

AIM Work Package 5



Setting the scene for the next project generation 2014+ (in context of the water-energy nexus)

Final transnational seminar, Mestre (IT), 25.11.2014

Rafaela Schinegger, Helga Kremser, Susanne Muhar and Stefan Schmutz,

Institute of Hydrobiology and Aquatic Ecosystem Management,
University of Natural Resources and Life Sciences, Vienna



AIM project partners:



INŠTITUT
ZA VODE
REPUBLIKE
SLOVENIJE

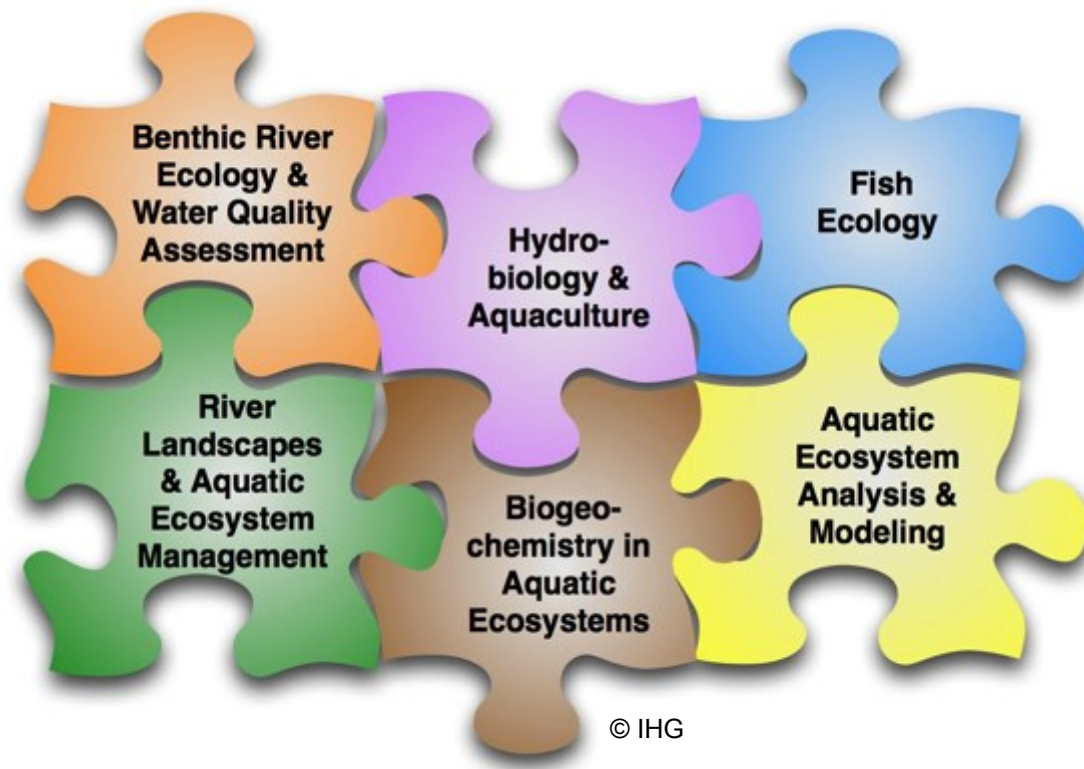


Institute of Hydrobiology & Aquatic Ecosystem Management

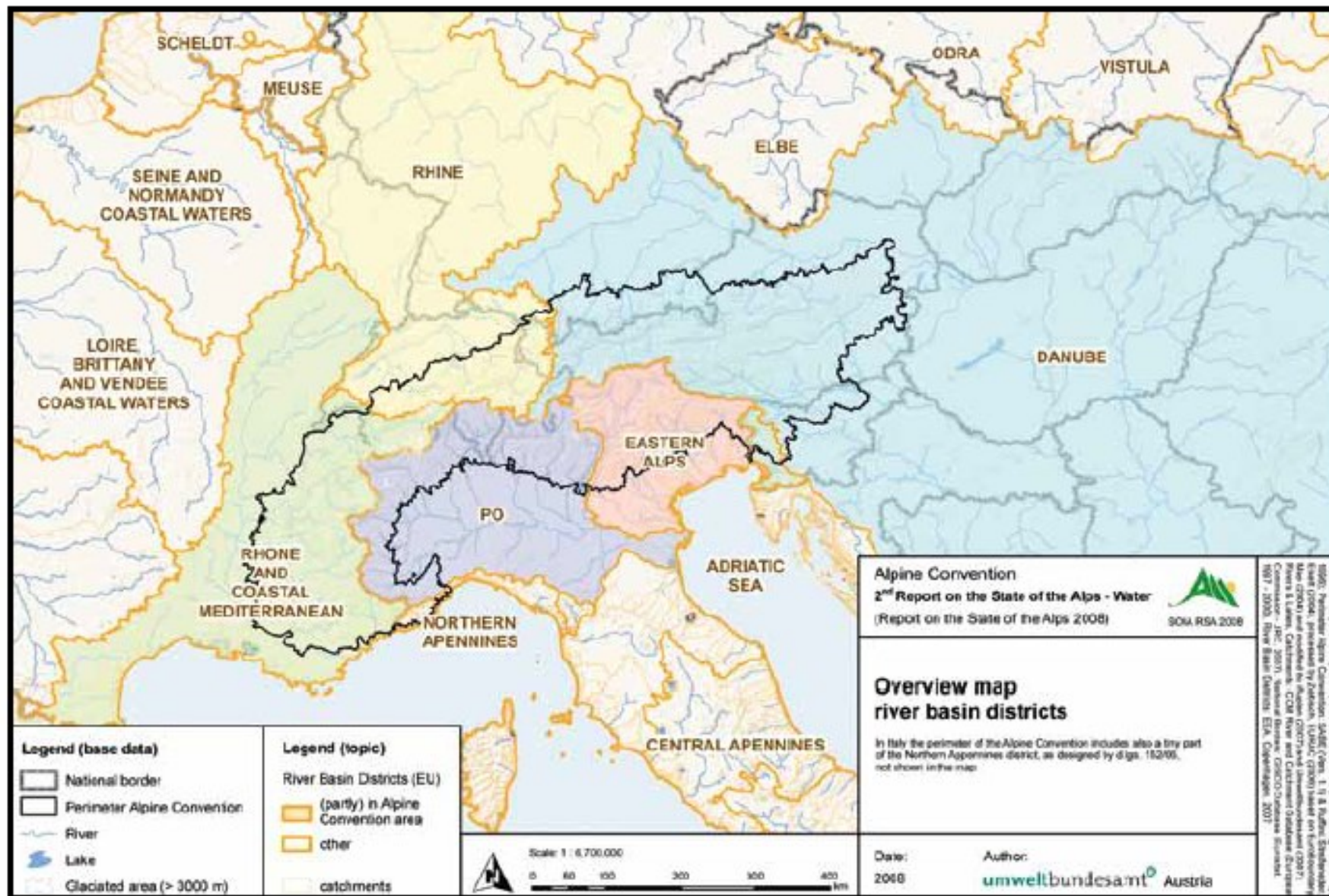
- 6 working groups
- since October 2011: International Master's Programme "Applied Limnology"



<http://www.wau.boku.ac.at/en/ihg/>



The Alpine Arc – according to the Alpine Convention



MAP 2: River basin districts of alpine rivers



- The Alps are a geographical unit and a part of Europe
- The Alps are an ecological and socio economic unit, a living space for humans, animals and plants for millenia
- Rich diversity of nature and cultures is an asset in their sustainable development

The Alpine Convention is an international treaty between the Alpine countries and the EU, aimed at promoting sustainable development in the Alpine area and at protecting the interests of the people living there.

