

AUTONOME PROVINZ BOZEN- SÜDTIROL

Abteilung 30 - Wasserschutzbauten  
30.0.1 - Bereich Projektentwicklung



PROVINCIA AUTONOMA DI BOLZANO- ALTO ADIGE

Ripartizione 30 – Opere idrauliche  
30.0.1 – settore sviluppo progetti

# RIVER BASIN MANAGEMENT PLANS

The EXPERIENCE OF  
the AUTONOMOUS PROVINCE OF BOLZANO

Trento, 3rd October 2011

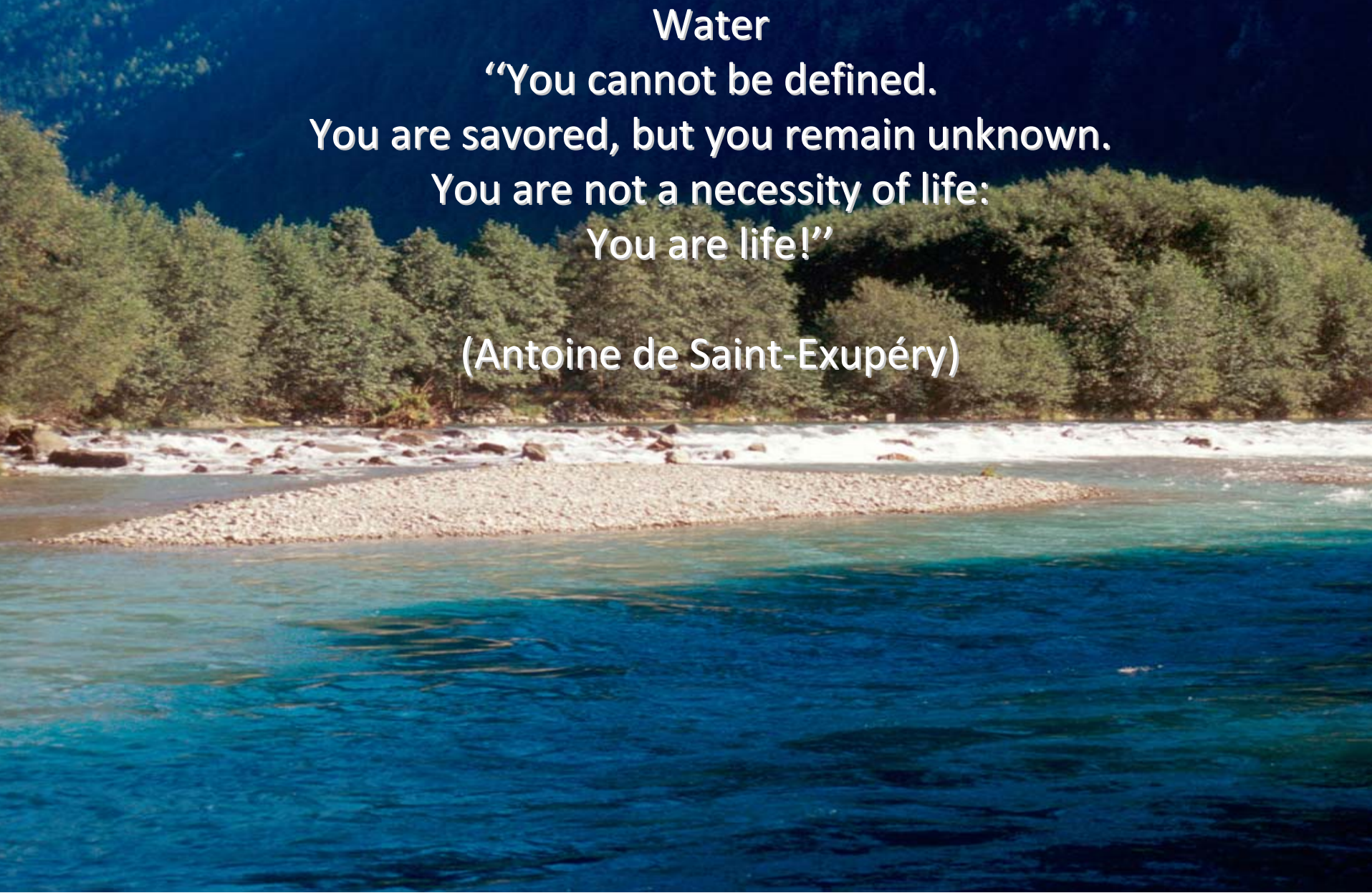
Pollinger - Gallmetzer - Horak



# WATER

- People are connected and attracted by water. They've always been on the side of a river. Cities, bridges, and the economy development are all witnesses of this close relationship. Nowadays we have to protect these very fragile areas, so that they can still be inhabited.





Water  
“You cannot be defined.  
You are savored, but you remain unknown.  
You are not a necessity of life:  
You are life!”

