

Enhancing Synergies for Disaster Prevention in the European Union

The ESPREsSO Project

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Newsletter October 2018



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Dear Colleagues,

the ESPREsSO project is coming to an end.

The last few months of the project have been crucial for the ESPREsSO Consortium, which carried out an extensive work of synthesis and processing of the massive amount of information collected during the last two and half years of the project. The ESPREsSO team, together with relevant institutions, organizations and European projects involved in the fields of Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) have contributed to the implementation of the ESPREsSO Guidelines for Enhancing Risk Management Capabilities and the ESPREsSO Vision Paper on future research strategies to support the prepa-

ration of the next “Horizon Europe” Framework Programme.

These two final documents have in fact taken advantage of an intense review activity carried out by the international experts of the ESPREsSO Stakeholder group, whose commitment since the beginning of the project has contributed to a successful finalization.

The ESPREsSO Guidelines and Vision Paper have been presented during the Second Stakeholder Forum and the Final Project Meeting which took place in Brussels on October 18th and 19th. These events have been a fruitful moment to share the final outcomes of the project with relevant stakeholders and EC-DGs representatives who joined



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the event. Positive feedbacks were gathered, as well as suggestions on how to improve the visibility and further integrate the ESPREsSO outcomes in the actual European and global DRR and CCA research and innovation agenda. The Final Stakeholder Forum also paved the way for potential opportunities about the follow-up of the project

and future collaborations with the stakeholders involved in the ESPREsSO networking events.

Guidelines, Vision Paper, videos and presentations from the event are now available and freely downloadable at www.espressoproject.eu.



Figure 1: Participants of the final Stakeholder Forum at the European Commission (Source: Casimiro Martucci)

The RAMSETE: Serious game exercises

When considering issues such as those raised by the three ESPREsSO challenges, a core problem is simply trying to identify what the opinions and needs are of the various stakeholders. For this reason, a major product of the project is the RAMSETE (Risk Assessment Model Simulation for Emergency Training Exercise) “serious game” series. A serious game is one where the primary intention is education, rather than entertainment. Usually, such exercises are employed for training and teaching purposes. However, in the case of RAMSETE, the intention was to use it learn from the stakeholders what their thoughts were with regards to the ESPREsSO challenges. RAMSETE therefore set out to allow stakeholders engage in a “game” within a situation where they were confronted with decisions needing to be made about policy choices. In fact, it is policy that is the primary focus of these games. Three versions of RAMSETE were developed, one for each of the Think Tanks (October 2017, Berlin; January 2018, Zurich; April 2018, Naples), with the scenario and policies under discussion a function of the challenge being investigated. The games were designed to encourage an open and frank discussion about the issues in question, while allowing an element of theatre to be involved to encourage a more relaxed yet still informative atmosphere. There were a number of commonalities between the different exercises, as outlined below, with some details of each exercise shown in Table 1:

- Each exercise involved a relatively small group (4 to 6 players).
- Each player was designated a “role”, with efforts made to have it as close as possible to their professional background (although if this were not possible, it was not considered a serious issue).
- The scenarios were imaginary, simplified, but realistic. The reason for this was that it removes

the need for the participants to have specific knowledge in the event that a historical event was considered.

- Budgets were used to force the players to prioritize their selection of policies, while metrics were employed to allow them to see how the gameplay was progressing.
- A table sheet was used as a visual reference for the players to track the progress of the game, and to follow the development of the scenario.
- Various materials were used by the players to select their policies (so-called action cards), keep track of their metrics (tokens), understand the evolving scenario (event cards) and so forth.
- Members of the consortium acted as so-called stewards and recorders who explained the game to the participants, arranged the required materials, and recorded the outcomes and discussions.

Overall, we believe the games were very successful in setting the tone for the discussions that were held afterwards. The reaction of the participants was generally positive, especially considering several of those taking part had never really engaged in such exercises before. At the moment, the exercises are being refined prior to them being made available via the project website. The third exercise, RAMSETE III (which dealt with the interactions between the science and policy/legal spheres) is currently being prepared for being printed and boxed by a professional games producer. Furthermore, a suitable license is being sort after that will allow RAMSETE to be distributed and expanded upon by the wider community, hence ensuring the legacy of this aspect of the ESPREsSO project.