Platforms on Water Management, Energy and Ecological Networks

www.alpconv.org

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The WATER – ENERGY NEXUS according to UNECE



Challenges:

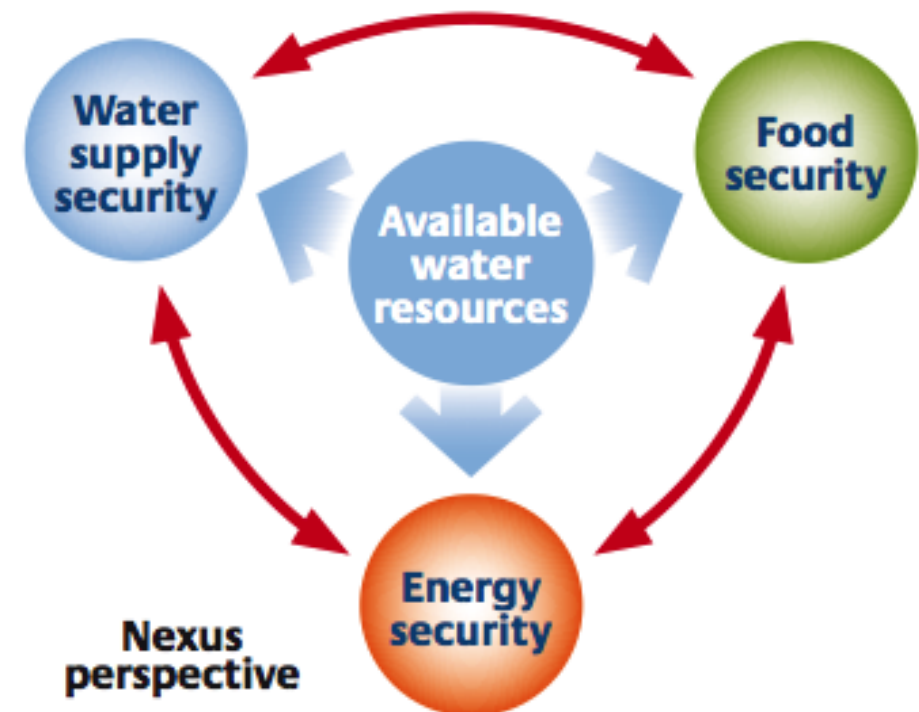
- Population growth, economic development, increased energy and food needs all exert increasing pressures on natural resources.
- Common development needs have to be met in a sustainable manner, without compromising the functioning of ecosystems.
- In a transboundary setting, the trade-offs and externalities may cause friction between the riparian countries and different interests.

The WATER – ENERGY NEXUS according to UNECE



The nexus is an inter-sectoral approach to manage the interlinked resources

- **to enhance water, energy and food security**
- by increasing **efficiency, reducing trade-offs, building synergies**
- and improving governance **across sectors**.



The water, energy and food security nexus according to the Resource Platform, <http://www.water-energy-food.org>

What are the main challenges in the European Alps in terms of WATER-ENERGY NEXUS?

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 and inhabiting organisms, e.g. in terms of

- ☐ Minimum environmental flow
- ☐ Hydropeaking
- ☐ Hydromorphological alterations etc.

The importance of these topics is highlighted by the EU in two directives:

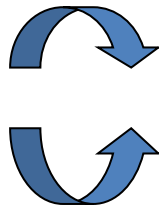
- (1) Directive on renewable energy sources (RES-E Directive)
- (2) EU Water Framework Directive (WFD)

Integration
HABITATS DIRECTIVE - NATURA 2000 INTEGRATION
Floods Directive
etc.?



