

**Programme:** EU-HORIZON 2020 Excellent science - 2014-2020

**Call:**

Specific Challenge:

The main purpose of the Circular Economy (CE) is to develop material/product business models that are economically and environmentally sustainable, with actions supporting each stage of the value chain (from production to consumption, from design to recycling and upcycling of waste-materials) while promoting industrial and social innovation. In line with this, the challenge is to evaluate product improvement, taking into consideration, all relevant subsystem interactions (environmental, economic and social) and all the life cycle stages of the product. However, although environmental indicators and methodologies for product level assessment are well advanced and harmonised (LCA-PEF[1]) this is not yet the case as regards the social and economic pillars of sustainability assessment. Life cycle sustainability analysis (LCSA) is needed, integrating social and economic benefits with environmental burdens, which fit these causal interrelations into an holistic approach understandable to different stakeholders.

Scope:

Develop approaches/methodologies to incorporate social and economic indicators in sustainability evaluations;

Develop approaches and select indicators that allow formalising connections between subsystems. Existing standard methods[2] should be used in this project for assessing environmental impacts. As regards, social life cycle assessment it is suggested to build on the work done by the Life Cycle Initiative[3];

Develop a quantitative approach that allows assessment of the sustainability multi-criteria trade-offs of circularity (cradle to cradle) dynamically in real cases. The approach needs to facilitate the incorporation of existing product LCSA harmonised approaches;

Develop a public demonstration of the LCSA approach, which can contribute towards effective uptake of LCSA within different sectors;

Work with industrial associations and clusters to engage with industry and especially SMEs but also with consumer organisations, as well as governmental and standardisation bodies;

Stimulate the use of existing ontologies developed under Horizon 2020.

Clustering and cooperation with other selected projects under this cross-cutting call and other relevant projects is strongly encouraged.

Proposals submitted under this topic should include a business case and exploitation strategy, as outlined in the Introduction of this part of the Work Programme.

Activities should start at TRL 3 and achieve TRL 6 at the end of the project.

The Commission considers that proposals requesting a contribution from the EU around EUR 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

#### Expected Impact:

More robust early-stage evaluations and increase consistency across sectors and through value chains through improved sustainability evaluation tools;

Better informed investment decision-making for future products and processes through improved visualisation and communication of potential sustainability trade-offs with stakeholders

Support the implementation of EU policies, including the transition to a more circular economy at different scales of economic and social conditions.

Creation of new business opportunities and increased competitiveness of EU industries and supporting SMEs in the transition to the circular and sustainable economy;

Improved product investment decisions for industry;

Contribution to a future LCSA at European Union level linked to the certification of final products.

#### Cross-cutting Priorities:

LC-CI

[1][http://ec.europa.eu/environment/eussd/smgp/PEFCR\\_OEFSR\\_en.htm](http://ec.europa.eu/environment/eussd/smgp/PEFCR_OEFSR_en.htm)

[2]<https://www.lifecycleinitiative.org/resources/reports/>,

[3]<https://product-social-impact-assessment.com/handbook/>

#### Topic/s:

##### 1. Eligible countries:

Described in Annex A of the Work Programme.

A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the Online Manual.

##### 2. Eligibility and admissibility conditions:

Described in Annex B and Annex C of the Work Programme.

Proposal page limits and layout: please refer to Part B of the proposal template in the submission system below.

### 3. Evaluation:

Evaluation criteria, scoring and thresholds are described in Annex H of the Work Programme.

Submission and evaluation processes are described in the Online Manual.

The threshold for the criteria Excellence and Impact will be 4. The overall threshold, applying to the sum of the three individual scores, will be 12.

Under 3 (a) Proposals are first ranked in separate lists according to the topics against which they were submitted ('topic ranked lists'). When comparing ex aequo proposals from different topics, proposals having a higher position in their respective 'topic ranked list' will be considered to have a higher priority in the overall ranked list.

Under 3 (b) For all topics and types of action, the prioritisation will be done first on the basis of the score for Impact, and then on that for Excellence.

Proposals submitted under these topics should include a business case and exploitation strategy, as outlined in the Introduction of this part of the Work Programme.

### 4. Indicative time for evaluation and grant agreements:

Information on the outcome of evaluation (single-stage call): maximum 5 months from the deadline for submission.

Signature of grant agreements: maximum 8 months from the deadline for submission.

### 5. Proposal templates, evaluation forms and model grant agreements (MGA):

Research and Innovation Action:

Specific provisions and funding rates

Standard proposal template

Standard evaluation form

General MGA - Multi-Beneficiary

Annotated Grant Agreement

## 6. Additional provisions:

Horizon 2020 budget flexibility

Classified information

Technology readiness levels (TRL) – where a topic description refers to TRL, these definitions apply

Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement.

## 7. Open access must be granted to all scientific publications resulting from Horizon 2020 actions.

Where relevant, proposals should also provide information on how the participants will manage the research data generated and/or collected during the project, such as details on what types of data the project will generate, whether and how this data will be exploited or made accessible for verification and re-use, and how it will be curated and preserved.

Open access to research data

The Open Research Data Pilot has been extended to cover all Horizon 2020 topics for which the submission is opened on 26 July 2016 or later. Projects funded under this topic will therefore by default provide open access to the research data they generate, except if they decide to opt-out under the conditions described in Annex L of the Work Programme. Projects can opt-out at any stage, that is both before and after the grant signature.

Note that the evaluation phase proposals will not be evaluated more favourably because they plan to open or share their data, and will not be penalised for opting out.

Open research data sharing applies to the data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available open access and need to describe their approach in a Data Management Plan.

Projects need to create a Data Management Plan (DMP), except if they opt-out of making their research data open access. A first version of the DMP must be provided as an early deliverable within six months of the project and should be updated during the project as appropriate. The Commission already provides guidance documents, including a template for DMPs. See the Online Manual.

Eligibility of costs: costs related to data management and data sharing are eligible for reimbursement during the project duration.

The legal requirements for projects participating in this pilot are in the article 29.3 of the Model Grant Agreement.

## 8. Additional documents:

1. Introduction WP 2018-20

5. Introduction to Leadership in enabling and industrial technologies (LEITs) WP 2018-20

5ii. Nanotechnologies, advanced materials, advanced manufacturing and processing, biotechnology WP 2018-20

10. Secure, clean and efficient energy WP 2018-20

20. Cross-cutting activities WP 2018-20

General annexes to the Work Programme 2018-2020

Legal basis: Horizon 2020 Regulation of Establishment

Legal basis: Horizon 2020 Rules for Participation

Legal basis: Horizon 2020 Specific Programme

**Call Budget:** 6000000,00€

Co-funding type:

**Co-funding type:** € euro

**Co-funding euro maximum:** 6 000 000,00 €

**Opening date:** 03 Jul 2019

**Deadline date:** 05 Feb 2020

**Field:** Innovation

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