

The Platform on Water Management of the Alpine Convention – Activity Report

Bolzano, 4th March 2013

Expert Workshop:

WATER CHANGE IN CLIMATE CHANGE

Karl SCHWAIGER ; Martin PFAUNDLER; Jakob SCHRITTWIESER

Former Austrian-Swiss Co-Presidencies of the Platform Water Management



Permanent Secretariat of the Alpine Convention

ALPINE CONVENTION

info@alpconv.org

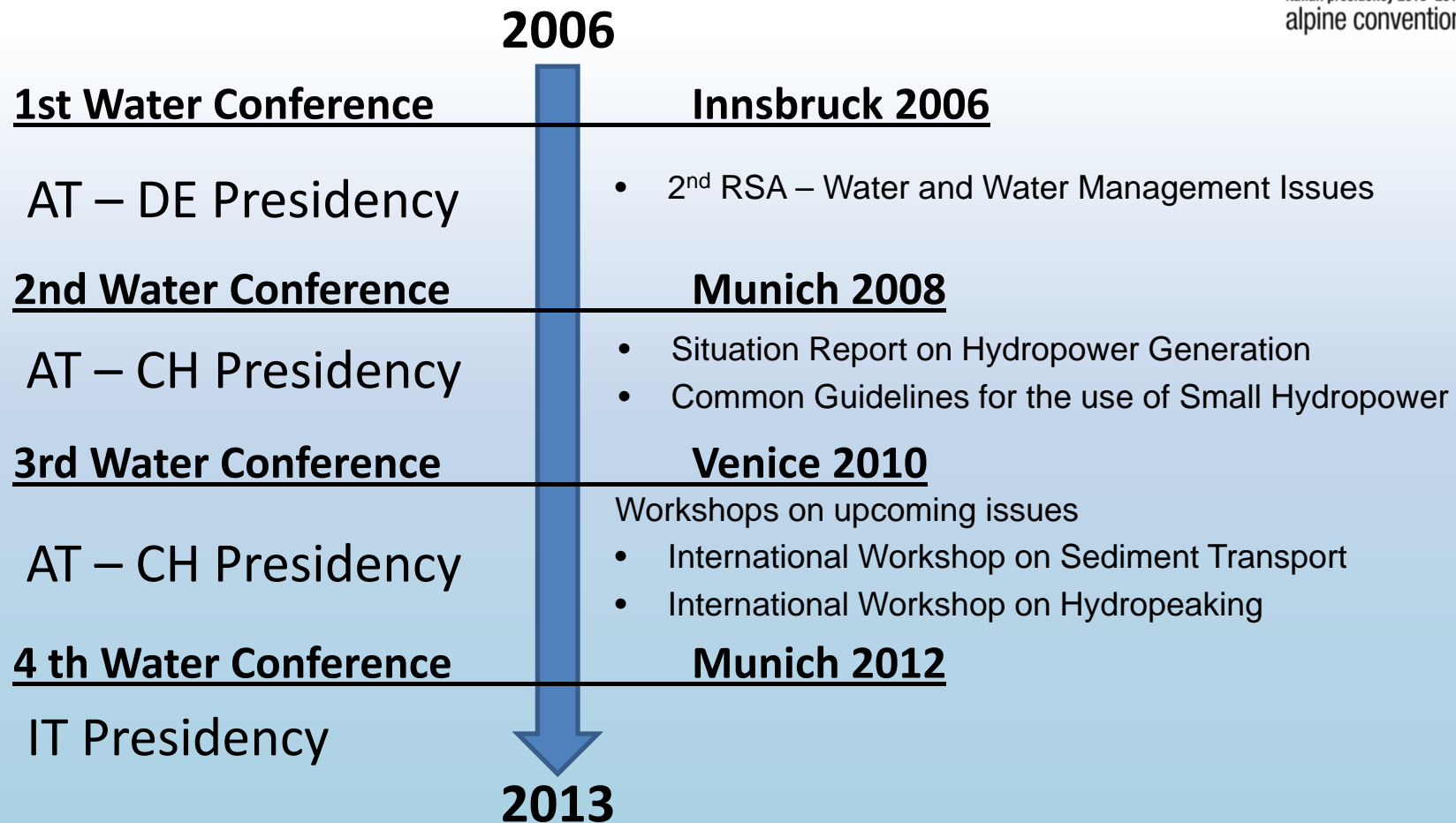
www.alpconv.org

Outline of presentation

- **Overview**
- **Working Mode**
- **Products and results**
 - RSA 2
 - Hydropowerdocus
 - Workshops on upcoming issues



Overview



Working mode 1

Presidency:

- Voluntary basis; paves way to find final agreement, steers process with limited number of meetings,
- Requests info, drafts texts,...

