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ABSTRACT

The ESPREssO Action Database, or ESPREssO-ADB, is a database of initiatives and projects addressing disaster risk reduction (DRR) and climate change adaptation (CCA) created as part of the EU Horizon 2020 ESPREssO project.

The word “action” is meant to serve as a generic term to encompass a wide variety of activities, from legislation to research projects. Actions are input into the database (accessible at http://adb-espresso.brgm.fr) via a questionnaire asking the user to evaluate the effectiveness of an action of his/her professional experience. Effectiveness is approached from an angle that closely aligns with accomplishing the goals of the Sendai Framework. Hence, the questionnaire is divided into five sections, four of which correspond to the four Sendai priorities. The fifth and final section further asks the user to evaluate the action in terms of its potential for transformative change, a concept currently championed by the UN and the Belmont Forum that seeks to create lasting, sustainable change and political will.

The ESPREssO-ADB website and database have been developed using the Drupal open-source content management system. Analysis of the ESPREssO-ADB entries will contribute to furthering DRR in the European Union and thus address the three barriers that ESPREssO aims to overcome: What works across different territorial boundaries? How can we bring different fields of research together, particularly the DRR and CCA communities? How can we improve science-policy interfaces? The ESPREssO-ADB is intended to be a repository of good ideas and case-studies to help answer these questions and capitalize on previous experiences to propose new solutions.

The final version of the ADB presented in this deliverable provides a generic structure to collect and evaluate different types of actions that has arise from the stakeholder forums, the Think Tanks, ESPREssO outputs and the literature.

Keywords: database, web portal, ADB, ESPREssO

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1 INTRODUCTION

In order to identify solutions to overcome the three challenges of ESPREssO, WP4 has developed an "**a**ction **d**ata**b**ase" (ADB).

Actions discussed in the Stakeholder forum and during the three Think Tanks are detailed in the database and associated with at least one of the three ESPREssO challenges, and different criteria. The ADB provides the opportunity to formalise discussions during workshops and to store their content in a synthetic format. Once this information is classified using different criteria, including some meta-data like the date of the entry, it enables to know about the impacts of each action and their evolution in time. Version tracking of the database has also be considered in the implementation of the database in order to track stakeholders' opinion about these actions during the life of the ESPREssO project and associated activities (forum, think tanks, etc.).

Due to the early delivery date of D4.1, WP1, WP2 and WP3 couldn't provide first analysis to WP4. This first version of the ADB has thus been elaborated thanks to literature reviews performed in WP4 and other WP's inputs were taken into account as soon as usable inputs were available (WP2, WP3). In addition, the ADB structure has been adapted to fit the Vision Paper and Guidelines purposes.

2 THE ADB

2.1 CONCEPTION OF THE TOOL

The main objectives of WP4 is to identify solutions to overcome the three ESPREssO challenges using the inputs from WPs 1 and 2 and to provide some inputs to the final deliverables of the project, the vision paper and the guidelines. More specific objectives are:

- Identification of actions to answer sticking points identified in WPs 1 to 3.
- Identification of future research activities for topics not mature enough to be proposed as operational solutions.
- Identification of ways to mainstream and integrate these actions in laws, regulations and decision making processes.

These objectives led to identify a global concept of the database which has to respond to the following criteria:

- The structure has to be exhaustive enough to describe, characterize, evaluate an action proposed by a stakeholder;
- The criteria used in the evaluation need to be general enough to allow comprehensive situations and not too detailed to avoid a large number of cases referring to each criteria; the compromise found by the Consortium was to use criteria describing situations at national and regional level;
- Each action needs to be characterized by a set of parameters (**metadata**) allowing quick searching and filtering (title, date of entry, author that proposes the action, challenge concerned, …)
- Each action needs to be described by a number of **criteria** to understand the framework it applies to: the typology (legal, scientific, …), the thematic context and respective scale of implementation (prevention, crisis, mitigation, preparedness), the gap it refers to, etc;
- Each action is evaluated by **indicators** referring to different criteria, so that it is easy to rank the actions to identify the best and the worse, as understood by the user that completed the form.

During the first phase of the project, a preliminary draft of the database has been sketched based on an extensive analysis of existing knowledge from bibliography. This first draft has been refined with feedback from ESPREssO project partners following the project meeting in Copenhagen in January 2017 and refine again in late 2017 early 2018 with drafting of the final products of the project. The ESPREssO-ADB has been implemented with the Drupal open-source content management system and has been provided as an operational web service since the Stakeholder Forum meeting (4th of May

2017). During and following the Forum, and Think Tank meetings, new statements of stakeholders were entered into the database.