Energy

RES-e Directive



Environment

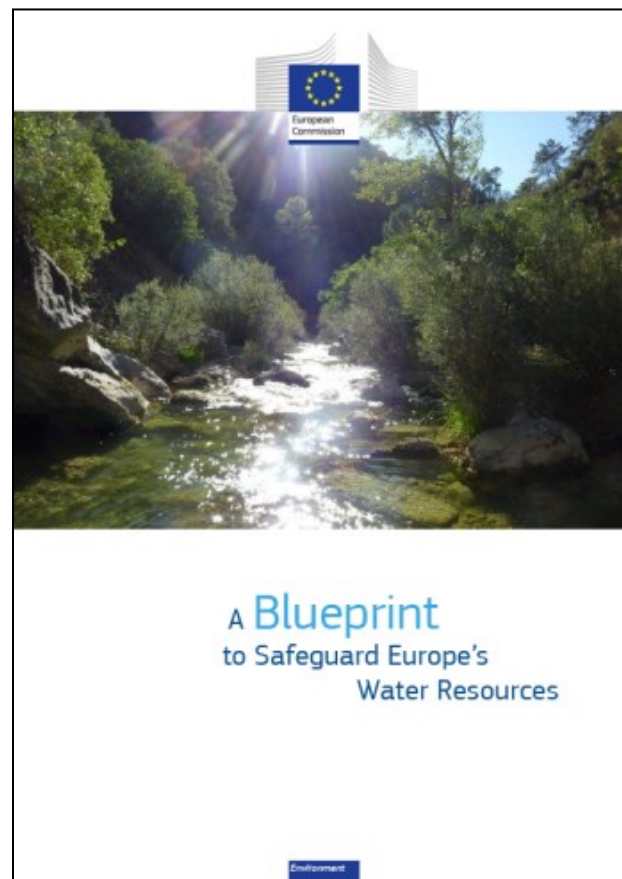
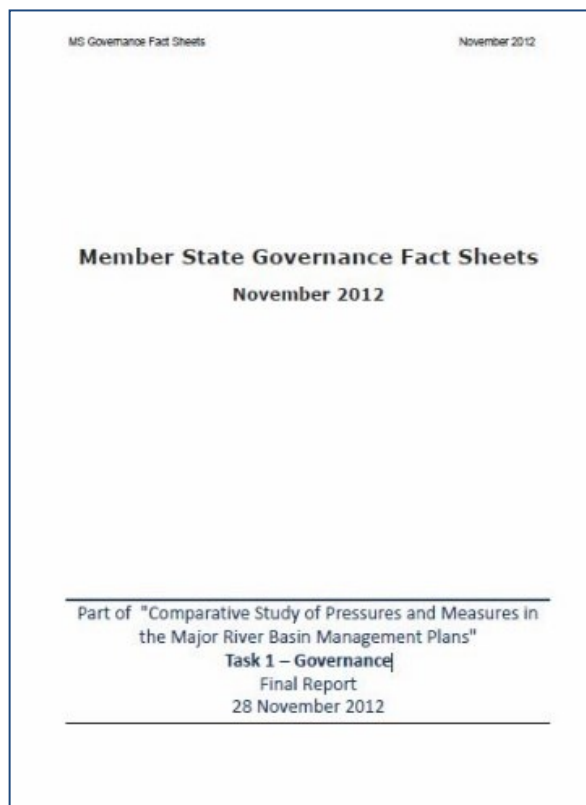
Water Framework Directive



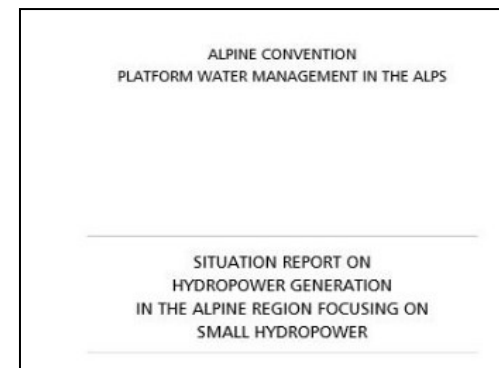
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The AIM approach:

A) REVISION OF KEY POLICY- AND PROJECT DOCUMENTS
for the ASP period 2014+,
addressing the **“WATER-ENERGY NEXUS”**



AIM Final Transnational Seminar, Mestre, 25.11.2014



The AIM approach:

B) INTEGRATION OF **STAKEHOLDER'S OPINION'S**



Group A (Schmutz S., Skroza A.)
**AQUATIC ECOSYSTEM
PRESERVATION & RESTORATION**

- Needs
- Measures
- Key priorities and strategic orientation for AS 2014+
- Summary

Group B (Peviani M., Schinegger R.)
WATER MANAGEMENT including HYDROPOWER

- Needs
- Measures
- Key priorities and strategic orientation for AS 2014+
- Summary

