



Enhancing Synergies for disaster PRevention in the EurOpean Union



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Main outlines of the ESPREssO Project

Paolo Gasparini, Amra Scarl, Napoli

Kick-off Meeting

Napoli - June 23-24, 2016

Hotel Palazzo Esedra



The general context in the EU (I)

European research on natural hazards in FP6 and FP7 has been focussed on the development of concepts, methodologies and tools for hazard and risk assessment at different time scales.

These issues were developed approaching:

- individual hazards (FLOODSITE, SAFELAND, SYNER-g, SAFER, TRANSFER, SHARE, MIAVIA, THESEUS, etc.);
- the complexity of multi-hazard and multi-risk approaches (NaRAs, SCENARIO, ARMONIA, ORCHESTRA, etc.);
- social and economic issues (CONHAZ, CAPHAZ-net, EMBRACE, etc.).

In **FP7** the need to merge physical and socio-economics components was recognized and the most recent projects (e.g. MATRIX, REAKT, CLUVA and others) start to include a range of expertise wide enough to approach the natural risk problem on a more complete perspective.

The general context in the EU (II)

We do not have yet rational and sustainable reduction risk and adaptation plans at national, European and global scale.

Planning the 2014-2020 activities, EU decided that the emphasis of the next generation research themes (Horizon 2020) must be on the implementation of methods for risk reduction and adaptation, rather than on risk assessment.

Going from risk assessment to risk reduction is a major intellectual and perspective change in that it requires a jump of knowledge

- in the dynamics of hazard sources,
- in the contextual and physical vulnerability of systems,
- in the integration of socio-economic and physical issues needed to identify the proper mitigation and adaptation strategies (its selection, design, evaluation, and sustainability).

The requirement from the call text

Rather than issuing directly an R&D call on this issue, EU preferred to launch a CSA “TOWARDS RISK REDUCTION SCIENCE AND INNOVATION PLANS AT NATIONAL AND EUROPEAN LEVELS” asking for projects giving a *“contribution to a new strategy for future research activities in natural hazards going beyond the traditional risk concepts and including resilience”*

The projects should:

- *develop an efficient networking and forum promoting effective mechanisms and interactions with the key players*
- *identify the necessary key actions to be promoted, building on new concepts and innovations, in order to improve interdisciplinary scientific knowledge and apply or adapt current tools and methods to a new and effective risk reduction strategy at national/European level;*
- *take into account the EU and national adaptation strategies as well as the developing disaster risk management planning done at national or appropriate sub-national level.*

Finally these issues must be shared interactively with *“all relevant stakeholders”*. (?)

ESPRESSO General objective

ESPRESSO is the only project awarded on this call.

ESPRESSO wants to address the requirements of the call by a new strategic vision, shared with all relevant stake-holders, to approach coherently natural risk reduction and climate change adaptation.

It will open new frontiers for research and policy making being also of support to the European Commission research and development and to the European Commission DRMKC (Disaster Risk Management Knowledge Centre).

The main final products of the project will be the Guidelines on risk management capability and a Vision Paper on future research strategies in order to better define the research priorities following the Sendai Framework for Disaster Risk Reduction 2015-2030.

ESPRESSO Challenges

ESPRESSO identifies three major challenges to be overcome in order to achieve effectively the general objective:

❖ ***Climate Change Adaptation vs Disaster Risk Reduction***

More coherent national and European approaches on Disaster Risk Reduction, Climate Change Adaptation and resilience strengthening must be developed;

❖ ***Science vs Legal/policy issues in DRR***

Risk management capabilities cannot be improved without bridging the gap between science and legal/policy issues at local and national levels;

❖ ***National regulations to prepare for trans-boundary crises***

The mismanagement of trans-boundary crises has been a critical issue in several major events in recent years (for example the extreme drought and heat wave that hit several countries in Europe in 2003; the earthquake that hit the borders between Italy and France in 1995; the recent Central Europe flood, affecting Eastern Germany and Hungary).

