Case study #07a: Danube floodplain Austria

Case study cluster: large transboundary rivers

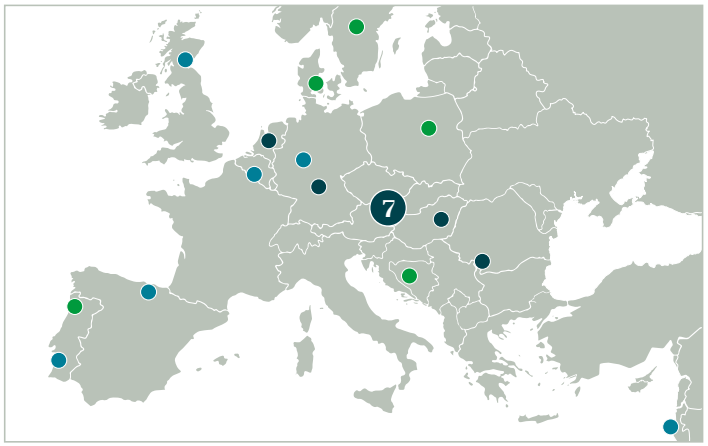
Country: Austria

Scientific partner: University of Natural Resources and Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management

Implementation partner: viadonau – Österreichische Wasserstraßengesellschaft mbH

Twinning case study: LIFE IP IRIS (similar study on transboundary floodplain restoration)

Website: www.viadonau.org/merlin



Demonstration

- **Type of restoration:** restoration of the Danube floodplains
- **Size:** transnational, approx. 100 km Danube and tributaries
- **Location(s):** Danube eastwards of Vienna
- **Value of the case:** systematic process orientated restoration of a whole large river stretch, adaptive management processes, addressing multiple pressures (ecological deficits, security of navigation, riverbed deepening, flood protection, ...)
- **Stakeholders involved:** stakeholder board of the catalogue of measures for the Danube east of Vienna: BirdLife Austria, Austrian Ministry for Climate Action, Forum Wissenschaft & Umwelt, International Commission for the Protection of the Danube River (ICPDR), Donau-Auen National Park, fishing association of Lower Austria, Pro Danube Austria, Umweltdachverband, Umweltorganisation VIRUS, Austrian Federal Economic Chamber, WWF Austria
- **Sectors involved:** cross sector, environment, fishery, inland navigation
- **Innovations being applied:** use of an integrative and adaptive catalogue of measures instead of inflexible large-scale projects, realisation of measures of a common river section management plan in terms of ecology and inland navigation to reach the good ecological status and good navigation status, recycling of removed riprap (circular economy), riverbed widening to counteract riverbed deepening

Implemented within MERLIN

- **Restoration measures**: Riverbank restoration and removal of groyne fragments to re-connect the floodplain
- **Size**: 9.8 ha reconnected floodplain, 1 km restored stream length
- **Scope**: regional
- **Vicinity**: rural
- **Stakeholders involved**: navigation, nature protection, forestry
- **Estimated costs**: 710,000€ (including planning, coordinating, land owners compensation and construction costs) + 1,200€ annual monitoring costs.

The MERLIN project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036337.

Lessons learnt

↘ Early stakeholder engagement and long-term trust are essential for collaborative restoration.

Additional information

The Middle-Danube case study site is composed of an Austrian and a Hungarian project area which are geographically independent from each other (rkm 1882 in Austria, rkm 1448 to 1452 in Hungary). The information of them is shared in two separate leaflets (7a and b), while upscaling of restoration on the Austrian-Hungarian river stretches will be developed together.

Strengths

- Long-term floodplain restoration
- Strong scientific capacity
- Cross-border cooperation
- Comprehensive cost–benefit assessment

Weaknesses

- Complex cross-border governance
- Navigation and infrastructure constraints
- High restoration costs

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Opportunities

- EU restoration policy
- Strong stakeholder engagement
- Adaptive management

Threats

- Navigation conflicts
- Climate change
- Biodiversity decline

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