



Call 2017
SCIENTIFIC RESEARCH

Research dedicated
to hydrogeological instability:
a contribution to the prevision,
prevention and risk mitigation



fondazione
cariplo

www.fondazionecariplo.it

DEADLINE: APRIL 13TH, 2017

RESEARCH DEDICATED TO HYDROGEOLOGICAL INSTABILITY: A CONTRIBUTION TO THE PREVISION, PREVENTION AND RISK MITIGATION

BACKGROUND

Hydrogeological instability is one of the plagues of Italian landscape. More than 10% of Italy is at high risk hydrogeological disorder. This area hosts 82% of national municipalities, 6 thousand schools, 550 hospitals and 4 million buildings. In a worldwide contest in which the effects of global warming are becoming more and more evident, through the spread of extreme meteorological phenomena characterized by the development of severe rainfall concentrated in limited time, irrational management of our geological area and resources tend to be closely linked to the occurrence of landslides and floods. The latter seriously impact on security and safety of local communities, services activities as well as inhabitants/population.

Every year in Italy we count more than one thousand landslides. A million of citizens are exposed to these. In addition floods annually affect an area equal to 12.000 km² and a total of 6 million of citizens.

These events tend to occur in areas which have already experienced similar phenomena, or alternatively, frequently hosted events that may be consider the cause of these hydrogeological instability.

In Lombardia, every year 76 thousand people are exposed to landslide risk, 600 are at flood risk. Between 2009 and 2014 we count 125 events falling under the label of hydrogeological disorders, with a total of 914 municipalities, 600 schools, 50 hospitals and 5000 businesses exposed to these risks.

The lack of knowledge to forecast, prevent and mitigate events associated to hydrogeological disorders comes with a growing number of individuals at risk.

AIMS

In light of the above considerations, with this call for proposals Fondazione Cariplo intends to sustain strong multidisciplinary projects aimed to study the problems associated to hydrogeological instability.

Specifically, the priority areas addressed by this call include:

- the implementation/update of Local Information System, and data bases related to hydrogeological disorders;
- the study/development of predictive models for all different extreme meteorological events;
- the implementation and update of the maps of the areas at risk.

The scientific community is called to focus its effort on: prevention and prevision of disasters following the development of extraordinary meteorological events, improve our knowledge of the of hydrogeological basins and develop instruments allowing a better and more efficient observation of our landscape thought meteorological radars and/or satellite systems.

The development of research and technologies to mitigate the risk of hydrogeological instability is likely to allow a better organization and categorization of the information within our local context. We expect that this information will provide solid material to our local administration allowing the development of instruments and policies reducing the risks and in parallel increasing society awareness of the problem.

Research project rationales must be developed on solid preliminary data (state of the art and/or applicants' original results), adopt a mechanistic approach and methods adequate to the projects aims and expected results. Special attention will be paid to the research innovativeness respect to the state of the art as well as to the originality of both the hypothesis and applied methods.

In addition, projects must represent training and professional opportunities for young researchers.

Finally, embracing the principles of Responsible Research and Innovation¹, Fondazione Cariplo aims to promote initiatives fostering communication and interaction between researchers and civil society. In particular, researchers must propose a communication plan inclusive and open to all stakeholders differently implicated in the research project and that facilitates the activation of a dual exchange between science and society. The communication plan must be considered integral part of the research proposal.

¹ The European movement on the theme of Responsible Research and Innovation (RRI) is constantly evolving, as emerges from the debate which has recently led to the so called "Rome declaration on RRI" (http://www.sis-rri-conference.eu/wp-content/uploads/2014/12/RomeDeclaration_Final.pdf). In light of the available literature, it is possible to describe RRI as a dynamic and iterative process which intends to match research and innovation to values, needs and expectations of the society. Moreover, RRI aims at actively involving all the stakeholders taking part to activities of research and innovation, making them mutually responsible with respect to both the research process and its results.

GUIDELINES

Eligible applicants

Beyond the general requirements set out in the *Guidelines for presentation*, it should be noted that this call is intended to all institutions directly carrying out scientific research in the specified field of interest and thus demonstrate to be well endowed in terms of staff and equipment.

Moreover, it is mandatory for the leading institution to have its operational headquarter located in the geographical area of interest of Fondazione Cariplo (Lombardia plus Novara and Verbania districts). This requirement does not pertain to partners.