Working group:

- Country representatives, stakeholders, NGOs...
- Provide main input, check texts, assess findings,...
- Appreciation for voluntary commitment,



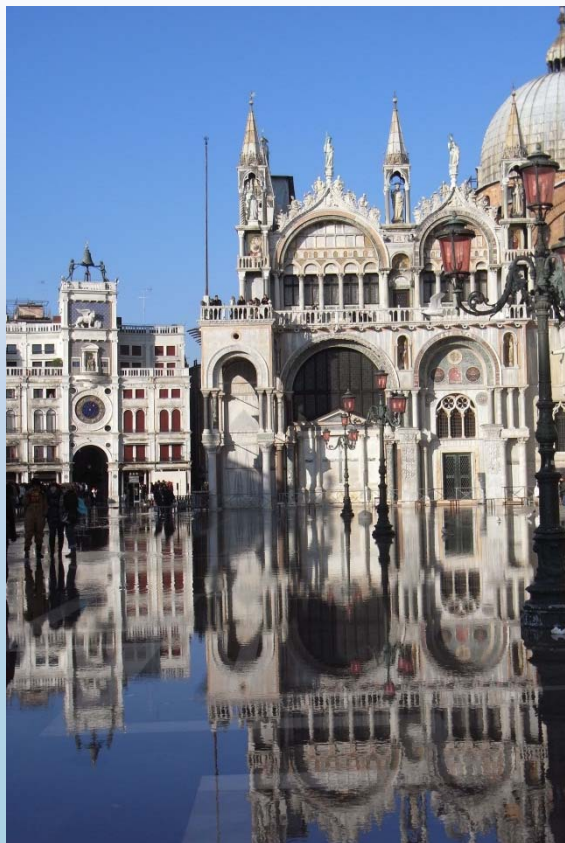
ALPINE CONVENTION

Permanent Secretariat of the Alpine Convention

info@alpconv.org

www.alpconv.org

Working mode 2



3rd Water Conf.: Venice

Challenging discussions on water issues in a perfect setting

Photo: after conference was closed



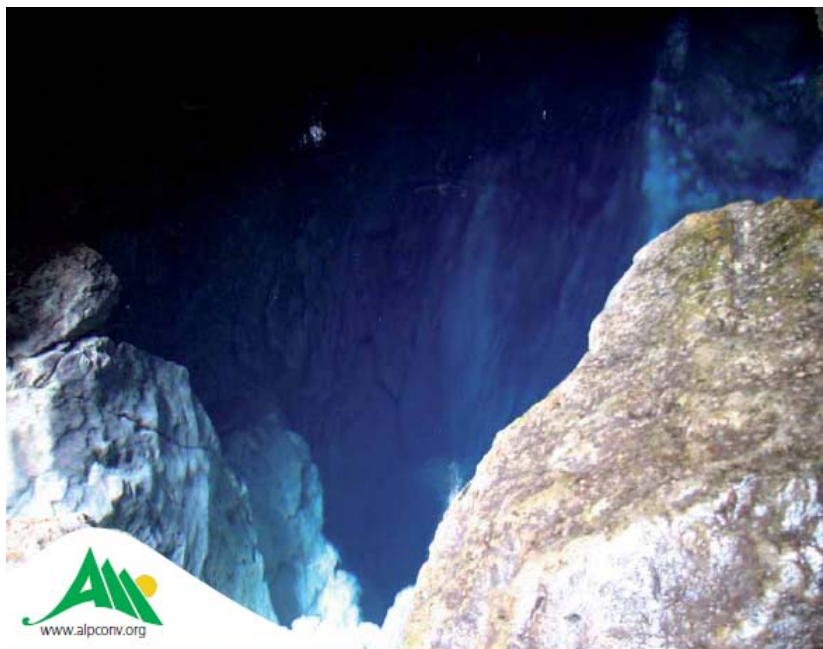
Working mode 3

Conferences:

- So far 4 conferences (AT, 2 DE, 1 I) with excellent + challenging discussions
- Broad involvement beyond water box/ water family
- Set the scene and / or pave way forward (new mandate, agreement in substance on results...)