Group C (Muhar S., Santl S.)
INVOLVEMENTS

and strategic
- AS 2014+

Group D (Bizjak A., Danelli A.)
**DECISION MAKERS and related
PROCESSES**

- Needs
- Measures
- Key priorities and strategic orientation for AS 2014+
- Summary



The AIM approach:

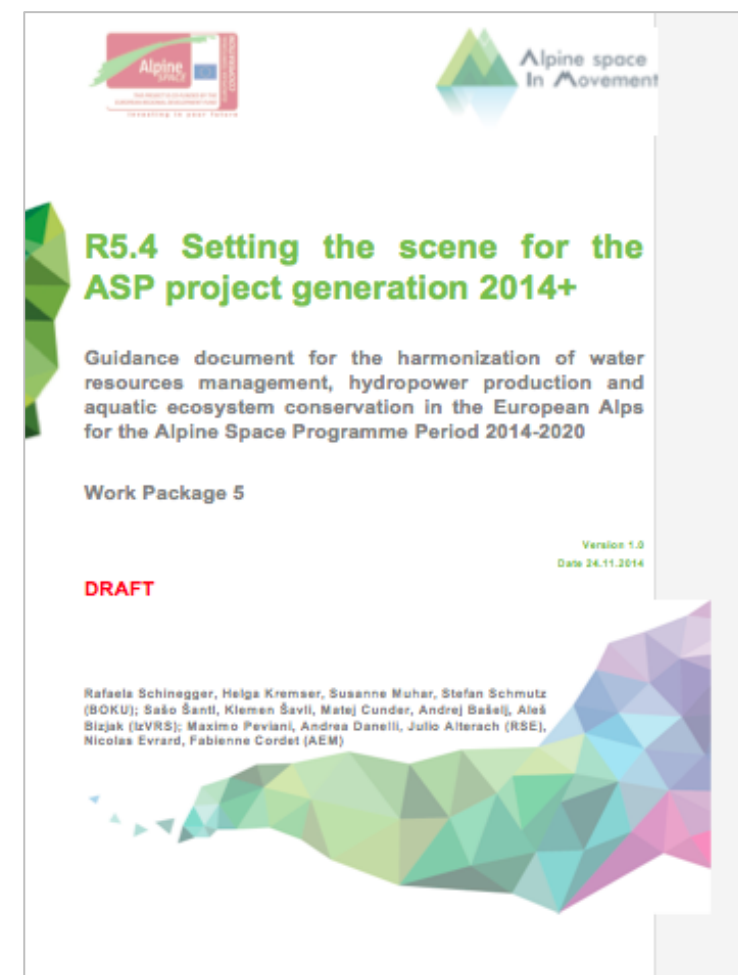
C) GENERATION OF AIM ASP 2014+ **PRIORITY TOPICS**

Guidance document

for the harmonization of water resources management, hydropower production and aquatic ecosystem conservation

in the European Alps

for the Alpine Space Programme Period 2014-2020



AIM OUTCOME: CAPITALIZATION and HARMONIZATION of EU WATER AND ENERGY POLICIES for the Alps

**Aquatic ecosystem
conservation and
restoration**

**Climate change
adaptation**



RES integration

**Other water use
conflicts**

„Challenges for RBM“, www.icpdr.org

The Alpine Space Territory & a MACROREGION FOR THE ALPS



Alpine Space Programme 2014-2020

...the Programme in a nutshell.

