

## **Circular Economy for a sustainable future**

Call for proposals

Deadline: April 16<sup>th</sup>, 2018

### **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 production model that linearly follows a sequence of steps. These begin with products manufacture, pass through products exploitation and end 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, amongst other areas, also the environment and, in that respect, all that issues related to waste management. Taking this perspective clearly motivates the urgent need for a shift to a circular model of economy built on new concepts of production, design, distribution, and consumption. All these steps require to rearrange products production in order to facilitate the extension of shelves 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 material that still preserve some residual utility in the production system. This cultural change brings with its implementation a series of variations in the process that includes, 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, an input feeding the industrial and energy production system. In order to let flourish the transition towards a circular economy model, it becomes necessary to allow a change of paradigm in the productive system and in turn facilitate the introduction of the idea of regenerative economy.

The shift from liner model 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 modes. Furthermore, we expect that this change, that is naturally associated to the reduction of water pollution and gas emission, would be also facilitate a number of improvements for the future of our environment, climate and human health more in general.

### **AIMS**

Fondazione Cariplo intends to focus its effort on a restricted number of projects aimed to promote product and process innovation through the use 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 material, products<sup>1</sup> and processes fostering a shift towards innovative and sustainable organization models;
- Design and develop more efficient resource regeneration systems– including waste water depuration mud – previously used for in the production and transformation process, or in service supply;
- Foster the use of organic and inorganic waste as well as their transformation in products characterized by high added value.

Projects must propose strong research rationale and logic design. This should rely on a convincing analysis of the state of the art, a strong methodological approach and preliminary data gathered on other previous publications. The originality of the proposal as well as the methodological approach proposed by the applicants will play a crucial role in the project evaluation.

This call for proposal does not require the development of a Consortium in partnership, nonetheless applicants proposed in partnership are welcomed. In case of partnership leading institutions are strongly encouraged to clarify the competencies offered by each partner and how these are combined for the success of the proposal.

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

Finally, embracing the principles of Responsible Research and Innovation<sup>2</sup>, 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.

## **GUIDELINES**

### **Eligible applicants**

Beyond the general requirements set out in the *Criteri generali per la concessione di contributi*, 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 concern 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

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<sup>1</sup> For the management and development of new products it is important to take in consideration the nature of the materials, of the production processes of the disassemblability, of the recyclability, as well as the modularity, reparability, maintenance, substitution and management of dangerous materials, reuse, harvesting, regeneration and the quality of the services.

<sup>2</sup> 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](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.

institution, for as long as the research objectives are preserved. Any change in the host institution are subjected to Fondazione Cariplo approval according to the guidelines of this call of proposals.

Fondazione Cariplo will not accept applications submitted by PIs (both leader PIs and partner PIs) of projects still ongoing and funded in previous calls launched by 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.

Finally, it should be noted that each PI can submit only one application<sup>3</sup> under the present call.

### **Eligible projects:**

To be eligible, proposals must:

- fall in at least one of the key priority research areas of this call;
- include, train and enhance young researchers<sup>4</sup>;
- prepare a communication plan of activities with the civil society, coordinated by one of the researcher fully integrated in the working team (for more detail see the Communication Guidelines).

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

- studies essentially aimed to develop novel methodologies and/or technologies;
- funding requests aimed to set up new research centres and/or laboratories and/or animal facilities;
- purely descriptive projects.

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 costs<sup>5</sup>. 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 renting 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 applicable<sup>6</sup>. Exclusively certificated auditors are considered eligible.

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<sup>3</sup> In case several proposals are submitted by the same PI, the first one will be considered eligible.

<sup>4</sup> 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.

<sup>5</sup> Sum of: A03, A04, A06, A07, A08, A10.

<sup>6</sup> 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*

- A08 - “Materials and supplies”
- This entry cannot include costs related to stationery and photocopies.
- A09 - “Overheads”
- This entry cannot exceed 5% of the additional costs<sup>7</sup>.
- A10 – “Travel, publication and dissemination costs”
- This entry cannot exceed 15% of the additional costs<sup>8</sup> 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 300,000 euros. Please note that it is not required to explicit, in the budget form, organizations’ co-funding when these are expressed in terms of personnel costs.

