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Inspire Policy Making with Territorial Evidence

# ESPON BRIDGES

## New opportunities for islands with regard to climate change

Clément Corbineau, Spatial Foresight

ESPON Online Greek Conference on Blue Growth:  
From Marine & Maritime Services towards new drivers for economic & territorial change

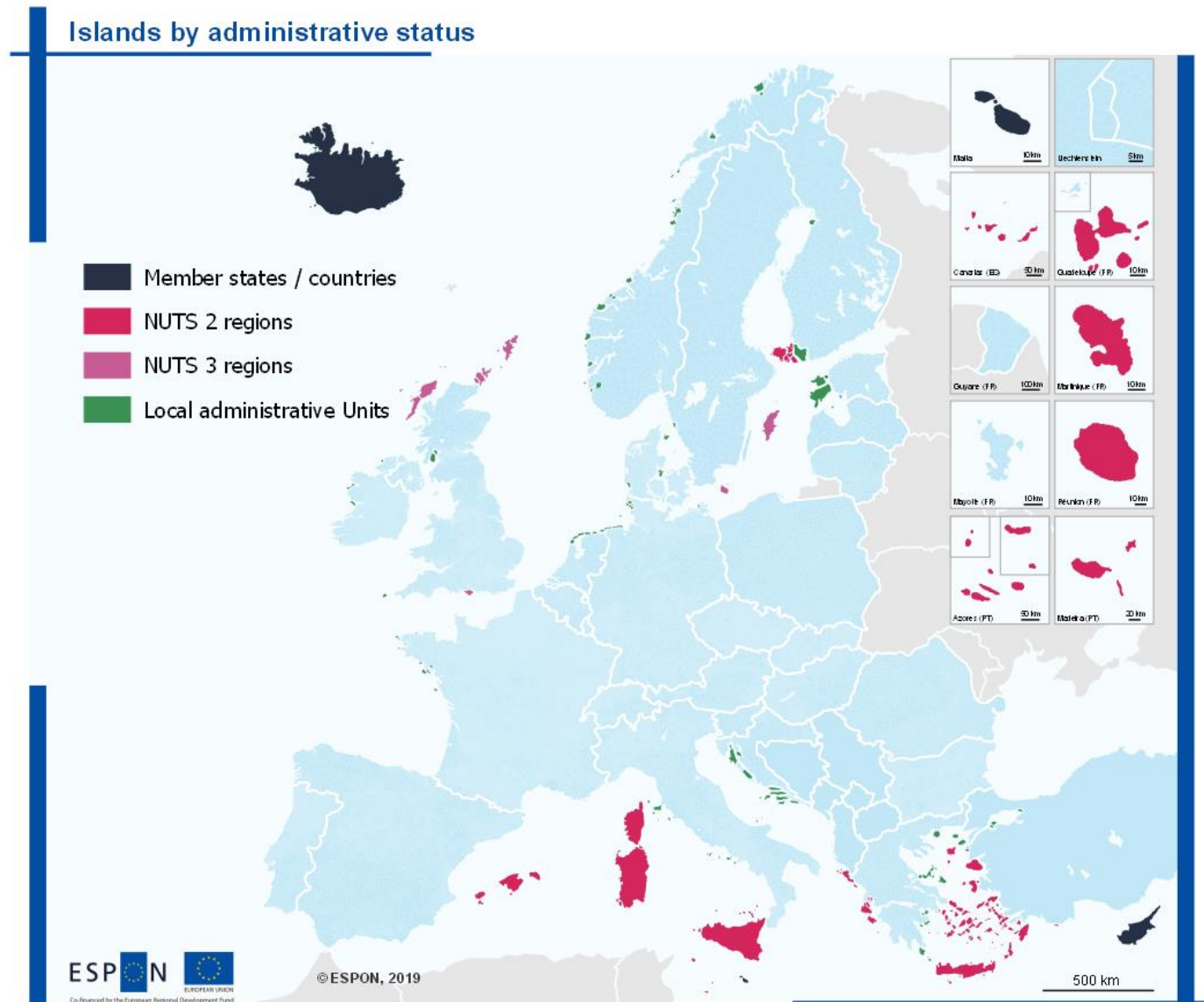
1

**There is no significant  
pattern of island  
laggardness**

# Islands in Europe

Islands are diverse

both from an administrative and socio-economic point of view

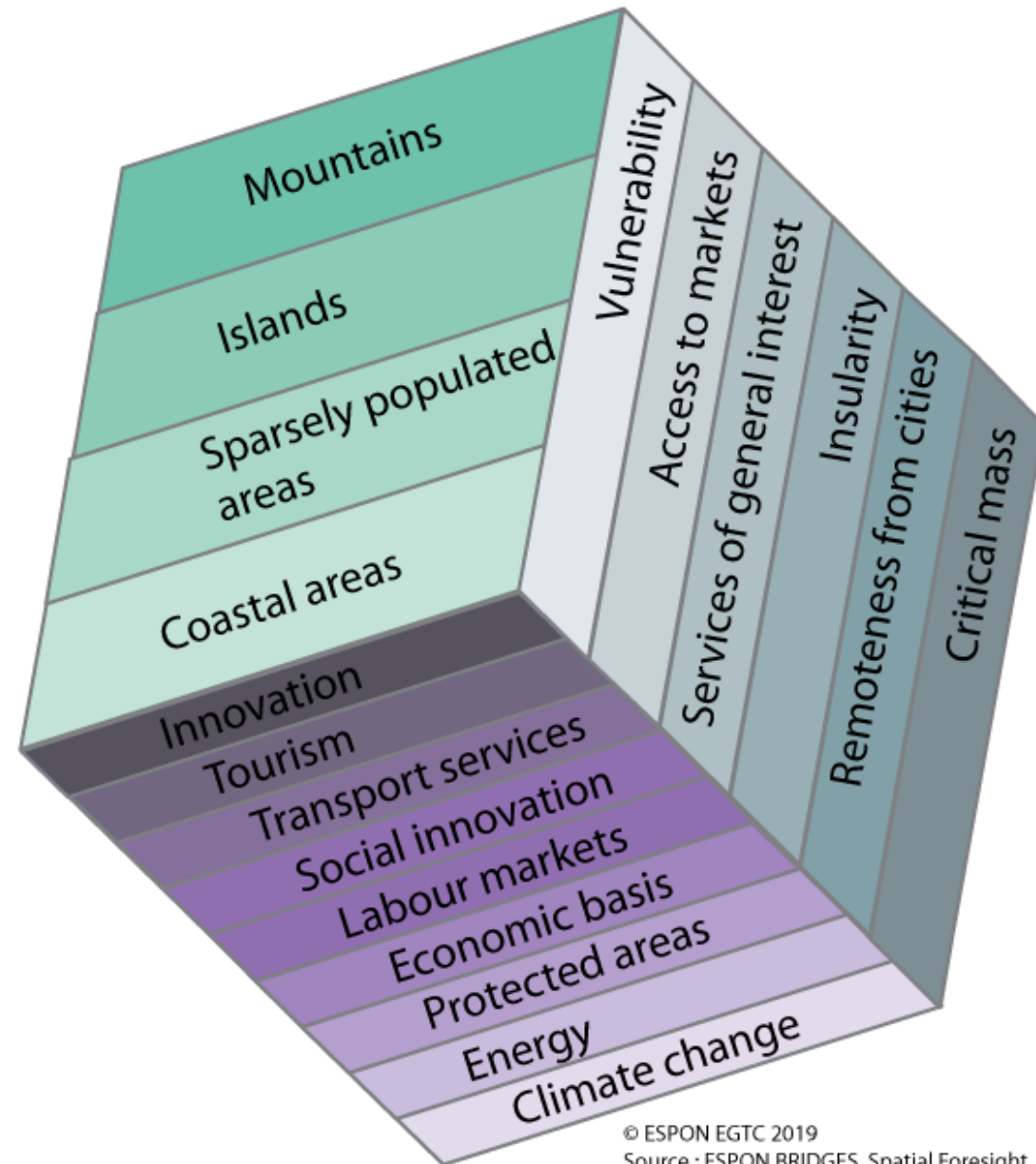


Regional level: LAU level (2008)  
Source: ESPON BRIDGES, 2019  
Origin of data: ESPON GEOSPECS, 2012  
©UMS RIATE and University of Geneva for administrative boundaries

# How to approach geographic specificities?

+ Different ways policies are affected:

- Market failure
- Policy inadequacy
- Policy dependence
- Path dependence



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Source : ESPON BRIDGES, Spatial Foresight

2

**Islands are facing specific challenges towards climate change adaptation**

# Direct (expected) impacts of climate change on islands

	Issue 1	Issue 2	Issue 3	Issue 4
<b>North Aegean</b>	Sea level rise, with increased flooding	Negative impacts on agriculture from increased aridity	Increasing sea temperatures allowing influx of exotic fish species	Water shortages affecting local populations, tourism and agriculture
<b>East Iceland</b>	Higher windspeeds	Shrinking/loss of glaciers	Changes in fish stocks	Impacts on tourism
