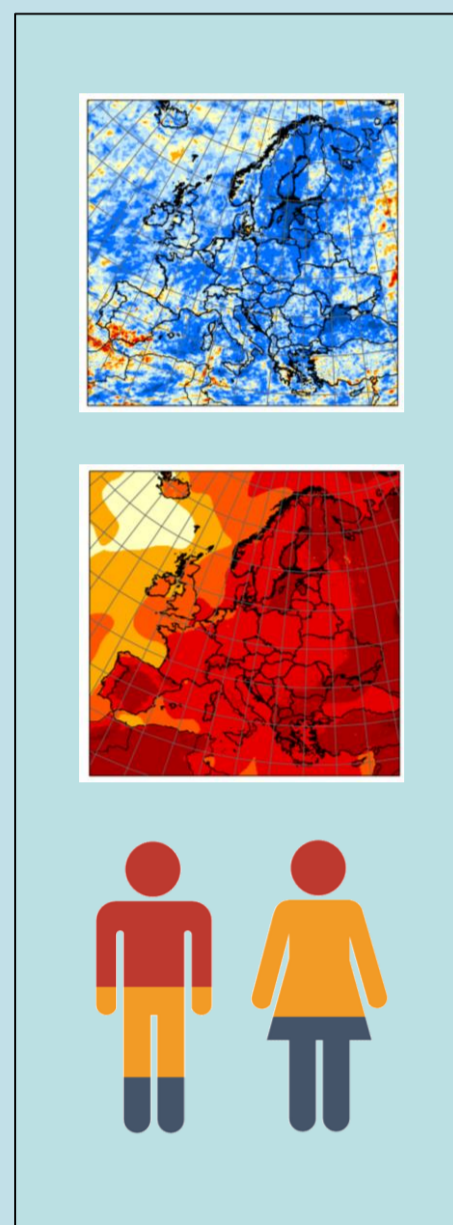


# Climate Impacts in Europe: JRC PESETA III

## Method

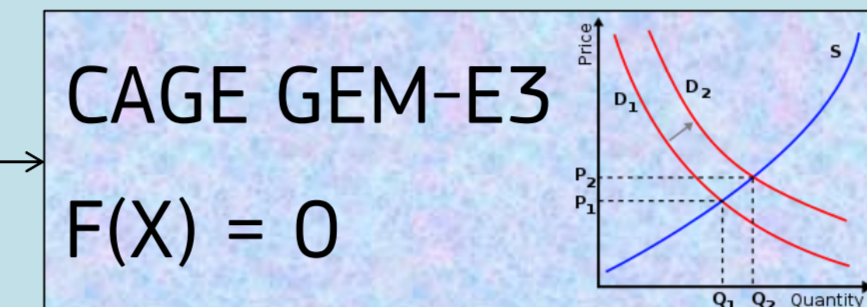
Climate change and socioeconomic data



Bio-physical modelling



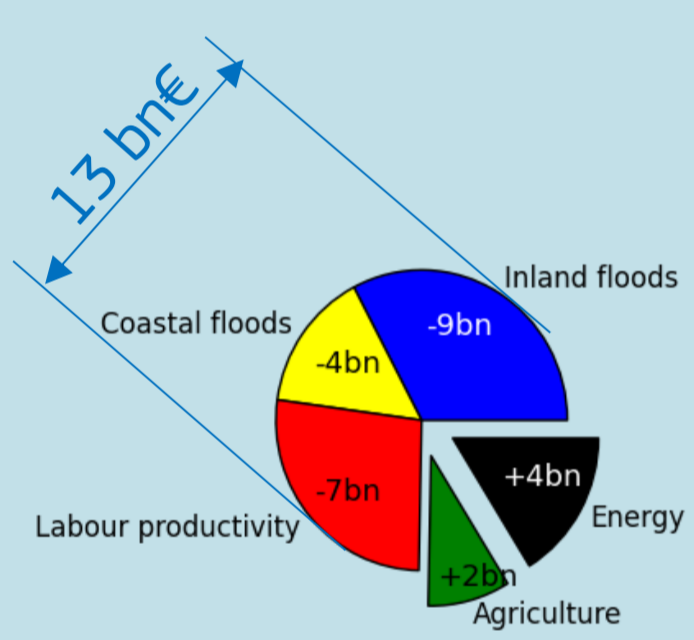
Economic modelling



The main driver of the study is consistency and integration across the various models. In essence, the approach is bottom-up as it relies on a set of highly-disaggregated, process models that simulate the interaction between climate change and specific impacts, by modelling the cause-effect relationships.

