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Introduction

ReMade-at-ARI will provide researchers with access to instrumentation and expertise from across our 48 facilities in Europe, with the aim of developing materials for a circular economy to address the challenge of decreasing finite resources and increasing quantities of waste. It is our hope that this project solicits relevant and high-quality research proposals. The selection of proposals which will be realised at our facilities is based on a thorough scientific review and moderation process. These guidelines define those processes for our Reviewers and Moderators.

Reviewers

The Evaluation Panel is composed of members of review panels already in place at our facilities, nominated for their expertise in specific techniques and areas of the Circular Economy. Access to all facilities is subject to the assessment of a scientific proposal by the review panel and availability of measurement time at the selected host institutions.

Reviewers are invited to review proposals that fall within their category of expertise. It is difficult to estimate the number of proposals that will be received by each Reviewer, but the aim is to ask to review no more than six proposals per year, and all proposals will be reviewed by three different Reviewers.

Reviewers are expected to contribute to the evaluation process of submitted proposals by delivering concise reviews using the online Evaluation form available in the ARIA portal <u>https://apply.remade-project.eu/</u>. Reviewers should evaluate the full proposal, the facilities and techniques requested, as well as the Project Description (attachment in the proposal). Information on team member profiles is available but not to be considered in the evaluation.

Reviewers are asked to express their opinions on the project by answering specific questions stated in the Evaluation form, and to score the evaluated items using a mix of scales of 0-5 and 0-10, where 5 and 10 are the maximum grades. Only upon request will the comments and grades be (anonymously) communicated to the Main Applicant.

Reviewers are bound to respect the confidentiality of information provided in a proposal received from ReMade-at-ARI. Reviews should be submitted online within 1-2 weeks of receiving the request.

Reviewers should score proposals according to the following criteria:



Evaluation Report Form

Q1 SCIENTIFIC EXCELLENCE AND METHODOLOGY: Is the proposed work considered scientifically excellent? To what extent are the proposed methodology and chosen techniques suitable to achieve the research goals?

Score: ______ 0-10

0-1 = Not competitive, 2-3 = Satisfactory, 4-5 = Average, 6-7 = Good, 8-9 = Very good, 10 = Excellent

If you have given a grade below 4 in Q1, please recommend a more suitable technique:

Q2 CIRCULAR ECONOMY RELEVANCE: To what extent is the proposed research relevant for circular economy?

Score: ______ 0-10

0-1 = No clear link to materials for a circular economy

2-4 = Indirect link to materials for a circular economy

5-7 = Direct link to materials for a circular economy

8-10 = Essential for materials for a circular economy

The scores of the aspect of "Development of materials for a circular economy" represent the interpretation of the ReMade-at-ARI consortium of the Circular Economy Action Plan (CEAP)¹ of the European Commission as approved by the Executive Board in its meeting on 2024-02-16. A summary of the EC CEAP description of the circular economy is provided as <u>Annex</u> (see page 5).

Score 8 – 10: Essential for materials for a circular economy

Explanation: The highest scores should be given to proposals that directly target the replacement of another material currently in use, which cannot (or not easily or economically) be recycled. *Examples:*

- Replacing rare earth elements in electronics
- Exploiting recycled Si as battery anode
- Characterising materials based on organic fibres to evaluate their use for packaging
- Developing polymers from processed plants to replace polymers from petroleum
- Designing textiles from sustainable materials in view of repair and reuse
- Developing construction materials from organic matter replacing steel and concrete
- Substituting single-use cutlery by reusable products in food services

Score 5 – 7: Direct link to materials for a circular economy

Explanation: High scores should be given to proposals that have a direct link to materials for a circular economy. Investigation of a particular materials might not be in the foreground of the proposed research. Instead, processes are proposed for investigation with the potential to substantially improve the efficiency, quality, CO2 footprint, or environment-friendliness of the recycling of a particular product or material.

¹ <u>https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en</u>



Examples:

- Manufacturing solar cells from recycled Si
- Reducing impurities in slag from electronics recycling
- Increasing recycling yield from battery black mass
- Recycling a catalyst from waste/exhausts
- Converting waste CO2 into fuel
- Increasing recyclability of plastics
- Upcycling of waste products for their use in concrete

Score 2 – 4: Indirect link to materials for a circular economy

Explanation: Medium scores should be given to proposals that have only an indirect link to materials for a circular economy. Such proposals may be relevant for circular economy in the wider context by making material usage more efficient or by driving circular economy through renewable energy. In this group fall also proposals reducing material usage or dealing with cycles of materials such as CO2 or water.