1st result – RSA 2



http://www.alpconv.org/en/AlpineKnowledge/RSA/water/Documents/20090625_RSA_I_long.pdf

WATER AND WATER MANAGEMENT ISSUES
Report on the State of the Alps

ALPINE CONVENTION
Alpine Signals - Special Edition 2

ALPINE CONVENTION

tion

info@alpconv.org

www.alpconv.org

1st result – RSA 2

Starting point: do we need a water protocol ?

⇒ Expert group to assess situation in place in detail

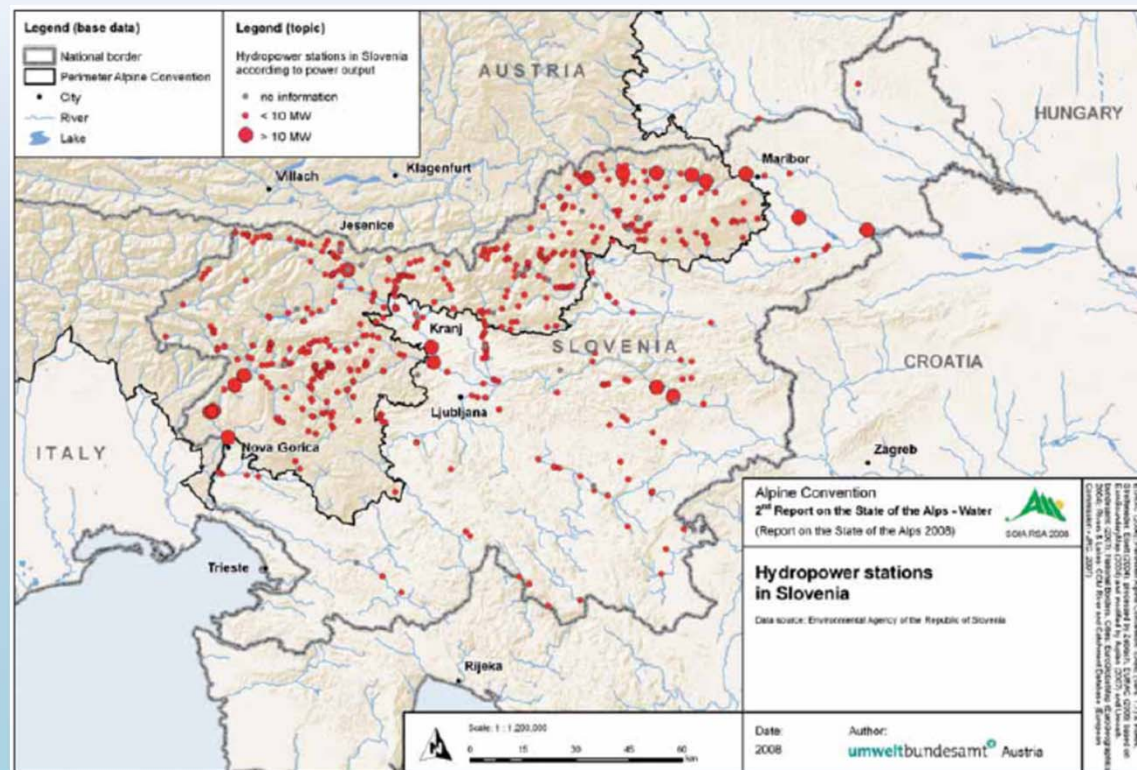
Findings / Results:

- ⇒ Comprehensive inventory of state of waters;
- ⇒ Comprehensive set of modern EU water legislation (+ equivalent Swiss legislation) in place;
- ⇒ no need for separate water protocol
- ⇒ concerns on hydropower development