ESPRESSO Consortium

Name	Acronym	Country
AMRA - ANALISI E MONITORAGGIO DEL RISCHIO AMBIENTALE SCARL	AMRA	Italy
HELMHOLTZ-ZENTRUM POTSDAM DEUTSCHES GEOFORSCHUNGSZENTRUM	GFZ	Germany
BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	BRGM	France
DEUTSCHES KOMITEE KATASTROPHENVORSORGE E.V.	DKKV	Germany
EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	ETHZ	Switzerland
THE UNIVERSITY OF HUDDERSFIELD	HUD	United Kingdom
KOBENHAVNS UNIVERSITET	UCPH	Denmark

ESPRESSO Advisory Board

- **Jochen Zschau (CHAIR)**, retired Professor of Seismology at the Potsdam University and former chief of the seismology section of GFZ, Potsdam. Professor Zschau has directed several FP6 and FP7 projects on natural risks (e.g., SAFER, MATRIX) and has been actively involved in REAKT, CLUVA and others.
- **Jerry Velasquez**, Chief of Section and Head of the Making Cities Resilient Campaign of the UN, Office for Disaster Risk Reduction (UNISDR).
- **Representative of the Department of Civil Protection, Italy (Mauro Dolce or Daniela Di Bucci)**.
- **Francois Gerard**, Association Francaise de Prevention de Catastrophes Naturelles (AFPCN).
- **Alberto Alemanno**, Professor of Law at HEC, Paris, a well known expert of Global Risk Regulation and of European Union Laws.
- **Bridget Hutter**, Professor at the London School of economics and Political Science, author of recent stimulating papers on future research directions of risks and on dilemmas on compliance of intra and inter state regulations.

Effective multi-disciplinary integration

The ESPREssO network consists of a core group composed by 7 partners and the Stakeholder Forum that includes policy makers, local and regional decision makers, academics as well as representatives from international and national platforms, the civil society and the private sector. The members of the ESPREssO Advisory Board will be further active players of the Forum.

A FURTHER CHALLENGE INTERNAL TO THE PROJECT IS TO ACHIEVE A REAL INTEGRATION OF THE WIDELY DIFFERENT EXPERTISES BROUGHT BY THIS GROUP OF EXPERTS

ESPRESSO Workpackages (I)

WP1: Stakeholder engagement and analysis (Leader: Anna Scolobig, ETHZ)

WP2: Synthesis of existing legal, policy and science knowledge base (Leader: Dilanthi Amaratunga, HUD)

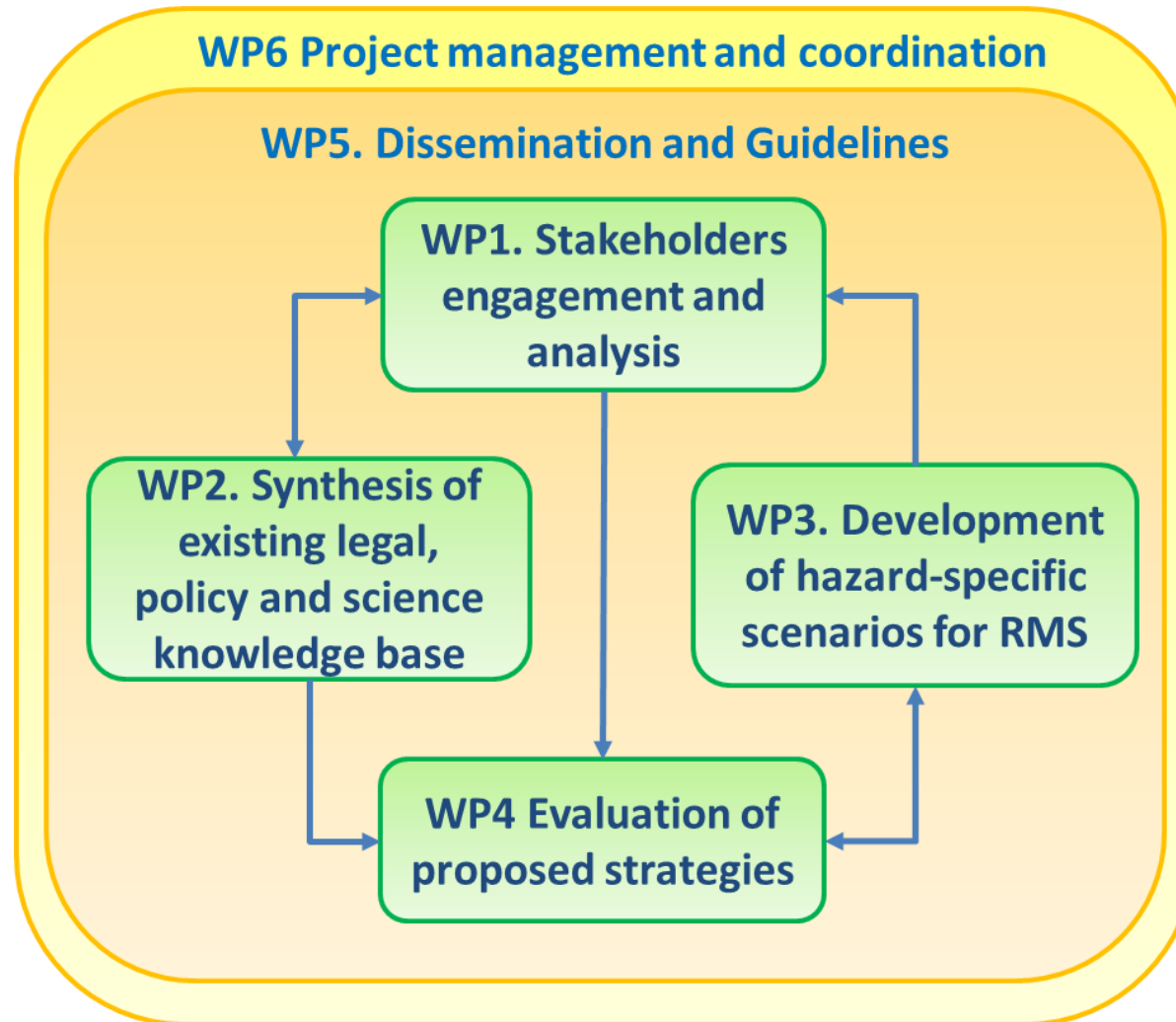
WP3: Development of hazard-specific scenarios for RMS (Leader: Stefano Parolai, GFZ)

