

Introducing the **DANUBE**lifelines project

Safeguarding Migratory Fish and their Habitats
in the Danube River Basin and beyond

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Background

- Danube River basin lighthouse
- Call: HORIZON-MISS-2024-OCEAN-01-02: – Protection and restoration of migratory fish habitats



iNNOvative SEDiment
management in the
Danube River Basin



Overview

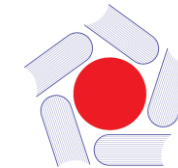
- **Lead:** BOKU University
- **24 Partners** (+ 17 Associated Partners)
- **Start date:** 01 May 2025
- **End date:** 30 April 2029
- **Volume:** €7,796,074.00



Deltares



Leibniz-Institute of
Freshwater Ecology
and Inland Fisheries



UNIVERSITÄT
DUISBURG
ESSEN



SCHNEEAUFMOSS



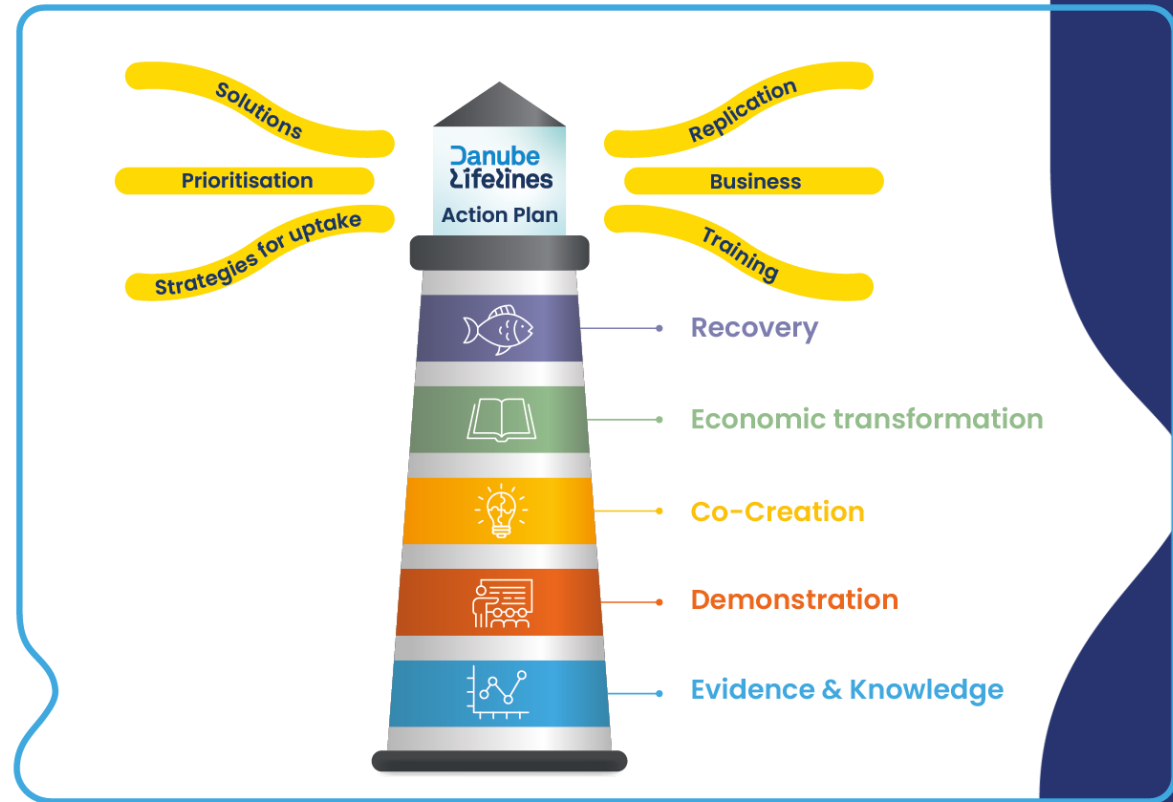


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DANUBElifelines Vision

We reconnect rivers, restore biodiversity and hydromorphology, and promote scalable solutions for freshwater conservation in the Danube Basin (across Europe)



