



AIM – Alpine space in Movement

targeted to water & energy capitalization

Natura 2000 Biogeographical Process Alpine River Restoration Workshop

Zvolen, Slovak Republic, 4. September 2014

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AIM project partners:



AIM – Main challenges

While hydropower is the most important renewable energy source in the Alpine area, it is also proven to have severe negative impacts on the environment, especially on the aquatic ecosystem.

These are e.g. impacts of

- minimum environmental flow
- hydropeaking
- hydromorphological alterations etc.

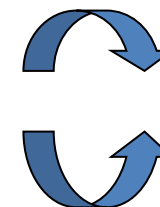
on biological quality elements (BQE's) as Fish, Macroinvertebrates and Macrophytes.

The importance of these topics is highlighted by the European Union in two directives: (1) the **directive on renewable energy sources (RES-E Directive)** and (2) the **EU Water Framework Directive (WFD)**.



Energy

RES-e Directive



Environment

Water Framework Directive



AIM – Links to this workshop

“Discuss relevant policy context and guidance, i.e.

examples, **management responsibilities** in implementing the Water Framework and Nature Directives,

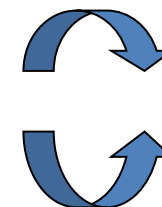
draft guidance on hydropower plants and other barriers effecting the river continuum, gravel excavation, river modifications etc.”

- **Aspects of practical NATURA 2000 management**
- **Focus on practical challenges and workable solutions**
- **Operating pressures – including resources?**
- **Measures that are being applied to halt or recude biodiversity loss**
- **Examples of joint action, collaboration and networking**