WP4: Evaluation of proposed strategies (Leader: Gilles Grandjean, BRGM)

WP5: Dissemination and Guidelines (Leader: Kristian Cedervall Laut, UCPH)

WP6: Project management and coordination (Leader: Alfonso Rossi Filangieri, AMRA)

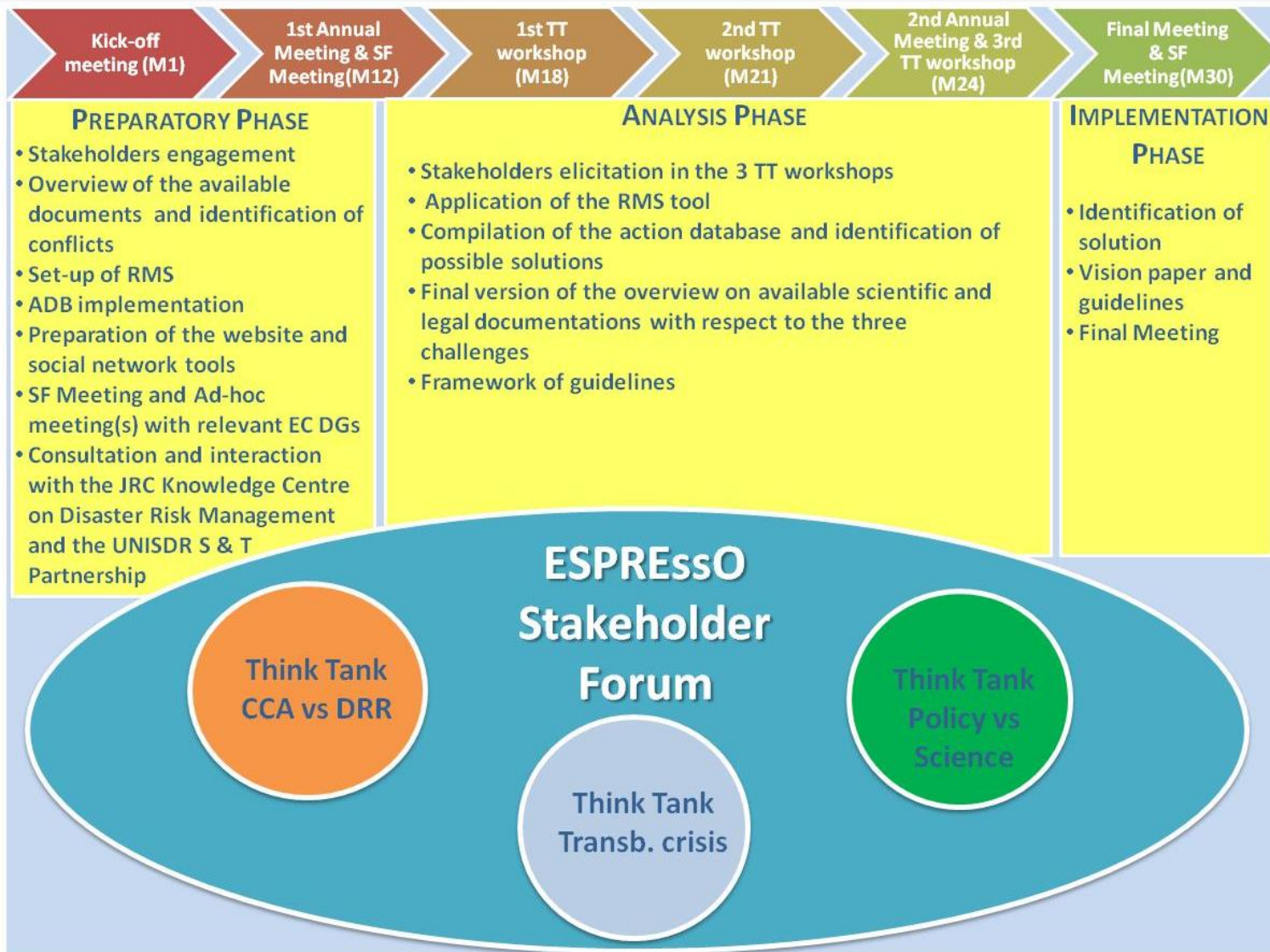
ESPRESSO Workpackages (II)



