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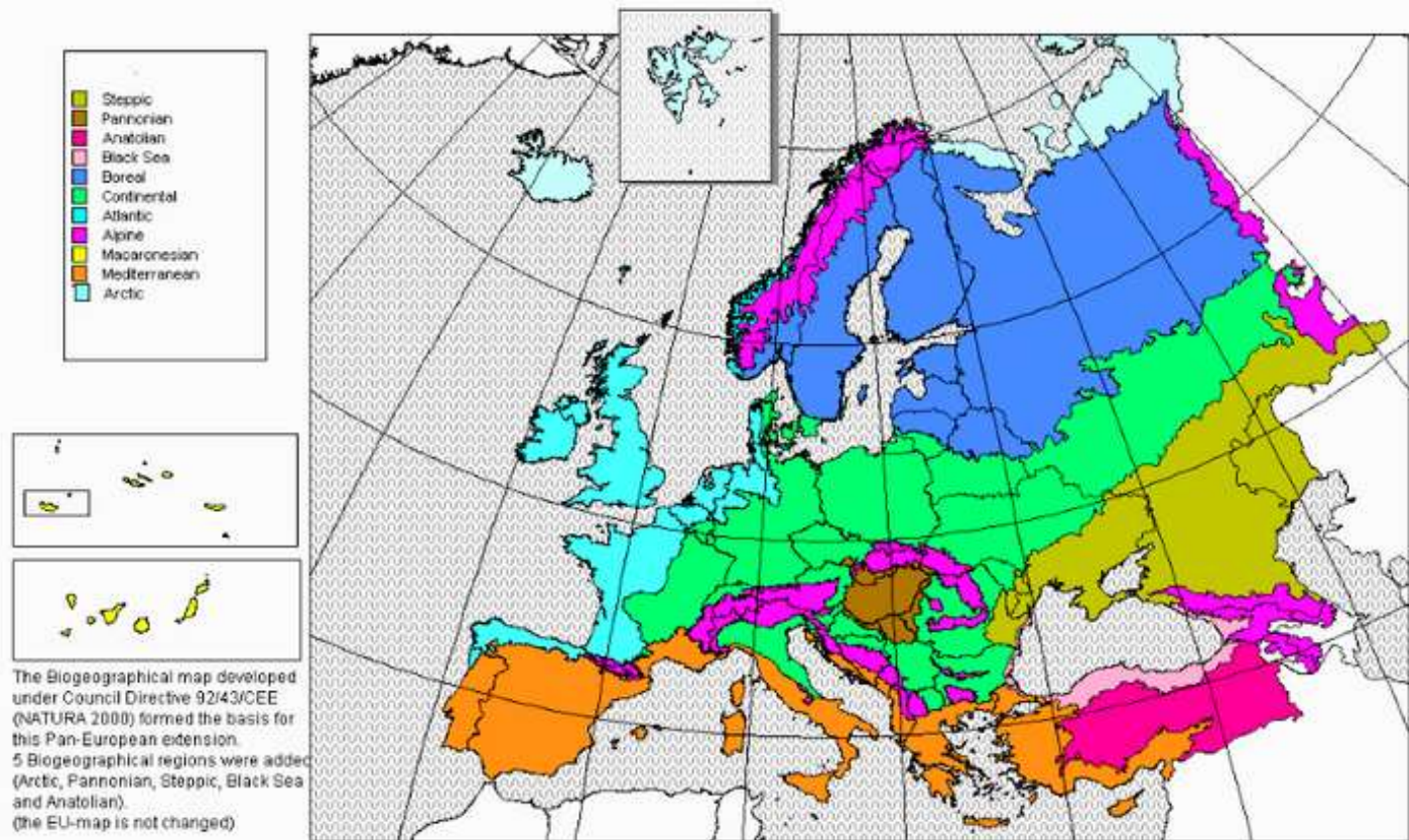


The importance of sustainability in transport in mountainous regions

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Mountainous Areas in Europe

Emerald Network of Areas of Special Conservation Interest
Extension of the Biogeographical Regions map of NATURA 2000 to Pan-Europe
Revision as notified by the Standing Committee of the Bern Convention: November 2001



