

WP 5 Establishing the risk governance framework

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Introduction

Objectives

to analyze the risk governance strategies in France, Italy, Poland, Romania in its European context

to analyze how the methods for hazard and risk assessment developed in WP1 to 4 are effectively communicated with local stakeholders/end-users and the affected individuals and communities

Scenarios for risk reduction will be agreed on by mutual dialogue between researchers and all stakeholders

Background

Risk governance : totality of actors, rules, conventions, processes and mechanisms on how relevant risk information is collected, analysed and communicated and management decisions are taken

Challenge

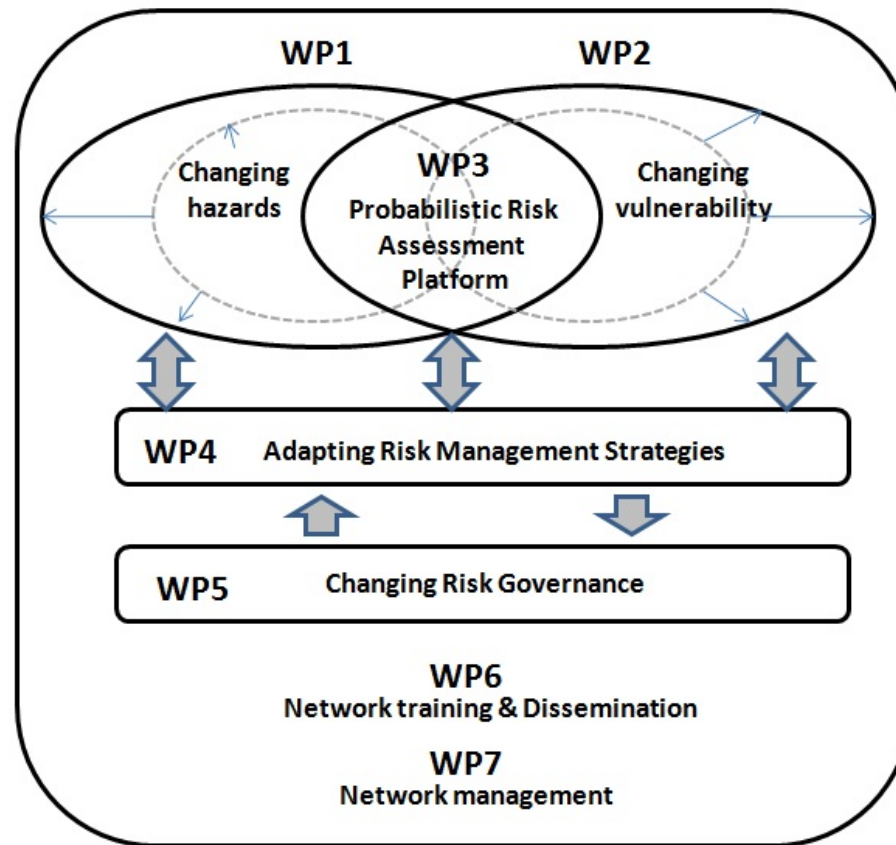
Risk governance strategies differ greatly within Europe and with different hazards

How effective is risk governance ? No critical review yet, especially communication

Requirement

In view of the given differences between cultures and socio-economic settings in addition to individual factors, good risk governance should focus on common procedural requirements for different phases of risk governance