Energy

RES-e Directive

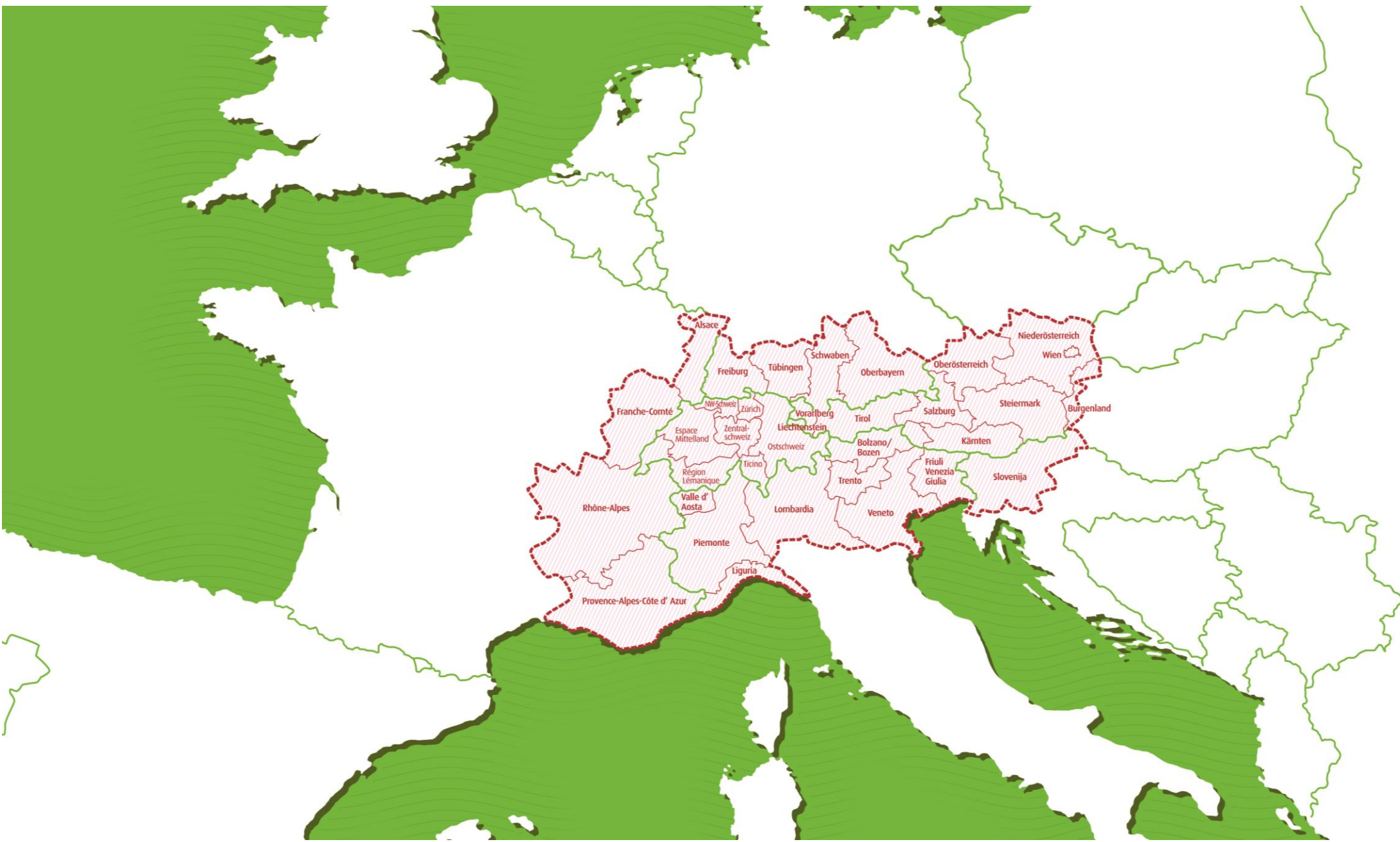


Environment

Water Framework Directive



The Alpine Space Territory



AIM – Main challenges

During the Alpine Space Programme period 2007-2013, various projects in the fields of

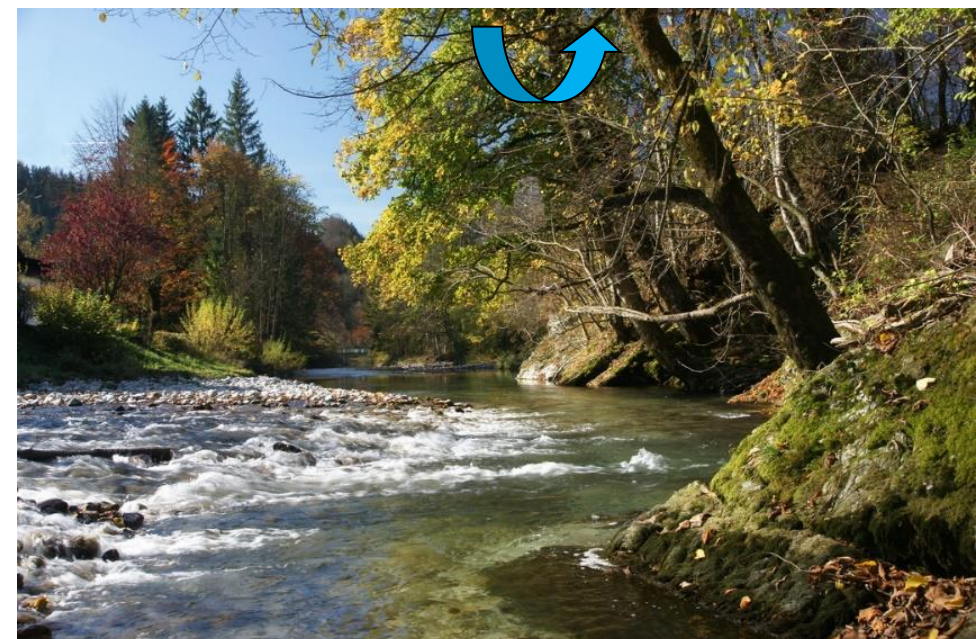
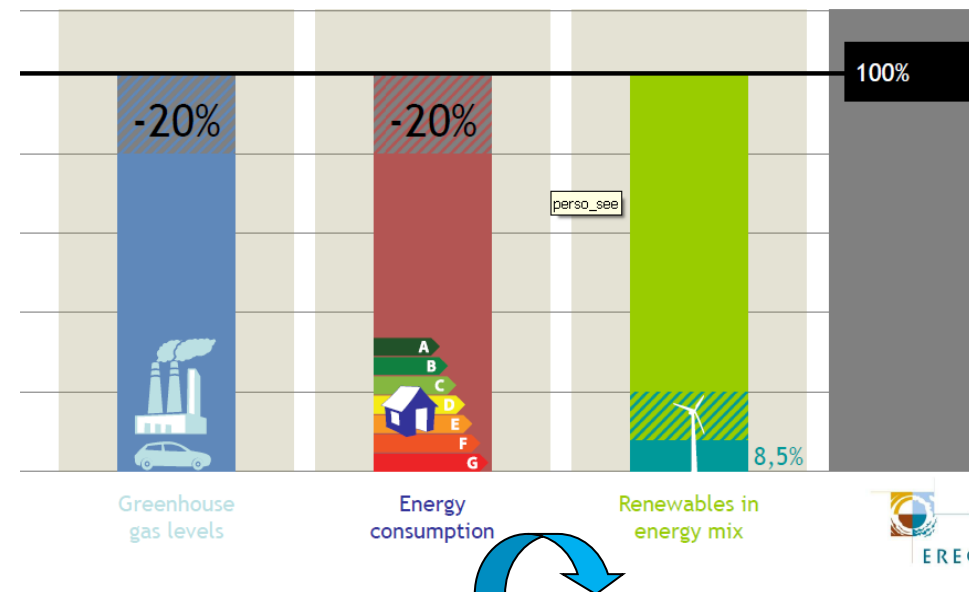
- water resources management,
- renewable energy production and
- preservation of aquatic ecosystems

