# Circular economy – Promoting research for a sustainable future

Call deadline

April 14th 2022

CALLS 2022. SCIENTIFIC RESEARCH



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#### 1. INTRODUCTION

Circular Economy for a sustainable future is a deadline call that is part of the strategic goal "Scientific research: supporting multidisciplinary research for the well-being of people and the socio-economic development of communities".

#### 2. BACKGROUND

In the new era of consumer economy and widespread prosperity, we assisted to the emergence of a new environmental, economic and social emergency, namely the waste management.

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. 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.

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, citizens consumption choices and we expect that this change would also facilitate various improvements for the future of our environment, climate and human health more in general.

Considering the opportunities offered by a circular and regenerative economy, Cariplo Foundation intends to support multidisciplinary projects falling into the following areas:

- Development of new organizational models to implement the principles of the circular economy in public and/or private entities;
- Design and development of new materials and products<sup>1</sup> in order to outline sustainable consumption models;
- Design and develop more efficient resource regeneration systems – including wastewater and sewage sludge – previously used for the production and transformation process or for service provision;
- Enhance the use of organic and inorganic waste as well as their transformation in products characterized by high added value, including energy production.

Projects applying to area 1 and 3 have to provide the economic<sup>2</sup> and risk assessment of the adoption of new organizational models and/or regeneration systems developed. Projects applying to area 2 and 4 have to include analysis of the current and potential market for the products being studied.

All projects will need to be characterized by a multidisciplinary approach which will facilitate the integration of disciplines and skills, including collaboration between researchers in biological areas, chemists, physicists, engineers and researchers working in the fields of economics and the legal and social sciences. In addition, they should represent an opportunity for training and professional growth for the young researchers involved.

<sup>3.</sup> AIMS

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Economic evaluation means an analysis of the feasibility and efficiency of the proposed solution.

Finally, the Foundation intends to promote concrete dialogue activities with civil society, with a view to Responsible Research and Innovation (RRI)<sup>3</sup>. In particular, in order to strengthen the transformative outcome and the application implications of the program, projects will have to assemble an Advisory Board that will integrate the academic skills with sensitivity of the productive world and end users of the solutions developed. The Advisory Board must be composed of representatives of at least five companies involved in the sector affected by the intervention<sup>4</sup>. With reference to the formulation of the Communication Plan, moreover, researchers will necessarily have to strengthen the dissemination of results to the business system also through the involvement of trade associations.

#### 4. GUIDELINES

#### 4.1 Eligible subjects

Public or private non-profit organizations that conduct scientific research.

By participating to this Call, organizations accept the portability of the grant. Any change in the host institution depends on Cariplo Foundation approval according to the guidelines for presentation ("Guida alla presentazione dei progetti su bandi") and the general criteria for granting contributions ("Criteri generali per la concessione dei contributi").

With reference to this call, it is specified that the companies involved in the *Advisory Board* and the

professional associations in the communication plan will not be eligible for contributions.

#### 4.2 Eligibile projects

To be eligible, projects must:

- fall in at least one of the key priority research areas of this Call:
- provide for the establishment of an Advisory Board composed of representatives of at least five businesses involved in the industry affected by the intervention;
- involve, train and value young researchers<sup>5</sup>.

Moreover, the PIs of all the involved units (leading and partner) are allowed to:

- submit one proposal only to this Call<sup>6</sup>;
- participate as PI in more than one Call of the Scientific Research Area, as long as no overlap is displayed between proposals<sup>7</sup>;
- not be the PI of any other ongoing proposals previously funded by the Scientific Research Area (except for Calls in partnership with other granting agencies)<sup>8</sup>.

It is mandatory for the operational headquarter of the leading organization to be located within the geographical area of intervention of Cariplo Foundation. This requirement does not pertain potential partners.

The total cost of the project should include the additional costs<sup>9</sup> and the overhead only, according to the eligibility criteria and the thresholds listed below:

for example, in the production, transformation, distribution or supply of goods and services.

<sup>&</sup>lt;sup>3</sup> The European movement on the theme of 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\_R RI\_final\_21\_November.pdf). Considering 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..

<sup>&</sup>lt;sup>4</sup> The companies involved in the supply chain will be able to operate at different levels of the process of generating value,

<sup>&</sup>lt;sup>5</sup>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.

<sup>6</sup> If more than one project proposal is received on the same call, only the first one will be considered admissible. It is reiterated that this criterion concerns the heads of the lead unit and the heads of any partner units.

<sup>&</sup>lt;sup>7</sup> In case of overlapping proposals, only the first one received will be considered.

<sup>&</sup>lt;sup>8</sup> A proposal is considered ongoing unless the final grant reports - both the scientific and the financial one - have been uploaded on our website before the deadline of this call.

<sup>&</sup>lt;sup>9</sup> Sum of: A03, A04, A06, A07, A08, A10.

- A03 "Equipment and software"
   This entry cannot exceed 20% of the additional costs. It fully covers the costs for newly acquired equipment and software. It is mandatory to clearly motivate these costs in accordance to the 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 include patent costs and the amounts to be incurred in the case of the rental of equipment;
- A06 "Temporary staff"
   This entry can only include research personnel costs. The cost of administrative staff is not allowed;
- A07 "Sub-contractors and consultants" 10, 11
- 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 20% 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, therefore the total cost of the project should correspond to the requested amount.

Requested funding should range from 100.000 to 300.000 euros.

Proposals should provide the following mandatory documents:

- Host institution agreement<sup>12</sup>;
- Partnership agreement<sup>13</sup>;
- Project form<sup>14</sup>, as PDF file;
- Endorsement letters from at least five businesses involved in the *Advisory Board*, as PDF<sup>15</sup> file;
- Project dissemination form<sup>16</sup>, as PDF file;
- Detailed budget plan, as EXCEL file.