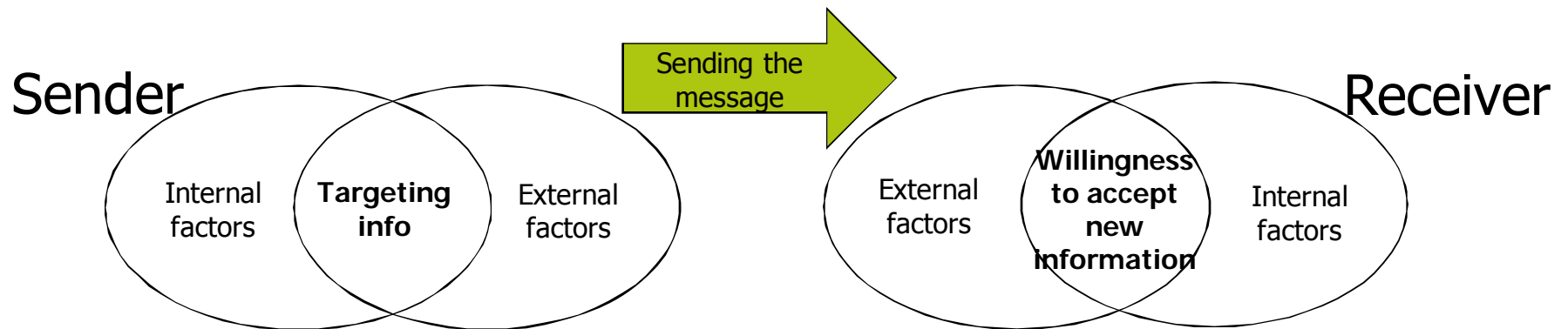
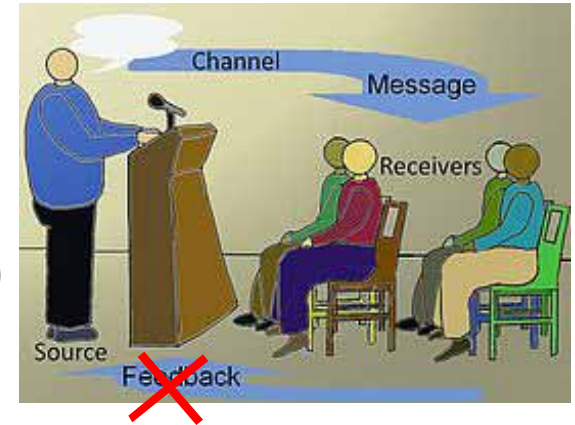
Background



Main achievements

Awareness within 'Changes' (Collaborative Multi-disciplinary Research and Training Programme)

- Our role in the risk management cycle
- Functioning of Risk Governance (WS01)
- Role scientists in risk dissemination and communication (PS04)



Main achievements

Visit and interviews of all case study areas

Wieprzówka catchment, Poland (September 2011)

Wieprzówka catchment, Poland (June 2012)

Friuli-Venezia-Giulia region, Italy (April 2012)

Ubaye valley, France (April 2012)

Ubaye valley, France (June & October 2012)

Buzău County, Romania (September 2012)



Main achievements

WP4 and 5 meetings

- November 25th , 2011 Dortmund
- February, 29th, 2012 Delft
- April, 17th Barcelonnette

During all conference, project meetings etc



Numerous Skype meetings!



Main achievements

Strong collaboration between Changes and KultuRisk

- Minimize “burden’ for local stakeholders
- Economic analysis University of Venice
- Collaboration and exchange in field of communication and stakeholder participation Kings College London (Prof. Demeritt), WSL (Dr. Buchecker)



Collaboration between Changes and SiS project EMAPS set-up

Aim: to get a better understanding of whether the web can provide a meaningful information tool to produce an enhanced interest of a wider public in science and technology issues, not as receivers of information about end results of science, but as potential participants in science in the making



Main achievements

Dissemination results Mountain Risks (FP6) project



Teresa Sprague

Comparing risk governance strategies for different EU countries, with focus on the difference between Western and Eastern European countries

Comparative analysis on underlying aspect of risk culture and administrative systems -> collaboration with Kathrin (ESR8)

- Interviews and questionnaires local/regional stakeholders
- Desk top study

Deliverable 5.1: Comparing Risk Governance Strategies (due M+30)

- Summary of findings
- Recommendations on commonly acceptable principles of good risk governance

Main achievements Teresa Sprague

- Observational protocol (4 goals)

Observational Protocol Goal (1-3)	France	Italy	Poland	Romania
#1. Understanding of physical environment	Both landslide and flooding important (also earthquakes due to recent events in Feb. 2012)	Both landslide and flooding important	Flooding most important (fluvial, urban and flash floods) Type of flood depends on geographic location	Flash flooding most important in local areas e.g. Nehoiu. Landslides important all over
#2. Levels of contact with stakeholders	Local and regional levels contacted in all cases (some cases have more local representation than others)			
#3. Most appropriate level of analysis	Regional (prefecture)	Regional (region)	Local/Regional (district)	Regional (county)

- #4. "providing input toward identifying the specific risk culture of the case study site" in progress