were addressing several open questions and challenges, reaching significant results and getting in contact with numerous stakeholders.

However, the 2007-2013 project achievements did not address and serve all needs of the entire Alpine Space region in the related fields.

Some major challenges remain, as policy and decision makers often are not reached by ASP project results.

The 20-20-20 EU policy by 2020



AIM's perspective & TO DO's

Identify Alpine Space Region's needs

- Overview of relevant strategic documents (EU-level, national and regional level)

Evaluate relevant projects

- Alp-Water-Scarce
- ECONNECT
- recharge.green
- SEAPAlps
- SedAlp
- SHARE



Results of 3 stakeholder panel discussions already available

- Vienna (November 2013)
- Ljubljana (February 2014)
- Munich (May 2014)

EU WATER AND ENERGY POLICIES: CAPITALIZATION and HARMONIZATION

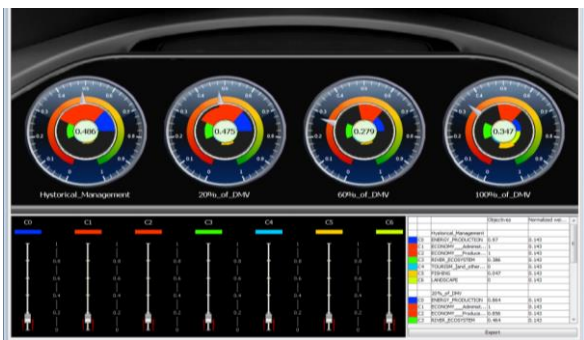


„Challenges for RBM“, www.icpdr.org

Projects involved in AIM capitalization



TOOL: SESAMO-SHARE
MCA methodology
focused on hydropower &
river issues



Assessment of the **status quo of Alpine renewable energy production** and of potential (with maps)

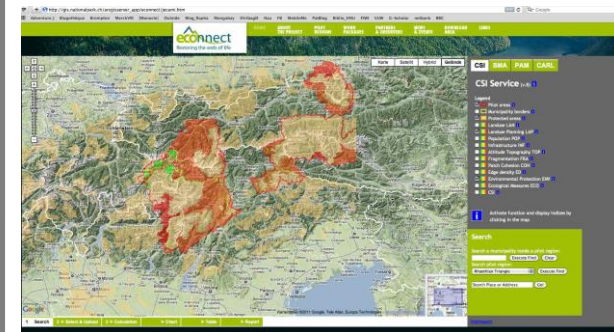
A set of **qualitative indicators** to compare legal frameworks, stakeholders, processes, energy market drivers, avenues of cooperation