Priorities

1. Innovative Alpine Space

2. Low Carbon Alpine Space

3. Liveable Alpine Space

4. Well-Governed Alpine Space

5. Technical Assistance

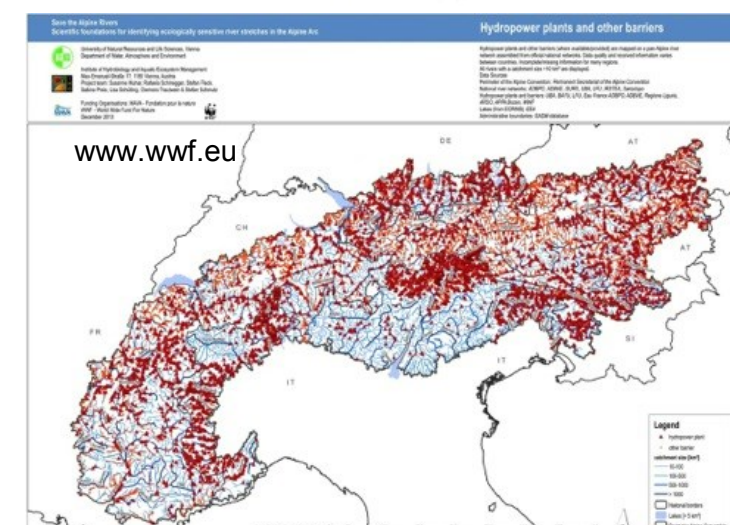
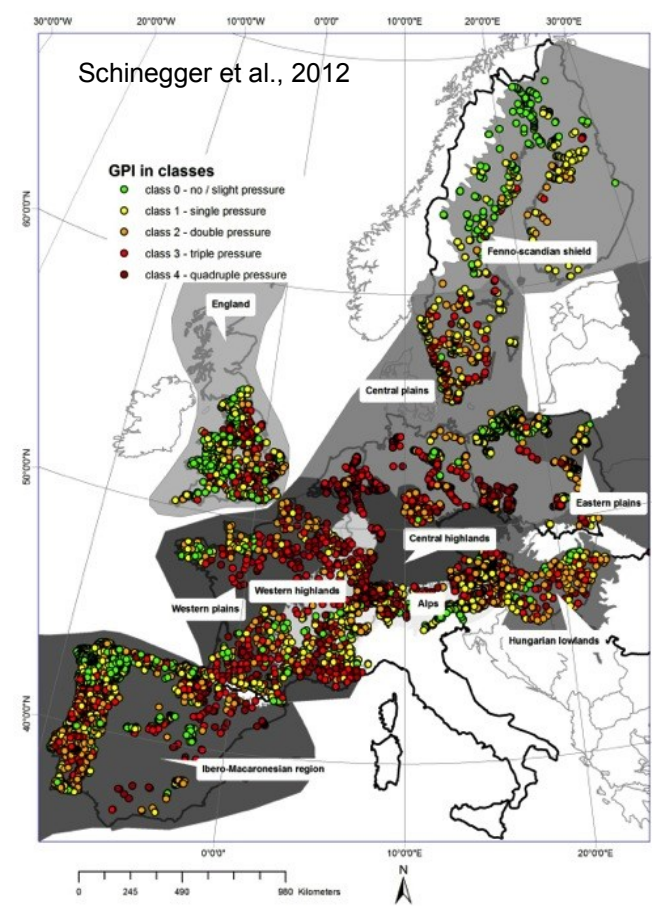
3. Liveable Alpine Space
Aiming at the sustainable utilisation of the natural and cultural heritage and the protection of the Alpine Space ecosystems

<http://www.alpine-space.eu>

Future policy implications addressed by AIM in terms of the water-energy nexus for the Alps

A) Better data generation & harmonization

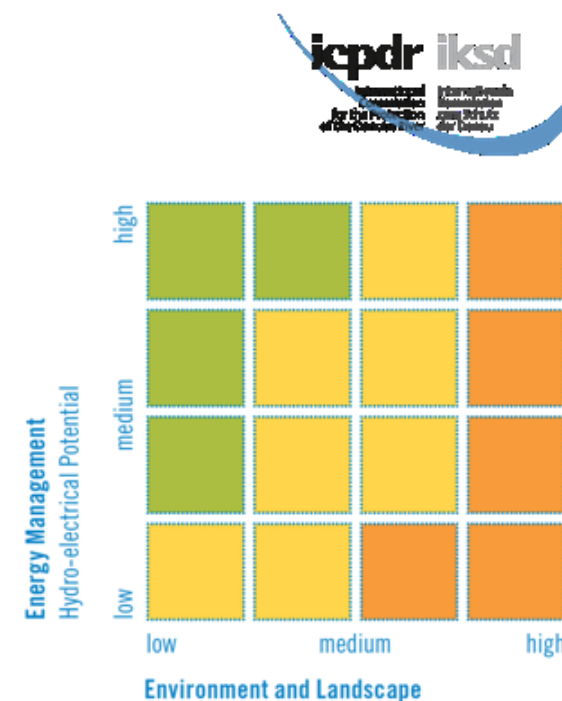
- Constant and comprehensive relevant data collection by which data bases and results of supporting analyses must be useful and constantly verified and upgraded.
- Include a metadata site in all the web-pages!
- Good databases should be hosted at European institutions or network to guarantee mainainance – e.g. WISE/EU.