For detailed information on the metadata, the criteria and indicators describing the action as well as technical details concerning the ADB's online implementation please refer to ESPREssO deliverable D4.5.

2.2 STRUCTURE

The ESPREssO-ADB web portal can be accessed at the following web address: http://adb-espresso.brgm.fr or via the official ESPREssO website at: http://www.espressoproject.eu/wp/wp4.html

You may choose the language of the web portal (English, German, French, and Italian). Then, you receive all notification emails in the respective language.

If you already have a user account, you can login with your username and password *(Fig. 1)*. If you wish to register to the ESPREssO-ADB as a new user, you can register a new account *(Fig. 2)*.

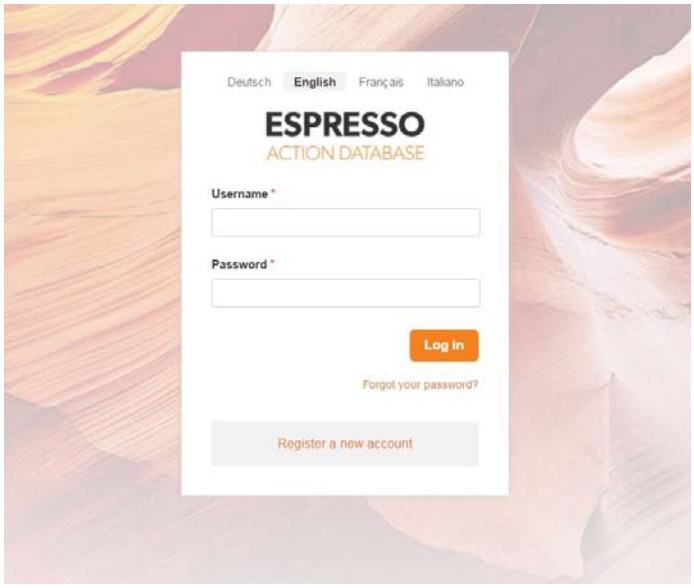


Figure 1: The ESPREssO-ADB website

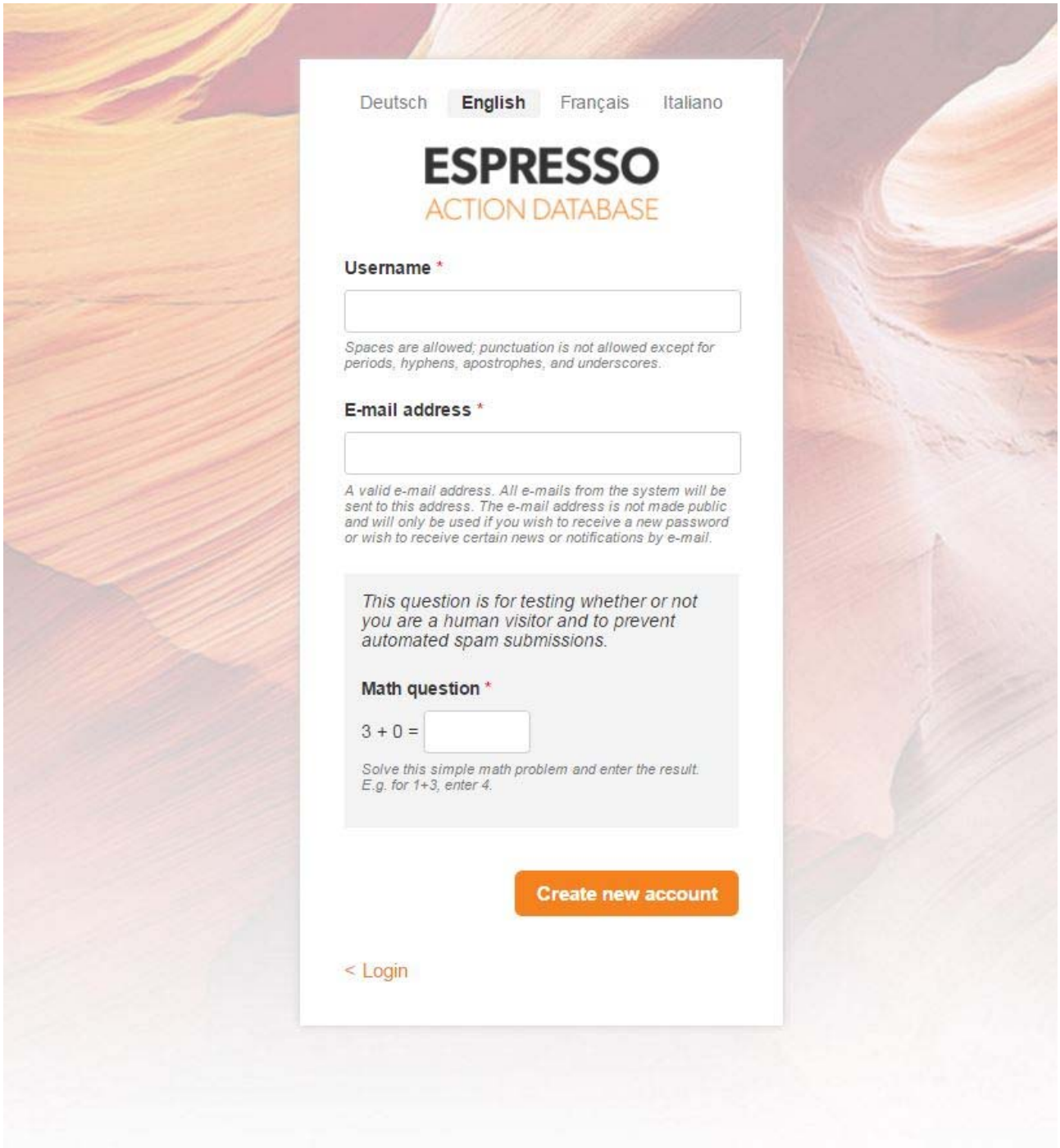


Figure 2: Registering a new account on the ESPREssO-ADB website

After selecting a username and entering a valid e-mail address, you receive the following welcome message with further instructions to personalize your account *(Fig. 3)*.

Dear user,

Thank you for having registered on the ESPREssO-ADB website.

You can connect yourself right away to the website by clicking on the link below or by copying the link into your browser window:

http://adb-espresso.brgm.fr/en/user/reset/332/1493815959/Il3ShMlfRelnBN11cdF-xeENg6XHqHbseXDg2xkO890

This link can only be used once to identify yourself on the ESPREssO-ADB website.
It will enable you to access a page where you can personalize your password.

After having set your new password, you will be redirected automatically to the ESPREssO-ADB user space at the following address:
http://adb-espresso.brgm.fr/en/user

For future login, please prepare:

Username: *your assigned username*
Password: *your new password*

Thank you for sharing your experience with us and enjoy using ESPREssO-ADB.

-- The ESPREssO team

Figure 3: E-mail notification when registering a new account to the ESPREssO-ADB website

Once the account created, you can access and use the ESPREssO-ADB.

The main interface is structured around four main blocks *(Fig. 4)*:

- Block 1: Clicking on the ESPRESSO ACTION DATABASE text, allows you to reset the page to return to the homepage after having explored individual actions.
- Block 2: The setting section, enabling to change the language, consult your drafts or log out.
- Block 3: The filter body to the left where you may select certain criteria to filter specific actions fulfilling the search criteria.
- Block 4: The main block, listing the already entered actions with their respective title (in orange), the thematic context (light gray) and a short descriptive of the action (dark gray). The orange button enables you to add an action.

