

European
River Restoration
Conference

Featuring the IRF Riverprize



Connecting River Restoration Thinking to Innovative River Management

6th Edition | 27–29 October 2014 | Vienna

Integrated with the final event of the SEE River project



6th EUROPEAN RIVER RESTORATION CONFERENCE & SEE RIVER PROJECT FINAL EVENT

Bart Fokkens, Chairman ECRR

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The SEE River project is co-funded by the EU in the framework of the Territorial Cooperation Programme South East Europe

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CONFERENCE / PRIZE PARTNERS & SUPPORTES



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EUROPEAN RIVERPRIZE 2014

RIVER MUR AUSTRIA

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CONNECTING RIVER RESTORATION THINKING TO INNOVATIVE RIVER MANAGEMENT



VISION

1. Urban river restoration and city development.
 2. Land use / agriculture and river restoration.
 3. Hydropower; mitigation and compensation of impacts through river restoration.
 4. Restoring hydro-morphological processes and sediment continuity.
 5. Fish migration and river restoration.
 6. Cost effective solutions for river management; undertaking river restoration that delivers ecosystem services benefits.
-
1. Capacity-building for involved actors in integrated river corridor management.
 2. Building stakeholder dialogue for informed decision-making on river management.
 3. Establishing the links and cooperation between local, regional, national and international level stakeholders in order to ensure sustainable transboundary integrated management of river corridors.
 4. Developing and ensuring the bottom up and top down approaches and their combinations.

CONFERENCE THEMES

CROSS CUTTING
ISSUES

OVERARCHING GOAL

INNOVATIVE
INITIATIVES

TARGET

RIVER RESTORATION

Green Infrastructure implementation (EU)
Natural Water Retention Measures (EU)
Contemporary River Corridor Management (SEE River)

INTEGRATED RIVER BASIN RESTORATION MANAGEMENT

...SUBMISSIONS...

CONFERENCE PROGRAMME

9 keynote presenters
18 sessions
100 oral and poster
presentations



CHALLENGES

- 1. How to innovate Integrated River Basin Management using Green Infrastructure, Natural Water Retention Measures and Contemporary River Corridor Management?**
- 2. What are the measures, tools and techniques?**
- 3. What are the messages for capacity building (management, cross sectoral cooperation, stakeholder involvement, funds, skills).**
- 4. What are the key gaps in knowledge and policies?**
- 5. What are the best practices and lessons learned yet?**

CONFERENCE DECLARATION
ON
CONNECTING RIVER RESTORATION THINKING TO
INNOVATIVE RIVER MANAGEMENT

6th ERRConference & SEE River Project Event

- **Content**

- **Themes:** urban resilience, sustainable land use, hydropower, hydro-morphological continuity, fish migration, and ecological & economical benefits
- **Practical aspects:** effectiveness, capacity, finance, policy and research

- **Demonstrated progress**

Much knowledge & demonstration gained

Many gaps remain



INNOVATIVE INITIATIVES

- **Green Infrastructure**
- **Natural Water Retention Measures**
- **Contemporary River Corridor Management**
- **River Basin Restoration Practices**

**Contribute to holistic approach:
natural processes, ecosystem services &
multiple benefits, socio-economy**



CROSS-CUTTING PLANNING AND IMPLEMENTATION

- **Known & new pressures**

Underestimated & unexpected; food, energy, CC

- **Need for cross-cutting considerations:**

Transboundary (countries & basins)

