



Circular Economy for a sustainable future

Deadline Full proposal: March 28th, 2019. Year of issue: 2019





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1. INTRODUCTION

Circular Economy for a sustainable future is a Call for proposals of the Scientific Research Area with deadline March 28th, 2019 for the submission Full Proposals.

2. BACKGROUND

In the society of consumption and diffuse wellness that we are experiencing, waste management has emerged as the new environmental emergency. In large part, this can be associated to the implementation of a linear production model that starts with products manufacture, passes through products exploitation and ends up with products disposal. Unfortunately, this does not fit well with a society like ours that largely rely on scarce resources. The pauperism of reserves we experience goes behind the financial realm, intercepting also the environment and all the issues related to waste management. In this scenario, there is an urgent need for a shift to a circular model of economy built on new concepts of production, design, distribution, and consumption. This change requires to rearrange products manufacturing in order to facilitate the extension of shelf life, recycling, reuse, as well as energy and material recovery.

When talking about circular economy there are two main issues to consider. The first one falls right at the beginning of the process and has to do with the development of efficient resource management and reduction of waste disposal. The second lies at the end of the process and focuses on the recycling and re-introduction of all the materials that still preserve some residual utility in the production system. This cultural change brings with its implementation a series of variations in the process including, amongst others, the introduction of different ways of thinking about the secondary primary material that becomes a resource to nourish the production process rather than simply dump material. According to this vision, waste as such – organic or inorganic – becomes a resource feeding the industrial and energy production system. In order to let thrive the transition towards a circular economy model, it becomes necessary to allow a change in the productive system paradigm and facilitate the introduction of the idea of regenerative economy.

The shift from a linear to a circular and regenerative model represents a turning point that is likely to mark a change in the production system, in contemporary business model and citizens consumption choices. Furthermore, we expect that this change, that is naturally associated to the reduction of water pollution and gas emission, would also facilitate various improvements for the future of our environment, climate and human health more in general.

3. AIMS

Fondazione Cariplo intends to focus its effort on a restricted number of projects aimed to promote product and process innovation by means of a multidisciplinary approach. With regards to the potentiality offered by circular and regenerative economy, attention will be focused on the correct management of waste products. In turn, projects must focus on one of the following research areas:





- Design and development of new materials, products¹ and processes fostering a shift towards innovative and sustainable organization models;
- Design and develop more efficient resource regeneration systems including waste water and sewage sludge previously used for the production and transformation process or for service provision;
- Foster the use of organic and inorganic waste as well as their transformation in products characterized by high added value, including energy production.

Projects must propose a strong research rationale relying on a convincing analysis of the state of the art and technique, a strong methodological approach and preliminary data gathered from other previous publications. The originality of the proposal and the suitability of the methodological approach proposed by the applicants will play a crucial role in the project evaluation.

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

Finally, embracing the principles of Responsible Research and Innovation², 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. Planned activities are meant to facilitate the activation of a dual exchange between science and society. The communication plan is considered an integral part of the research proposal.

4. GUIDELINES

Before participating to this Call, applicants are required to carefully read the following documents, that can be found on the Foundation website:

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

By participating to this Call, organizations acknowledge, agree and accept that the award of the grant requires the irrevocable acceptance of all the policies and the respect of guide and guidelines mentioned above.

¹ For the management and development of new products, it is important to take into consideration the nature of: materials, production processes, disassemblability, recyclability, as well as the modularity, reparability, maintenance, substitution and management of dangerous materials, reuse, harvesting, regeneration and recycling quality.

² 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" (https://ec.europa.eu/research/swafs/pdf/rome_declaration_RRI_final_21_November.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.





4.1 ELIGIBLE SUBJECTS

It is mandatory for the leading host institution, and more specifically the operational headquarters of the project, to be located within the geographical area of interest of Cariplo Foundation (Lombardia plus Novara and Verbania districts). This requirement does not pertain potential partners.

Host institutions must provide PIs with appropriate workspaces, laboratories, equipment, qualified staff (e.g. lab technicians), as well as any other resources needed to adequately carry out the project.

By participating to this Call, organizations accept the "portability of the grant". Any change in the host institution depends on Fondazione Cariplo approval according to the guidelines of this Call.

4.2 ELIGIBLE PROJECTS

To be eligible, projects must:

- fall in at least one of the key priority research areas of this Call;
- involve, train and value young researchers³;
- provide a plan of communication activities with the civil society (for more detail see the Communication Guidelines).

Moreover, the PIs of all the involved units (leading and partner) must:

- be involved as PI (leading or partner unit) in only one project of the Scientific Research Area (except for Calls in partnership with other granting agencies)⁴;
- not be the PI (leading or partner unit) of any other ongoing project previously funded by the Scientific Research Area (except for Calls in partnership with other granting agencies)⁵.