Examples:

- Solar cells (indirect link: renewable energy)
- Batteries (indirect link: reduced fuel consumption through electrification)
- Catalysts (indirect link: more efficient material and energy use)
- Crop with reduced water consumption (indirect link: water cycle)

Score 0 – 1: No clear link to materials for a circular economy

Explanation: Low scores should be given to proposals that have a very indirect or no link to materials for a circular economy, or to proposals where the link is not explained. *Examples:*

- General medical, biological or cultural research
- Fundamental planetary, earth science, or physics research
- High-temperature superconductors
- Steel alloys
- CO2 sequestration

Q3 NOVELTY AND INTERDISCIPLINARITY: To what extent does the project address novel and interdisciplinary concepts?

Score: ______ 0-5 0 = Not Competitive, 1 = Satisfactory, 2 = Average, 3 = Good, 4 = Very good, 5 = Excellent

Here, the Reviewer should consider whether the proposal as designed shows evidence that the concepts are expected to promote cooperation across communities and facilities.

Q4 COMMERCIAL IMPACT: How do you evaluate the potential commercial impact of the project?

Score: _____ 0-5

0 = Not Competitive, 1 = Satisfactory, 2 = Average, 3 = Good, 4 = Very good, 5 = Excellent

Recommendation:	?	Accept
	?	Reject

Here the Reviewer is requested to propose a final recommendation.



Accept: this means the Reviewer recommends the proposal to be granted TA access. **Rejected:** this means the Reviewer does not recommend the proposal be granted TA access and comments explaining the reasons for rejection should be provided in overall comments.

Note that the final decision on acceptance or rejection of a given project will be taken by the "Evaluation Coordination Panel" (key project stakeholders within the Consortium) on the central project level, taking into account the scores and recommendations of all the selected Reviewers.

Additional Comments: Please provide any additional comments that you might consider relevant to justify your recommendation, in particular in the case of recommendation for rejection:

Here the Reviewer can provide any additional overall comments they wish the Evaluation Coordination Panel to take into consideration.

A decision by the Reviewer on the acceptance of a proposal is without prejudice to the right of the chosen facility(ies) to decline access on reasonable grounds (including conflict of interest, capacity limitations, financial limitations). All facilities have a local right of veto for access.

Evaluation of the projects will be anonymous, in order to ensure the confidentiality of the evaluation process. Please note that if you receive an invitation to review a project that raises a conflict of interest, you shall inform the ReMade-at-ARI Coordination Panel chair (Rui Fausto <u>rfausto@ci.uc.pt</u>) at your earliest convenience.

Moderators

Thresholds for acceptance will be defined by the Evaluation Coordination Panel after all proposals for the call have been submitted and reviewed by the Reviewers. The Panel chair will coordinate the activities and discussions of the panel.

The panel will meet in person or online as appropriate twice a year, to identify and solve difficulties which may have arisen in relation to submissions, scores and distribution across facilities.

Moderators must not disclose or otherwise exploit confidential information for any purpose.

Appeals

If the Main Applicant wishes to appeal the decision from the Panel, they must contact the chair directly and explain the reasons for appeal. The chair will decide whether the decision can be revised without referral back to the panel or the Reviewers or whether it requires further discussion. The chair will keep the Main Applicant informed of the process and outcome of the appeal.

Help

Moderators and Reviewers may contact the portal Administrator at <u>admin@remade-project.eu</u> for technical help with the on-line review process. For all other queries, the Administrator will forward to the appropriate contact person within the project.



Moderators or Reviewers may wish to take advice from the requested facility(ies) about technical feasibility of the work proposed. This can be done directly (bearing in mind issues of confidentiality of the proposed work) through the Administrator.

Annex: Summary of the EC CEAP description of circular economy

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"This Circular Economy Action Plan provides a future-oriented agenda for achieving a cleaner and more competitive Europe in co-creation with economic actors, consumers, citizens and civil society organisations."

Priority areas (non-exclusive):

- Electronics and ICT
- Batteries and vehicles
- Packaging
- Plastics
- Textiles
- Construction and buildings
- Food, water and nutrients

Key concepts: • Reduce resource consumption footprint.

- Designing sustainable products.
- Reduce waste.
- Recycle waste.
- Increase circular material use rate.
- Transition to a sustainable economic system.
- Strengthen the EU's industrial base.
- Foster business creation and entrepreneurship among SMEs.
- **Principles:** Improving product durability, reusability, upgradability and reparability, addressing the presence of hazardous chemicals in products, and increasing their energy and resource efficiency.
 - Increasing recycled content in products, while ensuring their performance and safety.
 - Enabling remanufacturing and high-quality recycling.
 - Reducing carbon and environmental footprints.
 - Restricting single-use and countering premature obsolescence.
 - Introducing a ban on the destruction of unsold durable goods- incentivising product-as-a-service or other models where producers keep the ownership of the product or the responsibility for its performance throughout its lifecycle.
 - Mobilising the potential of digitalisation of product information, including solutions such as digital passports, tagging and watermarks.
 - Rewarding products based on their different sustainability performance, including by linking high performance levels to incentives.