Main achievements Teresa Sprague

- Thematic analysis (coded system created) based on dialogue from stakeholder meetings
- Initial analysis:
 - General comparative factors
 - Risk Communication
 - Risk Assessment
 - Risk Management
 - Unique (case-specific) characteristics
 - Issues identified
 - Good practice examples

Issue Identified	France Evidence	Italy Evidence	Poland Evidence	Romania Evidence
Relief is often given more attention and funding Issue: need for more focus on management strategies for prevention & preparation	Evidence: reactive chronology of historical events and responses	Evidence: reactive chronology of historical events and responses	Evidence: even within EU legislation (doc. Review) Flood Directive use of funds, lack of funding and nature of 'rapid onset'	Evidence: Statements given that this issue is more politically driven by the national levels. Little investment, especially for longterm prevention measures
Concerned about marginalization Issue: primarily funding and support related	Evidence: dialogue with mayors and attention (lack of) given by the departement level, desire for pre-alert system but perception they will not be the priority to receive this	Evidence: dialogue with mayors (not significant enough for more funding, more resources, more protection) (Italy)	Evidence: legal shifts in responsibilities (army reform & implementation of FD, Poland), implementation of Flood Directive results in less support at most local level	Evidence: though lack of funding in general, stark contrast in rural areas in terms of resources and funding equating to dependence on county level
Maintenance of structural measures Issue: not maintained	Evidence: stakeholder dialogue in multiple municipalities, dialogue in terms of funding costs for structural measures high (e.g. Mayor of Barcelonnette), though directly more toward general cost not just maintenance	Evidence: stakeholder dialogue in multiple municipalities and photos indicating visual lack of retention basin clearing (e.g. Ugovizza), informed this is due to funding issue (e.g. municipalities cannot pay)	(contrast) Evidence: limited structural measures (landslide stabilization requires no maintenance, one major reservoir)	Evidence: check dams filled with sediment, but cost higher to remove material than to build new dam, so new dam built when needed (e.g. Nehoiu)
Responsibilities within a hierarchical risk culture Issue: tend to decrease actions initiated at more local levels due to reliance (sometimes overreliance) on the higher gov. levels	Evidence: stakeholder dialogue with Barcelonnette Fire Department, must rely on the CODIS in Digne prior to any actions, states this is just the system (did not state if this should be changed)	Evidence: overreliance on structural measures, reiterated by work of Scolobig and De Marchi from ISIG, also confirmed via stakeholder dialogue with Regional Civil Protection	(contrast) Evidence: more decentralized (self-governance and 'central' governance, e.g. mixing of 'units')	Evidence: Vice-mayor of Nehoiu states they must rely on the hierarchy (more state of fact than compliant), issue of lack of initiative of the local levels and strong dependence on regional level, need for empowering local levels (e.g. statement of Deputy Head of IGSU)
Conflict of actor responsibilities	Evidence: complicated relationship with the voluntary fire department	Evidence: conflict between Geological Survey and local	Evidence: municipalities cannot regulate the rivers	Evidence: Difficulties exist with conflicts between the military and local