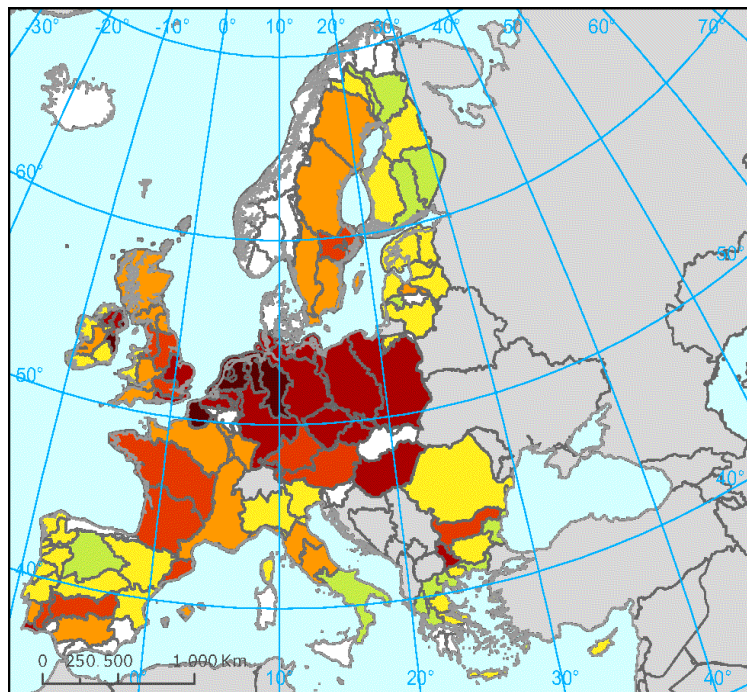
Sectors & themes

Policy & legislation

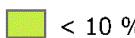
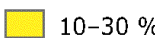
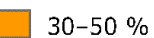
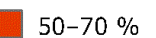
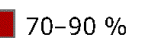
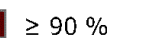

Public participation & stakeholder involvement

Address general pressures with local measures

Percentage of water bodies affected by hydromorphological pressures



Percent of classified water bodies affected by hydromorphological pressures

 < 10 %  10-30 %  30-50 %  50-70 %  70-90 %  ≥ 90 %  No data



Pressures & Measures

Pressures

Water pollution from wastewater and diffuse sources

Water storage, and abstraction

Barriers (dams, weirs etc.)

Bank reinforcements channelisation and straightening

Measures

Good agricultural practices;

Reduced emissions to water bodies by better wastewater treatment;

Improving hydromorphology changed land-use, removing migratory obstacles and transverse structures

Ensuring good environmental flows

Improved State; Achieved objectives

Good chemical quality

Good ecological status

Healthy river habitats



There are **several hundred thousand of** barriers and transverse structures in European rivers.

In **France**, more than **60 000 structures** - dams, locks, weirs and mills – have been recorded on rivers and are potential obstacles to river continuity. In total, it is estimated that the river networks are affected by **120 000 transversal structures** (ONEMA 2011).

There are currently thought to be some **200 000 transverse structures** in **Germany**. In relation to the overall length of Germany's network of watercourses of around 400 000 km, the continuity of rivers is therefore interrupted around every second kilometre by a technical structure (BMU/UBA, 2010).

In **Austria**, there are around **33 000 barriers** in river networks resulting in 45% of water to a risk of missing the target. On average, the river continuity is interrupted every kilometre (BLFUW, 2014)

In the **Czech Republic**, around **6 000 barriers** above 1 m have been identified: 2 153 in the Danube RBD, 2 805 in the Elbe RBD, and 1 065 in the Odra RBD (Environmental indicators).