A **trade-off analysis** (renewable energy production vs. biodiversity conservation/ecosystem services)

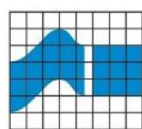
A **decision-support system** for renewable energy development considering ecological trade-offs and economic dimensions



TOOL: JECAMI
Joint Ecological Continuum Analysis and Mapping Initiative



Pole 4 Low Carbon Community

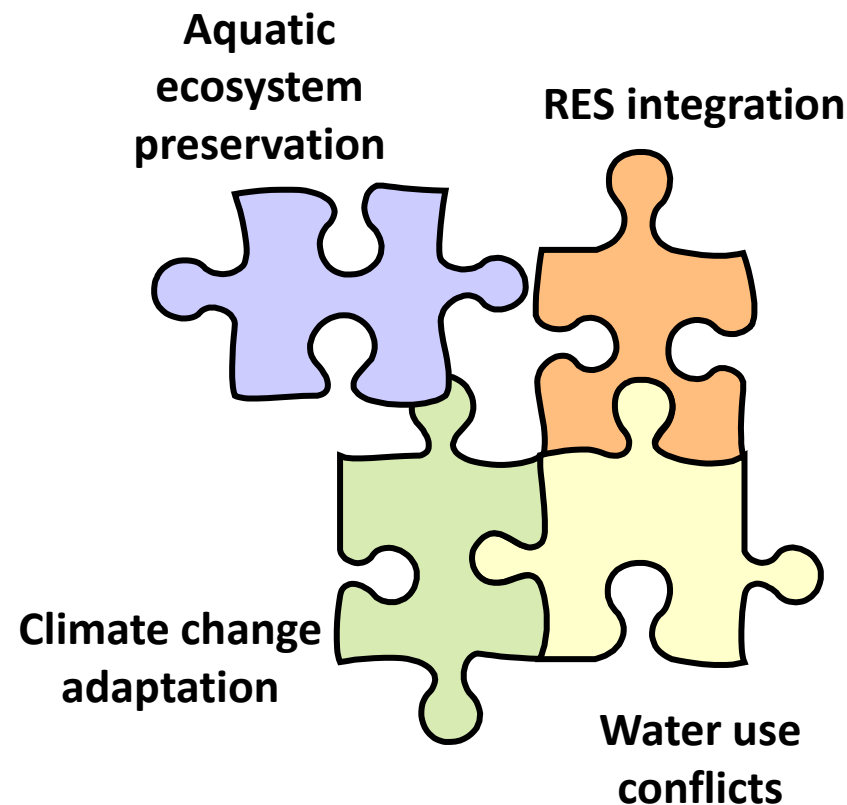


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AIM – Facts

- AIM focuses on the capitalisation of the achievements of numerous ASP projects in the water-energy nexus and will highlight unanswered questions/topics.
- AIM addresses relevant actors at EU, national and regional policy level and will provide guidance for setting the scene of Alpine Space Programme 2014+ projects (by the end of this year).
- This is combined with specific dissemination actions (seminars involving key stakeholders of different target groups, interviews, web communication, publications, etc.).



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AIM Project Partners



RSE - Research on Energy Systems (Italy)



BOKU – Institute of Hydrobiology and Aquatic Ecosystem Management, University of Natural Resources & Life Sciences, Vienna (Austria)



IzVRS – Institute for Water of the Republic of Slovenia (Slovenia)



AEM - European Association of elected representatives from mountain regions (France)

