

Flood risk Insurance Projections

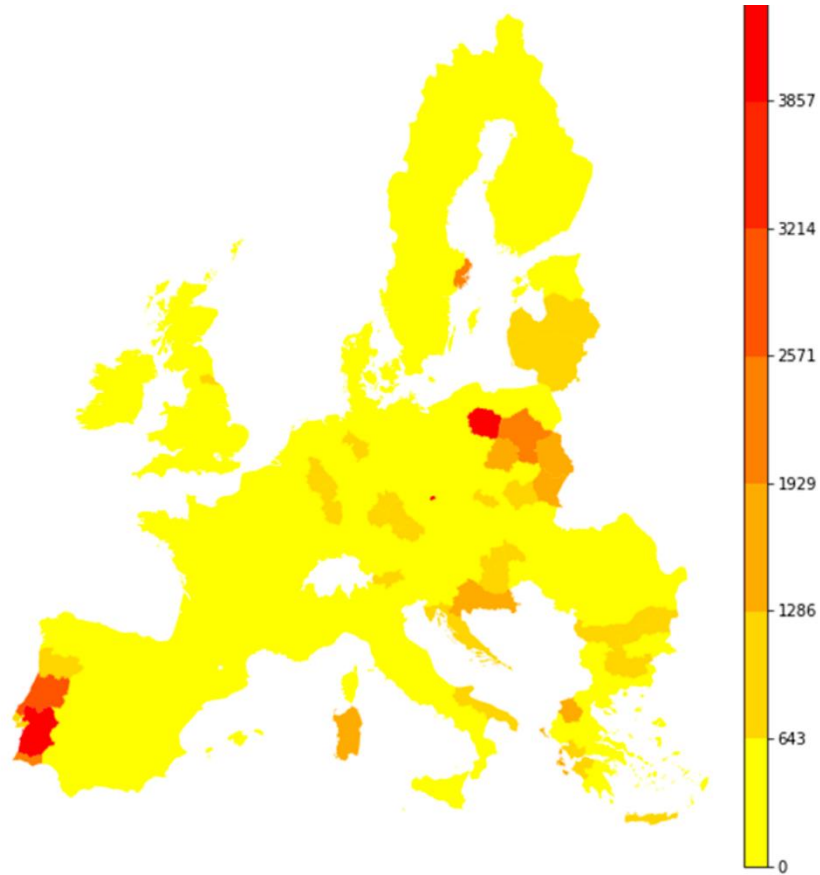
Prof Dr. Jeroen Aerts

December 16th 2020; EIOPA round table conference



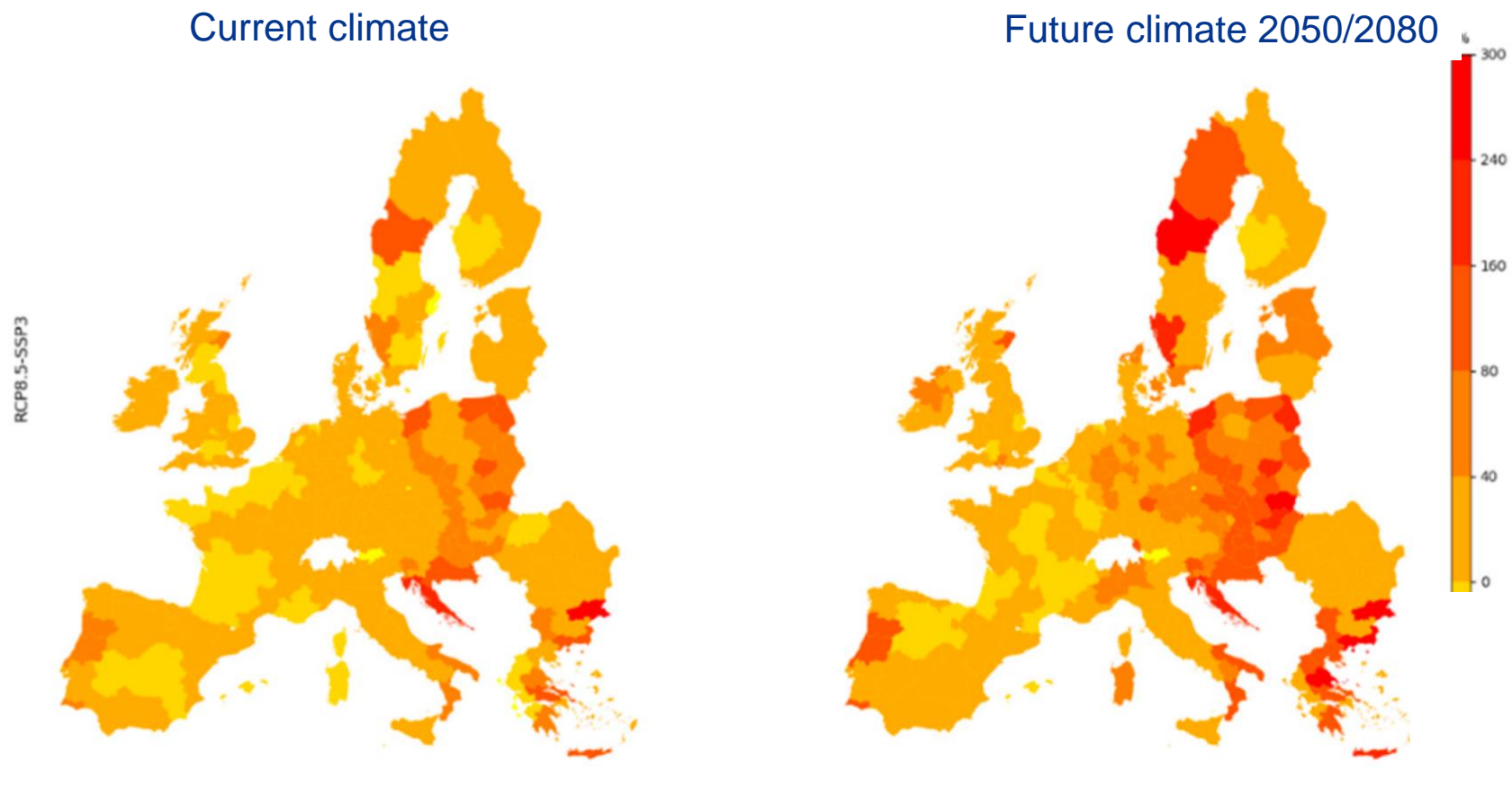
Current Flood Insurance premiums

Premium Euro/year / Current climate



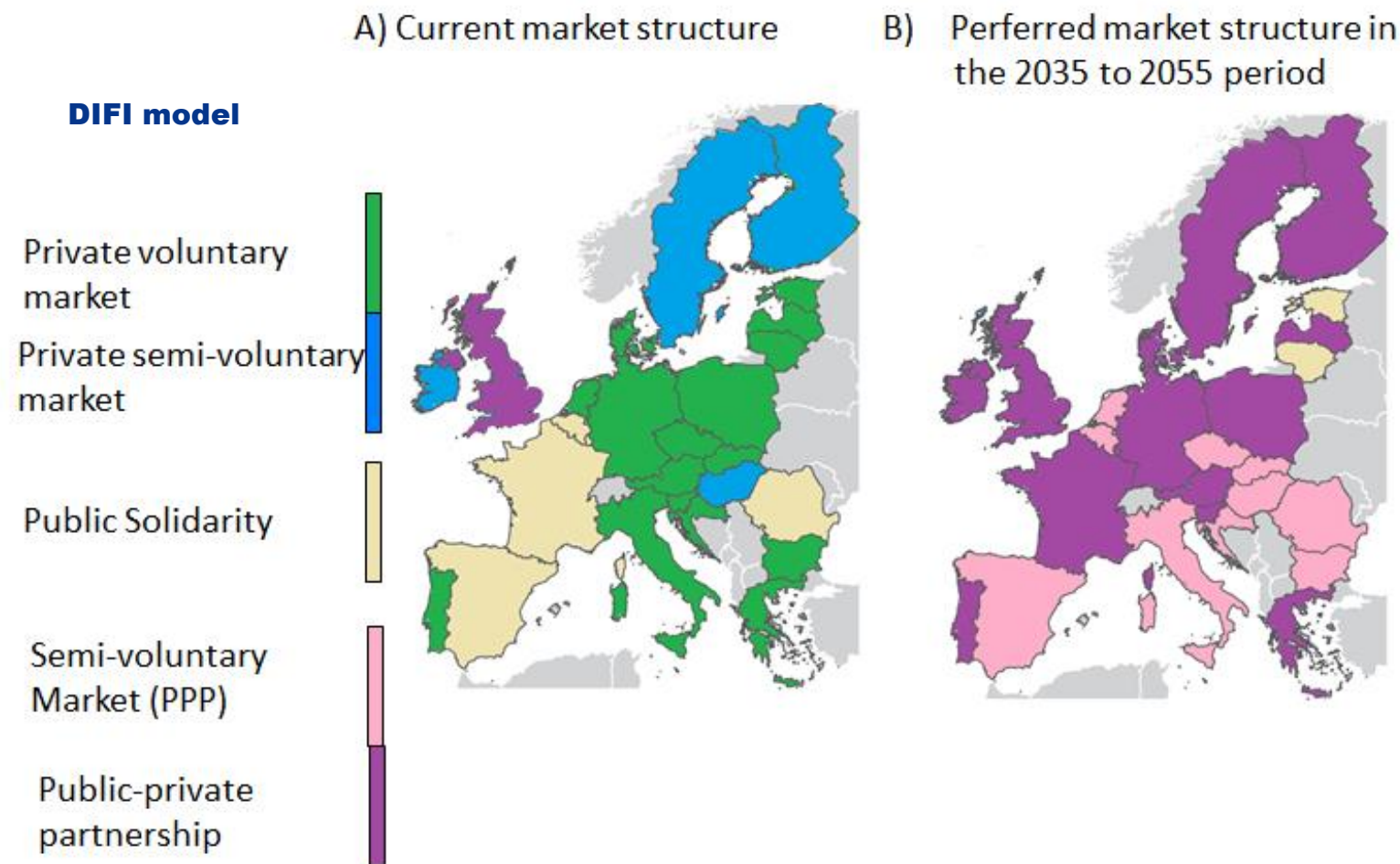
Tesselaar et al., 2020

Flood insurance: Future % unaffordability



Tesselaar et al., 2020

Proposed flood insurance schemes under climate change



Hudson et al., 2019

Recommendations

Europe

- The solidarity-based market structures need reform:
 - More incentives for risk reduction.
 - Risk based premiums
- Voluntary purchase requirement: increase penetration rates

United states

- Reform of the NFIP (National Flood Insurance Program):
- Aimed at improving the financial sustainability of the NFIP.
 - improve the actuarial soundness of the program by moving towards risk-based premiums,
 - strengthening purchase requirements to overcome the observed low penetration rate outside high-risk areas
 - improving incentives for risk reduction

References

- Tesselaar, M., W. J. Botzen, J. C. J. H. Aerts, Paul Hudson, Toon Haer, Timothy Tiggeloven (2020) Regional Inequalities in Flood Insurance Affordability and Uptake under Climate Change. **Sustainability**, <https://doi.org/10.3390/su12208734>
- Hudson, P., Botzen, W., Aerts. J.C.J.H. (2019) Flood Insurance Arrangements in the European Union for Future Flood Risk under Climate and Socio-Economic Change. **Global Environmental Change**, <https://doi.org/10.1016/j.gloenvcha.2019.101966>