(Antoine de Saint-Exupéry)

# Change of land use

1910

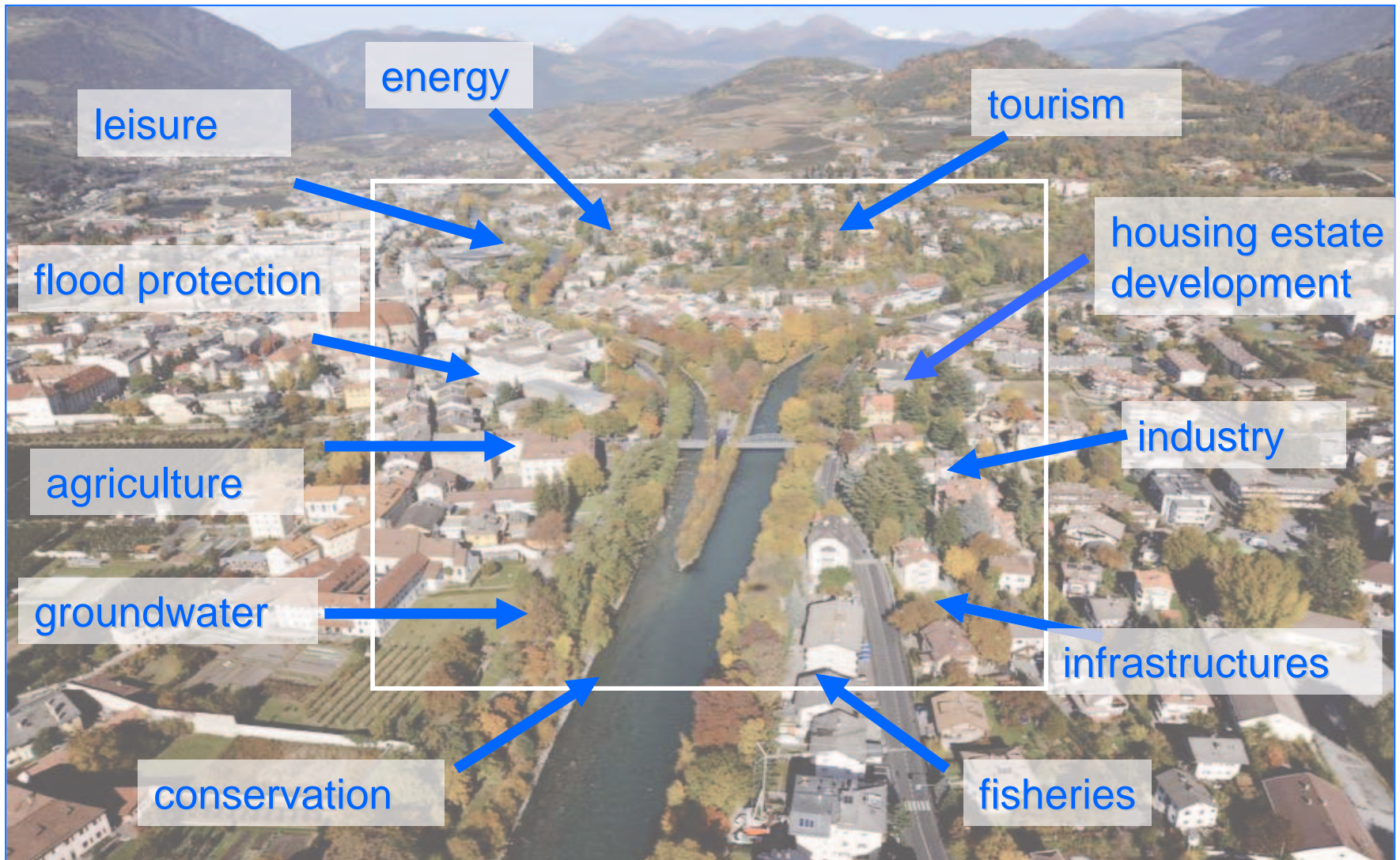


Bressanone

2010



# Stakeholders



# River basin management



How can we avoid this?



Why do we need a management plan?

