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1. Foreword

Dear readers,

Herewith I present with great pleasure our special ECRR newsletter, dedicated to the European River Restoration Conference that was held in Vienna, from October 27-29, 2014. This 6th edition of the ECRR River Restoration conference was organised in close cooperation with the [SEE River project](#) and was attended by 230 representatives from 35 countries, many of whom also participated in the optional field excursion on Thursday October 30. I like to thank very much all the participants for their active participation and contributions and in particular [SEE River Project manager Aleš Bizjak](#) and [ECRR Chair Bart Fokkens](#) for their perfect guiding and chairing of the conference. Moreover I like to express my gratitude to the [SEE River project team](#) and participants for the fruitful cooperation in organising the conference.

Along with the conference, the [2nd European RiverPrize](#), was awarded by the [International River Foundation \(IRF\)](#), the awarding ceremony and the festive gala dinner hosted by the City of Vienna in the wonderful Vienna City Hall. This year the River Mur in Austria was awarded with the prize, and I would like to congratulate everyone who contributed to the great success of this river basin.

In this special newsletter, you will find a reflection on the main topics presented and discussed over many sessions. These include issues like: the multiple benefits of integrated river basin

management, river connectivity and hydromorphology, the importance of river restoration in urban areas and of course a look forward towards realising best practices for river basin management. All presentations, recordings, photos etc. can be found on the [ECRR website](#).

As part of the conference [IRF](#), [INBO](#), [WWF](#), and the ECRR itself, held four different side events. During these side events, the numerous sessions and the field excursions a mixture of new best practices, knowledge and policy drivers was presented, all around the central theme of integrated river basin management, among others shared by a delegation of the [Asian River Restoration Network \(ARRN\)](#), making the ECRR and ARRN signing an International Memorandum of Understanding for future cooperation.

Based on the input from the evaluation of the conference held among the delegates, we can see that the first reactions and feedback are very positive and inspiring. We are happy about that and consider this as a support to continue with this type of activities for the river restoration community in greater Europe. We therefore welcome any ideas, initiatives and support, enabling the ERRC organizers and partners to prepare and organise future conferences.

I wish you pleasant and fruitful reading.

Hil R. Kuypers
Secretary ECRR

2. Introduction

The main goal of the 6th European River Restoration Conference was to explore the opportunities for linking river restoration thinking to innovative river basin management. More specifically, the challenge was to explore how to innovate Integrated River Basin Management by applying the approaches propagated by Green Infrastructure, Natural Water Retention, and Contemporary River Corridor Management.

The Green Infrastructure (GI) concept refers to a strategically planned network of (semi) natural areas designed and managed to deliver a wide range of ecosystem services. It is now being supported as the cross-sectoral approach by the EU. This is a key solution for climate change and disaster risk reduction, for which the EU is developing both strategic and technical guidance, establishing research priorities and improving the access to funding for GI. ([European Commission site](#))

Natural Water Retention Measures (NWRM) are aimed at reducing vulnerability to flooding and drought, by using natural processes that slow down, store, filter, infiltrate and attenuate water flows. Ecosystems and their service provision should be maintained and restored by agricultural buffers and environmental flows. The EU will develop guidance for NWRM and ecological flows by 2014 and promote the NWRM in the IRBM planning cycle. (see illustration on the right)

Bart Fokkens and Aleš Bizjak, conference chairs: "River restoration now stands at the threshold of a change in thinking where ecosystem approaches can become fully integrated into river planning and management. It is a cross-cutting field of work, which connects different sectors and policy areas, engages stakeholders, applies combined top-down and bottom-up approaches and provides integrated solutions with multiple benefits."

The Conference sessions also focused on an innovative new approach called **Contemporary River Corridor Management (CRCM)**. Over the period of the last two years, the SEE River project has developed a new approach of cross-sectoral cooperation in river management. By bringing different actors together, like experts, administration representatives and people living and working in the river corridors, they worked towards new concepts and tools enabling to reconcile the water management, conservation, restoration by sustainable & precautionary planning and decision making, and stakeholder involvement at all relevant levels, including transboundary concerns.

Evidence outlined by keynote presentations, participants in presentations and posters and conclusions from break-up sessions and working groups highlighted the extensive work done in recent decades towards developing best practice approaches to river restoration, restoring the ecological state of rivers and their biodiversity. Attention is shifting towards addressing hydro-morphological pressures and bringing back lateral and longitudinal connectivity targeted for subsequent upscaling, using qualitative and quantitative surveys, and modelling and monitoring tools. Other currently relevant themes include urban resilience, sustainable land use and hydropower, as well as the integrated consideration for ecological and economic benefits.