PART OF THE

EU MISSIONS

RESTORE OUR OCEAN & WATERS

Co-funded by
the European Union



Funded by
the European Union

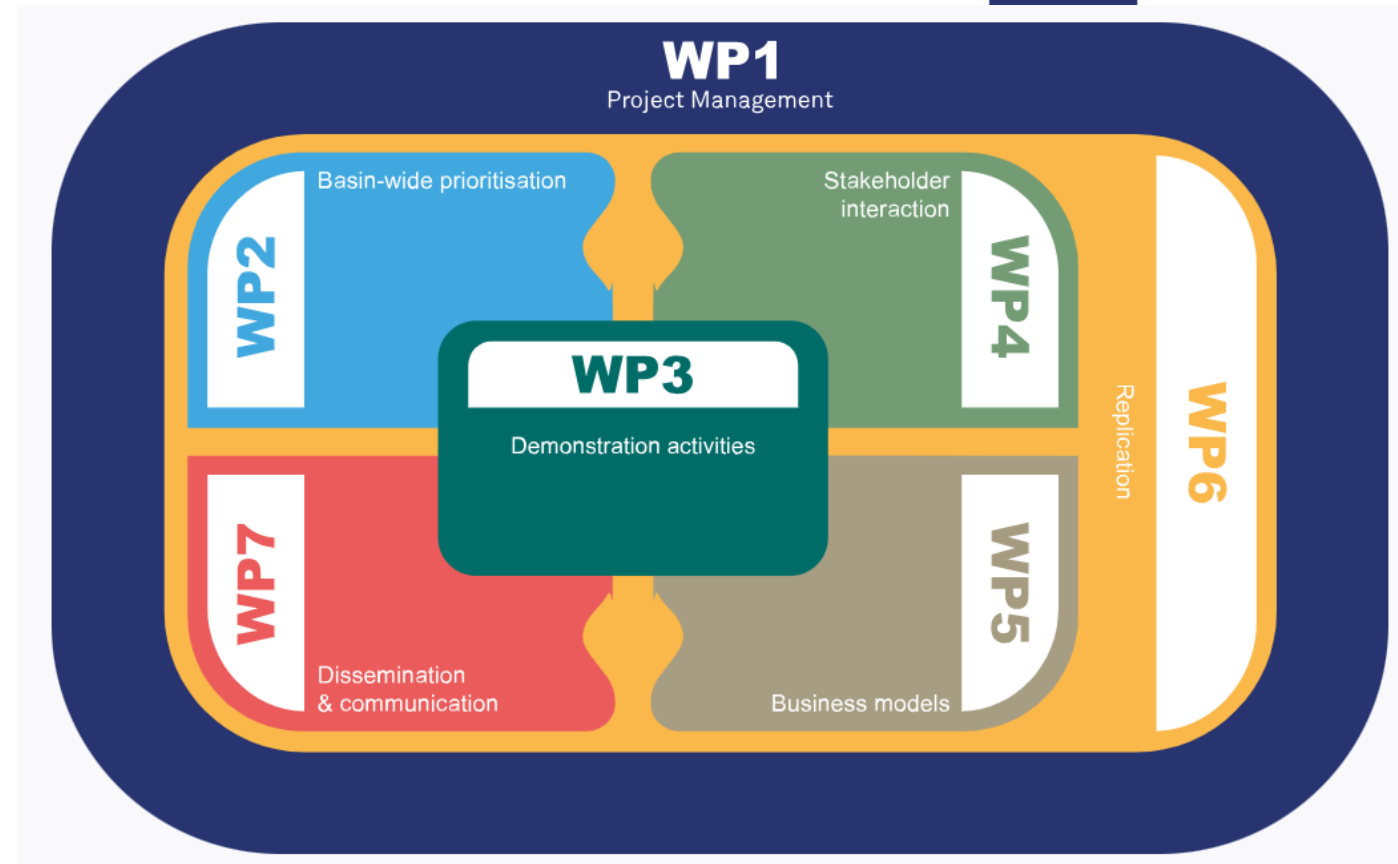
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DANUBElifelines Objectives

1. Demonstrate and evaluate **solutions for migratory fish and their habitats**
2. Identify and prioritise **transnational migration corridors** (Free-Flowing Rivers; NRR)
3. Establish strategies for an effective **uptake of the Action Plan** by local, regional, and national authorities
4. **Train and educate stakeholders**
5. **Promote the replication of the demonstrated solutions**
6. Identify **innovative business models for sustainable economic transformation**