### **Proposal submission procedure**

Applications must be submitted by 5:00 p.m. on April 16<sup>th</sup>, 2018. 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 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 section<sup>9</sup>;
- Additional information;
- Budget section<sup>10</sup>.

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

- Project Form<sup>11</sup>, PDF format;
- Budget Form<sup>12</sup>, PDF format;
- Project Dissemination Form<sup>13</sup>, PDF format;
- Letter of commitment from the hosting institution;

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and to the *Guidelines for audit*; both documents are available on the *Grant management and reporting* page of Cariplo Foundation’s website.

<sup>7</sup> See footnote 5.

<sup>8</sup> See footnote 5.

<sup>9</sup> 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.

<sup>10</sup> The budget section requires the indication of the costs according to the different entries and divided per year, partner and action (WP).

<sup>11</sup> 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.

<sup>12</sup> 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.

<sup>13</sup> 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.

- Partnership agreement;
- Documentation of the applicant organizations<sup>14</sup>.

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

Before submitting a proposal, applicants are kindly invited to carefully read the documents listed below and available on Cariplo Foundation’s website at [www.fondazionecriplo.it](http://www.fondazionecriplo.it):

- General criteria for the grant allowance;
- 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 in consistency 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 non-eligible will be notified. Organizations will receive a formal letter clearly motivating the exclusion. This information will also be available online on Fondazione Cariplo’s web platform.

#### **II. Peer Review**

Eligible applications will be evaluated by independent experts in a peer review process ensuring scientific expertise and impartiality. The review panel will be built on international experts on circular economy. Each proposal will be assessed by 3 reviewers. 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 the following scores and weight:

1. DESCRIPTION (weight 10%)
  - knowledge of the state of the art and technique;
  - clarity of aims and strategies.
2. APPROACH (weight 20%)
  - presence of a plausible rationale and robust preliminary data;
  - adoption of an interdisciplinary approach;
  - presence of adequate back-up plans;

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<sup>14</sup> Applicants are advised to read the document *Guidelines for presentation* available on line.

- adequacy of the monitoring plans;
  - integration of the project in a research area relevant in terms of current debate over regenerative and circular economy;
  - correct research allocation in relation to the aims of the project;
  - development of a research project in line with the RRI principles<sup>15</sup>.
3. INNOVATION (weight 10%)
- originality of the research question;
  - innovativeness of the experimental approaches;
  - level of innovation introduced in the organization structure.
4. OUTCOMES (weight 25%)
- 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;
  - expected impacts in terms of external communication and potential engagement of civil society;
  - expected impacts in terms of knowledge advancement.
5. INVESTIGATORS AND ENVIRONMENT (weight 10%)
- PIs' scientific leadership;
  - track record and adequacy of the PI and team competencies (leading organization and partner);
  - level of consolidation of the collaborations with national or international research centres and/or the ability to build new partnerships;
  - adequacy of the team member especially in relation to the dimension and typology of the project;
  - adequacy of the equipment in relation to the project typology.
6. YOUNG RESEARCHERS (peso 10%)
- engagement of young researchers<sup>16</sup>;
  - presence of training programmes for young researchers.
7. DISSEMINATION (peso 5%)
- presence of a coordinator, chosen among research team members;
  - consistency with Communication guidelines;
  - consistency with Responsible Research and Innovation principles<sup>17</sup>.
8. BUDGET AND DURATION (10%)
- budget adequacy and internal coherence;
  - adequacy of the foreseen research time period.

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.

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<sup>15</sup> See footnote 2.

<sup>16</sup> See footnote 4.

<sup>17</sup> See footnote 2.

**AVAILABLE BUDGET**

The budget available for this call for proposals is 3.5 million euros.

Please note that all documents cited in this call are available online at [www.fondazionecripio.it](http://www.fondazionecripio.it).