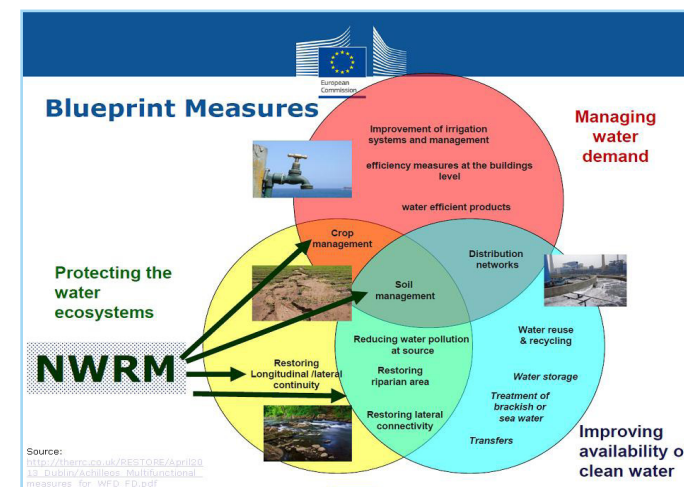
Participants' contributions and field excursions demonstrated the ongoing shift from local, science-oriented river restoration practices towards large-scale integrated, cross-sectoral approaches at the river corridor and river basin level. Relevant EU Directives – Water Framework Directive, Floods Directive, Birds & Habitats Directive, the Renewable Energy Strategy and the Common Agricultural Policy – provide the enabling environment for embedding the overarching principles into policy development and implementation. This strengthens common

understanding, and creates the enabling environment for targeted action on addressing ecological concerns in sustainable development planning.

Bart Fokkens en Aleš Bizjak, conference chairs: "The key challenge for the coming years is to improve the connection between river restoration thinking, best practice and science for those tasked with solving river problems."



Aleš Bizjak, IzVRS and Bart Fokkens, ECRR



Natural Water Retention Measures delivering multiple benefits. Peter Kristensen, EEA.

Meanwhile, significant challenges remain. Europe wide assessments show that the Programmes of Measures of the WFD until 2015 were insufficiently ambitious; both in defining actions needed, in coordinating actions among Directives, and in identifying the appropriate measures to address the pressures. The envisioned expansion of hydropower is a threat for Europe's rivers. Guidance on maintaining continuity and environmental flows therefore needs to be developed. The forecasted increase in pressures from population growth, economic development, and climate change strengthen the need for a paradigm shift. We need to move towards proactive, integrated, adaptive planning, decision making and action at the appropriate scale, based on inclusive public participation and broad stakeholder involvement, comprehensive hazard and risk assessments, and continuous monitoring. Reaching on-the-ground success further requires political will and courage.

See the presentations on this topic



Clockwise, starting top left:
 - Mitja Bricelj, Ministry of the Environment and Spatial Planning, - Slovenia
 - Ania Grobicki, Global Water Partnership
 - Ben van de Wetering, ICPR (International Commission for the Protection of the Rhine)
 - Beate Werner, EEA (European Environment Agency)

3. Multiple benefits of new integrated river restoration approaches

River planning and management has the potential to deliver a range of benefits to various sectors and stakeholders at the same time, for a wider area than just the river itself. It can result in marked benefits for ecology and biology, help to abate flooding, reduce drought stress, and create opportunities for recreation. It can also play a role in raising awareness of the importance of a natural functioning river among communities and the general public. Integrated river basin management has the potential to realise a number of these benefits at the same time within one site.

Workshop session 'Natural water retention measures restoring ecosystems providing multiple benefits': "Assessments must properly capture socio-economic and environmental benefits. It takes the right assessment, incentives and bearing the trade offs in mind to find the optimal policy mix."

The Green Infrastructure concept, NWRM's, CRCM and river restoration provide both the practical instruments and the concepts that are vital to realise optimal, sustainable solutions.

Thematic Field Excursion 'Lower Thaya river – Integrative river restoration and flood protection': "Nature restoration helps with flood protection and to improve the biological status."



The fish pass on the left bank of the river Melk was visited in the field excursion 'fish migration and river restoration'.

Balkan Floods

In May 2014 an extreme hydrological event hit the Balkan, first Serbia and Bosnia Herzegovina, followed by Croatia and Bulgaria later that summer. The floods caused loss of human lives and displacements, and lead to considerable damage to physical infrastructure such as the electric grid, pumping stations and reservoirs, flooding and contamination of bore-holes and collapses of local sewage and drinking water systems. The economic impact was severe: 5% decline of the GDP in Serbia and 15% in Bosnia Herzegovina.

Lower part of Kolubara RB (Obrenovac city) - 2



- 80% territory of Obrenovac city was flooded
- Water depth in some parts was 5m
- Evacuated: 25,000
- Partially or totally devastated houses: more than 1,000
- Damage to transport and communications: 17,000,000 €
- Endangered TPP Nikola Tesla (the largest in Serbia, installed power 1.650 MW)



2014 Balkan floods - learning from disaster. Marina Babić Mladenović, Jaroslav Černi Institute.

In the future disasters like these are likely to occur more often, therefore it is key to be able to respond and recover more quickly, to mitigate risk and avoid creating new risks. The need is apparent for more awareness of flood risk, and for increased capacity at various levels of government, for instance to improve the system of hydro-meteorological

monitoring, flood forecasting and early warning systems, and it is also necessary to prepare plans for protection and rescue in emergency situations on the international level, state level, as well as municipality level.

Marina Babić Mladenović, Jaroslav Černi Institute: "Natural river restoration and Contemporary River Management are crucial for flood protection."

Also, a number of measures need to be taken that reduce the occurrence of high water levels in more natural ways. In recognition of this, the 'After Disaster Water Management Strategy 2014' will include flood management measures:

- Restoration of natural retention areas
- Construct new flood retention capacities on smaller rivers and dry flood-retention reservoirs on large rivers.
- Sustain existing wetlands and inundated areas and sustain existing forests, and afforest hilly and mountain regions.

Benefits to biodiversity

Reinstating natural processes and landscape features can create the dynamism and diversity that are essential for supporting biodiversity. Natural Water Retention Measures, Green Infrastructure and river restoration are key instruments for creating and connecting habitats for a range of aquatic species.