Source: EEA

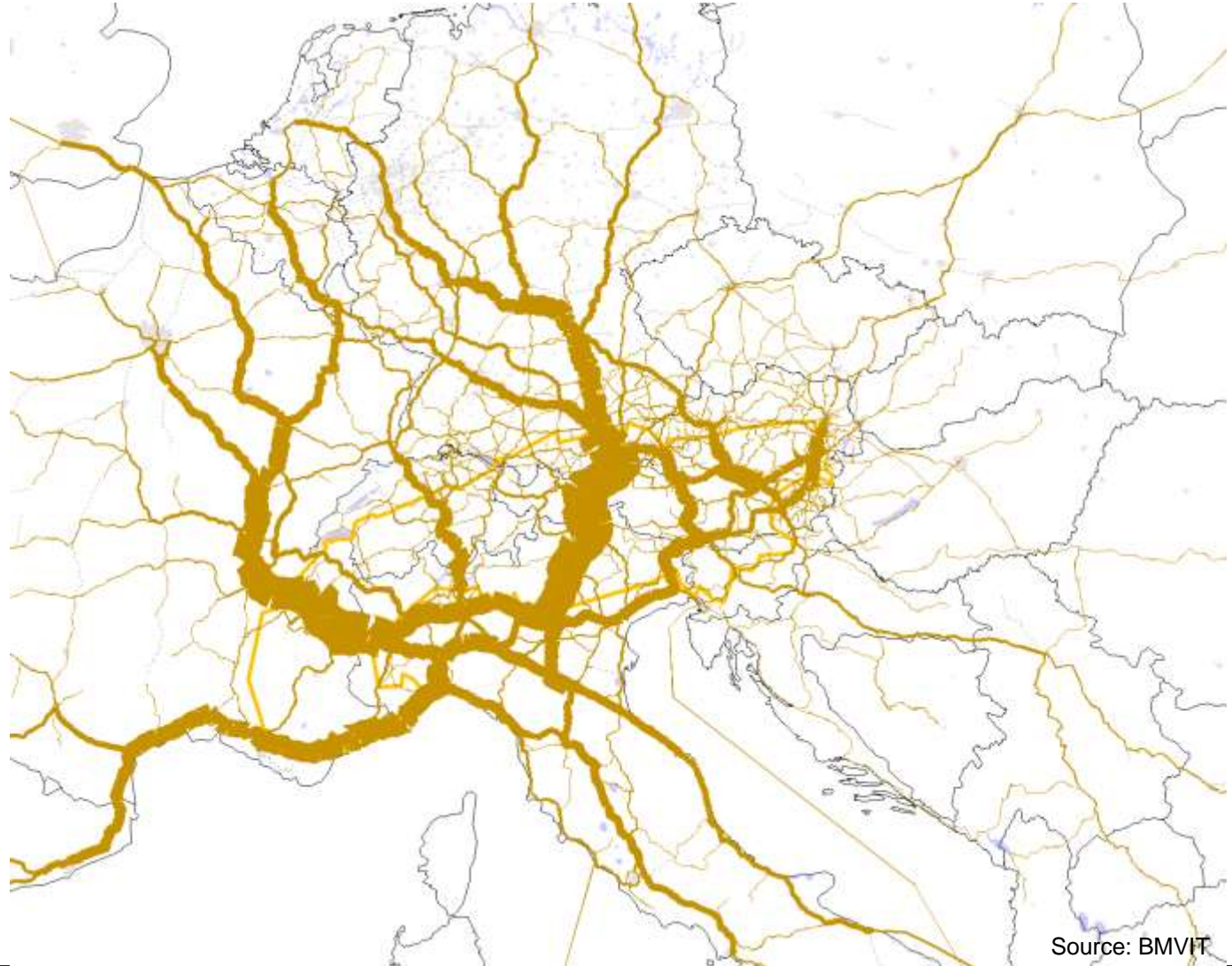
Mountainous areas are sensitive areas



Impact of transport in mountainous areas:

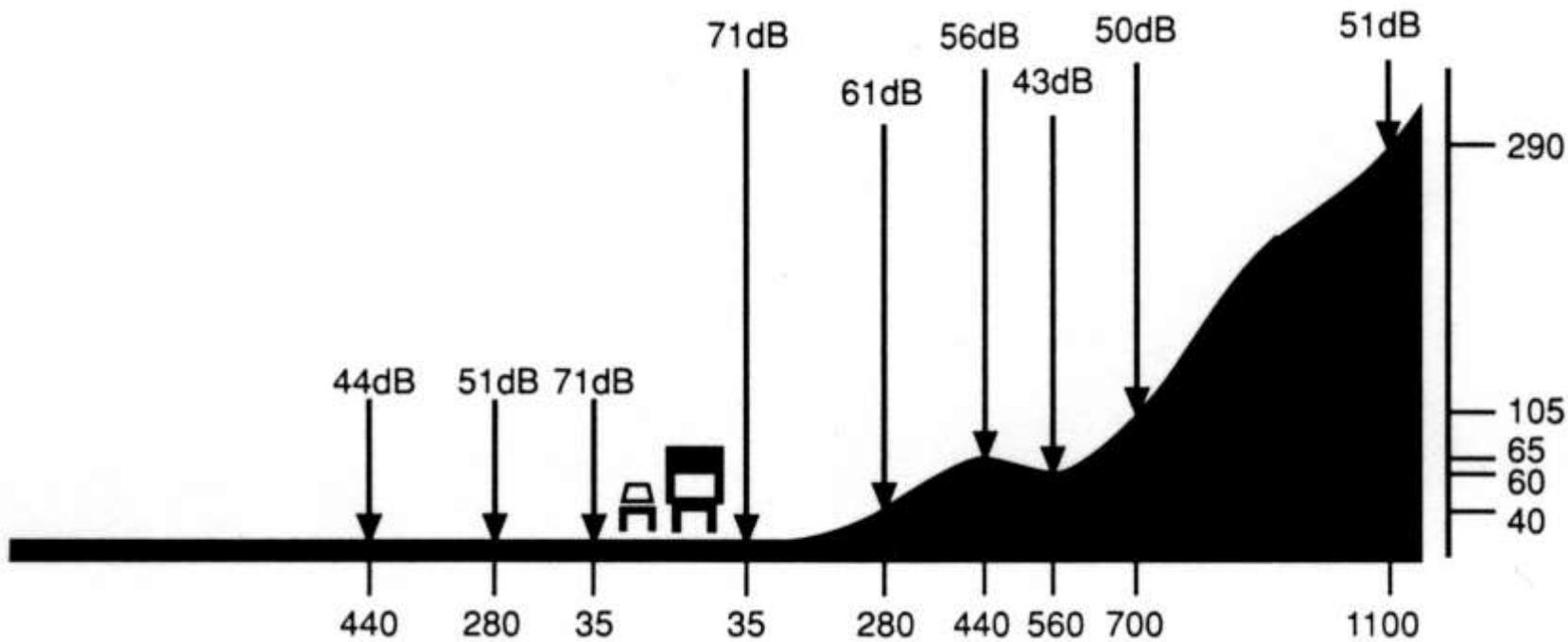
- Concentration of traffic flows on a limited number of trunk links (road and rail)
- Effects of air pollution have a higher impact due to specific meteorological conditions and due to topography
- Noise spread is intensified due to specific topographic conditions
- Climate change may cause dramatic impacts changes (→ cryosphere)