Future policy implications addressed by AIM in terms of the water-energy nexus for the Alps

B) Improved stakeholder involvement & communication (of project results)

- ☐ Stakeholders (decision makers) have to be involved in the **project preparation phase**.
- ☐ Investigation of the needs of the decision makers have to be done.
- ☐ **Improvement of communication and collaboration between the different levels needed** (EU - national – regional – local).
- ☐ Improve **communication and product-transfer to end-users**.
- ☐ **Need for harmonization of correlating tools/products** with issues and solutions & promoting good practices and successful experiences to stakeholder.



Future policy implications addressed by AIM in terms of the water-energy nexus for the Alps

C) Integration and valuation of the ecosystem services concept

- ☐ We need to have case studies in future ASP in real life to test different methodologies & see if they are really appropriate.
- ☐ Valuating ecosystem services: We need more understanding on how to do it!
- ☐ However, we must acknowledge that we can't put a monetary value on all nature-related issues.
- ☐ Ecosystem functioning is THE precondition for ecosystem service!
- ☐ Must not be in conflict with the "good ecological status" according to the WFD.

Regulatory services



Provision services



Cultural services



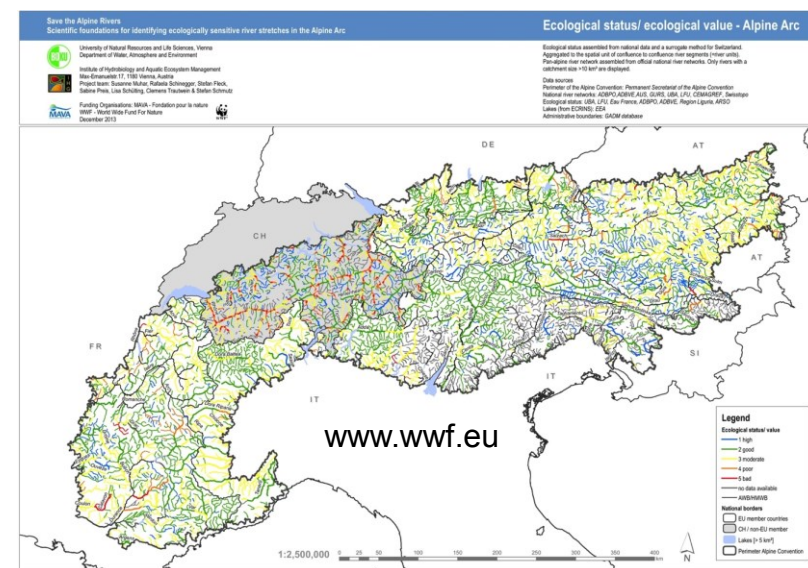
UN Millennium Ecosystem Assessment, adapted
all images © wikipedia commons

Future policy implications addressed by AIM in terms of the water-energy nexus for the Alps

D) Strategic planning approaches on various spatial levels are needed

- ☐ Integration of all relevant sectors (also conservation issues) into **strategic planning** – need for a **“MASTERPLAN”**.
- ☐ Make transparent decisions for new HP plants and have a better balance between HP and other water uses.
- ☐ Think about the downstream-catchments (RBMP) outside the ASP.
- ☐ Then we can better define the public interest and seek for governance on the large scale.

***Good practice example:
“Status of Alpine rivers”
recently published
WWF EALP STAR study***



Our discussions are not only “challenges for RBM” but also chances!



„Challenges for RBM“, www.icpdr.org



Thank you for your inputs, critical comments and your kind attention!



www.aim2014.eu

Dr. Rafaela Schinegger
rafaela.schinegger@boku.ac.at



Be part of our community!