By submitting a proposal, applicant organizations accept the "portability of the grant". This means that PIs always maintain the rights to require the transfer of the research project to a new eligible institution, for as long as the research objectives are preserved. Any change in the host institution depends on Fondazione Cariplo approval according to the guidelines of this call of proposals.

Finally, Fondazione Cariplo will not accept applications submitted by PIs (both leader PIs and partner PIs) of projects still ongoing and funded in previous calls in the Scientific Research Area (with the exception of calls in partnership with other granting agencies). A project is considered ongoing unless the final grant reports – both the scientific and the economic one – have been uploaded on our website before the deadline of this call.

Eligible projects

To be eligible, proposals must:

- respect the priority areas indicated in the call;
- involve, train and care for the valorisation of young researchers²;
- prepare a communication plan of activities with civil society, coordinated by one of the researcher fully included in the working team (for more detail see the "Communication Guidelines").

Moreover, any proposal with the following characteristics will be considered ineligible:

- funding requests aimed at setting up new research centres or laboratories;
- basic research projects without any tangible application;
- projects exclusively meant to technology transfer;

- projects including for-profit organizations as direct beneficiaries of the Foundation's grant.

The total cost of the project can only include costs related to the realization of the proposed studies, respecting the eligibility criteria and the thresholds listed below:

- **A03 - "Equipment and software"**
This entry cannot exceed 20% of the additional costs³. It covers fully the costs for newly acquired equipment and software that must be clearly motivated in accordance to the specificity of the project. In this category can also be included granting costs as well as building expenses for the installation of the new equipment.
- **A04 - "Other amortizable costs"**
This entry can only include patent costs.
- **A06 - "Temporary staff"**
This entry can only include research personnel costs. The cost of administrative staff is not allowed.
- **A07 - "Sub-contractors and consultants"**
This entry should also include audit costs, where applicable⁴.
- **A08 - "Materials and supplies"**
This entry cannot include costs related to stationery and photocopies.
- **A09 - "Overheads"**
This entry cannot exceed 5% of the additional costs⁵.
- **A10 - "Travel, publication and dissemination costs"**
This entry cannot exceed 15% of the additional costs⁶ and can only include travel expenses and conference participation fees for the research personnel involved in the project, scientific publications.

The grant will cover 100% of project costs. Requested funding should range from 100,000 to 200,000 euros.

² The term "young researcher" in this Call for proposals indicates graduate fellows, PhD students and post-docs not older than 35 years of age, at the Call's deadline.

³ Sum of: A03, A04, A06, A07, A08, A10.

⁴ With the sole aim of ascertaining whether the obligation to perform a financial audit applies or not, the amount which has to be considered is obtained multiplying the eligible costs detailed in the Budget (sum of entries A06, A07, A08, A09 and A10) by the coefficient 1.25 (which represents an estimate of the co-funding generally guaranteed by the hosting institution, mainly in the form of permanent staff). It is also recommended to refer to chapter 10 of the Grant management and reporting guide and to the Guidelines for audit; both documents are available on the Grant management and reporting page of Cariplo Foundation's website.

⁵ See footnote 4.

⁶ See footnote 4.

Please note that it is not required to explicit organizations' co-funding expressed in terms of personnel costs in the budget form.

Evaluation criteria

Evaluation of the projects follow peer review approach. In other words Fondazione Cariplo rely on external, independent and internationally renowned reviewers, in order to guarantee transparency and objectivity. At the end of the evaluation process, applicants will receive feedback with reviewers' comments.

Besides the overall scientific quality of the proposal, the evaluation takes into account the following elements:

- the knowledge of the state of the art;
- preliminary data robustness;
- clarity of aims and strategies;
- the significance of the project in providing an answer to the problems of hydrogeological instability;
- expected outcomes in terms of prevision, prevention and mitigation of the risks associated to hydrogeological instability;
- proper integration of the project results in the research debate taking place in the local context;
- the contribution to significantly increase the state of the art;
- proper use of existing maps and their harmonization and integration with other already existing studies;
- the originality and innovativeness of the project;
- the adoption of a mechanistic and interdisciplinary approaches;
- PI's scientific leadership;
- track record and adequacy of the PI and team competencies (leading organization and partner);
- the level of consolidation of the collaborations with national or international research centres and/or the ability to build new partnerships;
- budget adequacy and sustainability of the project's duration;
- engagement of young researchers and the presence of training programmes⁷;

⁷ See footnote 2.

