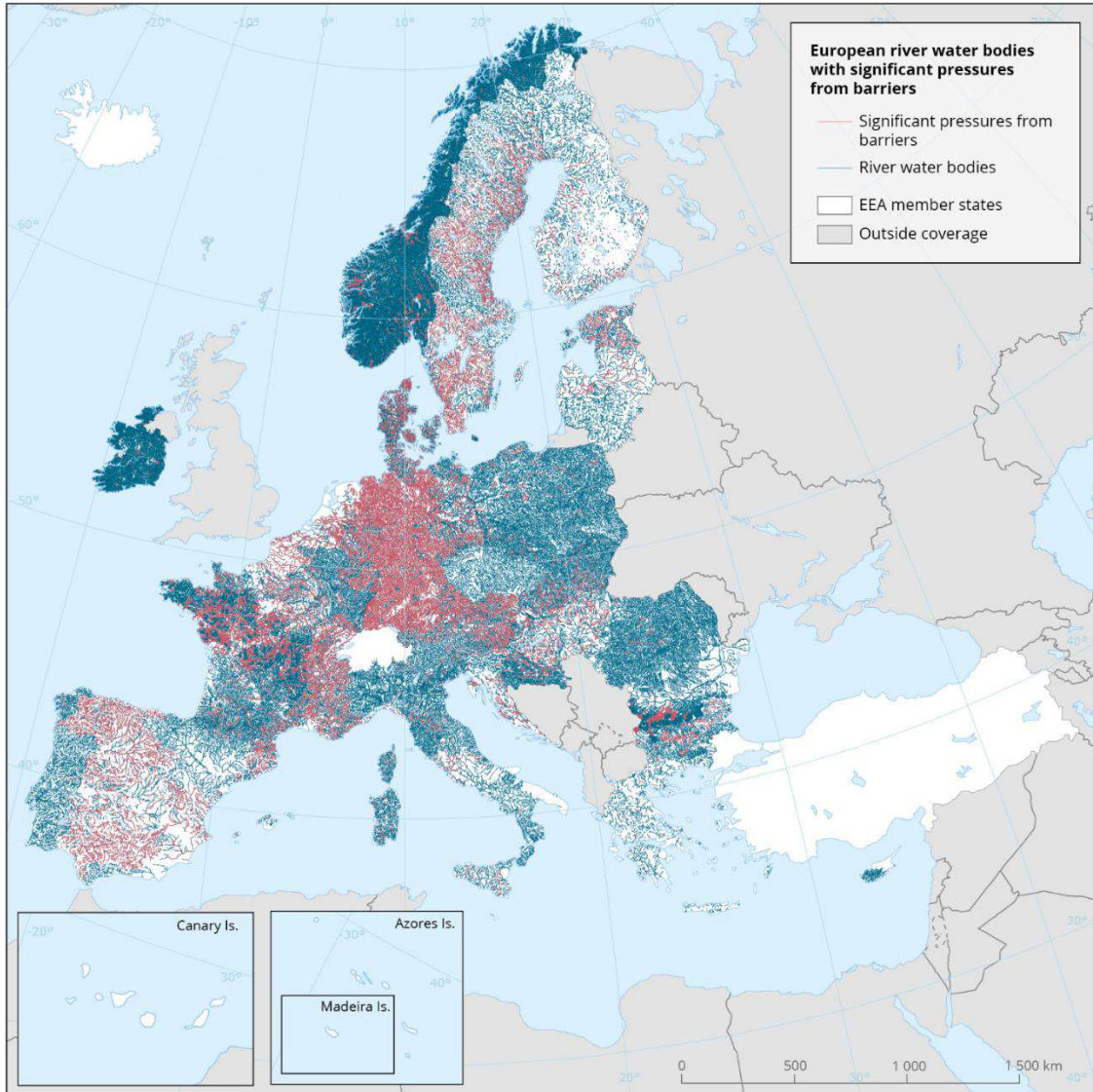


Restoring rivers and removing barriers

Katarína Mravcová, Water Research Institute, Slovakia



Reference data: @ESRI

Zdroj: EEA

Europe

1,2 mil. barriers¹

200.000 km impoundments²

Ca 13% no socio-economic use but negative ecological impact (**156.000**)

Min. **11.000+** obsolete barriers

93% decline
of migratory fish populations since 1970³

Failure to achieve GES in WFD 2000/60/EC,
fresh water biodiversity loss

¹ de Leaniz, C. G. et al, 2021

²Parasiewicz, P. et al., 2023

³Deinet et. al (2020)



Small HPP (Hron river)



Malina river

Dams, weirs ,sluices, culverts

Longitudinal barriers

Lateral barriers

Hymo alterations

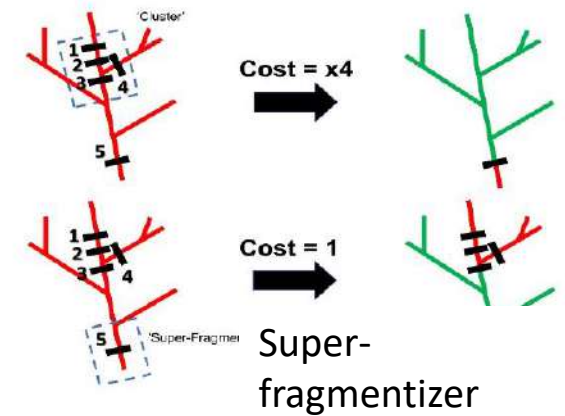


Photo: Skymove, s.r.o.

Impacts

- Loss of habitats and free flowing rivers
- Fragmentation 68% barriers < 2 m, 0,1 % > 15 m
- Fish migration – upstream, downstream
- Continuity of biota, sediments, nutrients
- Water regime change
- Water and sediment quality
- Eutrophisation
- Temperature, Oxygen regime
- Flood protection?
- Investments needed (old dams)
- Socio-economic impacts

Climate change



Solutions

Nature restoration law , Biodiversity strategy 2030

25.000 km Free flowing rivers

Dam removal

Mitigation

Mapping, esp. obsolete

Priorities

Barriers in people`s
minds



YEAR	NUMBER OF REMOVED BARRIERS	NUMBER OF COUNTRIES
2020	101	11
2021	239	17
2022	325	16
2023	487	15

Mouchlianitis F.A. (2024). Dam Removal Progress 2023. World Fish Migration Foundation



Co-funded by
the European Union

Our contribution 2023-2032

Implementation of RBMP in Slovakia in selected sub-basins

15 barriers removed/modified

13,6 km side-arms

3 268 ha biotopes

www.livingrivers.sk



Thanks for attention



**Co-funded by
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