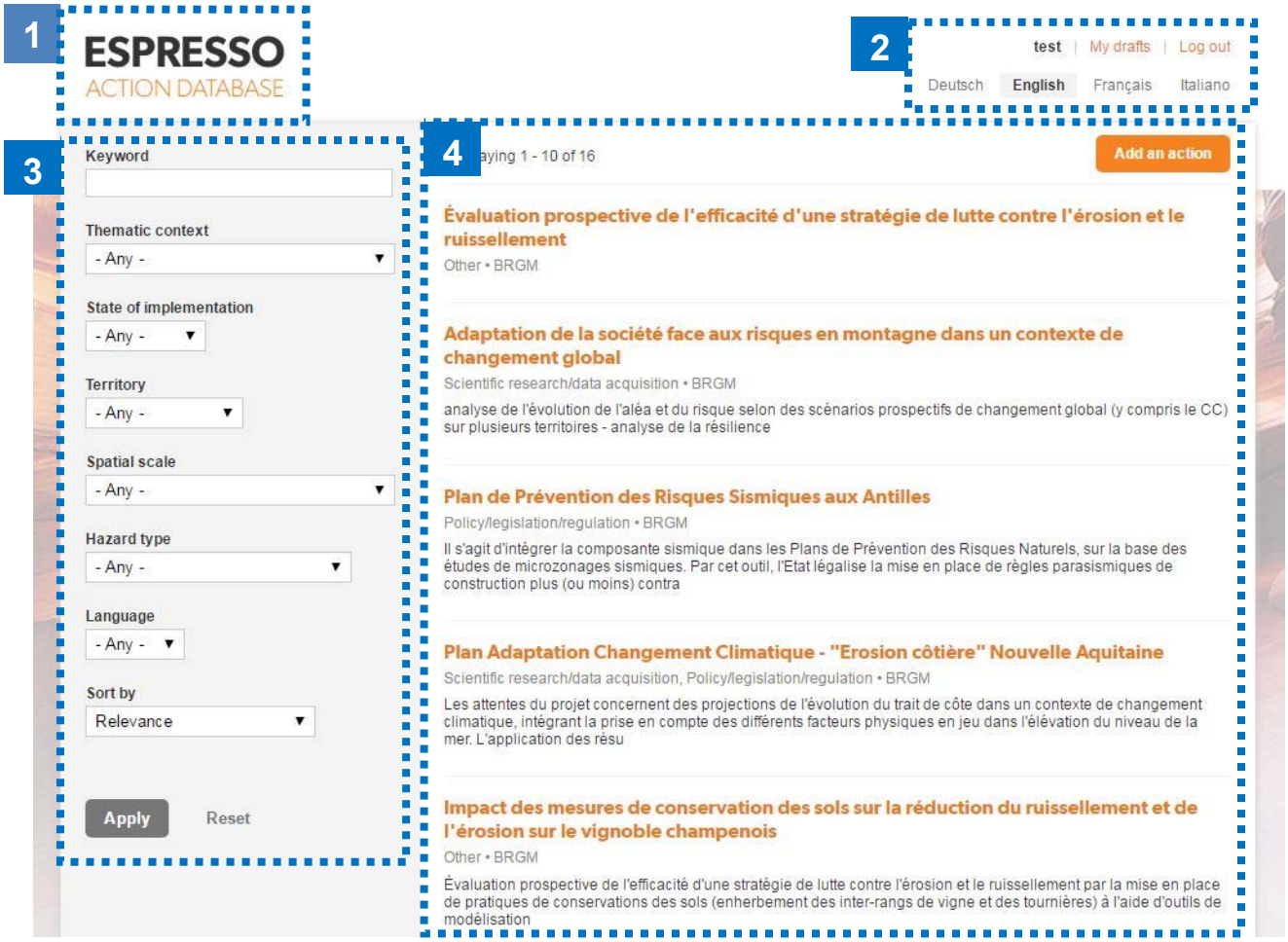


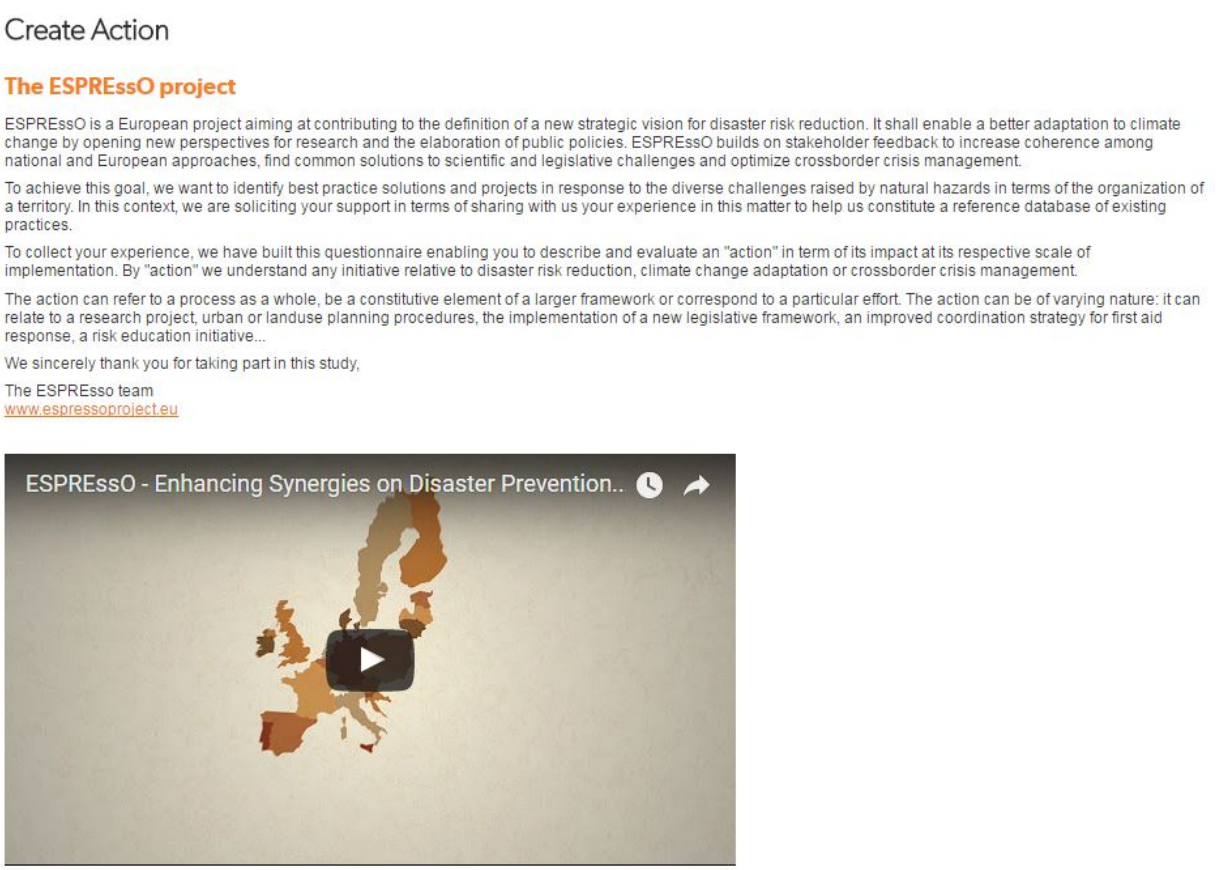
Figure 4: The ESPREssO-ADB functional overview