Unique Factors

France	Italy
<ul style="list-style-type: none"> • Public participation (potential lack of effort for public participation in response to lack of demand) • Strong importance of politics (inter-communal relations) • Priority of public (according to Mayor of <u>Barcelonnette</u>) on damage prevention not loss of life • Conflicts in different actor responsibilities (e.g. Gens de Marie and volunteer fire department) • Accessibility (protecting critical infrastructure) <ul style="list-style-type: none"> ◦ One main road...otherwise evacuate through Italy • Issue of problem in implementation according to event return periods (currently 30, later to 100yrs) • Influence of historical events on building codes (e.g. before and after WWII) 	<ul style="list-style-type: none"> • Important issue of outmigration • Loss of life highest is the priority also in public view • Very good inter-municipality network (solidarity), especially in 2003 event from both within the region and from Austria and Slovenia (e.g. occasionally more volunteers than inhabitants during post-2003 event) • Conflicts with the Geological Department vs. municipalities (e.g. building permissions) • Negative impact of Schengen Agreement (e.g. ghost town of <u>Pontebba</u>) • Authorities express desire to implement more public communication methods • Gathered risk perception of public after 2003 event with <u>Instituto di Sociologia Internazionale di Gorizia (ISIG)</u>
Poland	Romania
<ul style="list-style-type: none"> • Outmigration/depopulation not a serious issue (contrast) • Prevention/Preparation is highest priority (but are limited due to funding, e.g. cannot protect all 'hot spots') • Conflict between municipality and water board in terms of protection measures (river management, e.g. <u>Andrychow</u>) • Impact of EU legislation: implementation of Flood Risk Directive (Regional Water Board) • Reformation of army (now have to pay for services equating in municipality attempting to self-protect*) • Issue of legal ownership: roads and built structure (<u>Wieprz Municipality</u>) • Good example of protocol process in <u>Wieprz</u> • Good example of ARCUS 2005 software (information sharing system) <p>*Exception where explosives needed (<u>Powait Wadowicki</u>)</p>	<ul style="list-style-type: none"> • Substantial funding limitations (most extreme of all cases evaluated) • Issue of administrative delineation (e.g. <u>Nehoiu</u> specific), prevents adequate funding for communes within municipality • Highest expectation of output from the CHANGES project (i.e. expectation that the project will provide solutions for both management and assessment of risks) • Prioritization of roadside protections to detriment of residents on opposite side (prioritization due to lack of funding, can only protect one side) • Need for common framework for local volunteers (e.g. for knowledge sharing) • Multiple statements (oft reiterated) need to change the mentality of the people and need for more cooperation of the people (similarly for attempts at organization of volunteers) • Very closed information system (within and between levels)