Overview over RAMSETE I - III

| | RAMSETE I October, 2017, Berlin Germany | RAMSETE II January, 2018, Zurich, Switzerland | RAMSETE III April, 2018, Naples, Italy |
|--------------------------------|--|---|--|
| Challenge | Propose ways to create more coherent national and European strategies that treat DRR and CCA in an integrated manner. | Address issues surrounding the effective management of cross-border crises, considering the local, national and international levels. | Enhancing DRM capacity by identifying and developing frameworks for bridging gaps between the scientific and legal/policy spheres with regards to DRM and CCA at the local, national and international levels. |
| Scenario geographical backdrop | The 'European' island state of Espressoland. | The 'European' cross-border region of Barristia, located between Macchiatania and Lattestan. | The 'European' island state of Espressoland. |
| Participants | 5 – Scientific researchers in DRR and CCA, ministries of the Interior and Environment, and local government. | 6 – Central and local government representatives for each country, NGO, European Union representative. | 4 – Decision maker (political leader), science advisor, civil protection, government spokesperson. |
| General scenario narrative | The aim was to maximize the security and well-being of the population of Espressoland by integrating DRM and CCA policies. | To implement optimal policies to allow the roles to respond to a cross-border crisis, and ensure the ongoing capacity of the region's towns and cities. | To maximize the capacity of Espressoland to respond to an impending disaster in the most effective and accurate manner, while ensuring the popularity of the government. |

Table 1: Overview over RAMSETE I - III

The finale Stakeholder Forum

The second and last ESPREsso Stakeholder Forum took place on Thursday 18th October 2018 in Brussels (Belgium), hosted at the CDMA EC Building, DG Research & Innovation.

A total of 38 discussants participated to the activities, including the Project Officer, Consortium partners, members of the Advisory Board, EC-DGs representatives and stakeholders from diverse institutions in the field of research, public bodies and the private sector. The objective of the final Stakeholder forum was to promote interaction, discussion and a constructive feedback with stakeholders, mainly on the two final outcomes of the project: ESPREsso Vision Paper and Guidelines.

Three keynotes - by the DRMKC-JRC (Disaster Risk Management Knowledge Center - Joint Research Centre of the European Commission), H2020 PLACARD project (PLAtform for Climate Adaptation and Risk reDuction) and ERA4CS (European Research area for Climate Services) - provided an overview of the framework in which ESPREsso has developed his interactions and the several networking activities which allowed to embed key research/policy initiatives and societal challenges in the implementation of the Vision Paper and the Guidelines.

The final Stakeholder Forum also included the presentation of the “Vision Paper on future research strategies following the Sendai Framework for DRR 2015-2030” and the “Enhancing Risk Management Capabilities Guidelines”. The audience, composed by a panel of about 30 experts from different science/policy/practice domains, has been engaged to provide feedback and recommendations, focusing on the S-H-I-E-L-D model approach proposed by the ESPREsso Guidelines and around the five research missions addressed in the Vision Paper. A general positive feedback from the participants was found, as well as observations and criticism on how to improve the feasibility and usability – especially at the local level – of the set of recommendations included in the guidelines and in the checklist questions. Regarding the possible future research paths proposed by the Vision Paper, the discussion highlighted a significant compliance with the recommendations and objectives set by the global and EU frameworks for DRR, CCA and DRM policy, and a useful guidance on how to further address the identified priorities within the Horizon Europe Programme.

The ESPREsSO Visionpaper

The ESPREsSO Vision Paper is one of the key outcomes of the project. Its aim is to support the preparation of the Horizon Europe Framework Programme 2021-2030 by identifying some future research challenges in the field of natural hazards and disaster risk management, in relation to the priorities defined by the Sendai Framework for Disaster Risk Reduction 2015-2030.

In its development, the ESPREsSO team has been committed to identifying the existing gaps and needs in the research, policy and legislation domains related to DRR, CCA and DRM, also taking advantage of the many ongoing initiatives at European and Global levels on these issues, with the aim of providing a harmonized framework able to capture the complexity of this field in terms of research and innovation and deliver a synthesized view of the emerging priorities.

The Vision Paper has also taken advantage of an extensive review process which has involved, in addition to the Consortium partners and Advisory Board, a large network of experts from the ESPREsSO Stakeholders' group, which includes representatives from the FP7/H2020 research community, as well as major EU and global institutions involved on DRR, CCA and DRM.

The document presents the identified gaps and needs and addresses them in the form of five broad "missions" (terminology introduced in the Horizon Europe Framework), which outline the scope and expected impact of the proposed actions:

1. Improved risk and impact assessments

New frontiers in the field of probabilistic simulation models, vulnerability and risk assessment need to be explored, including theoretical advancements to align modelling frameworks in different EU member States and to embed cascading effects, early warning and real-time simulations into reliable decision-support tools.

2. Better data for a resilient future

Increased quality, reliability and availability of data for performing quantitative assessments is need-

ed, in support of the improvement of DRR and CCA policies and measures along the entire cycle of emergency. It should take advantage of technological innovation in the field of earth observation, big data acquisition and management, IT infrastructure and cloud computing.