Traffic flows on trunk roads crossing the Alps



Source: BMVIT

Noise spread in mountainous areas compared to lowland



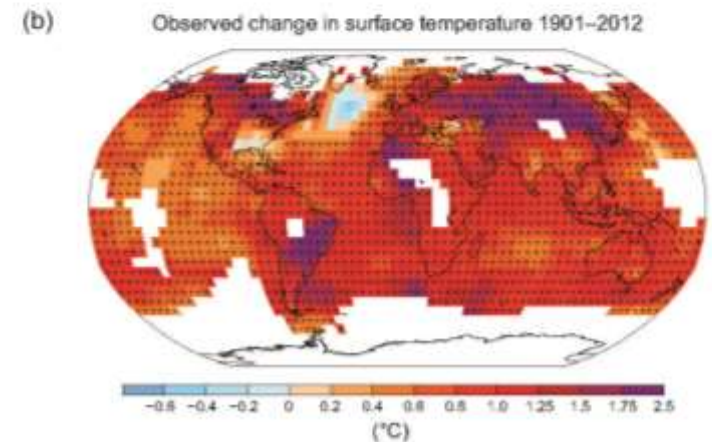
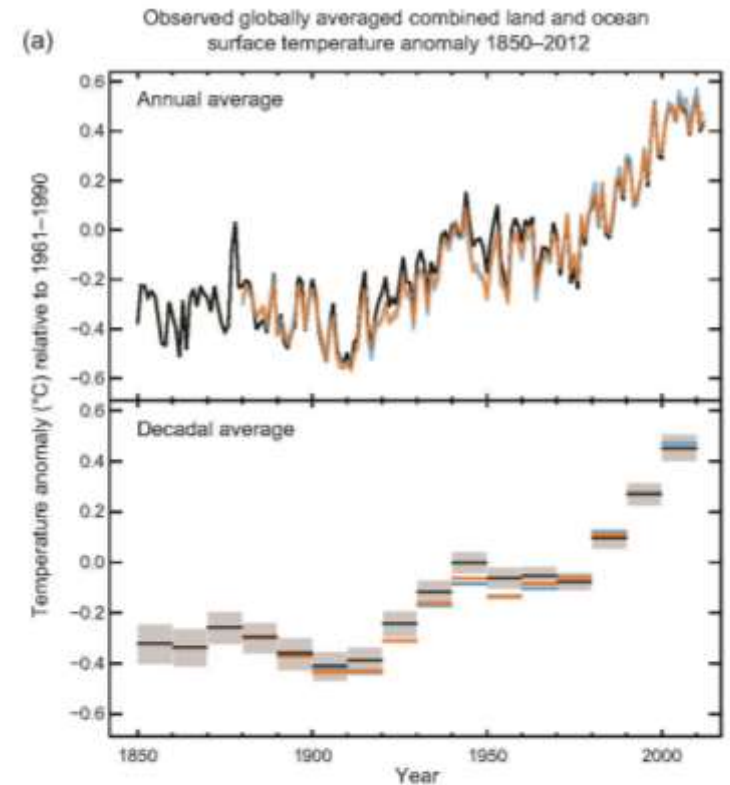
Source: BMVIT

Climate change

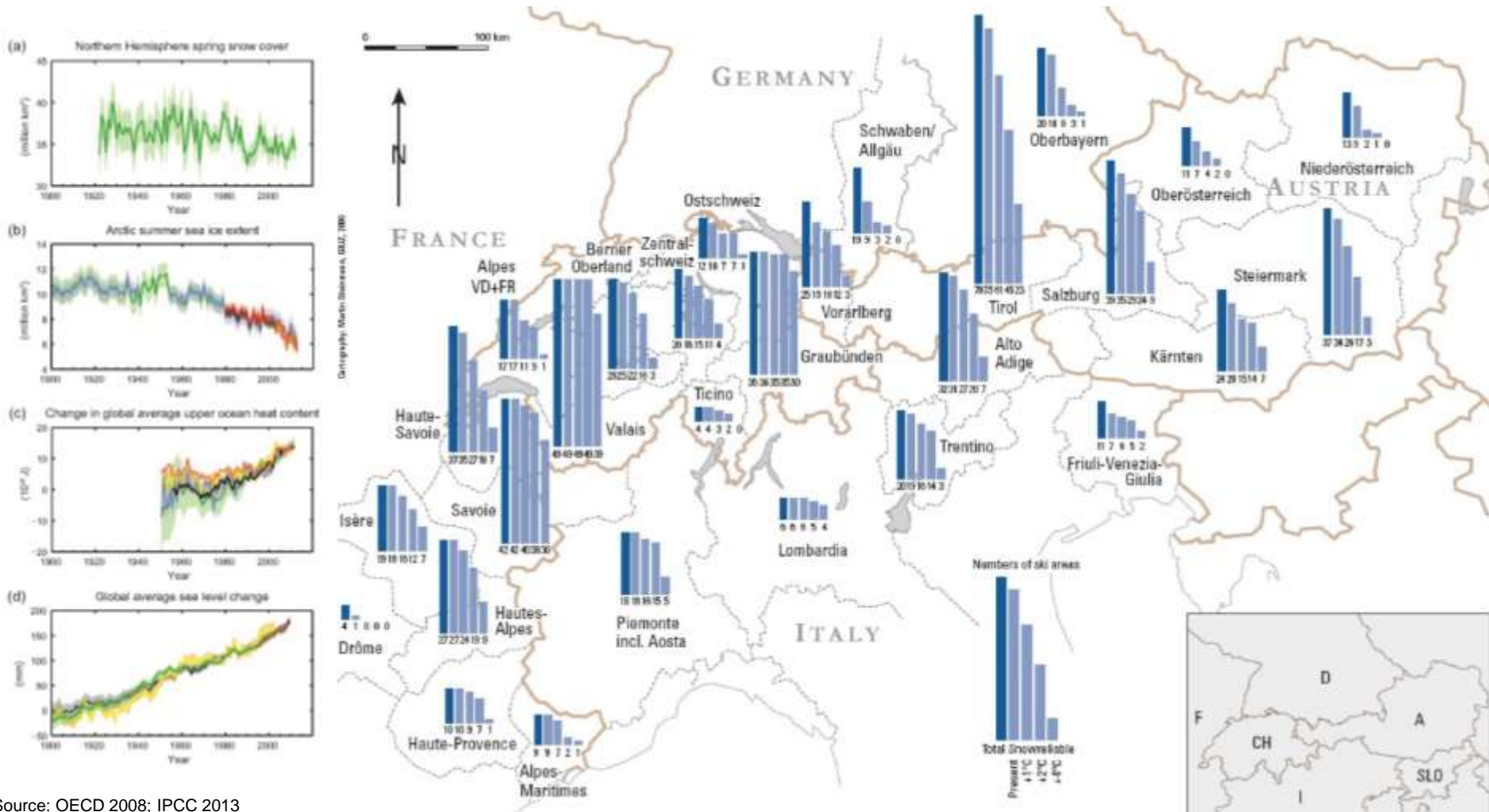
„Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia“