ESPRESSO Approach

- ESPRESSO will use a bottom-up approach where the Stakeholder Forum (SF) will be a basic structure to be created at the beginning of the project.
- SF is transversal to WPs 1-5, will be coordinated by the leader of WP1 (Anna Scolobig, ETHZ) and will include the Advisory Board.
- SF task is to promote interaction, discussion, and a constructive feedback with stakeholders working on disaster risk management and climate adaptation.
- To meet the need of a close interaction with stakeholders SF will have two plenary meetings.
- SF will be divided into 3 Think Tanks (TT) each one focusing on one of the ESPRESSO challenges
- For the interaction with stakeholders ESPRESSO will use a tool (Risk Management Simulator, RMS) allowing the participating project members to draw conclusion about the tendency of stakeholders to prefer some types of solution to others.

ESPRESSO Activities & Meetings



ESPRESSO Deliverables (First Year)

Del. number	Deliverable Title	Leader	Due date
D5.1	ESPRESSO website	AMRA	3
D4.1	The ADB in English	BRGM	6
D5.2	ESPRESSO Dissemination and communication strategy	UCPH, DKKV	6
D1.1	Stakeholder Engagement plan - an overview of tools and activities	ETHZ	12
D2.1	Synthesis report of legal, policy and science approaches nationally, across the EU and globally	HUD	12
D3.1	Reference scenarios according to the project challenges	GFZ	12
D4.3	The ADB in French, German and Italian	BRGM	12
D4.4	Conclusion drawn from the analysis of indicators of Task 4.4 at the preparatory phase of the project	BRGM	12
D4.6	A web service based on the ADB to ensure a full access to the project members and stakeholders integrated within the project website	AMRA	12
D5.3	Report on Stakeholder Dissemination Requirements	DKKV	12

ESPRESSO Preparatory phase (I)

- SF stakeholders identification, mapping, (quota) sampling and selection
- Collection and synthesis of existing knowledge about different approaches within law, policy and science and stakeholders' perspectives elicitation. WP1 and WP2 will prepare the conceptual ground for subsequent WPs.
- WP2 will prepare the overview of the available documents and identify gaps, conflicts and inconsistencies of national plans and available scientific and legal documentations with respect to the three challenges.
- WP3 will set-up the Risk Management Simulator (RMS), a scenario training exercise where relevant stakeholders are exposed to a pre-determined scenario involving hazardous events and their impacts of varying complexity, depending upon the expertise of the group.

ESPRESSO Preparatory phase (II)

- WP4 will establish the grid of the Actions' database (ADB) based on the preliminary analysis of existing knowledge in WP2 and scenario descriptions of WP3. It will define the ADB architecture and will implement it in a database platform (Dbase, Oracle or MS Access).
- WP5 will prepare the ESPRESSO website, the related social network tools, and dissemination material.
- At the end of the Preparatory Phase a SF meeting will be held to present to the Stakeholders the project and the preliminary results of WP2 and WP3.

