

The Elsevier Foundation-ISC3 Green & Sustainable Chemistry Challenge

Criteria for the Scientific Prizes

Projects will be reviewed according to the following criteria:

- The proposal clearly describes the urgency of the problem. Provide a description of the project background and include a description of the broader context and highlight how the project links to the United Nation Sustainable Development Goals (SDGs).
- The project utilizes innovative green and sustainable chemistry approach. Specifically, the project:
 - Reduces or eliminates the use or generation of one or more hazardous substances or materials
 - Provides a more sustainable use of resources (e.g., bio-, minerals, metals but also water, energy), or products, or more sustainable manufacturing/ application of chemical products
 - Increases longevity, increases reuse or recyclability of chemicals/products e.g. by proper design or manner of application etc.,
 - Designs a new business model related to green and sustainable chemistry and circular economy.
 - Complies with at least two of the [12 principles of green chemistry](#) (if synthesis of products is involved, comply with at least 3 principles). Specify which ones.
- The project is replicable, scalable, sustainable (make sure to specify why), and sets a benchmark for innovation – new ideas or concepts in development will be given preference over more advanced projects.
- The proposal highlights the novelty of your approach and gives a short literature overview of what has been done before, both by you and others (“background”).
- The project is applicable in and suitable for developing countries. Describe the project’s social impact on local communities, including gender equality either in design or implementation.
- Include an implementation plan of the project. Please note that if the project has been developed in a high-income country, contextually appropriate knowledge transfer to the lower income country is needed to be demonstrated, for instance through a developing country implementation or research partner. If the idea presented is already patented it will not be eligible. Patents resulting from the work in case of executing the awarded project will be possible anyway.

Criteria for the Entrepreneurial Spirit Prize

Innovation/Start-ups will be reviewed according to the following criteria:

Background and relation to SDGs:

- Is the urgency of the problem described well? How does the innovation strive to solve the issue?
- The Innovation/startup background should also include a description of the broader context and highlight the links to the [United Nation Sustainable Development Goals](#) (SDGs). How does the innovation comply with at least 2 SDGs (most relevant to us are 6,7,9,11,12,13,14 or 15) and, if applicable, to at least 2 [principles of Green Chemistry](#)?
- How does the innovation/startup relate to green and sustainable chemistry and/or circular economy? Innovative green and sustainable chemistry approaches should be highlighted: (e.g. Reduction/ elimination of the use or generation of one or more hazardous substance or material). How are resources more sustainably used (e.g., bio-, minerals, metals but also water, energy).

Time to market, Partners:

- What is the stage of development of the startup? How far is it in terms of organization and financial support? What is the status of the innovation in terms of realization and market entry? Is the technical maturity sufficiently advanced for the current stage of entrepreneurship? Has the market size and transformation potential been identified?
- Why is the approach novel? Is the current state of the art presented and the innovation's advantages and USP's are clearly shown - what are the USPs against competing solutions?
- Has the partner network been shown - what are the value chain partners?

Transformative potential:

- The innovation should be replicable, scalable, sustainable, and set a benchmark for innovation – more advanced projects will be given preference over new ideas or concepts in development.
- How is the innovation suitable for use in developing countries? Have the project's social impact on local communities, including gender equality either in design or implementation be considered?
- Practical applicability is key – include an implementation plan. Please note that if the project has been developed in a high-income country, contextually appropriate knowledge transfer will need to be demonstrated, for instance through a developing country implementation partner

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