DANUBElifelines Work Packages

- **WP1 Project Coordination**
- **WP2 Basin-wide Prioritisation**
 - Locating the Problem
- **WP3 Demonstration Activities**
 - From Theory to Practice
- **WP4 Stakeholder Interaction**
 - Working with People
- **WP5 Business Models**
 - Supporting the Business
- **WP6 Replication & Exploitation**
 - Guideline, synthesis and action plan
- **WP7 Dissemination & Communication**
 - Spread the Word



DANUBElifelines WP2

Basin level analyses

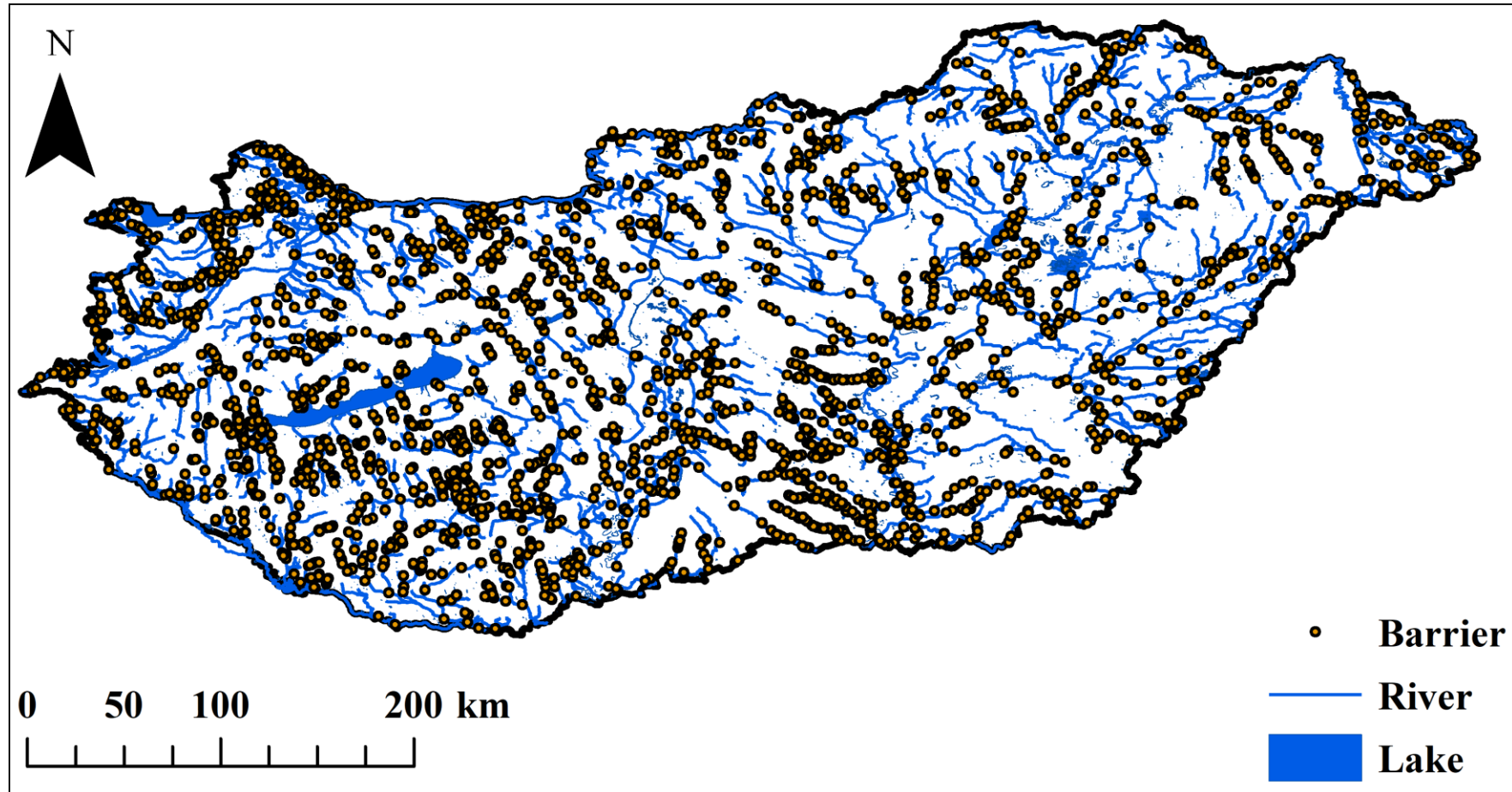


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DANUBElifelines WP2

Basin level analyses



DANUBElifelines WP2

Basin level analyses

- Develop a spatial framework for conservation planning of migratory fish
- Assess distribution, conservation status, and threats of migratory fish in the DRB
- Update barrier inventories and assess habitats impacts
- Prioritize restoration strategies based on cost-benefit analysis and trade-offs under data- deficient scenarios

DANUBElifelines WP3

Demonstration Sites

- 8 demonstration sites in the DRB
- From Germany to Romania

Targeting different aspects in relation to restoration and protection of migratory fish

DANUBElifelines WP3 Demonstration Sites

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Targeting different aspects in relation to restoration and protection of migratory fish