Submitting an action directs you on a page with a few lines providing background information on the ESPREssO-project and a short description of what an action refers to for this project *(Fig. 5)*.

To collect your experience, we have built a questionnaire enabling you to describe and evaluate an "action" in term of its impact at its respective scale of implementation *(Fig. 6)*. Our definition of action is a broad one: any program, project or initiative dealing with disaster risk reduction, climate change adaptation or cross border crisis management. It doesn't matter if the action is big or small, local or international: the experience of everyone is valuable.

The action can refer to a process as a whole, be a constitutive element of a larger framework or correspond to a particular effort. The action can be of varying nature: it can relate to a research project, urban or landuse planning procedures, the implementation of a new legislative framework, an improved coordination strategy for first aid response, a risk education initiative...

You can then fill the questionnaire for a specific action you want to share by describing and evaluating it. It takes about 15 to 20 minutes to complete the questionnaire (32 questions with some basic data about you and the action; *Fig. 6*).



Create Action

The ESPREssO project

ESPREssO is a European project aiming at contributing to the definition of a new strategic vision for disaster risk reduction. It shall enable a better adaptation to climate change by opening new perspectives for research and the elaboration of public policies. ESPREssO builds on stakeholder feedback to increase coherence among national and European approaches, find common solutions to scientific and legislative challenges and optimize crossborder crisis management.

To achieve this goal, we want to identify best practice solutions and projects in response to the diverse challenges raised by natural hazards in terms of the organization of a territory. In this context, we are soliciting your support in terms of sharing with us your experience in this matter to help us constitute a reference database of existing practices.

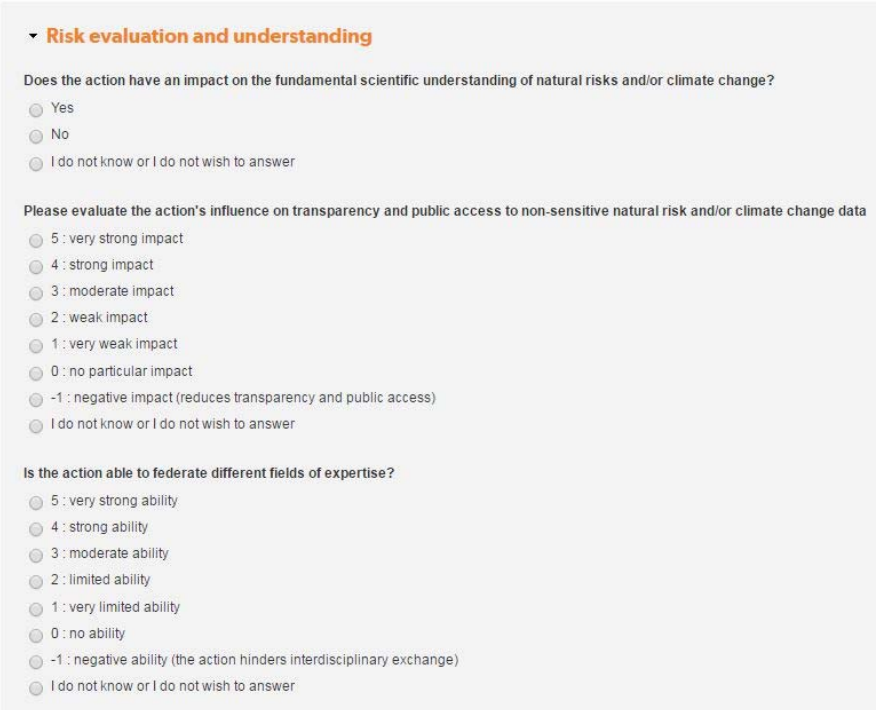
To collect your experience, we have built this questionnaire enabling you to describe and evaluate an "action" in term of its impact at its respective scale of implementation. By "action" we understand any initiative relative to disaster risk reduction, climate change adaptation or crossborder crisis management.