3. Risk governance and partnerships

Improved risk governance approaches should be promoted, strengthening horizontal coordination, overcoming existing silos in governmental institutions devoted to DRR and CCA and clarifying roles and liability among involved actors at all levels. This should also include streamlining "top down" and "bottom up" policies, moving towards participatory models that go beyond mere risk awareness and communication issues, and instead focus on community engagement mechanisms able to operationalize knowledge-sharing across relevant sectors (e.g., in the field of social science, ecology, security, environment, etc.) and provide an added value in terms of risk prevention and management.

4. Overcoming the implementation gap in DRR and CCA

Overcoming the "implementation gap" requires the promotion of innovative approaches to exploit the results of research advancements into resilience-driven investments to mitigate risks and adapt to changing social and environmental conditions, identifying cost-effective DRR and CCA paths based on key emerging concepts, such as "all-hazards", "adaptive mitigation" and "build back better" approaches.

5. Human behaviour and disaster risk

An effective integration of social and behavioural sciences in DRR, CCA and DRM domains is finally required, both in terms of advanced modelling and assessment methods, aimed at enhancing community building and awareness as a driver to reduce the socio-economic impact of natural hazards and improve emergency management procedures.

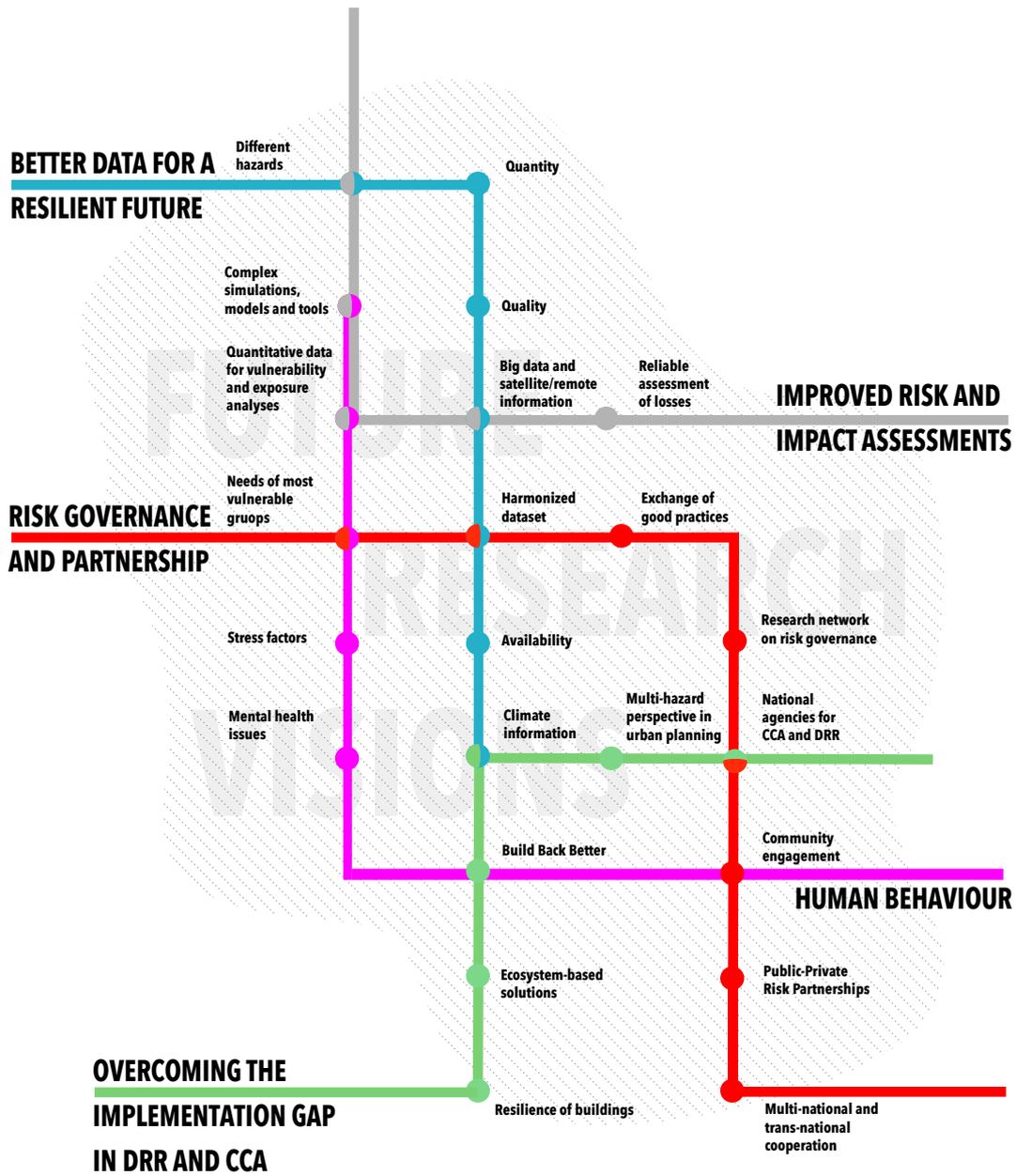


Figure 2: The five research missions of the ESPREsSO Vision Paper and their interconnections

The ESPREsSO Guidelines on Enhancing Risk Management Capabilities

As a final product, the ESPREsSO project has compiled a comprehensive set of guidelines, synthesizing the findings from the many, and diverse, activities of the consortium. The guidelines are based on best practices identified in the Action Data Base; on recommendations identified in literature as well as in our national reports; and on the many useful inputs we have received from interactions with the project's stakeholders.