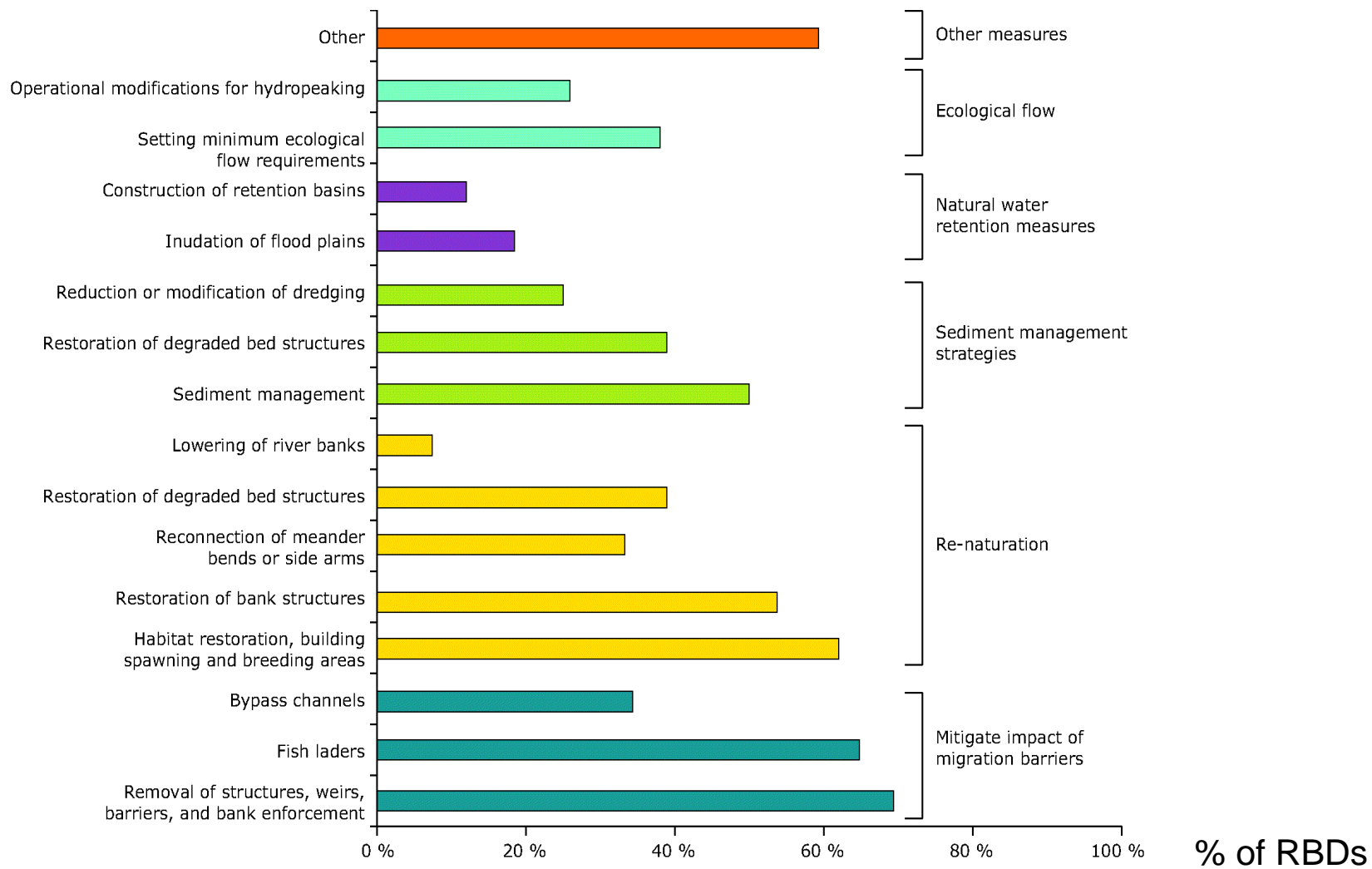
The **Dutch** Rhine RBMP identified over **9 000 dams**, including over 700 in flowing waters. The Dutch Meuse RBMP identified more than **2 000 dams**, half of them in flowing waters. Only a small part is made passable for fish (VROM et al. 2009a and 2009b).

In **Belgium**, **779 barriers** have been identified on a 3 000 km long priority network of rivers. In addition, many barriers are found on other rivers (Biodiversity Indicators, 2011).

There are over **2 500 weirs and impoundments**, and 5 000 culverts on **Scottish** rivers (SEPA, 2007).

In **Switzerland**, there are approximately **100 000 artificial barriers** over 50 cm high, and several hundred thousand barriers under 50 cm high (FOEN 2010b).

Hydromorphological measures in RBMPs



Based on EC 2012: WFD Staff Working Document Vol. 2 – Section 8.14

http://ec.europa.eu/environment/water/water-framework/pdf/CWD-2012-379_EN-Vol2.pdf

European Environment Agency



THE PLANNING FRAMEWORK

WFD 2nd River Basin Management Plans

- Through stakeholder participation & awareness raising, public involvement
- Towards practical, tangible, factual & valued results
- Cross-sectoral planning

Vision – Ambition – Tangible results

SOCIETAL CHOICES

“Success” determined by people

- Ownership, language, incentives, transparent, pro-active
- Planning & implementation for impact
- Socio-economic development framework

Leadership – courage - cooperation

Public Participation & Stakeholder Involvement

INNOVATION

Linkage: River Restoration approaches to integrated river basin management

- **Principles**
 - Public
 - Cross-sectoral
- **Policies:** integrated
- **Practices:** on-the-ground

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THANK YOU FOR YOUR ATTENTION !