Questions to be addressed to each TT

- i) What are the synergies and conflicts between disaster risk reduction and climate change adaptation strategies? How to develop a more coherent approach going beyond the traditional risk concepts and including resilience? What are possible transition pathways and the hallmarks of a new and effective strategy?
- ii) How to ensure that new policies build on new scientific concepts? How to ensure that scientific and institutional capacities develop jointly? How to change the existing institutional and science frameworks to develop new and more effective strategies? How to identify priority actions on which to focus in order to mainstream risk reduction policies and generate innovation?;
- iii) How to improve EU collaboration, exchange of practices and management of trans-boundary crises? How to guarantee better coordination and cooperation mechanisms?

Each challenge may focus on some hazards

- **Challenge 1 - *Climate Change Adaptation vs Disaster Risk Reduction***

Winter-storms, floods, landslides, droughts

- **Challenge 2 - *Science vs Legal/policy issues in DRR***

Earthquake, tsunami, winter-storms, explosive eruptions, floods, landslides, and droughts

- **Challenge 3 - *National regulations to prepare for trans-boundary crises***

Earthquake, tsunami, winter-storms, explosive eruptions, large floods

Kick-off Meeting Agenda

June 23, 2016

9:30-10.00

Welcome addresses from the University of Napoli Federico II

10:00-10:30

Invited lecture: Jerry Velasquez (UNISDR)

UNISDR view and the Sendai Conference outcome for Disaster Prevention

10:30-11:00

Main outlines of the ESPREsSO Project (P. Gasparini - AMRA)

11:00-11:30 Coffee break

11:30-13:30

The three Challenges ESPREsSO wants to overcome

11:30-12:00

Challenge 1 "Climate Change Adaptation vs Disaster Risk Reduction": why does it exist and how ESPREsSO will address it? (A. Scolobig, ETHZ; D. Amaratunga, HUD)

12:00-12:30

Challenge 2 "Science vs Legal/policy issues in DRR": why does it exist and how ESPREsSO will address it? (K. Cedervall Lauta, UCPH; P. Gasparini, AMRA)

12:30 -13:00

Challenge 3 "National regulations for the preparation to trans-boundary crises": why does it exist and how ESPREsSO will address it? (G. Grandjean, BRGM; S. Parolai, GFZ)

13:00 -13:30

Discussion (Chair: J. Velasquez, UNISDR)

13:30-15:00 Lunch break

Kick-off Meeting Agenda

15:00-16:30

Session on WP1 and WP2

15:00–15:30

Stakeholders' engagement plan (A. Scolobig, ETHZ; A. Thieken, DKKV)

15:30–16:00

Synthesis of existing legal, policy and science knowledge base (D. Amaratunga, HUD)

16:00–16:30

Discussion (Chair: P. Gasparini, AMRA)

16:30-17:00 Coffee break

17:00-18:30

Session on WP3 and WP4

17:00–17:30

Risk Management Simulator tool (S. Parolai, GFZ)

17:30-18:00

Evaluation of proposed strategies (G. Grandjean, BRGM)

18:00-18:30

Discussion (Chair: J. Zschau, GFZ)

20.00-22.00 Project Dinner

Kick-off Meeting Agenda

June 24, 2016

9:30-10:30
Project Management

9:30 – 10:00
Outlines of Project Management (A. Rossi Filangieri, AMRA)
10:00 – 10:30
Discussion (Chair: A. Rossi Filangieri, AMRA)

10:30-11:30
Session on WP5

10:30-11:00
Communication/Dissemination strategy (K. Cedervall Laut, UCPH)
11:00-11:15
A preliminary plan for the preparation of Guidelines (K. Cedervall Laut, UCPH)
11:15-11:30
Discussion (Chair: K. Cedervall Laut, UCPH)

11:30-12:00 Coffee break

12:00-13:00
Discussion on the interactions among WPs (Chair: A. Scolobig, ETHZ)

13:00-14:30 Buffet lunch

14:30-15:00
Discussion on the interactions among WPs (Chair: A. Scolobig, ETHZ)

15:00-15:30
All the partners: overview of the deliverables to be ready in the first year (Chair: A. Di Ruocco)

15:30-16:30
SCIENTIFIC COORDINATION COMMITTEE (Chair: P. Gasparini, AMRA)

15:30-16:30
ADVISORY BOARD MEETING

16:30-17:00 Coffee & Greetings

THANK YOU FOR YOUR ATTENTION