1st result – RSA 2

Challenge of fragmentation of rivers due to (S)HP

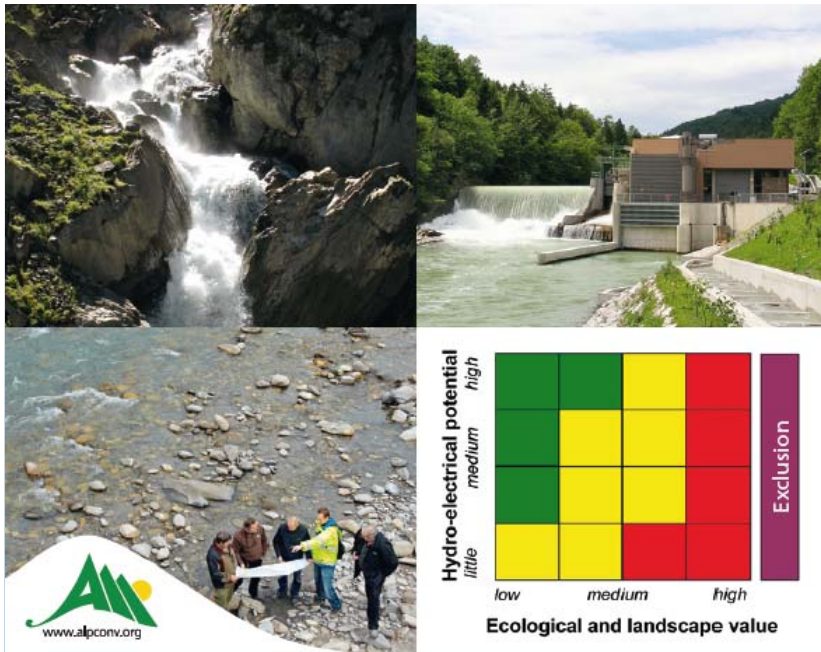




MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

2nd result – Hydropower documents

THE ALPINE CONVENTION IS THE FIRST INTERNATIONAL TREATY FOR THE PROTECTION AND PROMOTION OF THE SUSTAINABLE DEVELOPMENT OF A CROSS-BORDER MOUNTAINOUS REGION
italian presidency 2013-2014
alpine convention



Alpine Convention
Platform water management in the Alps

ALPINE SIGNALS FOCUS 1

COMMON GUIDELINES
FOR THE USE OF SMALL HYDROPOWER
IN THE ALPINE REGION

ALPINE CONVENTION
PLATFORM WATER MANAGEMENT IN THE ALPS

SITUATION REPORT ON
HYDROPOWER GENERATION
IN THE ALPINE REGION FOCUSING ON
SMALL HYDROPOWER

Situation Report on
Hydropower Generation
In the Alpine Region
focusing on Small HP

http://www.alpconv.org/de/organization/groups/WGWater/Documents/2011_Situation_Report.pdf

http://www.alpconv.org/en/publications/alpine/Documents/SHP_common_guidelines_en.pdf