These approaches can improve the connectivity that has been damaged by (hydropower) dams, which benefits (fish) life and sediment transport, reinstate migration corridors for fish, birds, and other species, and slow down the spread of invasive species, and establish a heterogeneous and dense riparian vegetation dense riparian vegetation built up of layers of trees and shrubs.

Workshop session 'Natural water retention measures restoring ecosystems providing multiple benefits': "NWRMs may not always perform one measure the best compared to grey infrastructure but they often provide multiple benefits – like river restoration measures, NWRM's can address several issues at the same time."



The restoration of the Liberty Island side arm in Hungary offers multiple benefits. V.Siposs, WWF Hungary

Workshop session 'Aligning land use planning and agricultural practices with river restoration': "In order to continue to gather evidence to support this, and to learn how to do this best, it is important to monitor the effectiveness of as many restoration measures as possible, and in as many different settings as possible."

Benefits to flood abatement

The effects of climate change will mostly likely lead to more frequent climactic extremes and thus lead to more flooding in the future. Human settlements on floodplains have enormous advantages, e.g. for agriculture, but these areas in particular are exposed to high flood risk.



Measures like Sustainable Urban Drainage Systems (SuDS) and Water Sensitive Urban Design can also play an important role in the reduction of flood risks, as does Natural Flood Management (NFM). NFM entails the alteration, restoration or use of landscape features to reduce flood risk. NFM is a form of catchment systems engineering (managing water quality and quantity) based on natural processes, and has benefits for hydromorphology, water quality and sediment management; thus benefitting ecology as well as society.

Innovative approaches like these should not be seen in isolation. There will always be a need for dykes and other 'hard engineering' measures as well; the challenge is to optimise the advantages of both. This helps to reduce costs and helps to meet several objectives at the same time.

Ania Grobicki, GWP: "We need to move from defensive to preventative, from reactive to proactive measures, and from ad-hoc to integrated flood management."

River restoration's 'killer facts'

The Steart coastal realignment project created an area that is still grazed and farmed, but where the tide is now allowed to come in. It cost 10 million pounds to make, but it generates 12 million pounds worth of storm benefits, carbon storage nursery areas for fish, meat production, and benefits for B&B's & pubs.

Woodland planting in flood plains used to be seen as a measure that aggravates floods, but evidence now shows that it does actually reduce flooding. Infiltration of water into the ground is up to 60% higher in woodland than 'bare' areas, and shading reduces water temperature by up to 5 °C on sunny days.

Multiple Benefits

Through woody debris



Woody debris installed in Belford Burn



Leaving woody debris in situ at Holnicote



Woody debris combined with floodplain attenuation at NT Holnicote, Somerset



KILLER FACT from the Belford Burn project – Northumberland: Installation of 6 large woody debris structures in the headstream more than doubled the travel time for the peak of the flood 1 km downstream

River Restoration delivers multiple benefits, as illustrated by the collection of 'killer facts'. Alastair Driver, Environment Agency

An urban river restoration in Sutcliffe Park, London turned a brick lined channel into a vegetated stream. The restoration led to a very visible change that is attractive to people and nature. Mayflies starting appearing quite quickly, and visitor numbers increased by 250%. 80 to 90 percent of these visitors indicated to have a positive attitude to what has been done. These people indicated after the restoration that they have walked from further away to get there than before it, and that they came more frequently. Also, property prices rose significantly.

Creating opportunities for recreation

Recreation can offer very concrete benefits in terms of money, and in many cases recreation has led to the much needed

support for restoration projects. The challenge is often to find the balance between meeting the requirements of nature and those of recreation. The funds and jobs generated by restoration can, and have in many cases done so already, come to communities directly. For instance, the creation of hunting areas generated an income for Finnish landowners. Bird watching areas and fish licenses have similar potential.

Benefits to awareness raising

River restoration can help to create a consciousness among the general public of the values of rivers and all the benefits that natural functioning rivers provide. This is the case in particular in urban settings (which are discussed in more detail in chapter 5), but also in rural areas, as long as people have sufficient access to the river, either to come close enough to enjoy it, at least so they can see it and appreciate a quality natural landscape.

See the presentations on this topic

Mur promenade Graz South

Activities



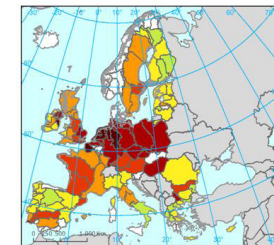
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freiland Environmental Consulting CE Ltd.

4. River connectivity, hydromorphology and renewable energy

Rivers and ecosystems are often at the centre point for sustainable natural resource management, and form the nexus (i.e. link), between water, energy and food. River connectivity is an important factor for hydromorphology, sediment transport and biodiversity. The move to more hydropower is an important driver of this process, which together with cross-profile constructions against flooding or droughts, has altered natural processes of rivers throughout Europe, with grave impacts. Recent data from the EU Member States on the designation of Heavily Modified Water Bodies (HMWB) have shown that water storage for hydropower generation is the third common reason for designating these water bodies as heavily modified.

Percentage of water bodies affected by hydromorphological pressures



European Environment Agency

Percentage of classified water bodies affected by hydromorphological pressures. Peter Kristensen, EEA.