By participating to this Call, organizations acknowledge, agree and accept that the award of the grant requires the irrevocable acceptance of all the following documents, available online for the download: Intellectual property rights policy, Open access policy and Acknowledgement guidelines for academic papers ("Linee guida per la citazione del contributo nelle comunicazioni scientifiche").

<sup>&</sup>lt;sup>10</sup> This entry should also include audit costs, where applicable. Exclusively certificated auditors are considered eligible. For the sole purpose of ascertaining whether the obligation to perform a financial audit applies or not, the amount which has to be considered is obtained by 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 the "Grant management and reporting guide" and to the guidelines for audit assignment "Linee guida per affidamento audit"; both documents are available on the Cariplo Foundation's website. However, it is anticipated that in case of funding, the Foundation will confirm to each recipient any obligation to satisfy such fulfillment.

<sup>&</sup>lt;sup>11</sup> Please note that these expenses, during reporting, can be validated only if accounted for as a result of the regular issue of an invoice charged to the actuator (leader and/or partner). The issuance of an internal note in place of the invoice can be

allowed only in the case of public institutions and provided that it is available a tariff already publicly known, in addition to a detailed report on the activity carried out.

 $<sup>^{12}</sup>$  Host institution agreement must be drawn up on the basis of the form made downloadable from the website.

<sup>&</sup>lt;sup>13</sup> To be provided in case the project involves partners and the doc must be drawn up on the basis of the form made downloadable from the website.

 $<sup>^{14}\,\</sup>mathrm{The}$  project form must be drawn up on the basis of the form made available for the call.

 $<sup>^{15}</sup>$  Endorsement letters will be examined by reviewers; therefore, the letters must be produced in English and included in the detailed form of the project.

<sup>&</sup>lt;sup>16</sup>The communication plan must be drawn up on the basis of the form made available for the call.

#### 4.3 Criteria

The evaluation of the full projects will be carried out according to the methods and criteria represented below.

- 1. DESCRIPTION (weight 10%)
- clarity of the project aims and strategies;
- analysis of the state of the art;
- preliminary data significance.
- 2. APPROACH (weight 15%)
- 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,
- · multidisciplinary approach;
- presence of adequate back-up plans;
- adequacy of the monitoring plans.
- 3. INNOVATION (weight 15%)
- originality of the research question;
- ability to innovate existing organizational and business models.
- 4. OUTCOMES (weight 25%)
- expected impacts in terms of knowledge advancement;
- expected impacts in terms of long- and mediumterm product and process innovation;
- expected impacts in terms of environmental sustainability;
- expected impacts in terms of social value creation, new employment and territorial development.
- 5. PRINCIPAL INVESTIGATOR, TEAM AND ORGANIZATION (weight 10%)
- PIs' scientific and managerial leadership;
- track record and adequacy of the PI and team competencies (leading organization and partner);
- functionality and composition of the *Advisory Board*;

- level of consolidation of the collaborations with research centers 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 programs for young researchers.
- 7. DISSEMINATION (weight 5%)
- quality of the communication plan.
- 8. BUDGET and PROJECT DURATION (weight 10%)
- budget suitability, coherence and duration of the project. The appropriateness of the contributions of any third-party partners and providers will also be considered.

Please note that the evaluation of the projects is carried out through peer review, or through a scientific assessment of merit entrusted to an independent third party made up of qualified experts who are subject to precisely defined rules and procedures aimed at excluding conflicts of interest and ideological prejudices, personal pressures and self-referentiality. The Offices will make a judgment limited to the coherence of the Business Plan and the adequacy of the Communication Plan.

#### 4.4 Non-eligible projects

Proposals will be considered non-eligible in case they do not comply with the previous paragraph 4.2 "Eligible projects" and/or present the following features:

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

In addition, Cariplo Foundation will not consider eligible a proposal that has been submitted more than two times to previous editions of this Call.

#### 4.5 Submission process

Applications must be submitted by 5:00 p.m. on April 14<sup>th</sup> 2022.

### 5. AVAILABLE BUDGET, ELIGIBLE/NON-ELIGIBLE COSTS

The budget available for this Call consists of 3 million Euros.

Eligible and non-eligible costs are detailed in the previous section 4.2 Eligible projects.

#### 6. COMMUNICATIONS AND INFORMATION

Cariplo 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 text of the Call and all the mentioned documents can be found on Cariplo Foundation website <a href="https://www.fondazionecariplo.it">www.fondazionecariplo.it</a>.

For the purpose of the assessment of merit through peer review, any personal data that may be reported in the project form, may be transferred to non-EU countries or organizations, in accordance with EU Regulation 2016/679. Before applying, therefore, please read the new privacy policy to learn more about the processing of personal data and the transfer of personal data to countries or organizations outside the European Union.

#### 7. SUMMARY\*

Call	Circular Economy - Promoting research for a sustainable future
Туре	Deadline call
Deadline	April 14 <sup>th</sup> 2022
Available budget	€ 3.000.000
Aims	Development of new organizational models to implement the principles of the circular economy in public and/or private entities
	Design and development of new materials and products in order to outline sustainable consumption models
	Design and develop more efficient resource regeneration systems previously used for the production and transformation process or for service provision
	Enhance the use of organic and inorganic waste as well as their transformation in products characterized by high added value
Eligible subjects	Public or private non-profit organizations thaht conduct scientific research
Funding constraints	Maximum funding € 300.000
Contacts	Scientific Research Area Staff contacts at: www.fondazionecariplo.it

<sup>\*</sup> The data shown in the "Summary" are intended as a brief overview of the terms and conditions of the Call only. For a full description, please read carefully the text of the Call.