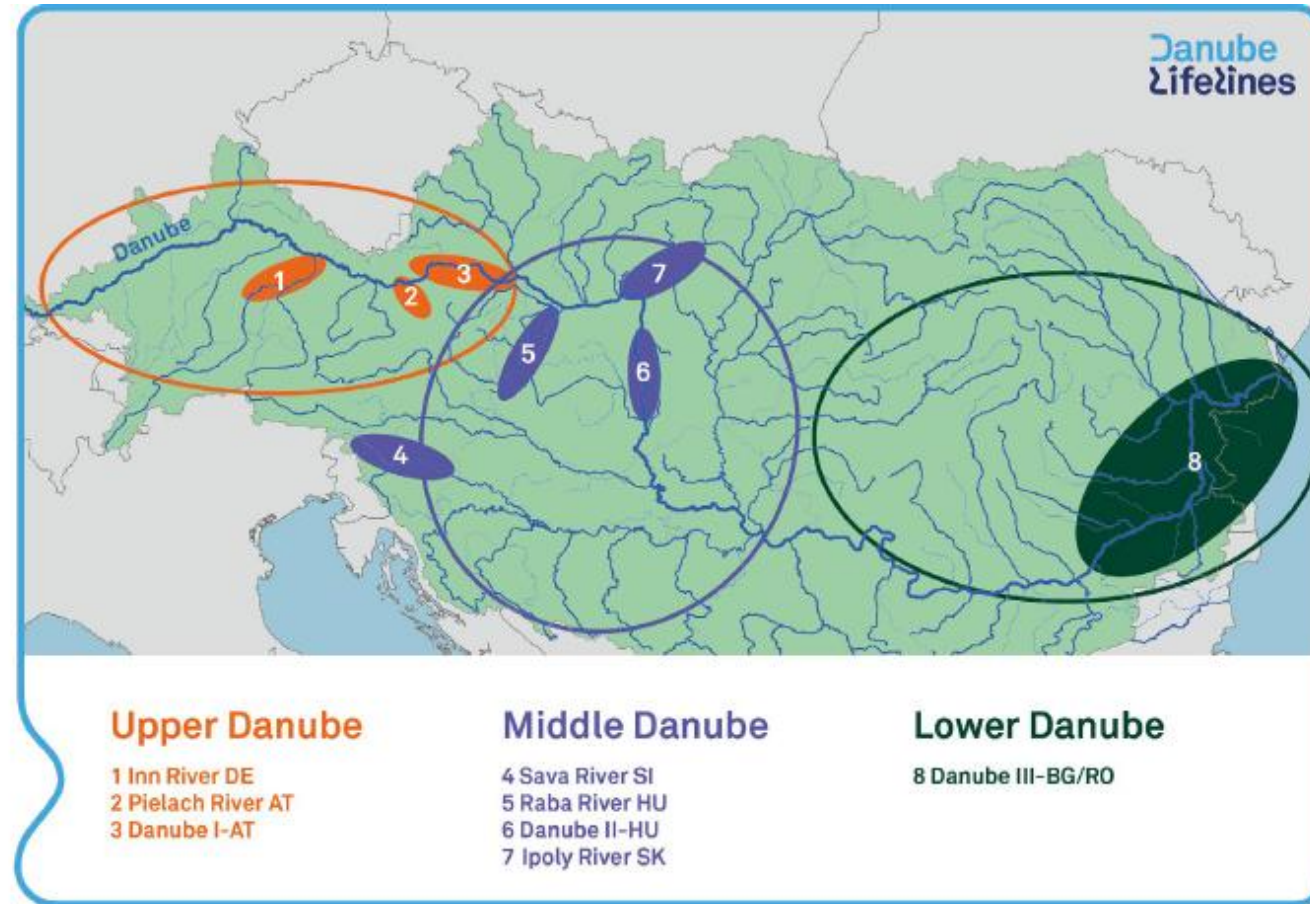
21 target fish species

incl. anadromous & potamodromous species

		MEASURES species	DE - Inn-Danube	AT - Danube & tributaries	AT - Pielach	SK - Ipoly	HU - Danube	HU - Raba	SL - Sava River Basin	RO/BG - Lower Danube	DANUBElifelines species
Anadromous species	Acipenseridae										
	<i>Huso huso</i>										
	<i>Acipenser gueldenstaedtii</i>										
	<i>Acipenser stellatus</i>										
	Clupeidae										
	<i>Alosa immaculata</i>										
	<i>Alosa tanaica</i>										
	Salmonidae										
	<i>Salmo labrax</i>										

		MEASURES species	DE - Inn-Danube	AT - Danube & tributaries	AT - Pielach	SK - Ipoly	HU - Danube	HU - Raba	SL - Sava River Basin	RO/BG - Lower Danube	DANUBElifelines species
Potamodromous species	Acipenseridae										
	<i>Acipenser nudiventris</i>										
	<i>Acipenser ruthenus</i>										
	Cyprinidae										
	<i>Pelecus cultratus</i>										
	<i>Vimba vimba</i>										
	<i>Chondrostoma nasus</i>										
	<i>Barbus barbus</i>										
	<i>Rutilus virgo</i>										
	<i>Leuciscus aspius</i>										
	<i>Leuciscus idus</i>										
	<i>Cyprinus carpio carpio</i>										
	<i>Ballerus ballerus</i>										
	Salmonidae										
	<i>Hucho hucho</i>										
	<i>Thymallus thymallus</i>										
	Percidae										
	<i>Zingel zingel</i>										
	<i>Zingel streber</i>										
	<i>Gymnocephalus schraetser</i>										

DANUBElifelines Demonstration Sites



DLL Demonstration Sites – Inn (DE)

- **Aim:** Holistic assessment of restoration sites to improve migratory fish habitats and populations >150 km corridors.
- **Output:** Evidence for planning restoration and maintaining positive effects.