Recreation along the River Mur, Graz, Austria. Hans-Jörg Raderbauer freiland Environmental Consulting, Austria

Peter Kristensen, EEA: "It is estimated that there are over 1 million barriers in European rivers. This has a major impact on hydromorphology and it has been estimated as affecting around 45% of all rivers."



Peter Kristensen, European Environment Agency

Reducing the impact of existing hydropower plants is a key priority. Mitigation and/or compensation measures need to be thoroughly planned for each specific case. For most of them mitigation or at least compensation measures are possible, for example by constructing of fish passages to allow fish to migrate.



Lower Thaya Field excursion fish passage (right side of picture) on the outside bend of Thaya river

In terms of compensation measures, a wide range of river restoration actions may be applied, depending on the specific impact and context: morphological restoration, creation of new habitats, reintroduction of fish fauna, water discharge management, bypass-channels, spawning channels and compensative side channels. It is clear that good monitoring and evaluation is essential to ensure that the measures work, and that these are adapted if they do not. Also, improving the accessibility of some technical documents and translating them in more languages would increase their take up in practice. This is also needed for the application of models and methods.

Hamish Moir, cbec eco-engineering UK-Ltd: "You can't design the river as well as the river designs itself."

The applicability and effectiveness of a number of relatively fast and low-cost hydromorphology restoration approaches were demonstrated in cases of small and large rivers. In general an approach that starts with a carefully selected physical initiation – a kick-start – of restoring river dynamics. In case of smaller rivers, monitoring and corrective actions are very important, as rapid changes might occur under dynamic natural conditions. Here modelling and design are used mostly as support tools. In case of complex, large scale restoration projects hydraulic and ecological modelling might be necessary, while wider environmental and socio-economic consequences also need to be taken into consideration. New quantitative and qualitative survey and modelling tools contribute to achieving success.

Sigrid Scheickl, University of Natural Resources and Life Sciences, Austria: "The aim should be to identify the hydropower projects with the highest energy efficiency and the lowest conservation concerns."

[See the presentations on this topic](#)



The use of 2-stage profiles can improve diversity and water quality in agricultural streams. Jukka Jormola, SYKE, Finland



A fish pass in the restored section of river Krems was visited on one of the excursions of the 6th ERRC.

5. Connecting cities with water: improving urban areas through river restoration

Why restore urban rivers?

Rivers are a key feature of many urban landscapes, and often have a vital role in urban lives. As key assets that supply a range of benefits, urban rivers are relevant to all planners. Urban river restorations can be a good way for improving accessibility: people should be able to feel and see the water, to be able to face it and enjoy the waterfront. Urban river restorations can make places more alive. Water must at least be visible from the houses, offices, roads, squares and other open spaces to enable people to enjoy the river. Promenades that face the water can allow people to enjoy urban life in an attractive area that is alive 24/7.

Amos Brandeis, ISOCARP: "The people should experience and feel the water close as possible"

Urban river stretches in particular have a role to play in raising awareness of the benefits of a healthy river. It is vital to allow access to river through walking paths, but also to make sure people can see the river, and that it isn't hidden behind flood barriers. Natural and restored urban river sections can create "green fingers" deep into the surrounding urban areas - parks, boulevards, paths, bicycle routes, axis, etc. can be effective ways to connect cities to the waterfronts. Natural areas are needed in cities for the ecological diversity and for people to quiet down.

However, urban areas are usually very small parts of the total length of the river. In order to be truly successful urban river restoration, like river restoration in general, should be done on the catchment level. This can be challenging, but is an absolute necessity.



The mobile flood barriers along the Danube were visited in one of the excursions of the 6th ERRC. These provide protection against high water events, while allowing contact between the town of Stein and the river.



A restored section of river Krems was visited on one of the excursions of the 6th ERRC. The footpaths allow people to come close to the river and enjoy it, while the flood barriers make sure area surrounding the river stays dry during the regularly occurring flash floods.

What are the challenges

Urban river restoration is very complicated; it requires all the disciplines to be involved, in all scales and in an open dialogue. The implementation of river restoration projects in dense city areas is still most complicated – the combination of flood protection and ecological designing proves to be complicated.

Like with all restoration projects, public participation is a key success factor to river restoration in urban areas. For establishing a positive reception among citizens it is essential to respect user wishes and neighbourhood-relations from the beginning of the planning process. Creative and visual means can be very useful to generate discussions between citizens, administration and politicians. For implementing challenging projects the development of a long term strategy and goals based on existing potentials is essential. In some projects priority rankings for the decision on where to implement restoration sites are necessary – here the involvement of stakeholders and experts proved to be very valuable.

No general planning principles exist that apply to all places and in the same way; the planning process is different in every place. Most successful river restoration and waterfront planning examples are characterised by the creation of a clear vision, good planning, creativity, innovation, a sense of place, optimism, leadership, co-operation and patience, as the projects can be very time consuming.

Workshop session on urban river restoration: "The issue of land provision for renaturation projects is essential, it is vital to arrange the process and the financing of land acquisition, in particular if the land is not state owned."

[See the presentations on this topic](#)

6. Pressures, measures, and river basin management planning

Rivers need to be managed on a basin-scale and in a truly integrated manner in order to cope with the many pressures that threaten their state. These pressures lead to reduced biodiversity, water scarcity and increased flood risk. In the first River Basin Management Plans (RBMP) more than half of the river water bodies in Europe were reported to have less than good ecological status. To meet the objectives of the Water Framework Directive (WFD) river basin authorities will have to address more explicitly the specific pressures that are affecting water bodies in the next planning cycle. Key is to take a cross-sectoral approach, and work with different levels of government. The innovative approaches presented here, GI, NWRM, CRCM, and river restoration, offer both the conceptual and the practical handles to tackle this.