# Increased damage potential



Increased need of protection



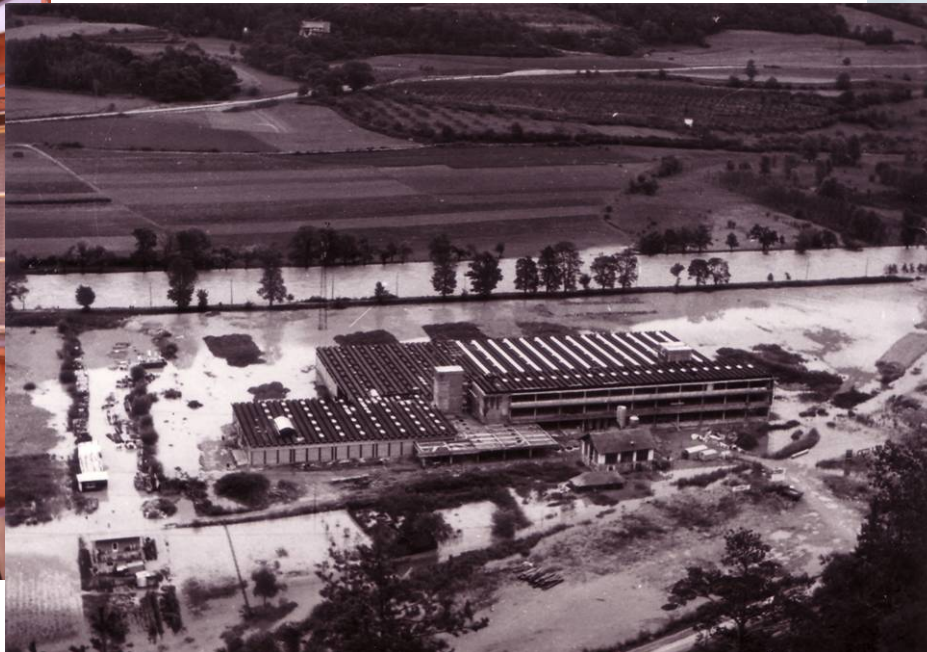
Increased economy along the rivers



What can we do?

# River basin management plan

- Increased demand for protection of the population
- Increased damage potential with the consequences of flooding
  - Agreement of demands
- Alignment of the plans, with interaction from the river basin stakeholders





# The aims of a river basin management plan

Sustainable development of the river basin considering the demand of:

- Flood protection
- Development of housing
- Industry
- Water economy
- Ecology
- Tourism
- Agriculture



More space for people means  
more security, more ecology and more  
room for leisure.



# River basin management

## River basin management steps

Analysis of present conditions

Natural dangers

Space

Ecology

Water economy

Synthesis  
Networking  
Risks – conflicts  
Possibilities

Ideal condition  
Model

River basin management plan with actions proposal

Projecting and realization of the measures

Public relation through information and participation

Evaluation

I Information (Project and river basin forum)