„Human influence on the climate system is clear. (...) It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century“

Source: IPCC (2013)

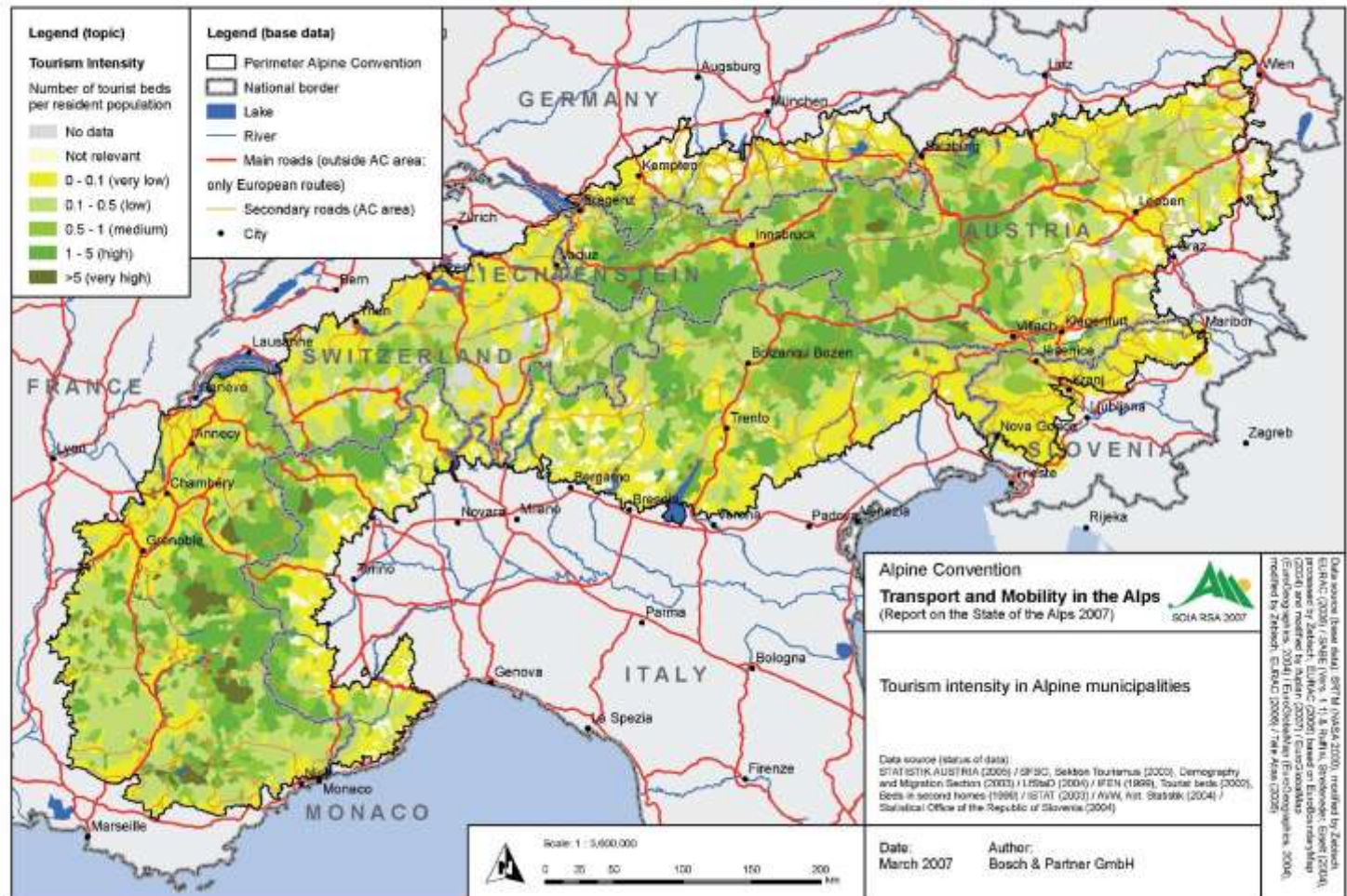


Climate change: consequences in winter tourism



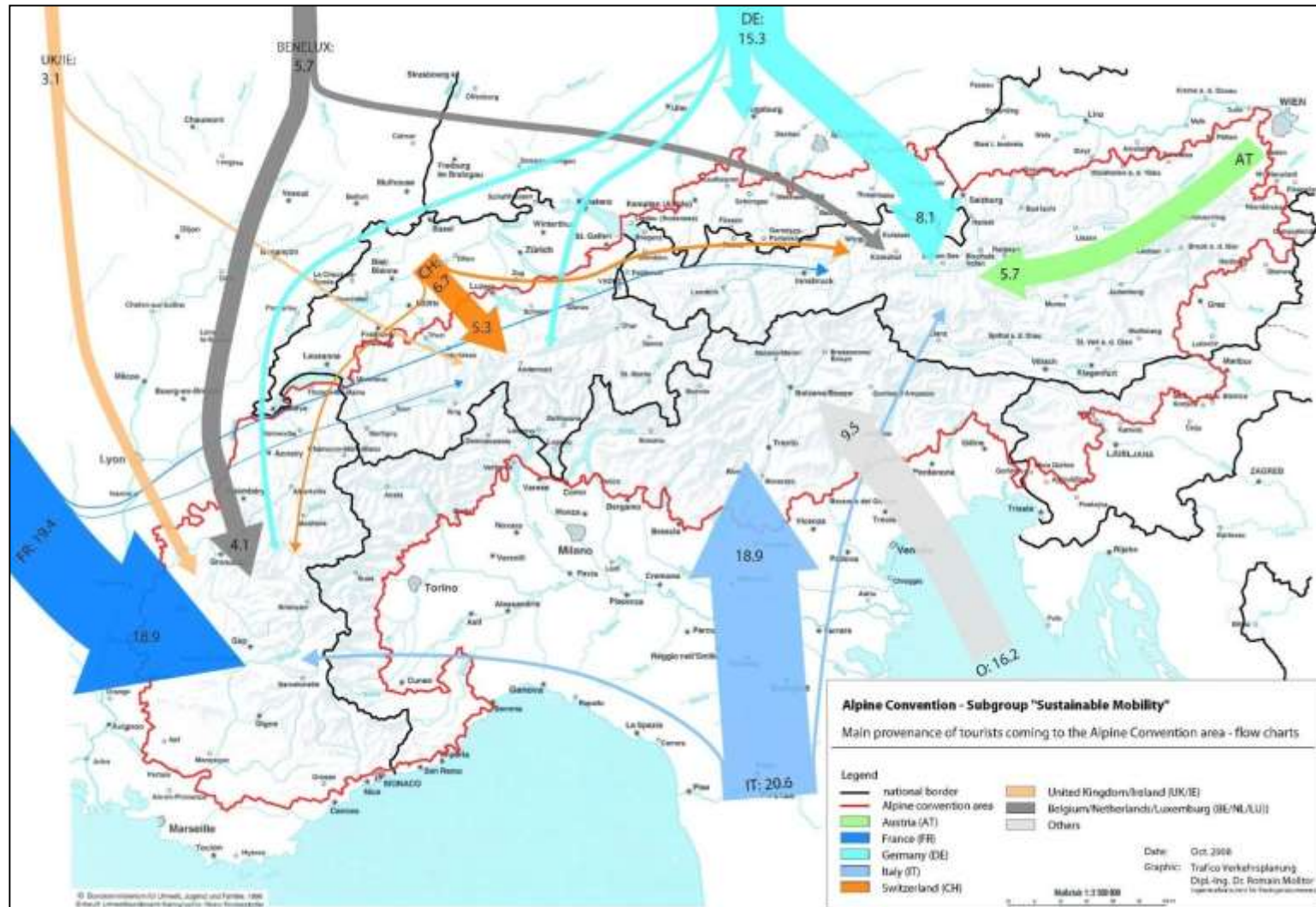
Source: OECD 2008; IPCC 2013

Tourism intensity in the area of the Alpine Convention



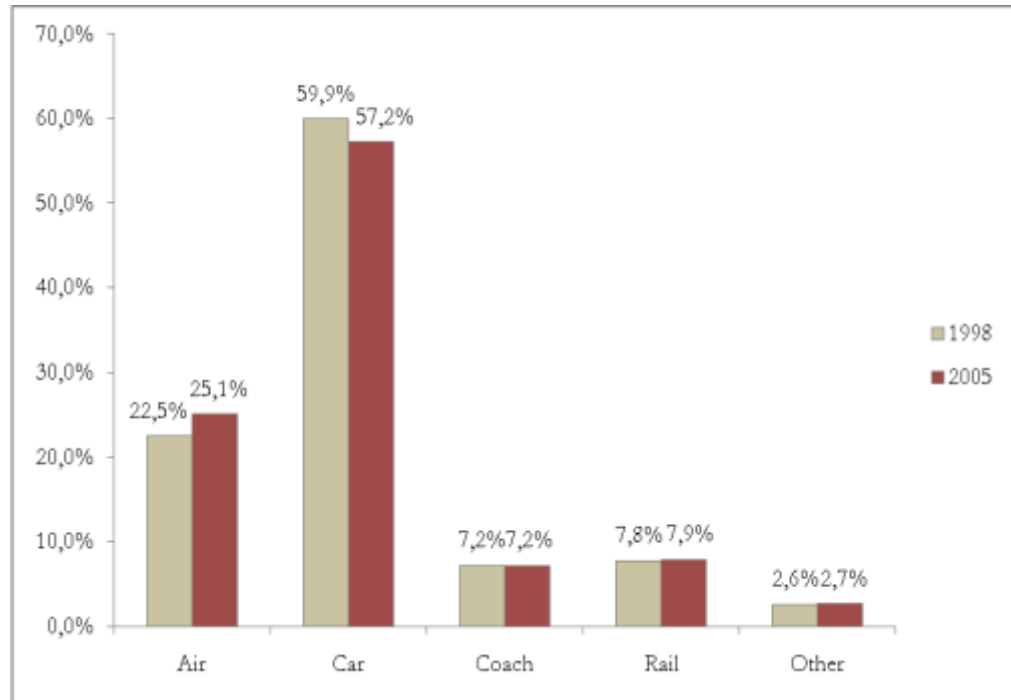
Source:
Alpenzustandsbericht
2008

Arrivals tourists in the Alps (2007)



Source: Molitor et al. 2008

Modal choice in OD-destination trips in tourism in Europe



Source: Eurostat (2008)

Why sustainable mobility?

Global tourism emissions (CO₂), 2005

- Air transport: 522 MT CO₂ → 40%
- Car transport: 418 MT CO₂ → 32%
- Other transport: 39 MT CO₂ → 3%
- Accomodation: 274 MT CO₂ → 21%
- Activities: 32 MT CO₂ → 4%

→ 75% of CO₂ emissions of tourism caused by transport

→ approx. 5% of global CO₂ emissions caused by tourism

Source: UNWTO/Gössling
2008/2010



Sustainable mobility?



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