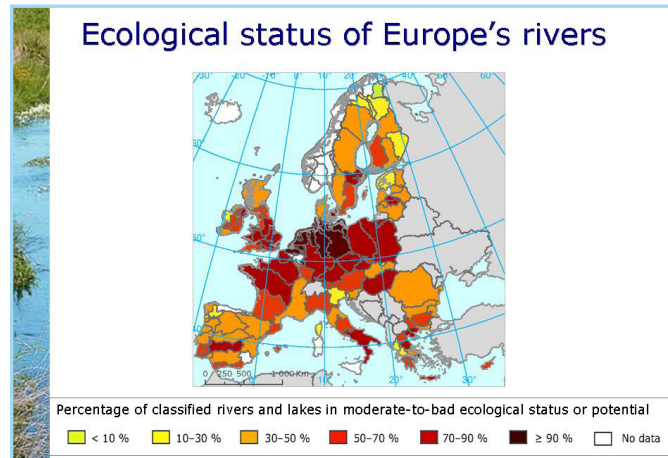
Bruno Mazzorana, Provence of Bolzano – South Tyrol: “New innovative approaches are needed that will connect different overlapping sectoral approaches – the Blueprint to safeguard Europe’s waters is a good example of this.”



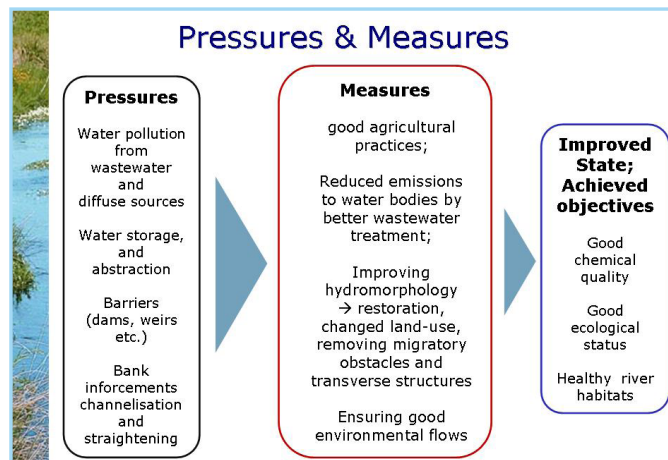
Bruno Mazzorana, Provence of Bolzano– South Tyrol



Jean-François Donzier, INBO



The ecological status of Europe's rivers. Beate Werner, EEA.



The appropriate measures should be clearly identified to deal with the pressures to improve the state of Europe's rivers. Beate Werner, EEA.

For instance river restoration measures can be a key ingredient in these plans, as they can improve water quality, increase retention capacity and improve habitats for vital species. The next planning cycle also needs to include the recommendations

from the Blueprint to safeguard Europe's water resources. To achieve this we need to ensure that the various stakeholders are included in the decision making process. Public-private partnerships and involvement of civil society can be very fruitful types of cooperation, as they for instance provide the much needed ideas for putting innovative approaches into practice.

The planning cycle of the River Basin Management Plans under the WFD provides opportunities for countries and basins to strengthen the cross-sectoral planning of practical, realistic and tangible measures to address identified pressures. Success depends on the strategic planning of the harmonizing of relevant EU Directives, as well as the Common Agricultural Policy (CAP) and other land use planning instruments, based on proper stakeholder participation, awareness raising and public involvement. The subsequent implementation of agreed practical measures towards tangible results will in turn expand the knowledge base to strengthen future cross-sectoral planning.

Jeremy Gallop, Environment Agency UK: “The Catchment Restoration Fund in England is a good example of how different types of organisations, government and charity and work together to mutual benefit, and deliver tangible progress on the ground.”

Also policy needs to be more joined up at different levels, from (inter)national down to local. Success depends on integration at all levels, to have all the relevant expertise and responsibilities on the table, and to mobilise knowledge, and to increase capacity building in member states.

[See the presentations on this topic](#)

7. Ingredients for Contemporary River Corridor Management

Contemporary river corridor management is a holistic, trans-boundary approach which needs to be implemented on the basis of stakeholder participation processes. The delivery of this innovative river management involves capacity building in terms of management, cross-sector cooperation, stakeholder involvement, funds, and skills. It also requires effective collaboration between different levels and sectors of government.

Multi-sector and multi-level cooperation

As integrated river basin management is multi-sectoral and involves all the relevant stakeholders and the authorities from international to local levels, an integrated, transboundary and cross-sectoral approach needs to be supported by innovative approaches. Several sectors have an impact on the same area, so all need to be included in the preparation of the development plans. River basin management (on national and international level) helps to coordinate the various activities along the river corridors.

Ania Grobicki, GWP: "An interdisciplinary approach is important in order to attract a wide range of stakeholders. It should consist of a mix of bottom up / top down approaches and effective resolution mechanism."

There are still a lot of capacity gaps in cross-sectoral cooperation: integrated thinking and planning, stakeholder engagement, effective communication and culture, and the ability to draft and implement stakeholder participation processes.

