



Clustering Event Fresh Water Related project 19th
March

Every drop counts! Szigetköz - Insula Magna

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PROJECT INTRODUCTION IN A NUTSHELL

Project Objective:

**Model area for sustainable regional development -
Sustainable and livable floodplain environment**

Key Exploitable Outcomes:

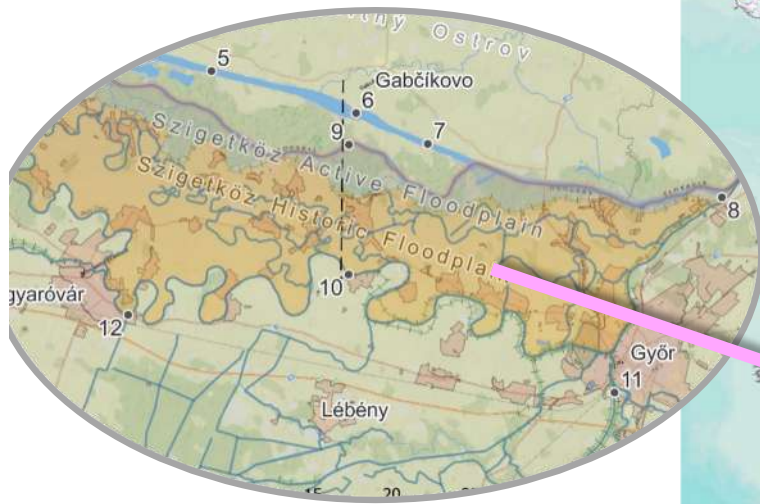
**Regional level: good water stewardship and provision of ecosystem services to
improve quality of life, bioecology and climate resiliency**

1. Water Energy Food System nexus
- 2. Circular Economy and Bioeconomy and Water nexus**
3. Digitalization and Water

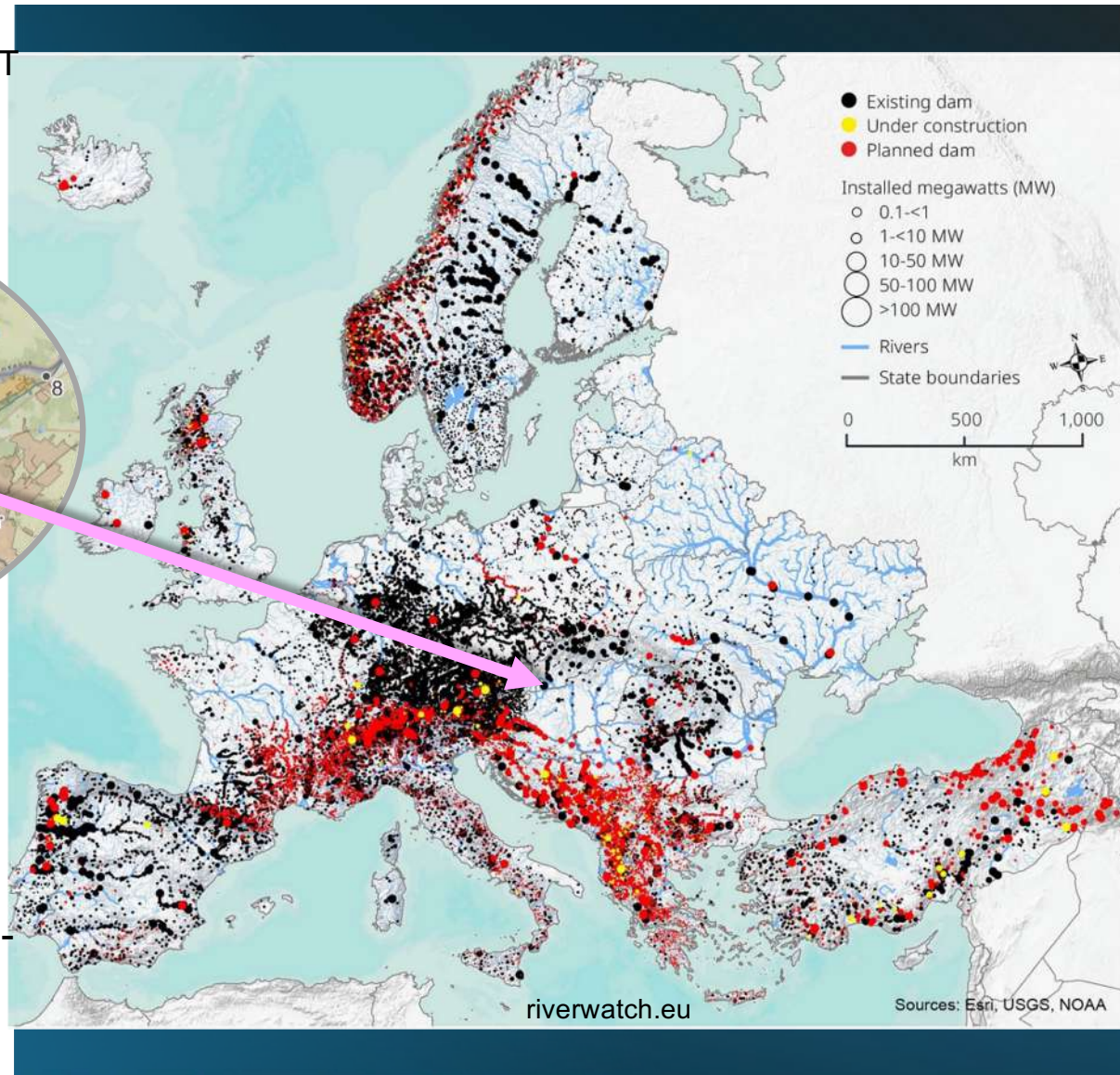
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SZIGETKÖZ IS NOT THE ONLY DOT ON THE MAP ...