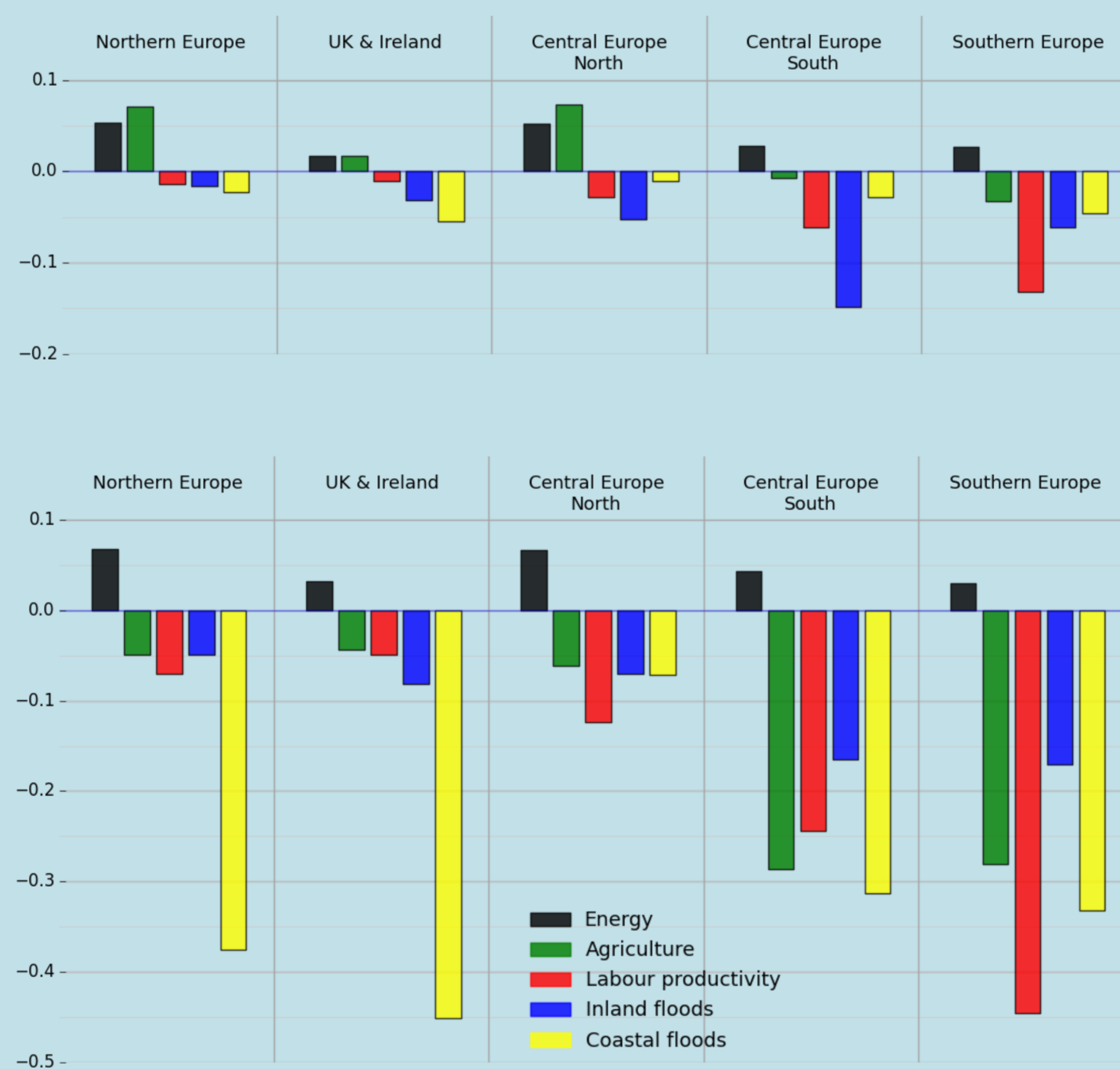
## 2°C vs High warming – avoided impacts and North-South divide