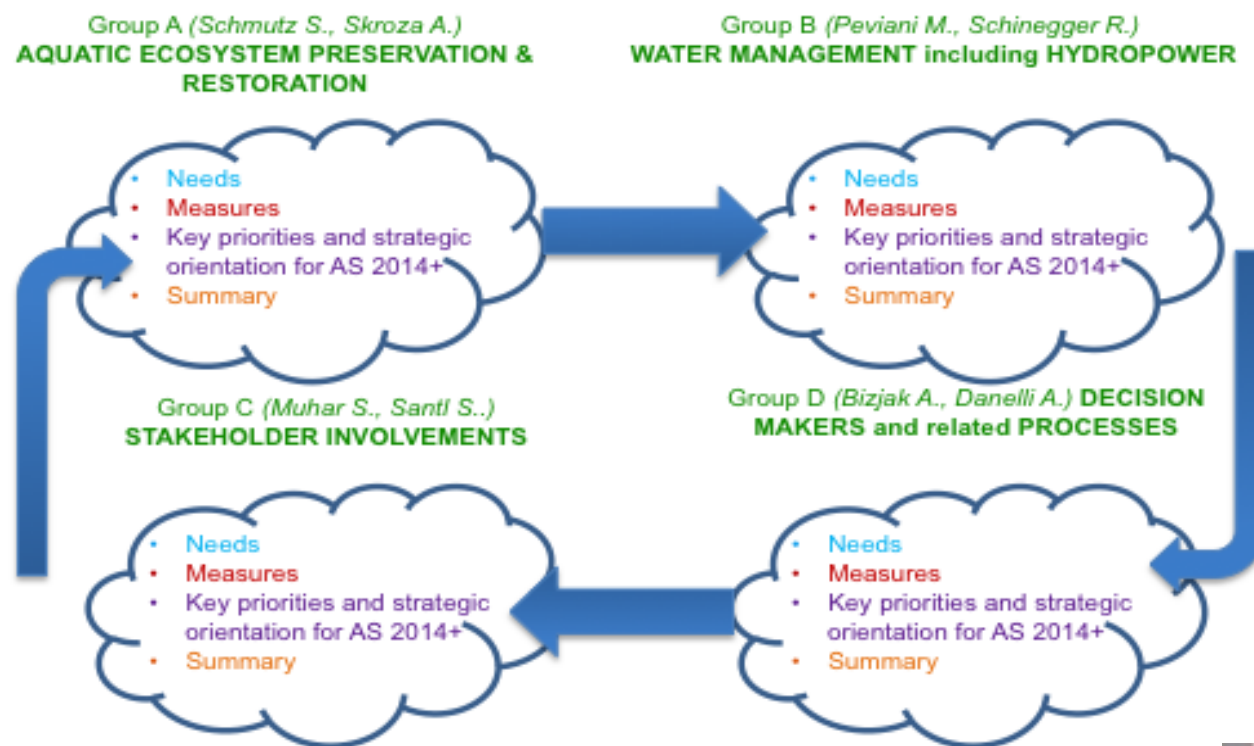
AIM Observer Partners

Observers	Institution	Country
1	Permanent Secretariat of the Alpine Convention	Austria - Alpine Region
2	Schneider & Jorde Ecological Engineering	Germany
3	University of Stuttgart	Germany
4	European Commission Joint Research Centre – Institute for Environment and Sustainability (Ispra)	Italy - Europe
5	UNESCO-IHE Institute for water education	Europe
6	Compagnie Nationale du Rhône	France
7	Association of Renewable Energy Producers	Italy
8	ARPAV Regional Land Safety Department	Italy
9	Veneto Region	Italy
10	Italian National Committee on Large Dams	Italy
11	Soča Valley Development Centre	Slovenia
12	Soške Elektrarne Nova Gorica, Hydropower producer on the Soča River	Slovenia
13	Institute of the Republic of Slovenia for Nature Conservation	Slovenia
14	Fisheries Research institute of Slovenia	Slovenia
15	Ministry of the Environment, Territory & Sea Preservation	Italy
16	ASCONIT Consultants on environmental issues	France
17	International Commission for the Protection of the Danube River	Austria - Danube region
18	Kyoto Club	Italy
19	Torino Province	Italy
20	Arpa Valle d'Aosta	Italy
21	POLE4 Municipality of 18th District of Budapest, Thematic Pole Low Carbon Communities	South East Europe
22	WWF Austria	Austria
23	University of Veterinary Medicine Vienna, Research Institute of Wildlife Ecology	Austria
24	Austrian Federal Ministry for Agriculture, Forestry, Environment and Water Management	Austria