Main achievements Teresa Sprague

Conceptual framework
to structure the risk
governance process
analysis

Prominent role risk
communication

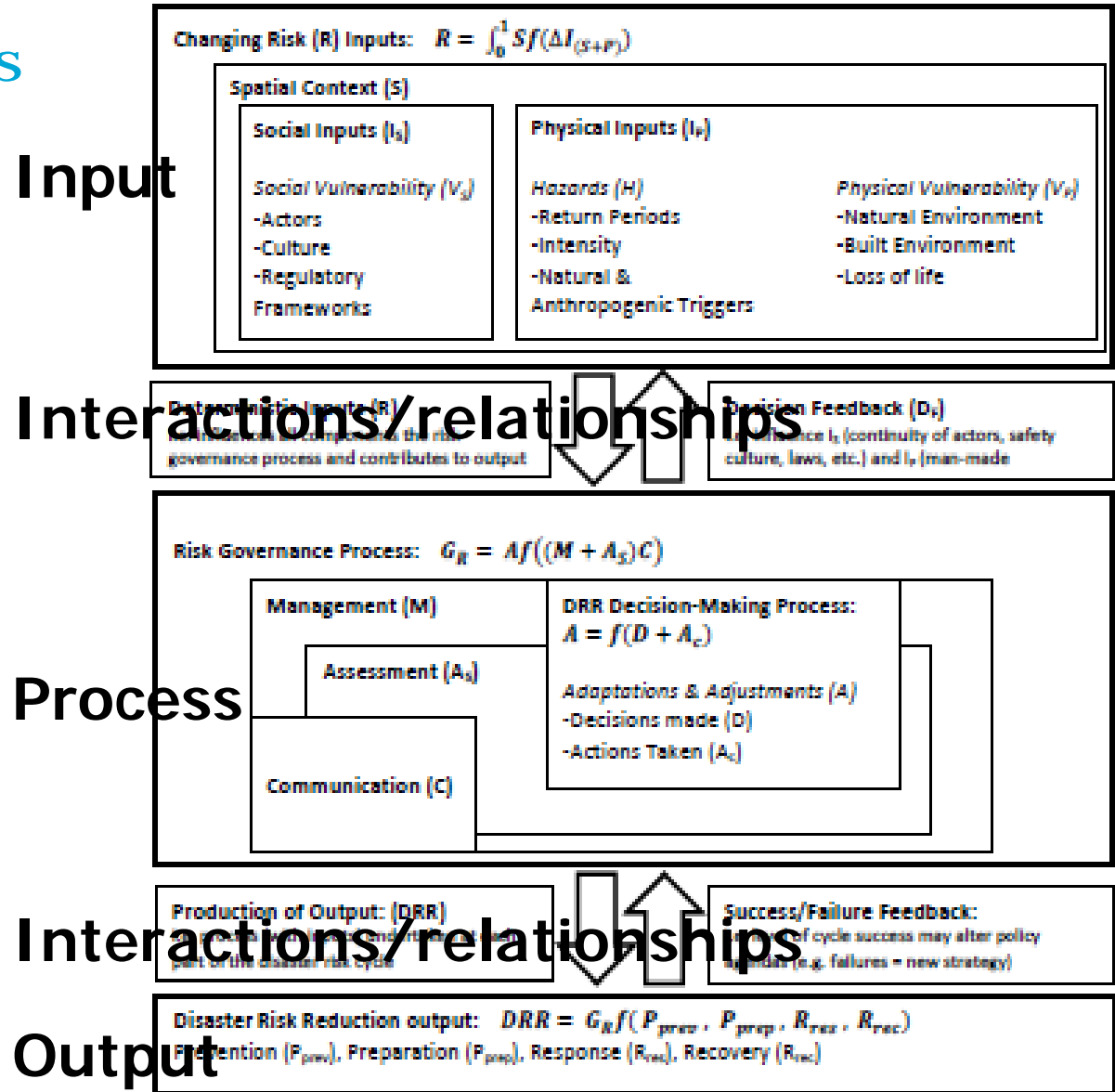


Figure 1. Conceptual framework.

Marie Charrière

Objective:

Assess the effectiveness of visual communication for increasing risk awareness and preparedness of the general public.

Methodology:

- 1) Review/inventory of actual practices (visualization tools and evaluation methods) -> *oral presentation and conference paper at FloodRisk (November 2012)*
- 2) Background surveys (identification of audiences, tools, contents, phases) -> *in progress (stakeholders visit, 'risk managers' questionnaire, communicators)*
- 3) Visualization tools testing -> *to be conducted in French and Italian case study*

Background surveys

Stakeholders visits

Understand role of each stakeholders in terms of communication to public

Gather opinions and ideas based on a two-way approach

Identify possibilities of collaboration for developing activities that would serve both community and research.

Fully conducted in the French case study

Initiated in the Italian case study

Managers survey

Understand role of each stakeholders in terms of risk communication

Gather opinions on existing and potential future communications in terms of audience, content, tool and phases

Identify information needs of risk managers

Collaboration with esr-08, esr-09, esr-10 and esr-11 + esr-05 and esr-07

Fully completed in the French case study (15 answers)

Initiated in the Romanian and Italian case studies.

To be initiated in Poland

Communicators survey

Understand the process behind concept and design current of visual risk communication practices

Understand the choices of content, target audience, phase and tool.

Identify methods of evaluation

Draw comparisons

Communicators partly identified

Potential collaboration with a master student

Managers survey: main preliminary results France

Communication part (WP5)

First results in conference paper and poster presentation at Gi4DM (December)

-> Public awareness for the French managers is:

*“The extent of common **knowledge** about disasters risks, the **factors** that lead to disasters and the **actions that can be taken** individually and collectively to reduce exposure and vulnerability”. (UNISDR, 2009)*

+ **information** aspect

-> Communication should be improved for **all phases**. Agreed priority topics:
(i) **potential consequences**, (ii) **individual preventive measures** and (iii) **evacuation plan and emergency procedure**

Stakeholders visit

PACA region and Ubaye Valley:

Aim: understand PACA region policy + identify stakeholders collaboration and audiences

- **PACA region:** reframing of policy, integration of vulnerability, participation and information sharing. Framework “imposed” by the region.

- **Tourism stakeholders:** no interest in risk communication

- **Children:** strong motivation of the education stakeholders to be involved in the project
-> negotiations started

- **Multimedia library:** unexpected collaboration

-> exhibition



Exhibition in the Ubaye valley



"Knowing the risks to be better prepared"

Research aim: test several visualization tools effectiveness

Content and tools: according to managers and population surveys (3 parts)

Imposed requirement: target adults and children

Planning: November 2013-January 2014, library of Barcelonnette

Advancement:

Storyline and concept design completed

Fundraising in progress

Content search in progress

Links with other ESRs: content and process

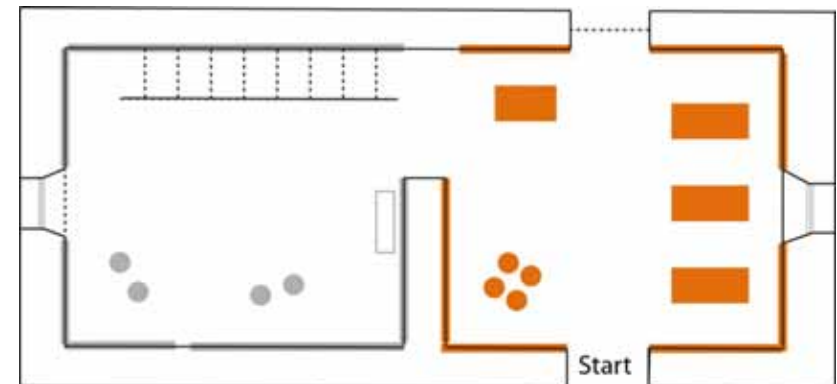
Exhibition in the Ubaye valley



Part I. Natural hazards, consequences, concept of risk

Objective: Explain hazards characteristics and their potential consequences on elements at risk.

Tools: analogical models, pictures, videos (events + witnesses), interactive maps and games



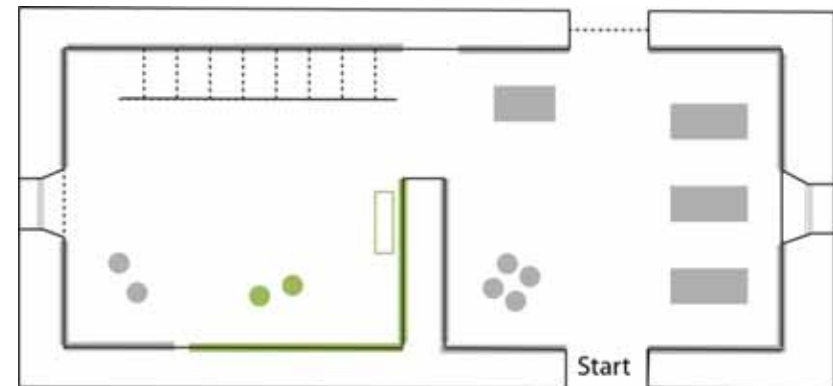
Exhibition in the Ubaye valley



Part II. Management and protection strategies

Objective: Explain the different types of collective and individual mitigation measures (e.g. dykes and dam, spatial planning, emergency kit and action to take)

Tools: pictures, drawings, videos and objects



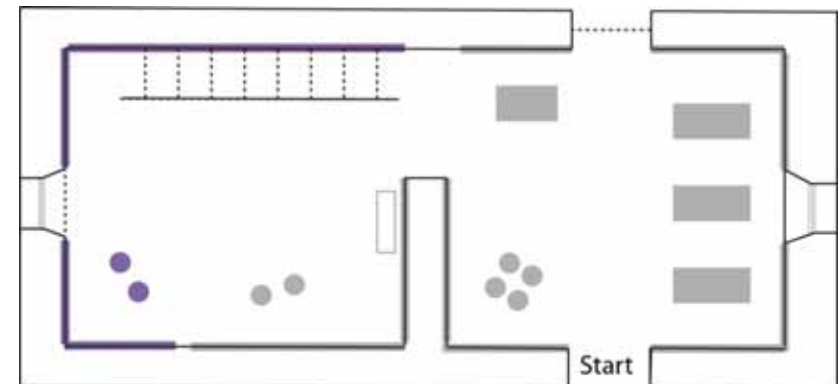
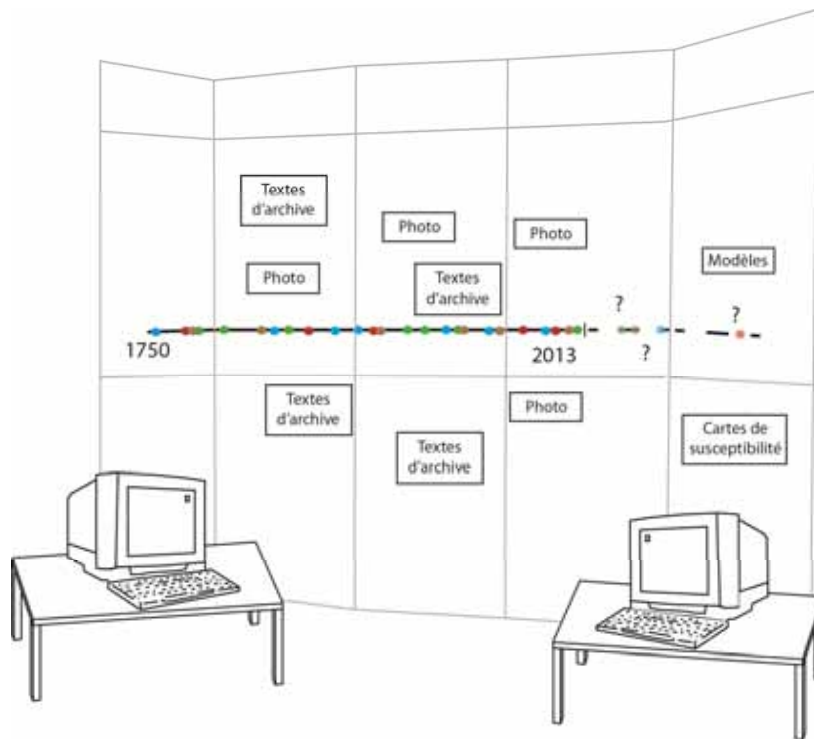
Exhibition in the Ubaye valley



