

## **EFFICIENCY & MULTIPLE BENEFITS**

The interest of combining hydraulic infrastructure and nature-based solutions to face the issue of climate change.

Bart Fokkens, Associated Expert ECRR and Wetlands International



## **ECRR ASSOCIATION MEMBERS & PARTNERS**

## **ECRR MISSION**



**Ecological River** Restoration

throughout

**PAN - EUROPE** 



I.S. Rivers

**Finnish Environment Institute** 

Integrative sciences and sustainable development of rivers

3\*\* INTERNATIONAL CONFERENCE



ÉTABLISSEMENT PUBLIC DE L'ÉTAT

**AGENCE FRANÇAISE** POUR LA BIODIVERSITÉ



NORWEGIAN ENVIRONMENT AGENCY





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## ECRR STRATEGY

- Dissemination of Ecological River Restoration Information amongst ca. 2500 individuals
- Establishment of River Restoration
  National and Topic Centers now 14 organisations
- Annual workplan for and with all members, and largely in collaboration with Wetlands International
- Partnerships with various International Water Organisations like GWP(CEE), WWFCEE, ICPDR



## **HUGHE CHALLENGES IRBM**

- Climate change, mitigation and adaptation
- Extended and intensified economic use and social needs concerning water
- Good ecological status, hydro-morphological impacts, ecological river restoration
- Floods and droughts, natural water retention, green infrastructure, ecological flows
- Principles, policies, planning and implementation







#### Nature-based Solutions to address global societal challenges

Editors: E Cohen-Shacham, G Walters, C Janzen, S Maginnis







# **SCHEMATIC CATCHMENT & NWRM**

#### Covering a range of sectors and types of measures



- A2 Buffer strips and hedges
- **A3** Crop rotation
- Permeable surfaces **U**3
- **U11** Retention ponds

- Forest riparian buffers
- Targeted planting for catching precipitation F4
- Wetland restoration and management **N2**
- **N4 Re-meandering**





## **URBAN RIVER RESTORATION & NRWM**







## **ROOM FOR THE RIVER APPROACH**







#### **LEADING PRINCIPLES: GREEN INFRASTRUCTURE & RIVER CONTINUITY**





### THE DUTCH SAND MOTOR & MARKER WADDEN







## **MULTIPLE BENEFITS**

- Optimised performance
- Ecosystem processes restoration
- Increased biodiversity
- Ecosystem services
- Reduced costs
- Sustainable, resilience, robust
- Stakeholder involvement
- Public participation
- Policy coordination and integration

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