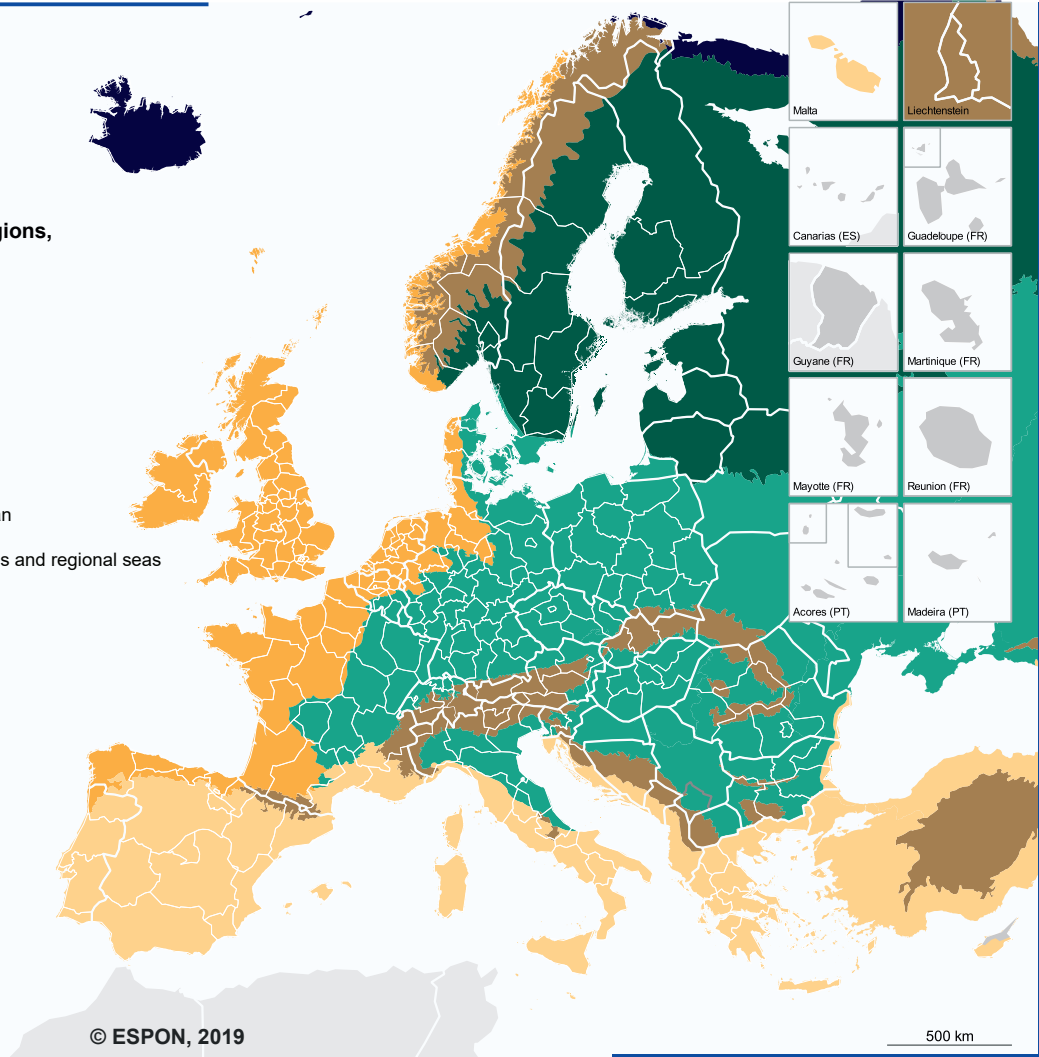


## Climate change impacts in the main biogeographical regions of Europe

### Biogeographic regions, 2016

- Arctic
- Boreal
- Continental
- Mountain
- Atlantic
- Mediterranean
- Coastal zones and regional seas
- No data



Source: ESPON SOET, 2019  
Origin of data: European Environment Agency, 2016  
© UMS RIATE for administrative boundaries

#### Arctic region

Temperature rise much larger than global average  
Decrease in Arctic sea ice coverage  
Decrease in Greenland ice sheet  
Decrease in permafrost areas  
Increasing risk of biodiversity loss  
Some new opportunities for the exploitation of natural resources and for sea transportation  
Risks to the livelihoods of indigenous peoples

#### Mountain regions

Temperature rise larger than European average  
Decrease in glacier extent and volume  
Upward shift of plant and animal species  
High risk of species extinctions  
Increasing risk of forest pests  
Increasing risk from rock falls and landslides  
Changes in hydropower potential  
Decrease in ski tourism

#### Mediterranean region

Large increase in heat extremes  
Decrease in precipitation and river flow  
Increasing risk of droughts  
Increasing risk of biodiversity loss  
Increasing risk of forest fires  
Increased competition between different water users  
Increasing water demand for agriculture  
Decrease in crop yields  
Increasing risks for livestock production  
Increase in mortality from heat waves  
Expansion of habitats for southern disease vectors  
Decreasing potential for energy production  
Increase in potential demand for cooling  
Decrease in summer tourism and potential increase in other seasons  
Increase in multiple climatic hazards  
Most economic sectors negatively affected  
High vulnerability to spillover effects of climate change from outside Europe

#### Boreal region

Increase in heavy precipitation events  
Decrease in snow, lake and river ice cover  
Increase in precipitation and river flows  
Increasing potential for forest growth and increasing risk of forest pests  
Increasing damage risk from winter storms  
Increases in crop yields  
Decrease in energy demand for heating  
Increase in hydropower potential  
Increase in summer tourism

#### Coastal zone and regional seas

Sea level rise  
Increase in sea surface temperatures  
Increase in ocean acidity  
Northward migration of marine species  
Risks and some opportunities for fisheries  
Changes in phytoplankton communities  
Increasing number of marine dead zone  
Increasing risk of water-borne diseases

#### Continental region

Increase in heat extremes  
Decrease in summer precipitation  
Increasing risk of river floods  
Increasing risk of forest fires  
Decrease in economic value of forests  
Increase in energy demand for cooling

#### Atlantic regions

Increase in heavy precipitation events  
Increase in river flow  
Increasing risk of river and coastal flooding  
Increasing damage risk from winter storms  
Decrease in energy demand for heating  
Increase in multiple climatic hazards