Relative magnitude of aggregated impacts

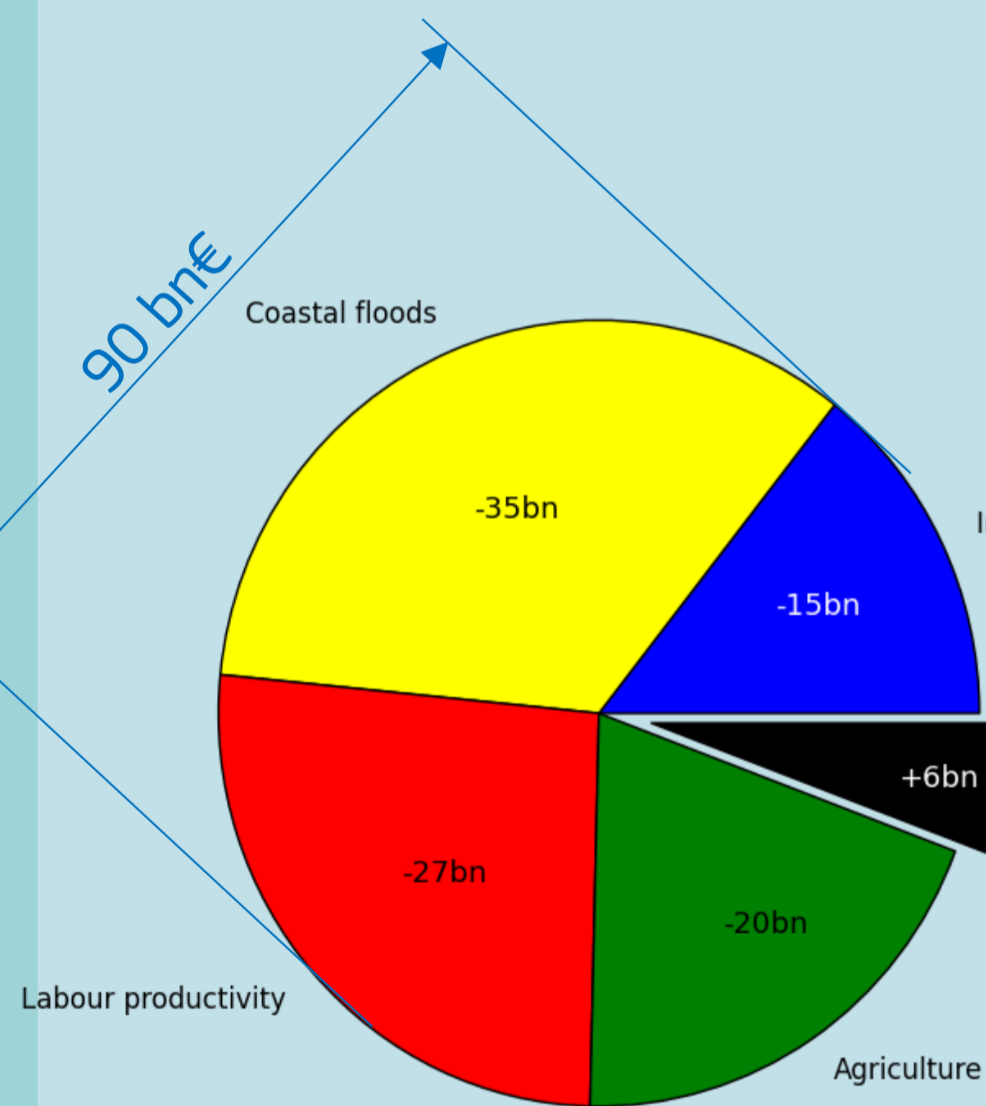


2°C

Welfare loss as percentage of GDP by regions and impacts

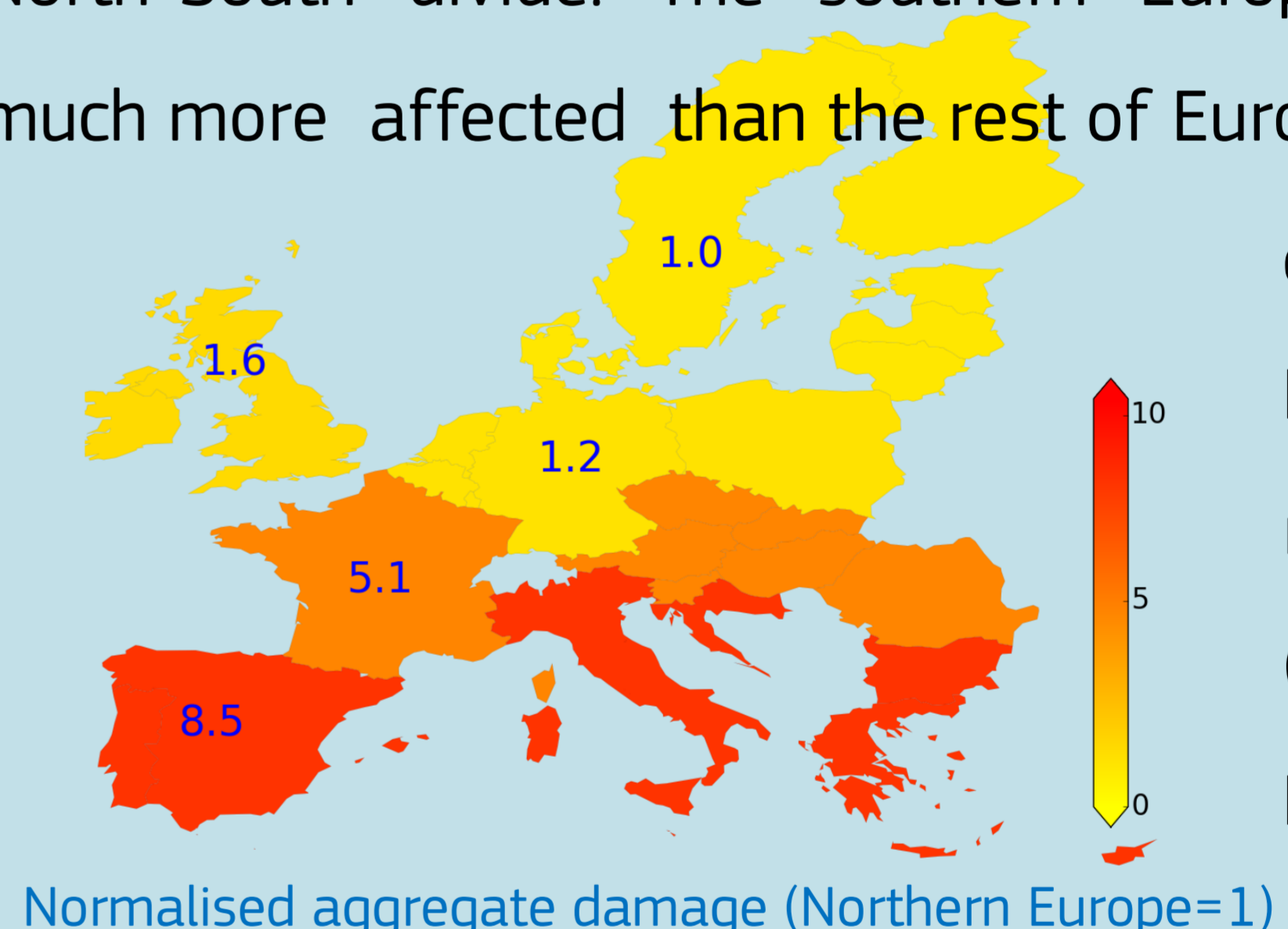


High warming



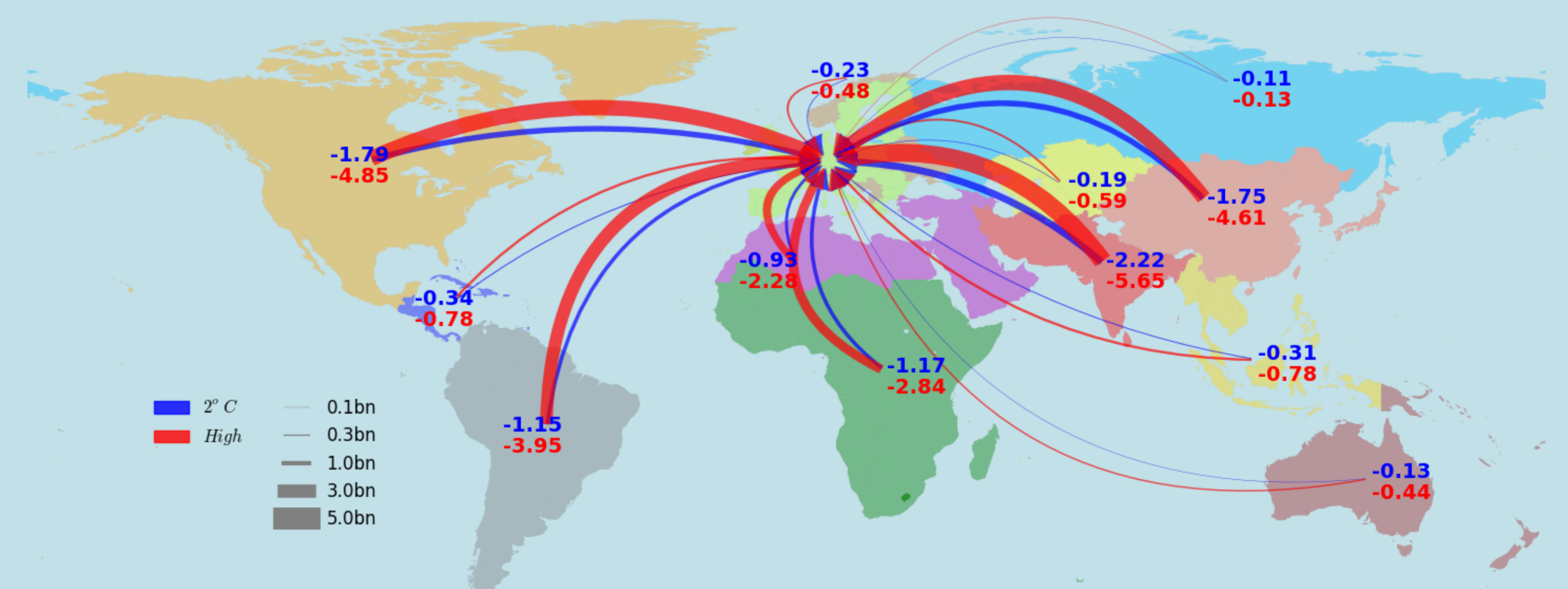
The EU welfare loss in the five sectoral impacts under the High warming scenario is estimated to be around €90bn and could be reduced to €13bn in the 2°C scenario.

The regional distribution of the welfare losses indicates a North-South divide. The southern Europe regions are much more affected than the rest of Europe, by a factor of five (Central Europe South region) to eight (Southern Europe region).



## Rest of the World climate impacts on the EU

The spillover effects relate to climate impacts occurring outside of the EU regions affecting the EU via international trade. Those effects are estimated for agriculture, labour productivity, energy and river flooding. The sum of the additional effects is €27.5bn, which is around 40% of the EU GDP impact.



Global climate change spillover effects in the EU, via trade, in GDP terms (bn €), under 2°C and high-emissions scenarios