The total cost of the project should correspond to the requested amount. The requested amount is comprehensive of the additional costs⁶, related to the realization of the proposal, and the overhead, according to the eligibility criteria and the thresholds listed below:

• A03 - "Equipment and software" This entry cannot exceed 20% of the additional costs. It fully covers the costs for newly acquired equipment and software that must be clearly motivated in accordance to the

³ The term "young researcher" in this Call for proposals indicates graduate fellows, PhD students and postdoc not older than 35 years of age at the Call's deadline.

⁴ In case of multiple submissions as PI (leading or partner unit), only the first one received will be considered.

⁵ A project is considered ongoing unless the final grant reports – both the scientific and the financial ones - have been uploaded on our website before the deadline of this call.

⁶ Sum of: A03, A04, A06, A07, A08, A10





specificity of the project. In this category can also be included ranting costs as well as building work 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 costs⁷.
- A08 "Materials and supplies" This entry cannot include costs related to office supplies and photocopies.
- A09 "Overheads"
- This entry cannot exceed 5% of the additional costs.
- A10 "Travel, publication and dissemination costs"
- This entry cannot exceed 15% of the additional costs and can only include travel expenses and conference participation fees for the research personnel involved in the project, scientific publications and activities of communication with the civil society.

The grant will cover 100% of project costs. Requested funding should range from 100,000 to 300,000 euros.

4.3 NON-ELIGIBLE PROJECTS

Any proposal with the following characteristics will be considered non-eligible:

- purely descriptive;
- aimed to set up new research centres and/or laboratories and/or animal facilities
- basic research projects without any tangible application;
- projects exclusively meant to technology transfer.

4.4 SUBMISSION PROCESS

Applications must be submitted by 5:00 p.m. on March 28th, 2019.

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

- Project Form⁸, PDF format;
- Budget Form⁹;

 $^{^{7}}$ Exclusively certificated auditors are considered eligible. 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 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.

⁸ The detailed project shall be prepared in accordance with the template related to the Call

⁹ The detailed budget form shall be prepared in accordance with the template related to the Call.





- Project Dissemination Form¹⁰, PDF format;
- Host institution agreement for both the leading and partner units, if any;
- Partnership agreement;
- Documentation of the applicant organizations¹¹.

In any case, application submitted using forms other than the specific ones provided by the Foundation will not be considered.

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

4.5 CRITERIA

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

• Formal Preliminary Control

This step is meant to check that all required documents are correctly submitted and in consistency with the Call's guideline. At this stage, Cariplo Foundation 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. Non-eligible projects will be notified. Organizations will receive a formal letter clearly motivating the exclusion. This information will also be available online on Fondazione Cariplo's website.

• Peer Review

Eligible applications will be evaluated by independent experts in a peer review process ensuring scientific expertise and impartiality and the review panel will be built on international experts on circular economy. Reviewer-project matching will be made according to the indications provided by applicants in the keywords selection. Each proposal will be assessed by 3 reviewers.

The final score given to the project reflects the following scores and weight, according to the reviewers' evaluations. In parallel, Cariplo Foundation will evaluate the coherence of the budget and the quality of the dissemination plan.

- 1. DESCRIPTION (weight 10%)
- clarity of aims and strategies;
- knowledge of the state of the art and technique.
- 2. APPROACH (weight 20%)
- integration of the project in a research area relevant in terms of current debate over regenerative and circular economy;
- adequacy and rationality of the research plan, robust preliminary data;
- multidisciplinary approach;
- presence of adequate back-up plans;
- adequacy of the monitoring plans.
- 3. INNOVATION (weight 10%)

¹⁰ The project dissemination form shall be prepared in accordance with the template related to the Call. ¹¹ Applicants are advised to carefully read the *Guidelines for presentation* document available on line.





- originality of the research question;
- level of innovation introduced in the organization structure.
- 4. OUTCOMES (weight 25%)
- expected impacts in terms of knowledge advancement;
- expected impacts on circular economy and environmental sustainability;
- expected impacts in terms of long- and medium-term product and process innovation;
- expected impacts with regards to economic value, job opportunities and local development.
- 5. PRINCIPAL INVESTIGATOR, TEAM AND ENVIRONMENT (weight 10%)
- Pls' scientific and managerial leadership;
- track record and adequacy of the PI and team competencies (leading organization and partner);
- level of consolidation of the collaborations with research centres and\or the ability to build new partnerships;
- adequacy of the equipment in relation to the project typology.
- 6. YOUNG RESEARCHERS (weight 10%)
- engagement of young researchers in responsibility roles;
- training programmes for young researchers.
- 7. DISSEMINATION (weight 5%)
- consistency with Communication guidelines with Responsible Research and Innovation principles.
- 8. BUDGET AND DURATION (10%)
- budget suitability and coherence and duration of the project

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.

5. AVAILABLE BUDGET

The budget available for this call for proposals is 3.3 million euros.

6. OTHER USEFUL INFORMATIONS

The Foundation, as a private entity, is not required to comply with public procedures and has the faculty not to allocate the entire budget in whole or in part.

The Call for Proposals and all the mentioned documents can be found on the Foundation website <u>www.fondazionecariplo.it</u>