<b>Wadden islands</b>	Sea level rise, storm surges	Coastal damage, compounded by insufficient supply of sand	Decreased summer water availability, compounded by saltwater intrusion	Changes in terrestrial and marine biodiversity

Different policies are affected by insularity  
 => Climate change adaptation strategies in place

# Challenges for adaptation to climate change in islands

- (1) **Uncertainties** related to the extent and magnitude of changes to be expected
- (2) Need for effective **multilevel governance** in developing and implementing strategies and plans for adaptation
- (3) Need for adequate **capacities** in regional and local administration (=> capacity-building)
- (4) Lack of accessible and suitable information through portals.
- (5) Lack of financial resources for both planning and action

**EU policies and instruments can support in tackling those challenges**

3

**Islands have opportunities  
to become testbeds for  
climate neutrality**



# Bornholm (DK) strategy towards climate neutrality

- Climate neutrality part of the strategic development of the island since 2008  
=> « the Bright green island »
- reaching carbon-neutrality and the out-phasing of fossil fuels by 2025
- based on an Electric energy mix from wind, solar and biomass.

# Reduction of CO2 emission in Greek islands

- **Astypalaia**
  - branding itself as the smart sustainable island », the « electric island ».
  - to move the island towards **electric mobility** incl. public / private / shared transport systems
  - Initiative that started in 2021
  - based on a cooperation between a car company and the Greek government
- **Tilos**
  - Aiming at energy self-sufficiency
  - Innovative system based on high-tech batteries recharged by a wind turbine and solar panels

# Lessons learned

- Insularity may create opportunities for turning remoteness / vulnerability into autonomy
- Energy planning (analysis of needs / resources) may be easier to implement and generate more benefits
- Initiatives to make meaningful steps toward CO2 reduction or renewable energies require funding, knowledge and political momentum.

# Clean Energy for EU islands initiative

- May 2017: Political declaration on Clean Energy for EU Islands, signed by the EC and 14 Member States
- Aim at making Europe's islands communities "innovation leaders in the clean energy transition for Europe"
- 2018 Creation of a Secretariat (see [www.euislands.eu](http://www.euislands.eu)). It provides services to island communities
  - A platform of exchange of best practices for islands' stakeholders
  - Capacity building and advisory services (e.g. to develop Clean Energy Transition Agendas)
- Covering both energy issues (production / efficiency / heating and cooling) and transport issues (to and from islands, on the islands)

**Combination of top-down and bottom up initiatives to position islands at the forefront of the clean energy transition**



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# // Thank you

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