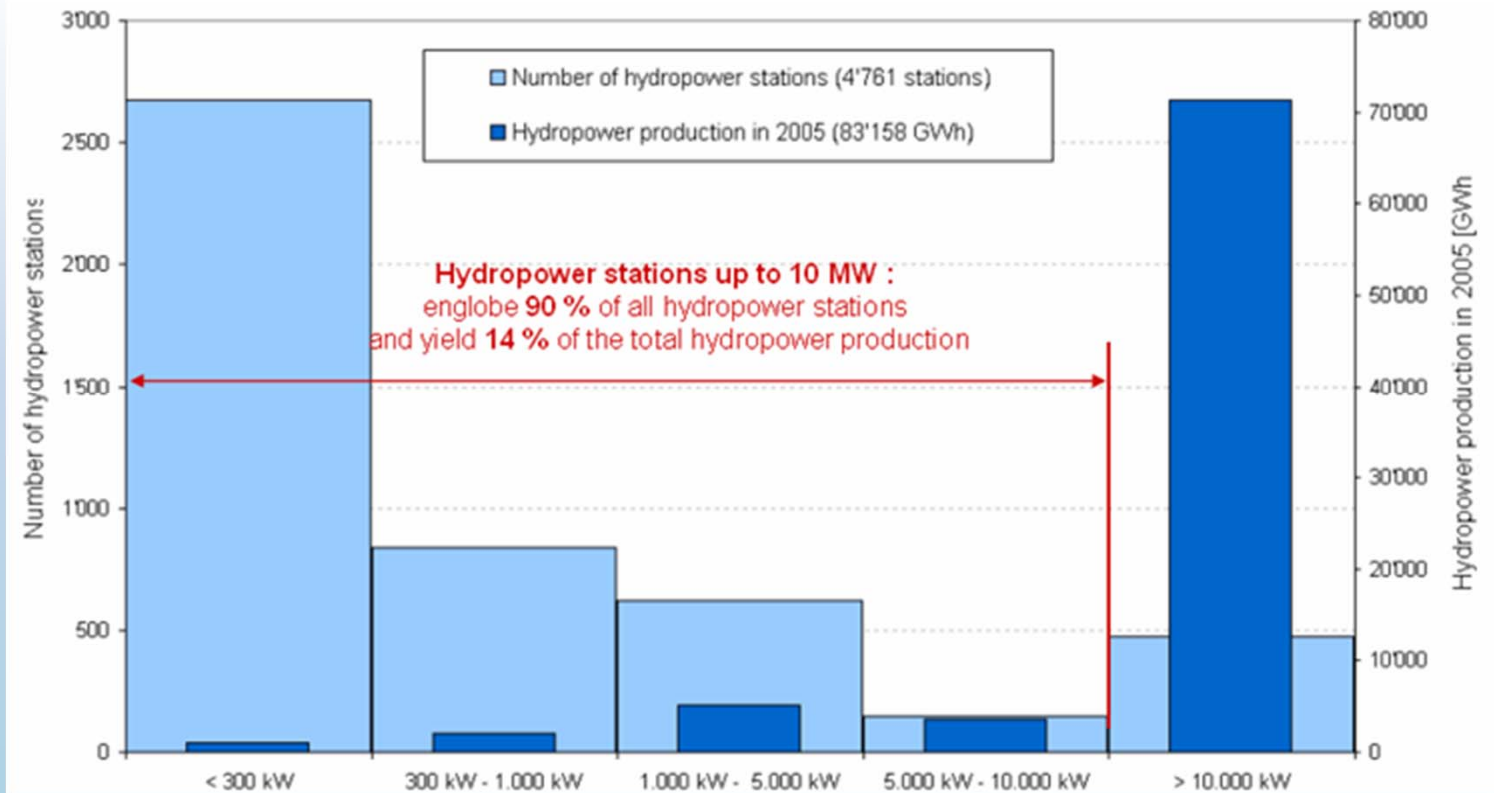
ALPINE CONVENTION

tion

info@alpconv.org

www.alpconv.org

2nd result – Hydropower documents



ALPINE CONVENTION

Permanent Secretariat of the Alpine Convention

info@alpcnv.org

www.alpcnv.org

3rd results – WS on upcoming issues sediment transport + hydro peaking



Hydropeaking mitigation measures

	Structural measures:	Operational measures:
No turbine water restitution into the river	1) Restitution directly into a lake 2) Restitution into a parallel tailwater channel	---
Controlled restitution of turbine water into the river in order to improve flow regime (close to natural condition)	3) Compensation basin 4) Restitution of turbinated water in a compensation basin of another powerhouse or in a multiple purpose reservoir	5) Limitation of capacity (Q_{max}) 6) Increase of minimum discharge (Q_{min}) 7) Start and shut down of turbines in sequences 8) Coordinated operation of several
Minimizing the effects in the concerned rivers	9) Improvement of river morphology 10) Shelters for aquatic life	---

<http://www.alpconv.org/en/organization/groups/WGWater/workshopsediment/default.html>

<http://www.alpconv.org/en/organization/groups/WGWater/workshophydropeaking/default.html>



Permanent Secretariat of the Alpine Convention

ALPINE CONVENTION

info@alpconv.org

www.alpconv.org

2nd RSA on Climate Change

2nd Report on State of the Alps (RSA2)

- Separate chapter on climate change
- Comprehensive reference to on going research as well as to complexity of Alpine region; i.a. to the four climatic sub – regions
- Important step forward to enhance understanding on forthcoming challenges for water management actions