The guidelines emphasize the need to focus on a number of “broader” societal tasks complementing the traditional disaster management: bringing together stakeholders with different knowledge, needs and abilities with an aim to improve European disaster resilience. To this end, we have devised a model: the SHIELD model. The model identifies six overall priorities for improving disaster governance: sharing knowledge, harmonizing capacities, institutionalizing coordination, engaging stakeholders, leveraging investments, and developing communication.

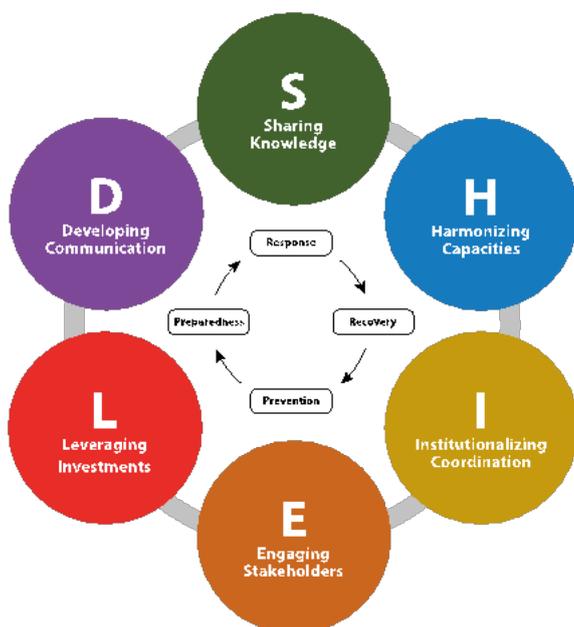
While each of these six priorities are related to the traditional disaster management phases, they also all extent beyond these as they are relevant across the phases and include all parts of government.

The guidelines set out ideal actions or processes for each of the six overall priority areas, and relate these to best practices and concrete challenges. Each of the recommendations are also formulated as checklist-questions in the end of the Guidelines. Thus, serving as a practical everyday tool for disaster managers.

The guidelines are not a comprehensive recipe for disaster governance, but rather a “tall list” for disaster managers at all levels of government. Thus, for most disaster managers some of the questions will be trivial, while others illusory. The guidelines are meant to offer inspiration to everybody, and simultaneously provide a methodological framework to work with disaster governance.

Finally, many of the recommendations cannot be implemented once and for all, but are rather indicative of continuous organizational processes. In order to make it possible to make the guideline play a subtle, yet structuring/inspirational, role for disaster professionals, a detachable foldout poster is accompanying the guidelines – making it easy to pin on the wall for an easy, daily reminder.

Figure 3: The SHIELD model with its six components.



Further Outlook

The ESPREsso Vision Paper and Guidelines represent a major achievement for the project, being the result of an intense collaborative activity that extended beyond the Consortium partners thanks to the strong collaboration with the scientific community and relevant stakeholders engaged.

Nevertheless, these two documents, tackling respectively the priorities for the future EU research agenda and suggestions on how improve the capacities of DRM operators and civil society, highlight how operational and research gaps in the field of natural and man-made hazards and climate change still exist, and they need to be tackled both at the scientific/research level and political/operational level. In this sense, the ESPREsso team intends to strengthen the potential of the [Vision Paper](#) and the [Guidelines](#) in contributing to the enhancement of resilience in Europe against disaster risk and climate change, by continuing in the upcoming months the dissemination and networking activities.

A first major step in this direction will be the presentation of ESPREsso outcomes within the European Forum for Disaster Risk Reduction (EFDRR) promoted by the UNISDR which will take place in Rome from November the 21st to November 23rd. In this occasion a roll-up poster will be presented, and multi-lingual copies (English, French and German) of the Vision Paper and the Guidelines, flyers and brochure will be freely distributed to the attendees. This global event will be the occasion to disseminate results and to further strengthen the synergies with Stakeholders and relevant actors working in the field of DRR and CCA.

Scientific publications, currently in preparation, will focus on specific sub-topics tackled within the project, such as risk governance, stakeholders' engagement process, serious gaming exercises, advanced methods for risk/impact assessments.

Furthermore, even after the end of the project, the ESPREsso website (www.espressoproject.eu) will keep providing you with information regarding ongoing initiatives on DRR and CCA and follow-up activities promoted by the ESPREsso Consortium.

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