⁸ See footnote 1.

⁹ In the Project Section applicants are required to enter information about the project and the organizations making up the partnership. Fondazione Cariplo may use this information for internal and external communications, and for analysis about performance of the call. Applicants are required to enter information in Italian using a language that is understandable to a lay person.

¹⁰ The budget section requires the indication of the costs according to the different entries and divided per year, partner and action (WPs).

- quality of the communication plan also in relation to Responsible Research and Innovation principles⁸.

Proposal submission procedure

Applications must be submitted by 5:00 p.m. on April 13th 2017. Leading organizations must submit applications for all partners accessing the online platform available on Fondazione Cariplo's website. First-time applicants need to register and require their username and password.

Fondazione Cariplo will consider ineligible applications submitted on paper or using forms different from the specific ones available online.

In order to apply for this grant, applicants are required to fill in integrally all the online forms organized as below:

- Leading organization details (fill in the form with in details; or check and update your organization's details if already registered);
- Project section⁹;
- Additional information;
- Budget section¹⁰.

In addition the Leading organization must upload all compulsory documents as it is indicated in the *Guidelines for Presentation*:

- Project Form¹¹;
- Budget Form¹²;
- Project Dissemination Form¹³;
- Letter of commitment from the hosting institution;
- Partnership agreement and letters of commitment from the hosting institution (for projects in partnership only);
- Documentation of the applicant organizations¹⁴.

Please note that the "Project Form", the "Budget Form" and the "Project Dissemination Form" are the only documents subjected to meritocratic analysis.

¹¹ The detailed project shall be prepared in accordance with the template relating to the call that can be downloaded from the section Additional Information under Online Forms.

¹² The detailed budget form shall be prepared in accordance with the template relating to the call that can be downloaded from the section Additional Information under Online Forms.

¹³ The project dissemination form shall be prepared in accordance with the template relating to the call that can be downloaded from the section Additional Information under Online Forms.

¹⁴ Applicants are advised to read the document Guidelines for presentation available on line.

Before submitting a proposal, applicants are kindly invited to carefully read the documents listed below, available on Cariplo Foundation's website at www.fondazionecriplo.it:

- *Guidelines for Presentation;*
- *Grant management and reporting guide;*
- *Communication guidelines;*
- *Acknowledgement guidelines for academic papers;*
- *Intellectual property rights policy;*
- *Open access policy.*

By submitting a proposal, applicants acknowledge, agree and accept that the award of the grant requires the irrevocable acceptance of all policies mentioned above and respect of aforementioned Guide and Guidelines.

Evaluation process

All proposals submitted before the deadline and according to the formal requirements described above will follow a two step evaluation process:

I. Formal Preliminary control

This step is meant to check that all required documents are correctly submitted and they are consistent with the call's guideline. At this stage officers will also check all Organisations' eligibility. This is equally valid for leading organizations as well as partners. Only applications considered eligible enter the peer review stage. All applicants ineligible will be notified. Organizations will receive a formal letter explaining in detail the reasons for the exclusion. This information will also be available on line on Fondazione Cariplo's web platform.

II. Peer review control

Eligible applications will be evaluated by independent experts in a peer review process ensuring scientific expertise and impartiality. Each proposals will be analyzed by 3 independent reviewers selected for their expertise in the specific research milieu of the project. Reviewer-project matching will be made according to the indications provided by applicants in the keywords selection. This logic is meant to ensure the identification of the most suitable reviewers for the project.

The final score given to the project reflects scores and weight:

1. DESCRIPTION (weight 5%)
2. APPROACH (weight 25%)
3. INNOVATION (weight 10%)
4. OUTCOMES (weight 25%)

5. INVESTIGATORS AND ENVIRONMENT (weight 10%)
6. YOUNG RESEARCHERS (weight 10%)
7. DISSEMINATION (weight 5%)
8. BUDGET AND DURATION (weight 10%)

The final ranking ultimately represents the list of the best projects worth of funding.

At the end of the review process, all applicants will receive official communication together with reviewers' feedback. All these documents will also be available in the dedicated area on Fondazione Cariplo's website.

AVAILABLE BUDGET

The budget available for this call for proposals is 1.5 million euros.

Please note that all documents cited in this call are available online at www.fondazionecriplo.it.