II Definition and formation of the forum members

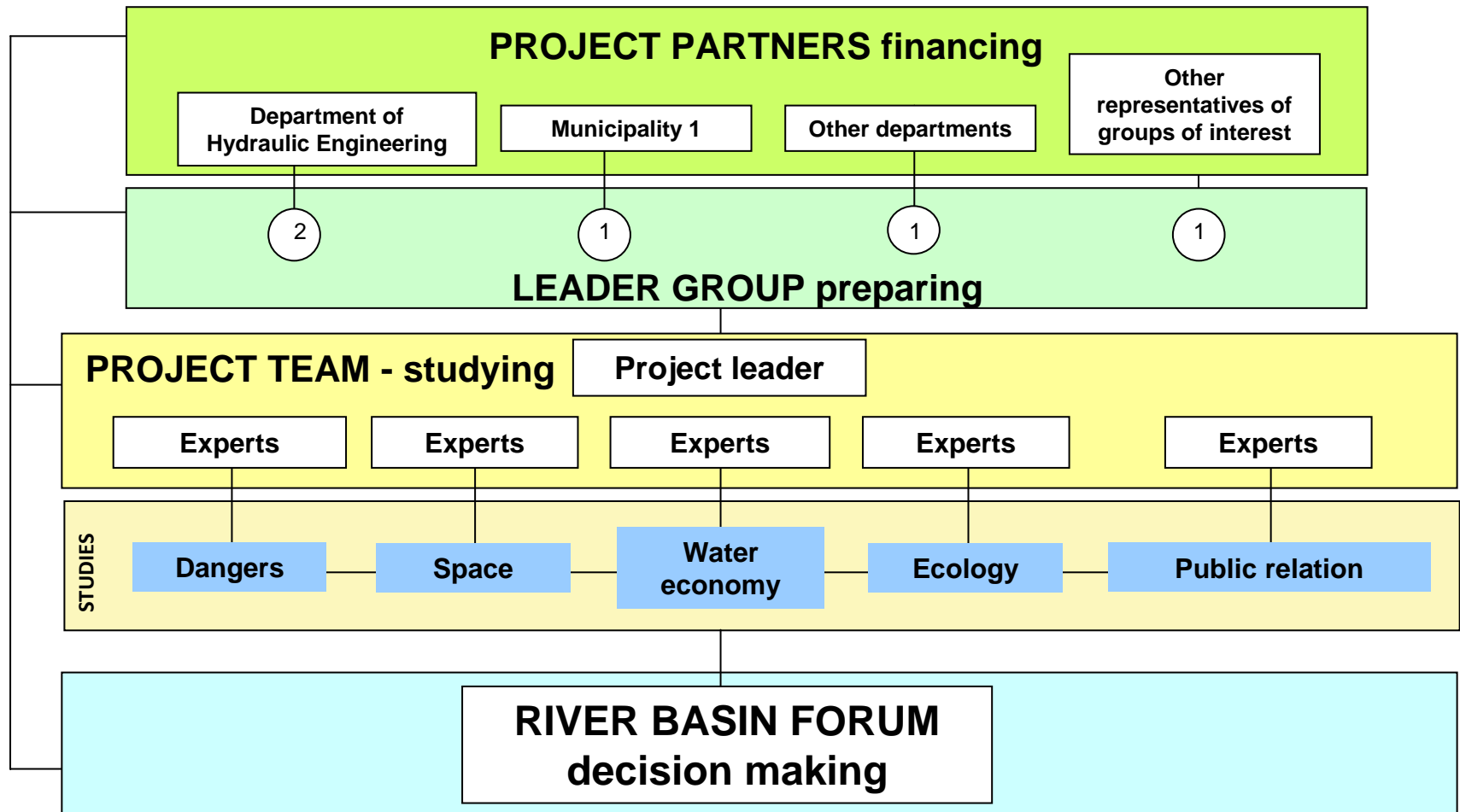
III Start model/Results of the analysis

IV Model and networking

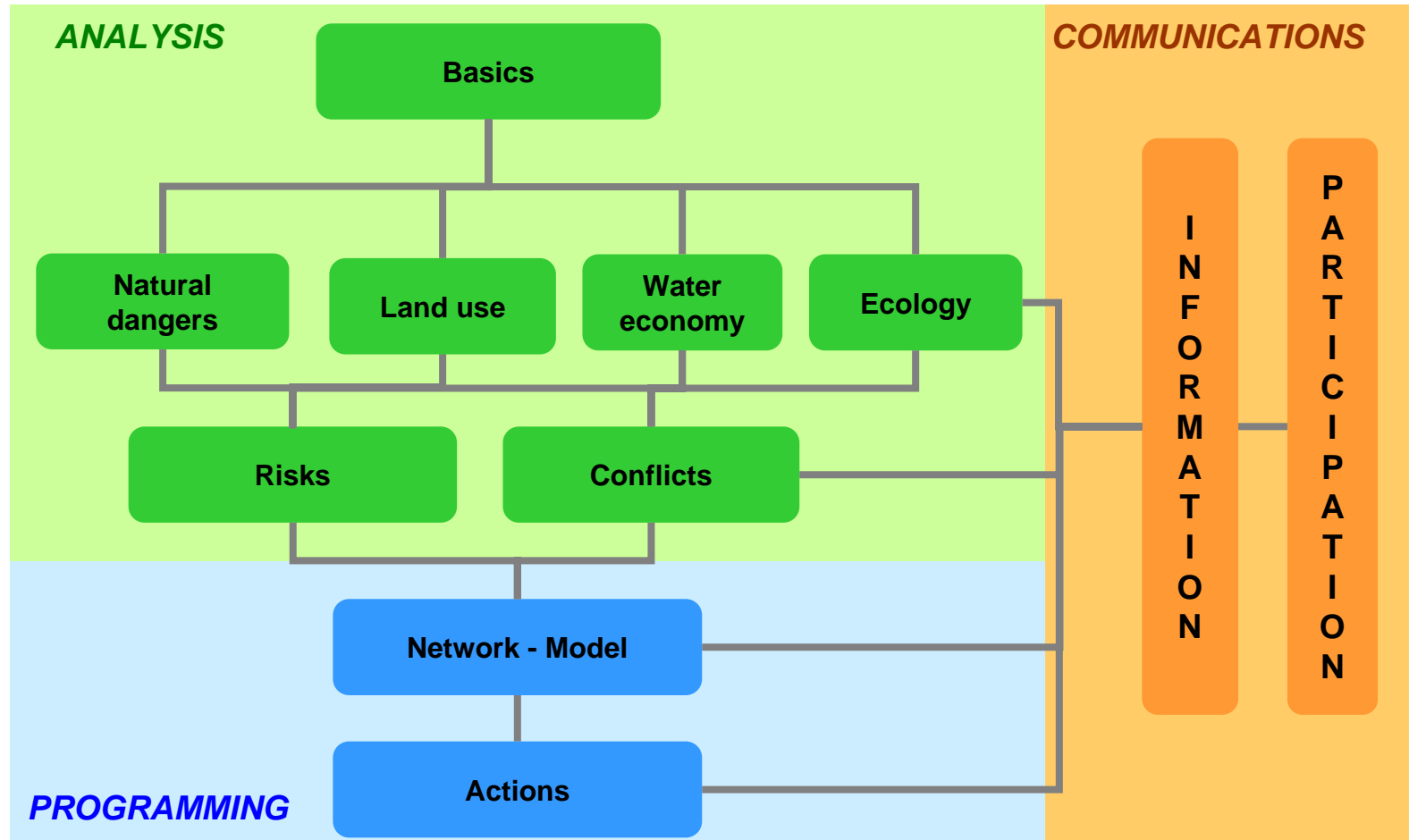
V Realisation of guidelines

VI Management plan

# Project organisation



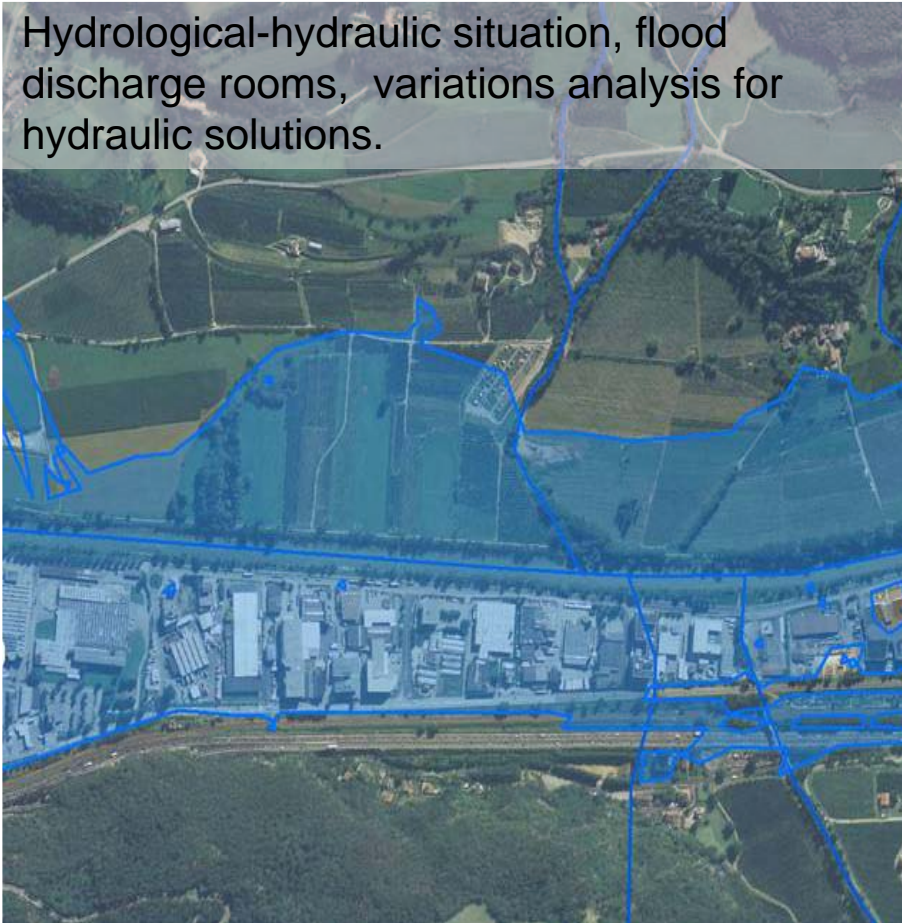
# Project structure



# Water hazards module

## 1. Discharge

Hydrological-hydraulic situation, flood discharge rooms, variations analysis for hydraulic solutions.



## 2. Bed load

Total bed load volume, bed load budget, debris flow.



# Land module

## 1. Rights:

Public water asset,..  
water rights, other legal  
regulations, environment  
and landscape protection,  
groundwater, fisheries.

## 2. Space planning:

Economic actions and added  
value, construction management  
plans, landscape management  
plans, protected areas plans,  
tourism and recreation,  
infrastructures.

## 3. Land use:

Landscape inventory,  
(vegetation structures,  
waters, land use, historical  
land use maps).



# Tourism and leisure



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# Water economy module

## Drinking water, irrigation, energy economy – other water use

Type of buildings, cultivation, use of the waterpower, residual water.



## Groundwater

Hydro geological conditions, monitoring network of groundwater level, groundwater output lines, deep well.



# Ecology module

## 1. Terrestrial ecology

Actual and historical features, description and mapping of animals and plants groups (birds, amphibian,...), hazardous areas.



## 2. Water ecology

Survey of the spineless fish fauna, water structures, water assets, friendly to fish passage, flood caused by energy company, change effect of the river shape and water ecology.



