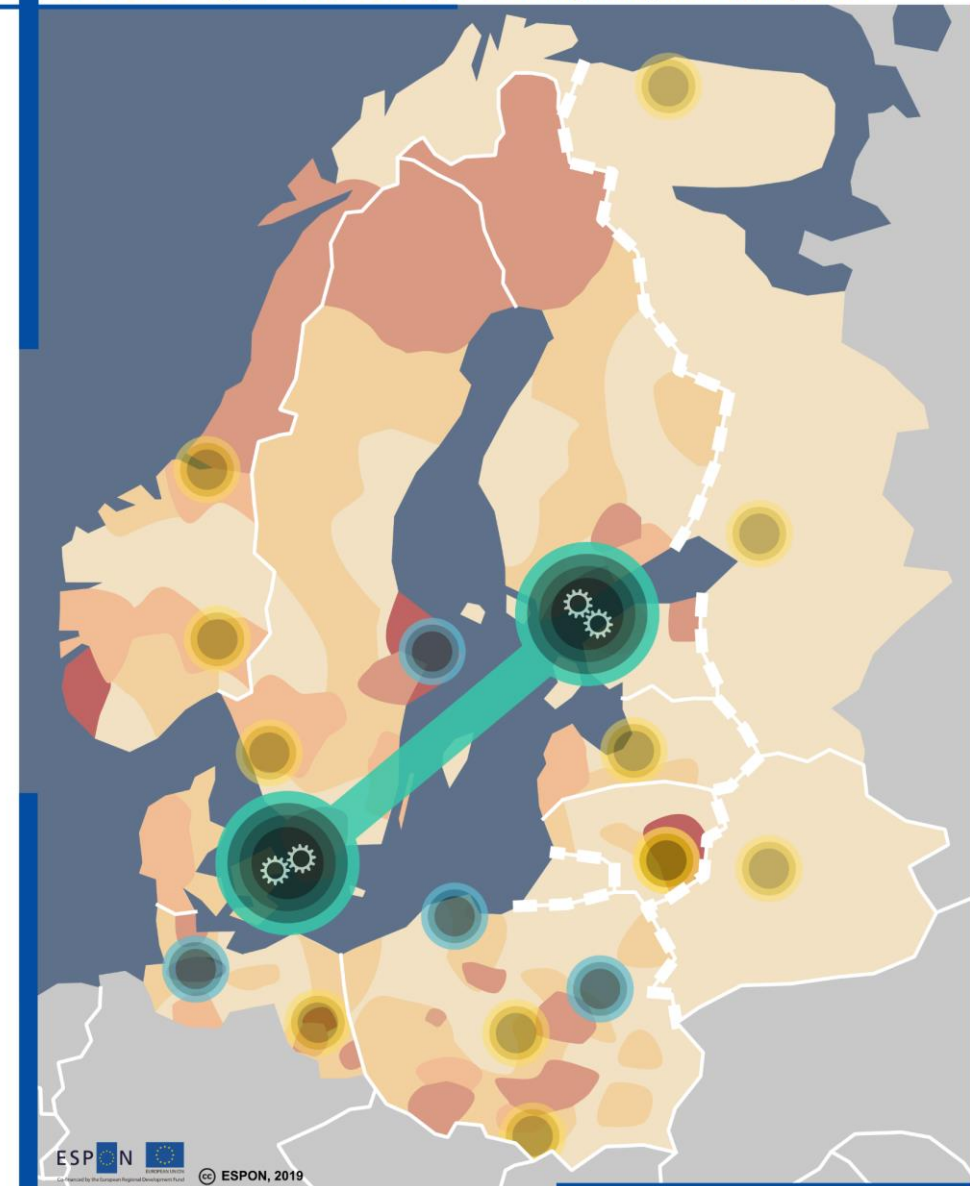
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# Growing into green-tech giants: the ecological footprint clear-up

- In 2050 the Baltic Sea Region is a giant in green technology. The achievements of the 4th industrial evolution are in the epicentre of everyday life. This mix of innovation and green technology have led to a reduction of the ecological footprint of the region.
- High-end innovation and the race for more growth have led to an increased 'guilt-free' consumerism.

# Growing into green-tech giants: the ecological footprint clear-up

- Increasing concentration of economic activity around the present metropolitan areas and growth centres (capital cities)
- The green-tech giants are in the cross-border global urban network of Copenhagen and Malmo and Helsinki and Tallinn.
- Other urban green innovators: urban areas in Germany, Poland and Sweden, Hamburg, Gdansk, Warsaw and Stockholm.
- Green innovation happens in more urban centres such as urban centres of Trondheim, Gothenburg, Berlin, Lodz, Krakow, Vilnius and Riga.
- A high number of FDI in the area of Helsinki-Uusima, Stockholm, Malmo, some of which are also among the green tech giants, followed by Vilnius and Krakow.