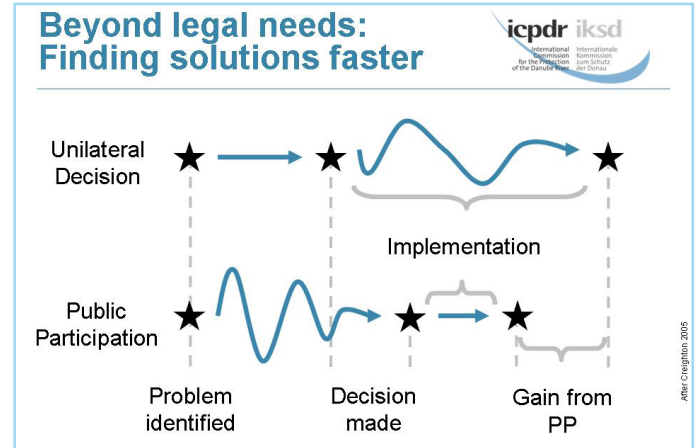
Stakeholder involvement

Involving stakeholders is an essential building block for contemporary river corridor management. This creates a sense of ownership, trust, and creates the transparency, and the transparent communications that are key to a good management plan.

Learning what the locals want, how they are using the area, and what role this plays in their lives and livelihoods are vital to know before setting the objectives. This helps a project to incorporate local values and attitudes. Furthermore, the involvement of stakeholders can save time and money, if properly implemented. It also gathers public support, which can create the much needed leverage for political support.

Bruno Mazzorana Province of Bolzano – South Tyrol: "Reaching consensus is crucial in order to implement the desired measure in support of contemporary river concepts."

Stakeholder involvement also has benefits for awareness raising, which is key for gathering their support, and thereby getting the necessary political backing. It is key for changing (traditional) mindsets. Being involved in discussions will create an awareness of the value of a healthy river. Lastly there are legal requirements for public participation on both the Water Framework Directive and the Floods Directive.



Stakeholder involvement saves time in the implementation phase. Benedikt Mandl, ICPDR

Plenary session 'SEE River project on Contemporary River Corridor Management': "A true achievement in on our rivers will be, when downstream people understand the challenges coming from upstream and provide funding for the solutions upstream."



Session on converting policy into action: from community engagement to stakeholder engagement

Sava River Basin Commission

In the International Sava River Basin Commission (ISRBC) organises transboundary IWRM in the Sava River Basin. Different sectors, e.g. navigation, sustainable river tourism, hydropower and agriculture are involved in the international River Basin and Flood Management Plans and other projects and documents developed by ISRBC. ISRBC leads numerous projects covering different topics such as climate change, sediment balance, nautical and eco tourism, related to the development and sustainability of transboundary waters in the region. In addition, ISRBC took part in development of several practical documents on sustainable water use, such as Development of Inland Navigation and Environmental Protection in the Danube River Basin and Transboundary Ecotourism Guidelines for the Sava River Basin.

Stakeholder involvement processes should start as early as possible. Which stakeholders to involve will be different for every project, and for every phase within a project. This should be tailored specifically to ensure the best fit. It should be planned such that local involvement is gathered for local problems/planning and regional or national stakeholders for strategic discussions. Private companies should be included the stakeholder groups. A clear project organisation helps to define responsibilities and add structure. Appointing an independent person to act as a conflict mediator can be useful to create more trust. The main tool for cross-sectoral stakeholder agreements is a participatory approach combined with the right amount of expert knowledge.

Amos Brandeis, ISOCARP: "The challenge is to create real dialogue, and to gather successful examples in order to get the message across: case studies needed!"

Land use planning and working with agriculture

Land use planning plays an important role in integrated and contemporary river basin management, as land is an essential asset for most river restoration, NWRM and Green Infrastructure schemes. Participatory land use planning can be a useful method for involving stakeholders such as communities, and make discussions concrete and tailored towards a particular area. Linking up land use planning with river basin legislation is key for finding optimal solutions that benefit a whole region, an area rather than specific sectors within that area. Involving spatial planning representatives in an early phase is vital for finding truly integrated solutions that do justice to the various qualities that an area possesses.

Marianne Wenning, DG Environment: "We should be aware that we are different stakeholders with different goals – compromise is always needed!"

In rural areas, agriculture is a particularly relevant type of land use. Agricultural pollution, sediment run off and water abstraction are among the key pressures on Europe's water resources, solving these requires the commitment of the agricultural sector. Awareness of this is a key feature for limiting opposition from any type of land use. Farmers can benefit from a number of the benefits such as reduced sediment run off, improved water quality reduced flood risk, and increase in recreation.

Beate Werner, EEA: "Involving members of the general public can be more difficult than engaging with technical experts, so it is important to improve communication, use modern communication methods and make technical explanations as clear and concrete as possible."

See the presentations on this topic

Ecosystem Services & Ecosystem Services Valuation

The Ecosystem Services concept & Ecosystem Service Valuation (ES&ESV) can improve communication among different sectors and stakeholders. It helps to formulate clear messages that are understandable to all stakeholders. ES&ESV helps to make sure we are communicating an understandable concept, to simplify our messages and address different stakeholders in the most appropriate way. A key advantage of this approach is that it creates a framework for making clear why healthy rivers also in the interest of society. On the other hand this does harbour the danger of putting a "price tag" on rivers and the benefits they provide.



Conference delegates hard at work in workshop session on Ecosystem Services from Restored Rivers

8. Towards best practices for river basin management

The 6th European River Restoration Conference- SEE River Project Final Event demonstrated the current practices on strengthening river restoration principles into river basin management practices. The European Riverprize and the Ramsar River poster prize are two examples of how best practices were highlighted during and alongside the conference.