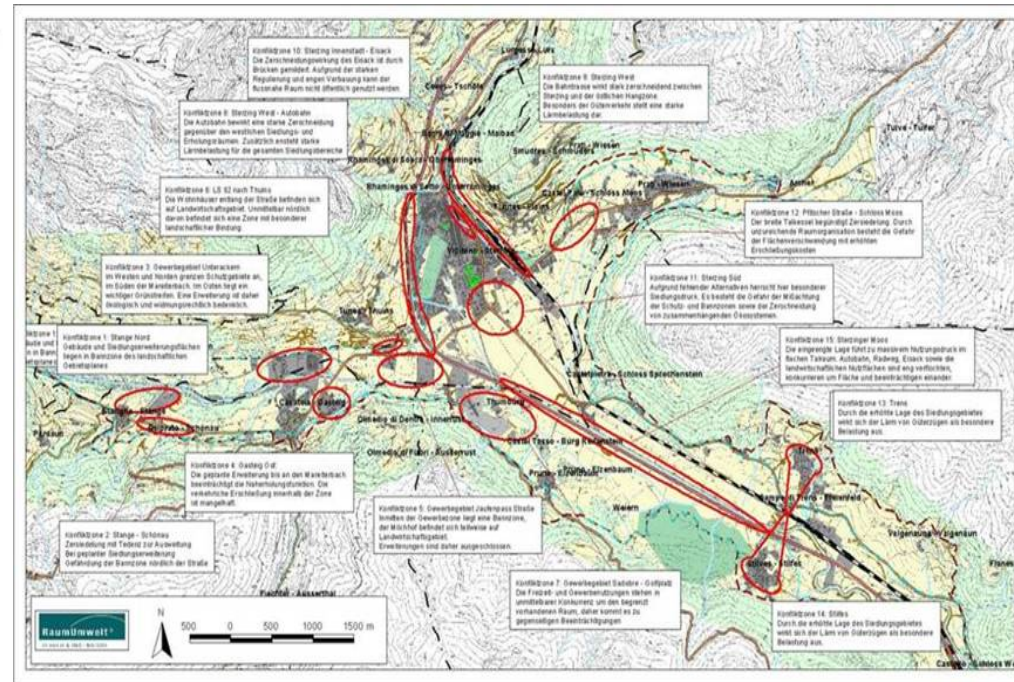
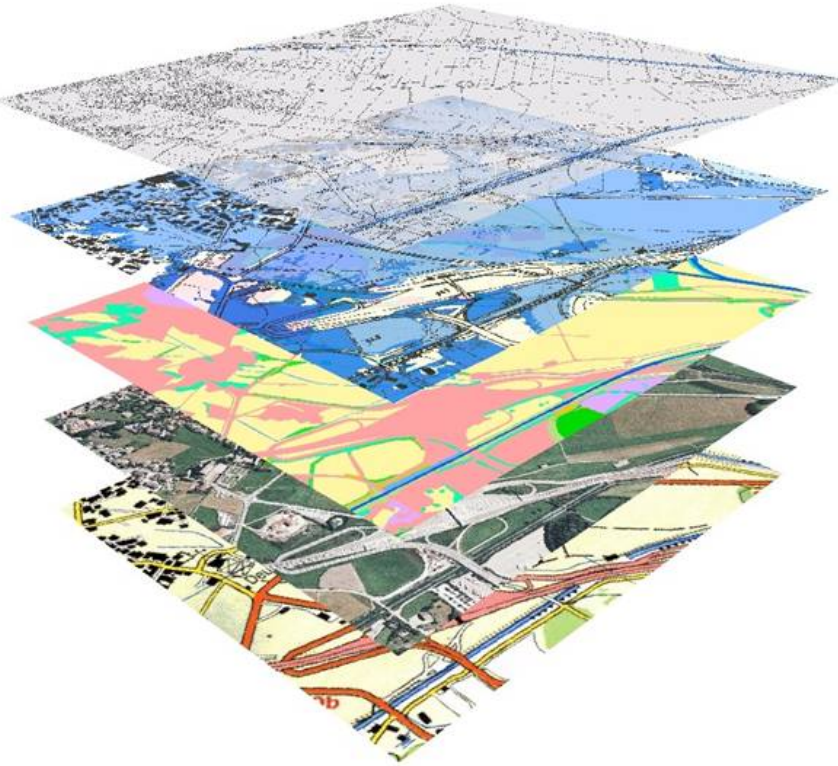
# Networking

## Risks areas

Hazards and damage potential illustrated with thematic maps.

## Conflict areas

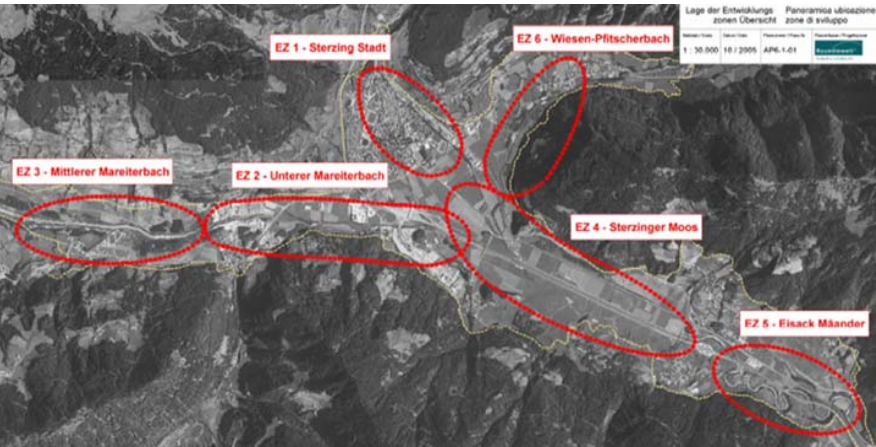
Networked thematic maps, links, shortage, potentials,... as a result of the 4 modules.



# Guidelines



**“Has to be” condition** to define a river basin area on the analysis and networking as for legal frame conditions (EU-water directive, EU-flood directive, Water use plan in the province), workshops, River basin -Forum, collective consensus of the realisable plan of actions.



## Plan for transfer:

River basin-Forum, workshops, collective consensus, actions catalog list of priorities.

# Guidelines

- FIVE GOALS
1. Flood protection
  2. Good water condition
  3. Conservation and improvement of landscape
  4. Sustainable water use
  5. Information and sensitisation

5 goals → agreement → action proposal



# Action proposals: an example



# Forum



# Involved groups of interest

Fire brigades

Mayors

Environment protection  
associations

Fisheries

Handcrafts

Tourism association

Civil protection

Farmers

Energy companies

Water protection

Birdwatchers

Industries

Nominated representatives of public and private organisations are involved not only for information but also for decision making