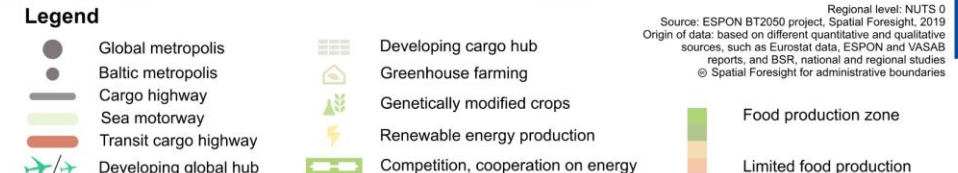
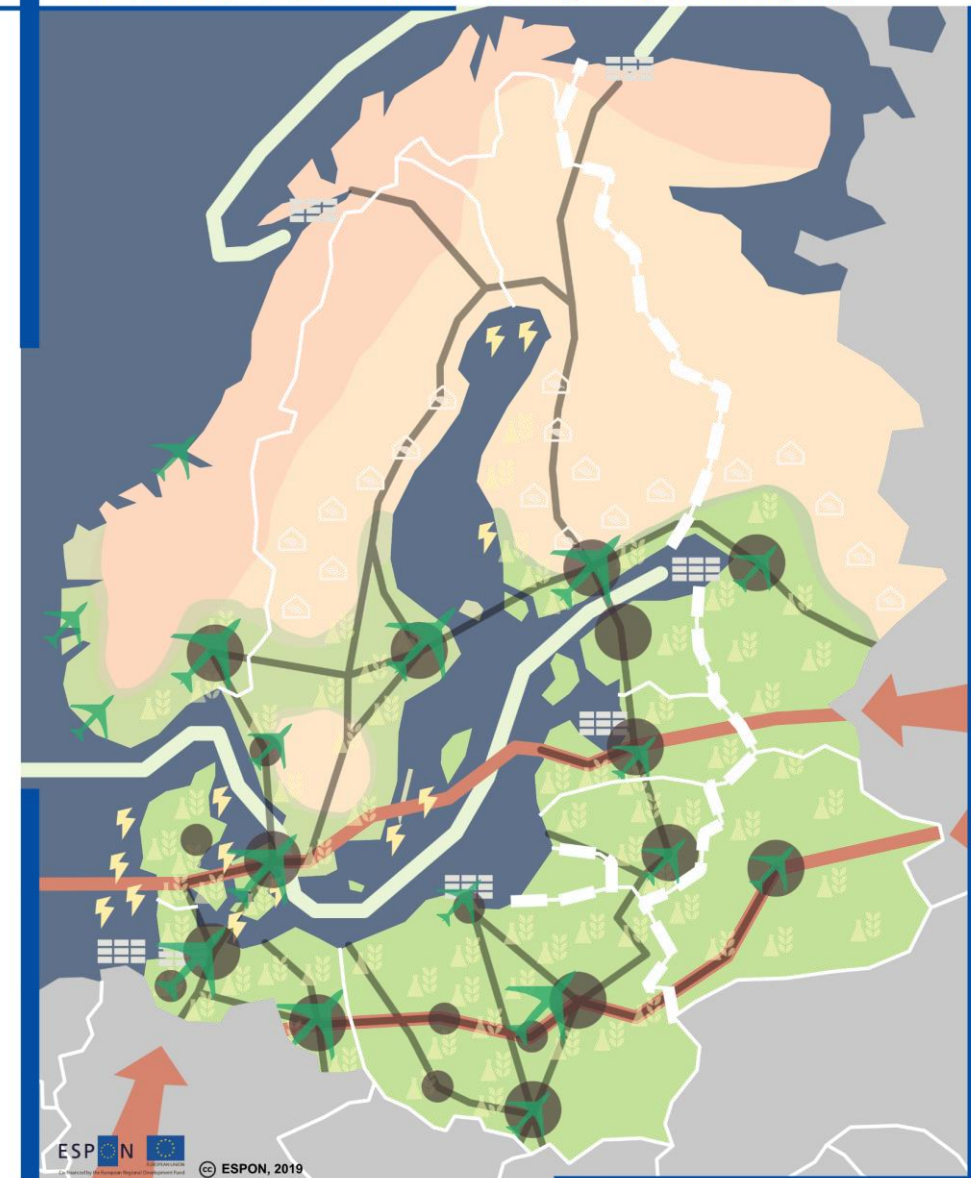
## Legend

- Green-tech global giants
- Green-tech innovator
- Green innovation diversification area
- Cooperation on external borders
- High number of extra-EU FDI
- Low number of extra-EU FDI

Regional level: NUTS 0  
Source: ESPON BT2050 project, Spatial Foresight, 2019  
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# Growing into green-tech giants: the ecological footprint clear-up

