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)**.
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draft guidance on hydropower plants and other barriers effecting the river continuum, gravel excavation, river modifications etc.”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 recourses?
- Measures that are being applied to halt or reduce biodiversity loss
- Examples of joint action, collaboration and networking
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.
**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)

TOOL: JECAMI
Joint Ecological Continuum Analysis and Mapping Initiative

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: SEAP-Alps
Sustainable Energy Action Plans

Alp-Water-Scarce

SOUTH EAST EUROPE
Transnational Cooperation Programme
Pole 4 Low Carbon Community
**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.).
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)

Project co-funded by the European Regional Development Fund in the frame of the European Territorial Cooperation Programme Alpine Space
# AIM Observer Partners

<table>
<thead>
<tr>
<th>Observers</th>
<th>Institution</th>
<th>Country</th>
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<td>1</td>
<td>Permanent Secretariat of the Alpine Convention</td>
<td>Austria - Alpine Region</td>
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<td>2</td>
<td>Schneider &amp; Jorde Ecological Engineering</td>
<td>Germany</td>
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<td>3</td>
<td>University of Stuttgart</td>
<td>Germany</td>
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<td>4</td>
<td>European Commission Joint Research Centre – Institute for Environment and</td>
<td>Italy - Europe</td>
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<td></td>
<td>Sustainability (Ispra)</td>
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<td>UNESCO-IHE Institute for water education</td>
<td>Europe</td>
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<td>Compagnie Nationale du Rhône</td>
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<td>Association of Renewable Energy Producers</td>
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<td>Soča Valley Development Centre</td>
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<td>12</td>
<td>Soške Elektrarne Nova Gorica, Hydropower producer on the Soča River</td>
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<td>Institute of the Republic of Slovenia for Nature Conservation</td>
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<td>Fisheries Research institute of Slovenia</td>
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<td>Ministry of the Environment, Territory &amp; Sea Preservation</td>
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<td>ASCONIT Consultants on environmental issues</td>
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AIM Actions – Involvement of key stakeholders

Method AIM World Café: 4 tables & 4 main steps

Example of the topic „Sustainable hydropower“ with four main steps
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
<table>
<thead>
<tr>
<th>Value for protection</th>
<th>Ecological status</th>
<th>Protected areas</th>
<th>Hydro-morphological status</th>
<th>Length of longitudinal connectivity</th>
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<tbody>
<tr>
<td>High</td>
<td>High &amp; good</td>
<td>River stretches in protected areas</td>
<td>High &amp; good</td>
<td>Epi/Metharithral ≥ 5 km Hyporithral ≥ 25 km Potamal ≥ 50 km</td>
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<tr>
<td>Data base insufficient (data uncertainty)</td>
<td>Moderate</td>
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<td></td>
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<tr>
<td>Limited value for protection</td>
<td>Moderate &amp; poor</td>
<td>Moderate &amp; poor</td>
<td></td>
<td>Epi/Metharithral ≥ 2 &lt; 5 km Hyporithral ≥ 5 &lt; 25 km Potamal ≥ 10 &lt; 50 km</td>
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<tr>
<td>No value for protection</td>
<td>Bad</td>
<td>No protection status</td>
<td>Bad</td>
<td>Rhithral &lt; 5 km Potamal &lt; 10 km</td>
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</tbody>
</table>

**Important river floodplain forests**
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 recourses?
Data generation, data bases and –management, involvement of stakeholders (especially administration in ETC projects)

• Measures that are being applied to halt or reduce 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


• **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](http://www.errc2014.eu)

• **AIM final conference** (open to everyone, 25. & 26.11.2014, Mestre (Venice))
Thank you for your attention!

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Be part of our community!