DLL Demonstration Sites – Pielach (AT)

- **Aim:** Demonstrate benefits of nature-based solutions for Danube salmon and European grayling.
- **Output:** Monitor new connectivity solutions, flood protection, ecological status.



DLL Demonstration Sites – Danube I (AT)

- **Aim:** Demonstrate benefits of restoration measures in a fragmented system; support EU ‘free-flowing rivers’ concept.
- **Output:** Guide further restoration, sustain migratory fish populations, implement national park activities.



DLL Demonstration Sites – Sava River (SI)

- **Aim:** Develop national strategy for Danube salmon conservation as best practice.
- **Output:** Co-creative conservation planning, raise recognition of habitat restoration, telemetry data for behavioural-ecological study.



DLL Demonstration Sites – Ipel/Ipoly River (SK/HU)

- **Aim:** Harmonize flood protection, nature conservation, and economic activities via multi-actor co-creation. Identify critical habitats for migratory fish.
- **Output:** Restoration priorities and management plans (supporting RBMP, NRR). Technical documentation for new fish pass construction on a crucial barrier.



DLL Demonstration Sites – Danube II (HU)

- **Aim:** Prioritize side arms for restoration, assess habitat quality and lateral connectivity, develop monitoring methods.
- **Output:** Management plans, map of critical habitats and key restoration/conservation areas, support RBMP, NRR.



DLL Demonstration Sites – Rába River (HU)

- **Aim:** Restoration plan for oxbow reconnection; enhance stakeholder communication.
- **Output:** Restoration plan and authorization; create new spawning areas and habitats.