ALPINE CONVENTION

Permanent Secretariat of the Alpine Convention

info@alpconv.org

www.alpconv.org



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

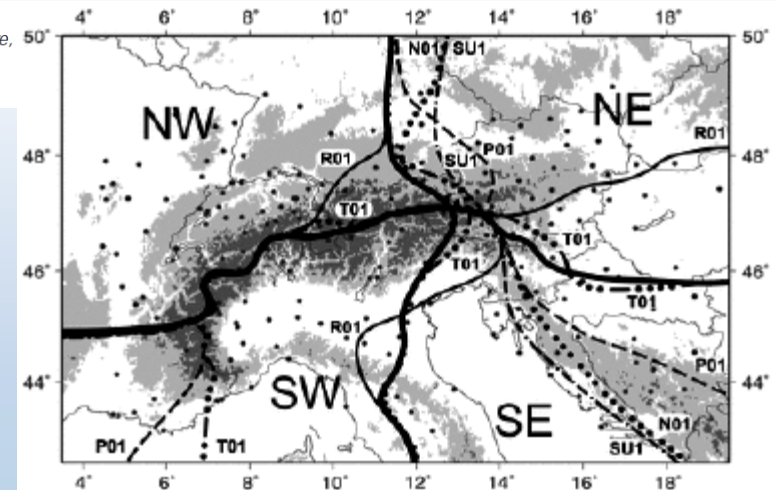
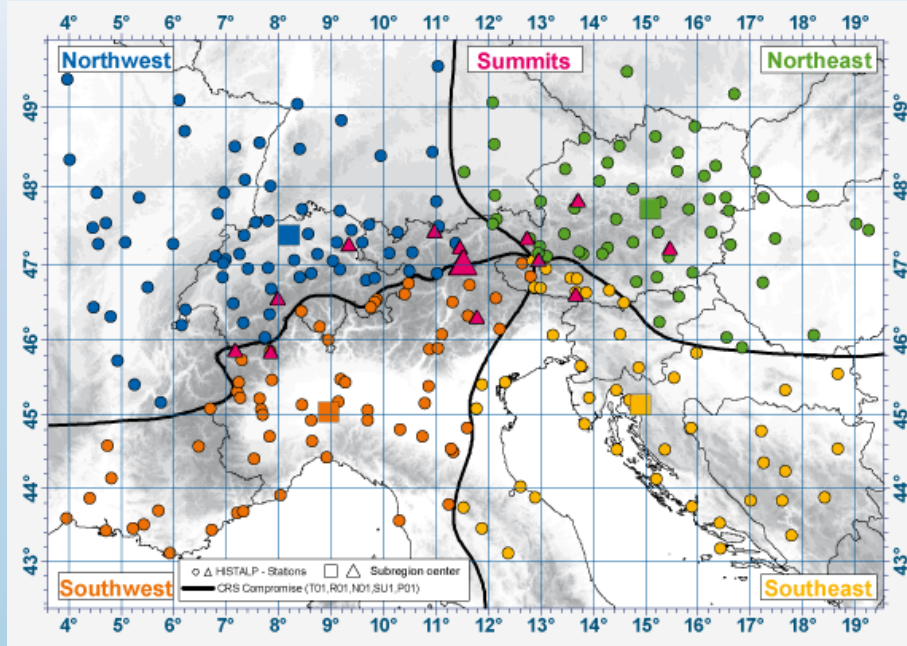
2nd RSA on Climate Change

THE ALPINE CONVENTION IS THE FIRST INTERNATIONAL TREATY FOR THE PROTECTION AND PROMOTION OF THE SUSTAINABLE DEVELOPMENT OF A CROSS-BORDER MOUNTAINOUS REGION
italian presidency 2013-2014
alpine convention

Fig. B1-3: The HISTALP Region: **Points:** stations.

Thin lines: element-specific sub-regions Northwest, Southwest, Southeast for P01 air pressure, T01 air temperature, R01 precipitation, SU1 sunshine, N01 cloudiness.

Bold lines: intra-elemental comparisons based on equal sub-regions for each climatic element.



HISTALP

Bold lines: intra-elemental comparisons based on equal sub-regions for each climatic element.



Permanent Secretariat of the Alpine Convention

ALPINE CONVENTION

info@alpcnv.org

www.alpcnv.org

Water Change in Climate Change