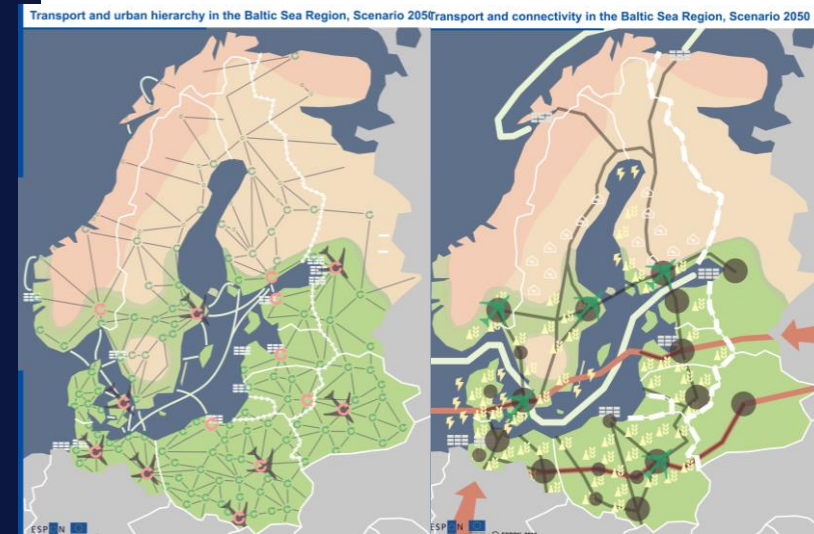
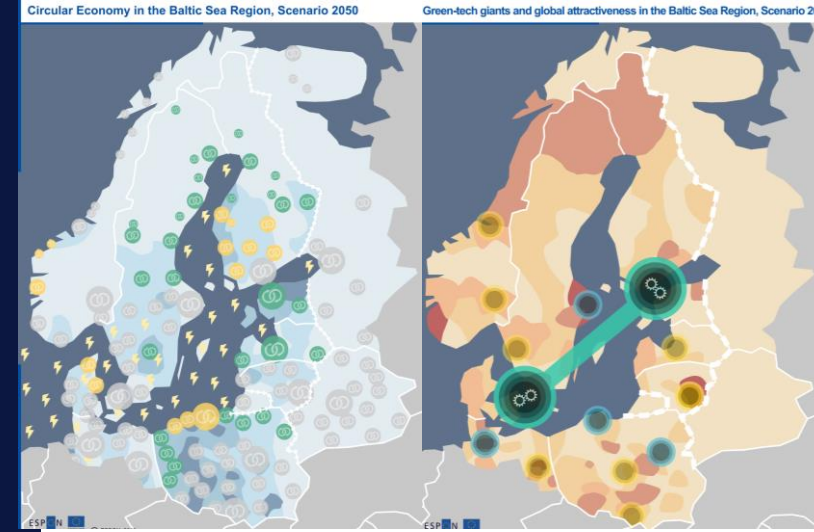
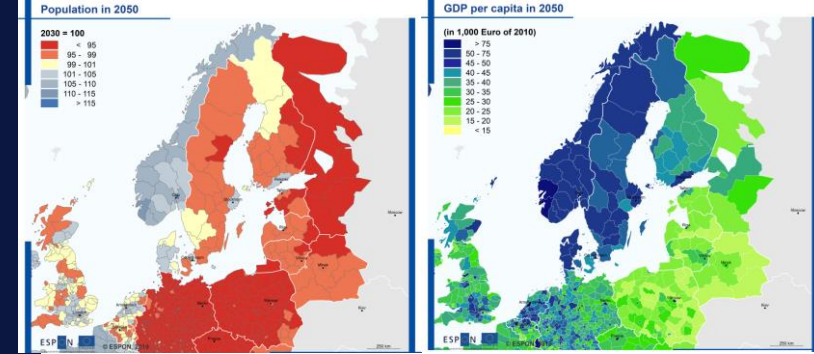
- The airports of Stockholm, Copenhagen, Oslo, Helsinki remaining global hubs and increasing further. The airport of Warsaw become a global gateway - a bridge between the East and the West.
- Ports gain more importance, (Gdansk, Riga, German - Hamburg and Bremerhaven). Ust-Luga port Ports in Russia, remains a high calibre gateway.
- Renewables production in limited places: Denmark and north of Germany, the South of Sweden, in the coastal area between Sweden and Finland.
- Smart farming gives a solution that affects most territories. Agricultural expansion towards the north of the region thanks to the cleaner energy,





# 4

## How can the BT2050 scenarios inspire Macro-Regional Strategies?



# Key messages

## TERRITORIAL SCENARIOS

- Makes the Macro Regions more tangible
- Provides an overview about how ‘my’ region performs in a larger context – goes beyond national narratives
- May enhance the participation and cooperation of different stakeholders

*“MRS are cross-territorial by nature and cross-sectoral/cross-level by mandate” (EC 2018:145)*



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# Thank you

BT 2050 research consortium