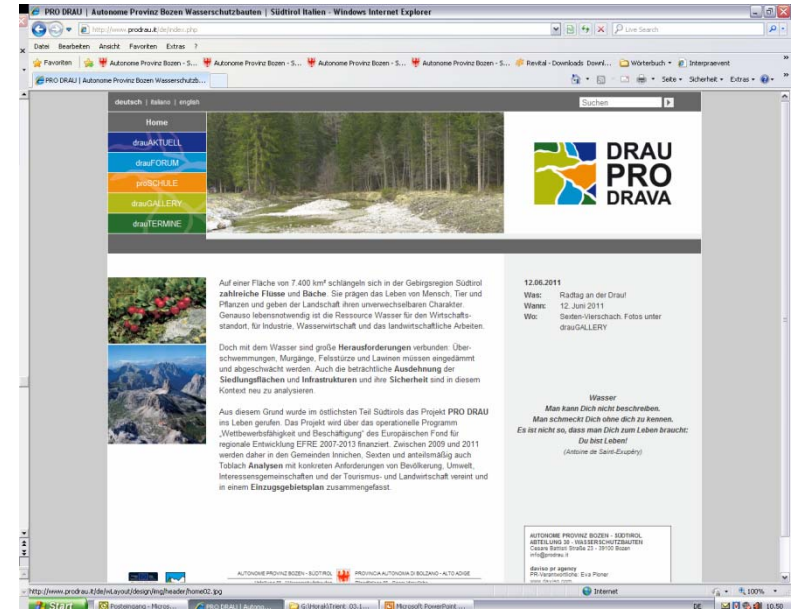




# Information

Website: [www.stadlandfluss.it](http://www.stadlandfluss.it)

“Totems” at the municipality, screens.



Mobile exhibition



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# School workshop



## Prato allo Stelvio primary school:

*“With enthusiasm we participate as students and teachers to the project “River-Bus”. The guide and organisation was very well prepared. Compliments to Regina and Othmar’s ability in succeeding to teach some important issues to children. Our students could look at Prader Sand with different eyes. Also, the parents were very positively impressed....”*



## School celebrating of the river Mareta

# INFORMATION

Leaflets and posters  
Newspapers and radio



**01}04}09**  
ore 20 Uhr } Acquaprad

**ETSCH | DIALOG**  
OBERE VINSCHGUAU ALTA VAL VENOSTA

**Mehr für unseren Fluss.**  
Projektvorstellung und Informationsabend für alle interessierten Bürger

**Dr. Rudolf Pollinger**  
Braucht der Obere Vinschgau einen ETSCH-DIALOG?

**Ing. Klaus Michor**  
Flussmanagementpläne und Revitalisierungen

**Un valore aggiunto per il nostro fiume.**  
Presentazione del progetto e serata informativa aperta a tutta la cittadinanza

**Dott. Rudolf Pollinger**  
L'Alta Val Venosta ha bisogno di un dialogo con il fiume?

**Ing. Klaus Michor**  
Piani di gestione del fiume



**Vinschgau**  
**Projekt Etschdialog gestartet**

September vier weitere Adige, in denen wir die Analysen im Zuständigkeitsbereich des Etsch aufarbeiten und die Bild für die Entwicklung der nächsten 15-20 Jahre erheben, erklärt der Schladener Bürgermeister Erwin Wagmann, gleichzeitig auch Sprecher der Stauungsgruppe Etschdialog.

Das Projekt Etschdialog sollte anhand der Ebenen Land, Pfad, Schladener und Gmei. Aufgrund der wasserwirtschaftlichen Nutzung sind auch Maß und Gmei in das Projektprofil eingeschlossen. Die Bevölkerung wird in den nächsten Monaten durch diverse Abendveranstaltungen, Diskussionsrunden, Kartenspiele, Schulprojekte und Nachbarschaften zum Thema auf dem Landeiden gehalten. Als erstes Termin kann sich bereits am 1. April vormittags im „aquaprad“ von 10 bis 12 Uhr das gesamte Projektteam in der Gemeindeverwaltung treffen. Einmal im Monat werden die Fortschritte und die nächsten Schritte im Projekt diskutiert.

**DER ETSCH-DIALOG**  
ETSCH-DIALOG

Ortsfoto Untersuchungsbereich Etsch, oberer Vinschgau unten: Workshop beim 1. Flussraumforum am 21. Februar, Pfad

Etschdialog heißt das neue Projekt, das in drei Ökonomie, sozioökonomische, Wasserwirtschaft und Landschaft auf einer Maßstab für Etsch, Gemeinden und Bevölkerung des oberen Vinschgau steht. Aus der Taufe geboren wurde die Initiative von der Abteilung für Wasserwirtschaft gemeinsam mit einer Reihe von Projektpartnern und den Gemeinden des oberen Vinschgau.

Der Fluss und das Wasser, das fließt, gehören immer mehr zu unserem lebenswichtigen Elementen. Flüsse stehen für Frischekraft, vorerstige Naturerholung, Landschaft und Lebensqualität mit dem Wasser, über das kein Leben und Überleben gewährleistet wäre. Wasser ist ein Lebensfaktor für die Bevölkerung.

Ungelöst 180 Jahren war die Etsch ein Fluss und hat sich im Laufe der Zeit verändert. Die Etsch ist ein Fluss, der sich im Laufe der Zeit verändert hat. Die Etsch ist ein Fluss, der sich im Laufe der Zeit verändert hat.