The action can refer to a process as a whole, be a constitutive element of a larger framework or correspond to a particular effort. The action can be of varying nature: it can relate to a research project, urban or landuse planning procedures, the implementation of a new legislative framework, an improved coordination strategy for first aid response, a risk education initiative...

We sincerely thank you for taking part in this study,

The ESPREsso team
www.espressoproject.eu

Figure 5: Introduction to the ESPREssO project and short description of the following questionnaire



Risk evaluation and understanding

Does the action have an impact on the fundamental scientific understanding of natural risks and/or climate change?

- Yes
- No
- I do not know or I do not wish to answer

Please evaluate the action's influence on transparency and public access to non-sensitive natural risk and/or climate change data

- 5 : very strong impact
- 4 : strong impact
- 3 : moderate impact
- 2 : weak impact
- 1 : very weak impact
- 0 : no particular impact
- -1 : negative impact (reduces transparency and public access)
- I do not know or I do not wish to answer

Is the action able to federate different fields of expertise?

- 5 : very strong ability
- 4 : strong ability
- 3 : moderate ability
- 2 : limited ability
- 1 : very limited ability
- 0 : no ability
- -1 : negative ability (the action hinders interdisciplinary exchange)
- I do not know or I do not wish to answer

Figure 6: Extract of questions and response options of the first thematic section "Risk evaluation and understanding"

Once you have entered all available information on the action, you can either submit the questionnaire immediately or save a draft that you can modify and/or submit later.

All submitted actions are validated by a member of the BRGM ESPREssO team before being published on the ESPREssO-ADB website.

Each published action can be visualized in detail together with its scoring by clicking on the title *(Fig. 7)*. The display of the actions and the scoring will be improved again in the last months of the project.