The Ramsar River Poster Prize was awarded for the second time by the ERRC delegates. The winning poster was *Wetlands management in Slovenia*. It illustrates the results of a EU LIFE+ project to restore six wetland areas in the major river basins of Slovenia. See www.wetman.si for more details.

The Mur River won the 2nd European RiverPrize for its high level of integration, going far beyond ecological restoration and demonstrating innovation with respect to sustainable water and land use planning





Ulrich Eichelmann of the NGO Riverwatch presented the trailer of his upcoming movie "Save the Blue Heart of Europe – The Balkan Rivers at risk."

Based on all the different elements of the conference a number of statements was formulated to guide decision

making on the planning and innovation of river basin management in the years ahead. The [conference declaration](#) highlights the key aspects to take this forward.

The 6th ERRC & SEE River project final event demonstrated that while a lot of knowledge and best practice examples are available, many gaps remain. However it is clear that significant progress is made in shifting from a focus on science and ecology on the local level towards integrated, cross-sectoral policy and planning practices over regions and basins.

Panel discussion:

"Capacity building and transfer of knowledge are main pillars of integrative management of international corridors."



Panel discussion; Aleš Bizjak (SEE River Project Manager), Ulrike Sapiro (Coca-Cola Europe), Karl Schwaiger (Federal Ministry of Water Management, Austria), Alastair Driver (Environment Agency, United Kingdom), Alexander Zinke (coordinator of the SEE River project at the Austrian Federal Ministry of Water Management and at the Regional Government of Carinthia).

Aleš Bizjak, Leader SEE River Project / Institute for Water of the Republic of Slovenia: "Cross-sectoral cooperation can contribute to an increased uptake of ecological river restoration."

A number of processes, such as increased water consumption and regulation, as well as hydromorphological alterations in response to population growth, food & energy needs and climate change continue to exert pressures on our rivers. Instruments like Contemporary River Corridor Management and the SEE River Project toolbox provide an exciting and very practical framework for facilitating further guidance on integrated thinking and planning, sharing of benefits, awareness raising & outreach, ownership and capacity building at all appropriate levels. This will enable river basin managers to realize multiple benefits, to the benefit of both the natural functioning river processes and society at the same time. Tailoring local measures to general pressures is a vital aspect of sound river basin management, and needs to be taken up more in the future.

Practitioners are encouraged to put into practice innovative approaches and instruments such as Natural Water Retention Measures, Green Infrastructure, and Contemporary River Corridor Management. The application of this holistic approach integrates natural processes with socio-economic development, and will enable river basin managers to realize multiple benefits, to the benefit of both the natural functioning river processes and society at the same time.

The planning cycle of the EU policy framework, specifically the preparation of 2nd River Basin Management plans under the WFD, provides opportunities for countries and basins to strengthen the cross-sectoral planning of practical, realistic and tangible measures to address identified pressures. The subsequent implementation of measures towards tangible results will in turn expand the knowledge base to strengthen future cross-sectoral planning, but only if sufficient monitoring and evaluation is done.



Marianne Wenning, European Commission. Mrs. Wenning and other key speakers were interviewed by Wetlands International in the [RiverTalk series](#).

Successfully integrated river basin management depends on the proper reflection of societal choices on sustainable socio-economic development into a realistic and practical planning and implementation framework. Only then can win-win solutions be achieved that link economic gain to adaptation and mitigation of pressures, and that can cope with important but uncertain conditions regarding socio-economic development and climate change.

Ania Grobicki, GWP: "Why a dedicated global water goal? Water is at the core of sustainable development."



[See the presentations on this topic](#)

9. Conference organisers and partners



The World Wildlife Fund (WWF)

The World Wildlife Fund (WWF) works to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. WWF implements floodplain and wetland restoration projects in the Danube basin through its Green Heart of Europe initiative across 12 countries in Central and Eastern Europe. WWF supports implementation of the Lower Danube Green Corridor, the Alpine-Carpathian Corridor, the Mura-Drava-Danube Transboundary Biosphere Reserve – "Europe's Amazon", the March-Thaya trilateral reserve and other Ramsar sites.

For more information go to: www.wwf.org



The Global Water Partnership (GWP)

The Global Water Partnership vision is for a water secure world. Our mission is to support the sustainable development and management of water resources at all levels. The Global Water Partnership (GWP) is an international network created in 1996 to foster the implementation of integrated water resources management (IWRM): the coordinated development and management of water, land and related resources in order to maximise economic and social welfare without compromising the sustainability of ecosystems and the environment. GWP was founded by the World Bank, the United Nations Development Programme (UNDP) and the Swedish International Development Cooperation Agency (Sida). The Network is open to all organisations that recognise the principles of integrated water resources management endorsed by the Network. It includes states, government institutions (national, regional and local), intergovernmental organisations, international and national nongovernmental organisations, academic and research institutions, companies and service providers in the public sector. The Network currently comprises 13 Regional Water Partnerships and 74 Country Water Partnerships, and includes more than 2,300 Partners located in more than 150 countries.

For more information go to: www.gwp.org



The International Commission for the Protection of the Danube River (ICPDR)

The International Commission for the Protection of the Danube River (ICPDR) works to ensure the sustainable and equitable use of waters and freshwater resources in the Danube River Basin. The work of the ICPDR is based on the Danube River Protection Convention, the major legal instrument for cooperation and trans-boundary water management in the Danube River Basin.