**Das Leitbild steht – die Chancen für den Flussraum steigen**

Schludern – Es war die 11. Veranstaltung im Rahmen des Projekts Etsch Dialog seit dem Start am 10. Februar und die Runde 2 in der Reihe der Informationsabende mit Vertretern der lokalen Presse, Johannes Graf Trapp zu Mensch und Flussraum. Die Teilnehmerinnen und Teilnehmer wurden über die Ziele und den Fortschritt des Projekts informiert.

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Name / nome  
Alter / età  
e-mail

**ETSCH | DIALOG**  
OBERE VINSCHGUAU ALTA VAL VENOSTA

**19}09}09**  
4 Uhr Prader Sand (bei Pfanzgarten der Wildbachverbauung) e 14 Uhr Prader Sand (presso il vivaio de Bacini Montani)

**ETSCH | DIALOG**  
OBERE VINSCHGUAU ALTA VAL VENOSTA

**Strom am Fluss**  
Die Etsch ist ein Fluss mit großem Naturerholungs- und Abenteurerwert.



**ZELT/TENDA Pfanzgarten-Vivato**

**STATION 1 RAFTING**

**STATION 2 SICHERHEIT/ HOCHWASSERSCHUTZ**

**STATION 3 SICUREZZA/ PROTEZIONE DALLE PIENE**

**STATION 4 WASSERANALYSE/ FLORA, ABRISCHEN, FAUNA/ ANALISI DELL'ACQUA/ FLORA, PESCA E RILASCIO DI PIU'**

[www.etschdialog.it](http://www.etschdialog.it)



# Projects in South Tyrol – Alto Adige



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# Public relations

titel of the project	press	partners with media	Info-flyers	banners	web site	tv, radio	screen presentations	internet	exhibitions	school events	escursions	presentations	river party and inauguration	Events for information	scientific reports	final report	river basin - round table
GBK Untere Ahr	X					X				X	X	X	X	X	X		X
Flussraumagenda Oberer Eisack	X		X		X	X				X	X	X	X	X	X	X	X
Etsch-Dialog	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
StadtLandFluss	X	X	X	X	X	X			X	X	X		X	X	X	X	X
Passer für Meran	X		X	X	X	X		X		X	X	X		X	X		X
PRODRAU	X			X	X	X	X	X		X	X	X	X	X	X		X

The expenses for information and participation are between 18 and 29% of the total budget.



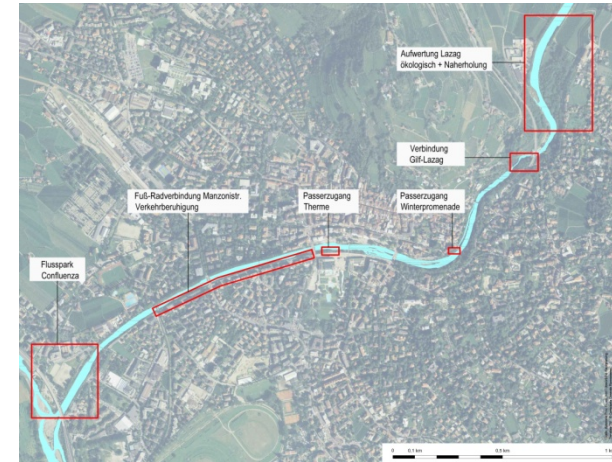
# Duration

title of the project	duration												area of detection	
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011
GBK Untere Ahr					continuing planning and implementation of river revitalisation and access to river									the bottom of the lower valley of the Aurino river is 5,4 km <sup>2</sup>
Flussraumagenda Oberer Eisack										planning and implemenation				the bottom of the valley of Vipiteno, Isarco river and Mareta river is 340kn
Etsch-Dialog													planning and implemenation	the bottom of the upper valley of Venosta, Adige and affluents is 36 km <sup>2</sup>
StadtLandFluss														the bottom of the valley by Bressanone, Isarco and Rienza is 19 km <sup>2</sup>
Passer für Meran													implementation of the pilot project	4.430 m is the length of the Passirio river in Meran and the area is 41,3
ProDrau													study of variants	the whole river basin Drau is 160,33 km <sup>2</sup>



# Recreational area by the river

## Passer river in Merano



new access to the river, opening in May 2012



# Mareta river

An experience of revitalization from 2009 to 2011



2009 before the revitalisation



2010 when the works were finished



2011 following the first flood



# Revitalization of the river bed

## Aurino river

This project shows how channel widening contributes to achieving the aims of flood control, streambed stabilisation, ecological enhancement and an attractive recreational landscape.

First widening of the river in 2005



Final view of the widening of the river  
in 2009

# Lifting bridge in Sluderno

## Saldura river



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A photograph of two people sitting on a rocky riverbank, viewed from behind. They are looking towards a river where sunlight is reflecting off the water's surface. The person on the left is wearing a grey cap and a purple patterned shirt. The person on the right is wearing a pink cap and a purple and black striped shirt.

**The future damage by natural catastrophes  
is the consequence of our decisions today  
(Mileti 1999)**



Thank you for your attention.  
Arrivederci!