DLL Demonstration Sites – Danube III (BG/RO)

- **Aim:** Map Pontic shad & sturgeon habitats; improve fishers' livelihoods and social perception.
- **Output:** Recommendations for management, protect habitats, reduce fishing pressure and poaching.



Associated Regions

Supporting the ARs in:

- Monitoring fish populations and habitat conditions
- Planning and implementation of habitat restoration
- Design and evaluation of restoration measures
- Stakeholder engagement
- Development of action plans

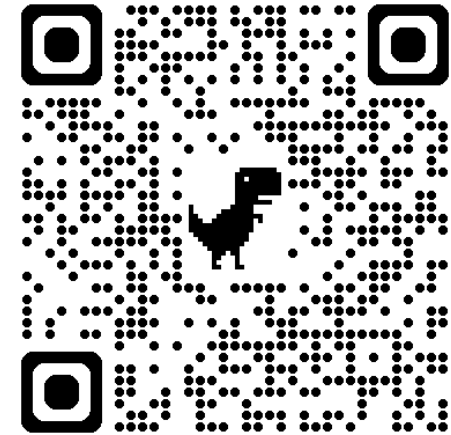
Call open till 31.12.2025

Bosnia, Croatia, Czech Republic, Montenegro, Ukraine are eligible as AR in DLL

Up to 100.000 € for „local & regional authorities“



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Call for Associated Regions

The Associated Regions (AR) component is essential to the DANUBElifelines (DLL) mission, aiming to safeguard and restore migratory fish populations and their habitats across the Danube River Basin.

[About](#) [Demosites](#) [News](#) [Associated Regions](#)



Background

The DANUBElifelines Project

Call for Proposal

Who Can Apply?

Funding & Eligibility

Application Process

Timeline

FAQs

Downloads

Share

Background

Freshwater migratory fish are among the most threatened groups of vertebrates globally, facing dramatic population declines due to habitat fragmentation, pollution, overexploitation, and the impacts of climate change. The loss of migration corridors — essential for their life cycles — combined with the degradation of critical spawning, feeding, and refuge habitats, has left many species at risk of extinction. Despite growing awareness and policy frameworks at the EU and international levels, the protection and restoration of migratory fish habitats remain limited, fragmented, and often insufficiently implemented. Existing legal instruments frequently fall short of addressing the complex, cross-border nature of aquatic ecosystem restoration. Restoring river connectivity and protecting migratory fish is not only a matter of conserving biodiversity — it also carries significant ecological, cultural, and economic benefits. Migratory fish act as indicators of river health and support ecosystem services that underpin livelihoods, recreational activities, and food security. Addressing these challenges calls for coordinated, science-based, and scalable solutions that involve multiple sectors and stakeholders — from water management and fisheries to energy, transport, and regional planning.

DANUBElifelines WP4

Stakeholder interactions

- Enhance awareness, communication, cooperation, and understanding among DRB stakeholders
- Guidelines and recommendations for harmonized use of planning and legal instruments
- Incentives for sustainable investment in the DRB

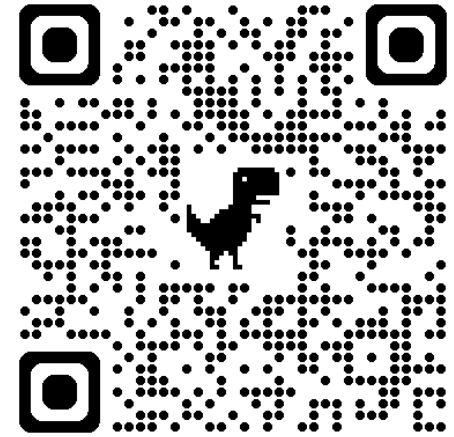
DANUBElifelines WP5

DLL Business Club

Show how business can thrive with impact from fish-friendly hydropower to eco-tourism and sustainable fisheries.