Part III. How the knowledge of the past allows anticipating the future

Objective: Present past events and evolution of mitigation measures as well as the scientific tools for predicting future.

Tool: Time line



Exhibition in the Ubaye valley



Evaluation -> Mixed methods

- **“Traditional”**: number of visitors, number of classes visiting, number of mention in media (Imra, 2011)
- **Cued testing**: questionnaires, interviews -> increase of knowledge, perception, user needs,...

Challenge: influence of one tool/ask the good questions/length/ pre and post/comparison

- **Uncued testing**: observation -> attraction of visualization tools

School children

Aim: test visualization tools effectiveness with a **longitudinal process**

Content and tools: according to managers and teachers (a priori geo-pdf, picture and drawings)

Advancement: negotiations in France

Evaluation:

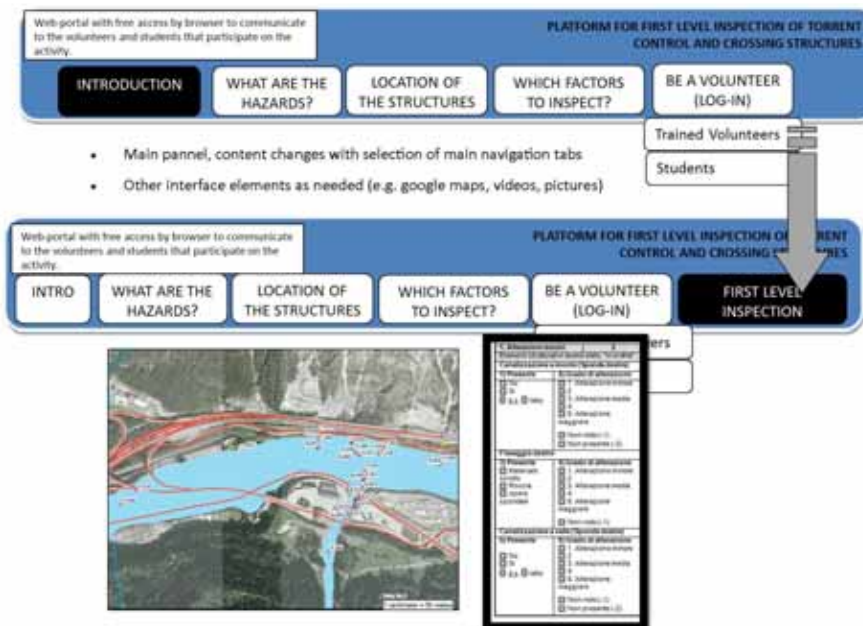
Pre-test -> Communication -> Post-test 1 -> Post-test 2 (-> -> Post-test N)

Potential testing methods:

- Questionnaire
- Q-sorting
- Participative mapping
-

Italian case study

Collaboration with esr-10 Juliette Cortes



Intervention during the training
March 2013

Different visualization tools for the two different groups (volunteers and students)

Pre-test/Post-test

Italian case study

Definition of test(s) according to 2-way communication process



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**Thank you for
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