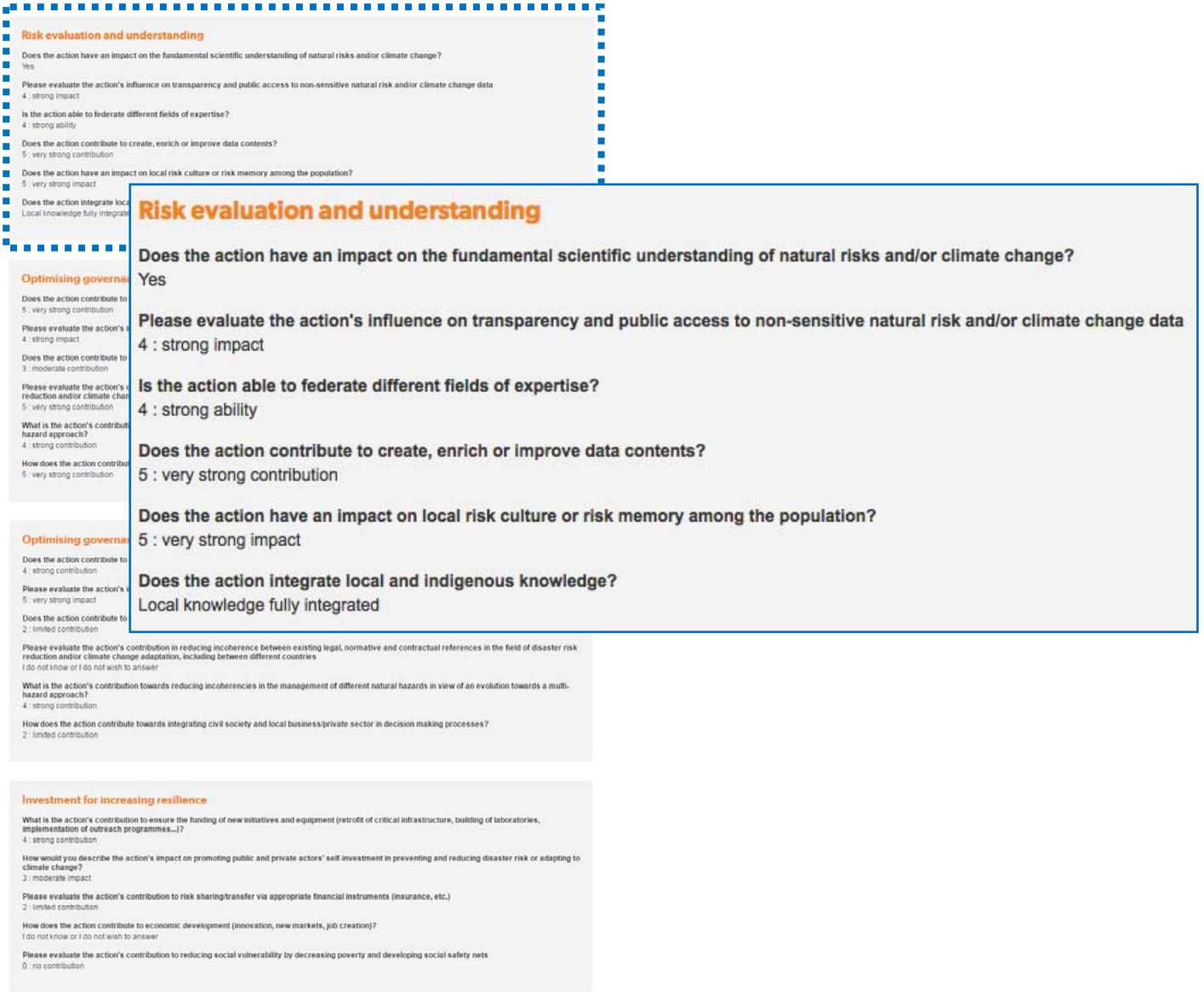


Figure 7: Displaying the results of a published action on the ESPREssO-ADB website

2.3 CONTENT

At mid-April 2018, 84 actions were entered in the ADB. Actions were driven from different sources with a majority of action extracted from literature and project reports (see ***Figure 8***). The ESPREssO's challenges addressed are mainly Challenge 1 "Disaster Risk Reduction vs Climate Change Adaptation" and Challenge 3 "Transboundary crisis" (see ***Figure 9***). Challenge 2 "Policy-Science interface" is only concerned by 3 actions, which is partly explained by date of Think Tank 3 event, which hasn't taken place yet. On the other hand, actions are related to various context (see ***Figure 10***) actions related to scientific research are the most represented. For details on the assessment, please see Deliverable 4.5.