AIM Actions – Involvement of key stakeholders

Method AIM World Café: 4 tables & 4 main steps



Topics of tables of the AIM World Café



Summary of preliminary results: Priorities and directions for 2014+

Topic: Aquatic ecosystem preservation & restoration

➤Valuating ecosystem services

➤Water pricing

➤Integration of conservation issues into **strategic planning** – need for a **“MASTERPLAN”**

➤Data harmonisation



Topic: Water Management including hydropower

➤Improve **communication and product-transfer to end-users**

➤**Need for harmonization of correlating tools/products** with issues and solutions, and promoting good practices and successful experiences

➤**Define common policies valid for the entire ASR**, related to water management and hydropower projects including the role of water storage, adaptation to climate change and “energy-ecosystem sustainability”



Summary of preliminary results: Priorities and directions for 2014+

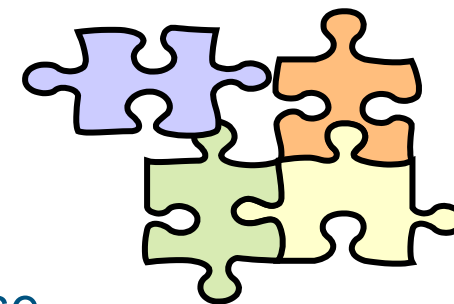
Topic: Stakeholder involvement

- Stakeholder involvement before solution development
- Clear **definition of groups and requirements**
- ASP – clear requirements of participation process and stakeholder engagement
- Sustainable projects: addressing needs of the society and tax payers, **financial sustainability**



Topic: Decision making processes

- Cost efficiency
- Decision makers have to be involved in the project preparation phase
- **Improvement of communication and collaboration between the different levels (EU - national – regional – local)**
- Investigation of the needs of the decision makers



Excursus – Scientific foundations for identifying ecologically sensitive river stretches of the Alpine arc

MAVA-funded study to provide a consistent, comprehensive foundation for setting nature conservation and restoration priorities in the management of Alpine rivers.

- Designation of river stretches with **high protection value** (“no-go areas”) and river stretches with *high restoration potential*
- Identification and documentation of the **main impacts/pressures**
- Generation of a *consistent and comprehensive data base* contributing to increased knowledge and action



Protection: criteria & classification

(according Ökomasterplan Austria)

Value for protection	Ecological status	Protected areas	Hydro-morphological status	Length of longitudinal connectivity	Important river floodplain forests
High	High & good	River stretches in protected areas	High & good	Epi/Metharithral ≥ 5 km Hyporithral ≥ 25 km Potamal ≥ 50 km	?
Data base insufficient	Moderate (data uncertainty)				
Limited value for protection	Moderate & poor		Moderate & poor	Epi/Metharithral $\geq 2 < 5$ km Hyporithral $\geq 5 < 25$ km Potamal $\geq 10 < 50$ km	
No value for protection	Bad	No protection status	Bad	Rhithral < 5 km Potamal < 10 km	

AIM „take home messages“ for this event

- **Aspects of practical NATURA 2000 management are very important**

Further projects on data harmonization and strategic planning will be crucial (especially in cooperation with other sectors)

- **Operating pressures – including resources?**

Data generation, data bases and –management, involvement of stakeholders (especially administration in ETC projects)

- **Measures that are being applied to halt or recude biodiversity loss**

Common Implementation Strategy & Aquatic ecosystem service valuation should be a future focus for the Alpine Space Programme

AIM upcoming events!

...participants are VERY welcome

- AIM partner & stakeholder meeting in Megeve, France, 09.10.2014, side event of the “**International Congress of High Watersheds**”, <http://www.egem2014.org/en>
- Alpine Space 2014-2020 Programme Kick-off, 21. & 22.10.2014, Salzburg
- Special AIM session @ ERRC, 28.-30.10. 2014 in Vienna, see <http://www.errc2014.eu>
- AIM final conference (open to everyone, 25. & 26.11.2014, Mestre (Venice))

Thank you for your attention!



Alpine space
In Movement



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