... BUT IT COULD BE A FLAGSHIP FOR WATER VALUE-BASED FLOODPLAIN REHABILITATION





INSULA MAGNA

- A program supported by the Hungarian Government
- 5 million EURO state funds were spent in the last 3 years.
- An additional 100 million euros in support was decided at the beginning of March 2024 (for water related project phase)
- Financing required for developed project elements with a feasibility study

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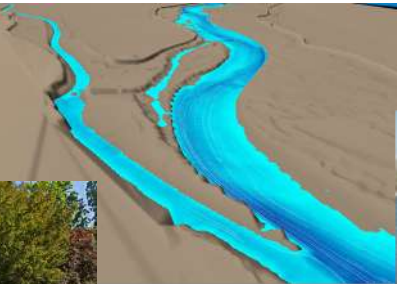
Good water stewardship and provision of ecosystem services

- *Transdanubian partnership (HU-SK)*
- ***Integrated water resources management***
 - *Coordinated management and development of water, land, and related resources*
 - *Stakeholder engagement*
- ***Climate resilience and planning***
- ***Sustainable agriculture practices***
- *Education and awareness*





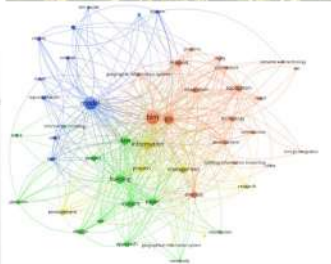
SUSTAINABLE FLOODPLAIN ENVIRONMENT (Historical floodplain)



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- Integrated water resources management
 - Multi-purpose water resources management system in Szigetköz
 - Integrated water management in the Szigetköz floodplain
 - Sustainable municipal water management
 - Environmental monitoring and modelling system development
 - Preparation of complex environmental analyses; wide-ranging and real-time access to data collected through an open lab and preparation of modelling systems
 - Microplastic database
- Climate resiliency planning
- Water value framework

Sustainable agriculture practices



- Agricultural environment
 - community- supported agriculture
 - on-farm research, software development
 - exemplary adaptable dual education
 - irrigation systems
 - soil improvement
 - climate monitoring
 - weed management
- Built environment
 - Construction and agricultural waste re-use
 - Green infrastructure
 - Lifetime engineering
 - BIM based design



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EDUCATION AND AWARENESS



- Community engagement
 - Digital environmental and cultural information system
 - Education program for sustainable development
 - Complex forest pedagogy program
 - Forest school - on university ground
- Capacity building
 - Training for local governments, businesses, and community organizations
 - Szigetköz App

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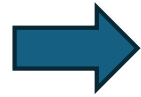
Good water stewardship
provision of ecosystem services
using the water value concept

Designing the distribution of water and the distribution of ecosystem services provided by water resources ensures the satisfaction of **social needs**, the improvement of **economic performance**, and the enhancement of **ecological conditions**.



**Responsible water managements
Climate adaptation**

Goal: The evaluation and management of social needs, economic performance, and ecological conditions provided by water wealth



Framework:
The Water Value framework is an integrated approach to water management that simultaneously designs water allocation and ecosystem services.



Tracking the path of water and the distribution of ecosystem services provided by water resources through modellig each system element.



1.: Integrated surface water management model



2.: Subsurface water management model



3.: Urban water resources management



4.: Blue and green innovation, infrastructure



5.: Integrated flood protection and ecological methods



6.: Sustainable agriculture, built environment



7.: Risk analyses, Ecosystem services (RESI)



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Thank you for your attention

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