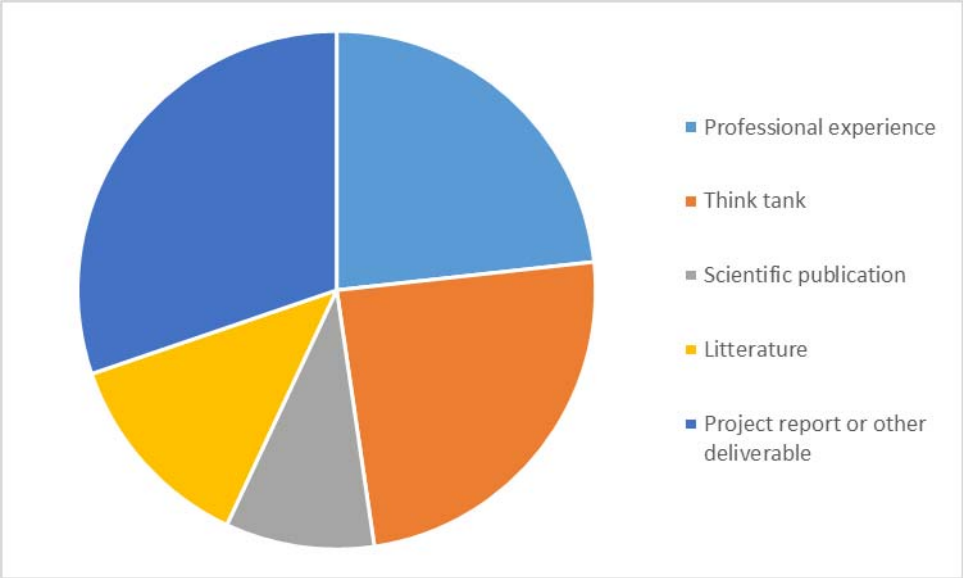


Figure 8: Source of information

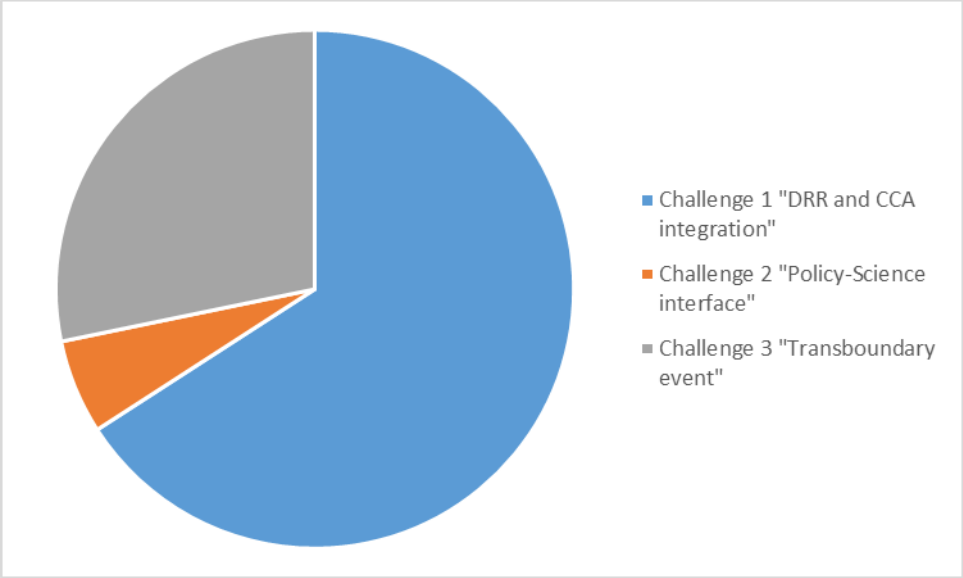


Figure 9: ESPREssO challenges concerned

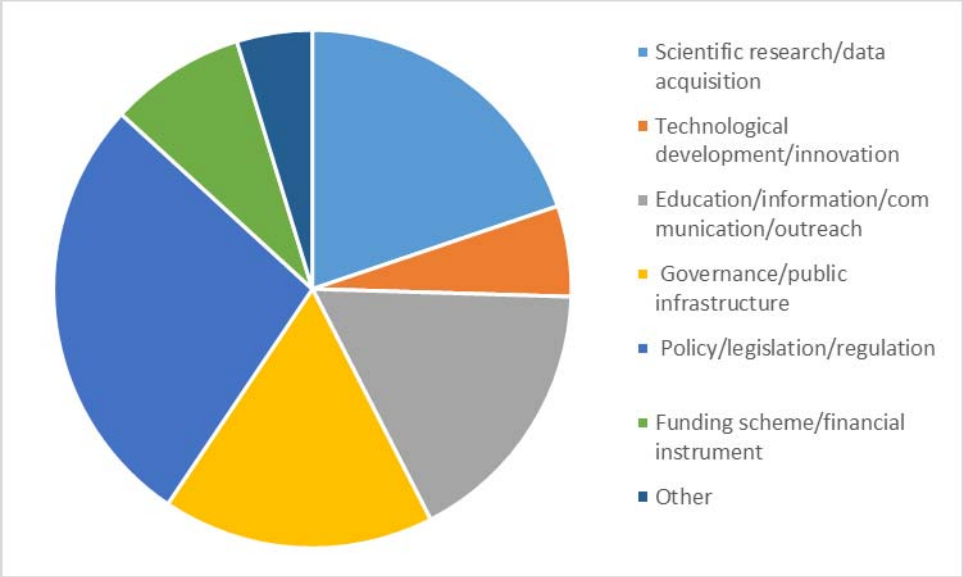


Figure 10: Thematic context of the ADB actions

3 CONCLUSION

This final version of the ADB provides a generic structure to collect and evaluate different kind of actions that arise from the stakeholder forums, the Think Tanks, ESPREssO's deliverables and the literature. Up to now, 84 different actions have been added to the ADB. The scoring of the actions is detailed in deliverable D4.5.