Hands-on, practical learning:

- Real-world case studies from the Danube region
- One-on-one business mentoring tailored to your needs
- Training modules designed to be directly applicable, from funding to marketing
- **Business Club Newsletter**
- **Free online training sessions**



DANUBElifelines (WP6)

Key Outputs

- **DLL Action Plan** – A Blueprint for the recovery of migratory fish
- **Danube Fish Migration and Connectivity Atlas**
- **Synthesis of existing solutions** for the protection and restoration of migratory fish and their habitats
- **Vocal education training (VET) materials** for authorities
- **Business mentorship program**
- **Replication roadmaps** for 5 Associated Regions
- **Restoration & conservation plans** (Slovenia, Slovakia, Hungary), and **habitat prioritisation** (Slovakia, Slovenia, Hungary, Romania, Bulgaria)
- Communication channels and event activities

Danube Lifelines

<https://danubelifelines.eu>



<https://bsky.app/profile/danubelifelines.bsky.social>
<https://www.linkedin.com/company/danubelifelines/>
<https://www.facebook.com/DanubeLifelines>
<https://www.instagram.com/danubelifelines>
<https://www.youtube.com/@DanubeLifelines>



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<https://danubelifelines.eu/>

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Let the Fish Back to the Danube. Together.

A unique cross-border mission to restore migration routes and habitats across 11 countries.



Restoring Europe's Lifeline

DANUBElifelines paves the way towards the recovery of migratory fish and their habitats in the Danube River Basin. Through 8 demonstration sites and a wide network of partners spanning from Germany's Black Forest to Romania's Danube Delta, we reconnect rivers, restore biodiversity, and promote scalable solutions for freshwater conservation across Europe.

DANUBElifelines Demonstration Sites

Upper Danube

Middle Danube

Lower Danube



1

Inn

This demonstration site focuses on restoring fish migration and habitat connectivity ...



2

Pielach

The Pielach River site demonstrates how Nature-based Solutions can benefit migratory fish ...



3

Danube I

This site evaluates a combination of Nature-based Restoration actions across a highly ...



4

Sava

The Sava River Basin demonstration site supports the development of Slovenia's national ...



5

Rába

The Rába River demo site focuses on restoring connectivity between an isolated oxbow ...



6

Danube II

This demonstration site focuses on the development of a science-based, stakeholder ...



7

Ipoly

The Ipoly River demonstration site focuses on integrative restoration planning to support ...



8

Danube III

This demo site aims to strengthen protection of five threatened migratory fish species,...



DANUBE LIFELINES – SAFEGUARDING MIGRATORY FISH AND THEIR HABITATS IN THE DANUBE RIVER BASIN AND BEYOND



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Figure 1.3: Top: Issues to be solved for migratory fish; from left: Inn (Germany), Pielach (Austria), and Ipoly (Slovakia) Bottom: Solutions to be assessed; from left: reconnected tributary to the Danube (Austria), oxbows and their role for migratory fish (Hungary), restoration of critical habitats for Danube salmon (Slovenia)

DANUBE LIFELINES – SAFEGUARDING MIGRATORY FISH AND THEIR HABITATS IN THE DANUBE RIVER BASIN AND BEYOND



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*Figure 1.1: Top: Three of the 21 DANUBElifelines target species; from left: sterlet, vimba bream, barbel. Bottom: Methodologies that will be applied in DLL to assess solutions for migratory fish species and their habitats; from left: eDNA sampling, net sampling; and 3 * PIT tagging antenna installation*

DANUBElifelines Aims

Basin-wide

- Enhance a **protected and connected network** of critical habitats for migratory fish
 - Identify knowledge gaps
 - Establish new evidence and tools
- **Link actors** from different sectors and authorities on a national scale
 - Enhance cooperation
 - Facilitate mutual learning



Regional/local

- Identify and assess effective solutions
- Highlight key restoration opportunities and identify enabling conditions for protection and restoration
- Co-design and co-creation processes – stakeholder engagement
- Develop new business and financing models

WP activities

- WP4 - Stakeholder interaction
 - Enhance awareness, communication, cooperation, and understanding among DRB stakeholders
 - Guidelines and recommendations for harmonized use of planning and legal instruments
 - Incentives for sustainable investment in the DRB
- WP5 - Business models
 - Business mentoring and training to enhance the capabilities of business owners
 - Assessing the effectiveness of business models focused on migratory fish

DANUBElifelines Key Outputs

- **DLL Action Plan** – A Blueprint for the recovery of migratory fish
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