For more information go to www.icpdr.org



INBO

The International Network of Basin Organisations was established during the constitutive assembly in 1994 at Aix-les-Bains, France, by organisations whose common goal was to implement integrated basin water resource management, which made a voluntary act of joining the charter adopted in 1996 at Morelia, Mexico, and then confirmed at the following general assembly meetings in Valencia, Spain, 1997 and in Salvador, Brasil, 1998. At present times many EUROPE-INBO activities are encompassing aquatic bodies restoration, due to its importance for reaching environmental WFD objectives through river restoration, due to its importance for reaching environmental WFD objectives through river basin management planning and programme of measures implementation.

For more information go to: www.inbo-news.org



International River Foundation (IRF)

International River Foundation works in partnerships around the world to fund and promote the sustainable restoration and management of river basins. As an international dynamic public benefit organisation, we have a life-changing impact on individuals and communities. By helping restore and sustainably manage rivers we have achieved improved health, ecological, economic, and social outcomes for people and the environment. IRF rewards and champions best practice in river basin management through the International, Australian and European Riverprizes. From the Danube River in Europe, to the Mekong River in South-East Asia, and the St Johns River in the United States, the IRF has a far reaching network. IRF acts as a catalyst for replication of effective river system management around the world and promotes long term relationships between developed and developing countries around sustainable river system management. IRF provides companies and individuals with the opportunity to be part of the solution and to establish an enduring legacy. We are only limited by the funds we raise.

For more information go to: www.riverfoundation.org.au

viadonau

viadonau was founded by the Austrian Ministry for Transport, Innovation and Technology. At six service centers and 10 lock's along the 378km stretch of the Austrian Danube viadonau with its 250 employees is managing the waterway and natural habitat. Main target is the development of the natural and economic environment.

For more information go to: www.viadonau.org



Ramsar

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Ramsar Convention is the only global environmental treaty that deals with a particular ecosystem. The treaty was adopted in the Iranian city of Ramsar in 1971 and the Convention's member countries cover all geographic regions of the planet.

For more information go to: www.ramsar.org



The Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)

The Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) combines the competences for important topics on the creation and on the preservation of our quality of life and of shaping a future worth living in for our children. In concrete terms, we are responsible for agriculture, forestry, environment and water management. Make use of our offer of information on this page and get informed about the wide range of topics from the BMLFUW.

For more information go to: www.bmlfuw.gv.at



International Association of Water Supply Companies of the Danube River Catchment Area (IAWD)

In order to improve and safeguard the water quality of the Danube and its tributaries, the International Association of Water Supply Companies of the Danube River Catchment Area (IAWD) was established with the purpose of encouraging all measures and efforts aimed at avoiding and eliminating the pollution of, and threat to, the status of raw water in the interest of drinking water supply. To achieve this objective, every effort shall be undertaken to bring together the water supply companies of all countries in the Danube River catchment area within IAWD.

For more information go to: www.iawd.at



Coca-Cola Europe

The Coca-Cola Company is the world's largest beverage company, refreshing consumers with more than 500 sparkling and still brands. Led by Coca-Cola, the world's most valuable brand, our Company's portfolio features 16 billion-dollar brands including Diet Coke, Fanta, Sprite,

Coca-Cola Zero, vitaminwater, Powerade, Minute Maid, Simply, Georgia and Del Valle. Globally, we are the No. 1 provider of sparkling beverages, ready-to-drink coffees, and juices and juice drinks. Through the world's largest beverage distribution system, consumers in more than 200 countries enjoy our beverages at a rate of more than 1.8 billion servings a day. With an enduring commitment to building sustainable communities, our Company is focused on initiatives that reduce our environmental footprint, support active, healthy living, create a safe, inclusive work environment for our associates, and enhance the economic development of the communities where we operate. Together with our bottling partners, we rank among the world's top 10 private employers with more than 700,000 system associates. For more information, visit Coca-Cola Journey at www.coca-colacompany.com, follow us on Twitter at twitter.com/CocaColaCo or check out our blog, Coca-Cola Unbottled, at www.coca-colablog.com



Wetlands International

Wetlands International is the only global not-for-profit organisation dedicated to the conservation and restoration of wetlands. We are deeply concerned about the loss and deterioration of wetlands such as lakes, marshes and rivers. Our mission is to sustain and restore wetlands, their resources and biodiversity. Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide. In Europe and around the world we are dedicated to maintaining and restoring wetlands—for their environmental values as well as for the services they provide to people.

For more information go to: www.wetlands.org



City of Vienna

For the City of Vienna, its good strategic location on a major water way – the Danube – has influenced the development of the City for many centuries. It has become a source of prosperity over time, stimulating economic development as well as a greater quality of life. The port of Vienna has developed in to one of the most important European logistic hubs on the Danube. Boat trips on the Danube are growing in popularity and over 700,000 passengers have travelled on the Twin-City-Liners between Vienna and Bratislava in the last years. The Danube Island with 43km of shoreline for recreation, leisure and sports has added substantially to the quality of life, being one of the many reasons that Vienna has been chosen for years as the city with the highest quality of life worldwide. In recent developments, the City of Vienna also plays an important role in the implementation of the EU Strategy for the Danube Region being a coordinator for the Priority Area 10 (improving institutional capacity and cooperation) and participating in many cross border projects with neighbouring regions and countries.

For more information go to: www.wien.gv.at