

Advancing Entrepreneurship and Start-up Initiatives for Sustainable Chemistry: Learning from Case Studies

A workshop organized by UN Environment and the International Sustainable Chemistry Collaborative Center (ISC₃) on 14 September 2017 back-to-back with the 150th Anniversary of the German Chemical Society, 12-13 September 2017

14 September 2017, Berlin, Germany

Concept Note and Invitation to Express Interest for Participation

Deadline to Submit Expression of Interest: 21 July 2017

Summary

UN Environment and the International Sustainable Chemistry Collaborative Center (ISC₃) will be in a position to support 6-8 young international entrepreneurs engaged in green and sustainable chemistry start-up companies to participate in two back-to-back events taking place in Berlin, Germany which seek to advance a new innovation age for sustainable chemistry. The two events include a one-day case study workshop on 14 September 2017 (introduced in this concept note), as well as a 24-hour Hackathon which takes place in the context of the 150th Anniversary of the German Chemical Society, 12-13 September 2017. Selected participants will have the opportunity to participate in and will be sponsored for both events. Further details about the application process can be found below

1. Background and Context

Global momentum around the concept of sustainable chemistry is growing. In 2016, the concept was recognized for the first time by the United Nations Environment Assembly and work has commenced at the global level to identify best practices. Important measures to advance sustainable chemistry are being taken by governments, the private sector, intergovernmental organizations, the research community and civil society. They include, for example, the launch of the International Sustainable Chemistry Collaborative Center (ISC₃) in Germany, or the adoption of sustainable chemistry policies and substitution initiatives by chemical companies and retailers.

An important dimension of sustainable chemistry is to scale up research, innovation and entrepreneurship to develop new and safer chemicals and production processes that significantly reduce negative impact of hazardous chemicals currently on the market. Start-up initiatives and companies can be a strong driver to nurture momentum towards sustainable chemistry, and help

close the gap between science, innovation and business application. Yet, while certain sectors, such as the IT sector, are known for a thriving start-up scene, start-up initiatives in area of green and sustainable chemistry are less developed. One reason for this, amongst others, may be the need to put in place a sophisticated laboratory infrastructure, as well as related financing needs.

One of the topics pursued by the Global Chemicals Outlook-II, mandated by United Nations Environment Assembly (UNEA) in 2016, is to collect state-of-the-art knowledge and identify determinants which may advance (or impede) innovation to advance sustainable chemistry, including through start-up companies. Also in 2016, the United Nations Environment Assembly invited countries, international organizations and other interested stakeholders, including the private sector, with relevant experience with the issue of sustainable chemistry, to submit best practices in 2017, indicating how these may enhance the sound management of chemicals.

2. Goal and Objectives

The overall aim of the workshop is to advance at international level in scaling up innovation for sustainable chemistry and identify opportunities for action in this area. By bringing together green and sustainable chemistry entrepreneurs from developed and developing countries, together with other relevant experts, the workshop will present and review case studies with the goal to identify lessons learned and generate policy relevant knowledge. Workshop outcomes will feed into UN Environment's work on the update of the Global Chemicals Outlook in 2018, and other possible activities at the international level organized by UN Environment, the ISC₃, and other partners.

Specific objectives of the workshop include:

- Review selected start-up initiatives and their potential to advance sustainable chemistry
- Facilitate understanding what constitutes a green or sustainable chemistry start-up initiative
- Identify key determinants that advance or impede successful start-up initiatives
- Identify issues which are of particular relevance in advancing green or sustainable chemistry start-up initiatives in developing countries
- Explore opportunities for further work at the global level

3. Participants

The Workshop will bring together approximately 10-15 participants leading (or supporting) sustainable and green chemistry start-up initiatives, including

- 3-4 entrepreneurs from developed countries (e.g. Europe/North America)
- 3-4 entrepreneurs from developing countries
- Other relevant representatives from the private sectors (e.g. financing)

- Representatives of selected international organizations
- Selected experts

UN Environment and ISC₃ will be able to provide travel support to a small number start-up company representatives, with a focus on developing countries. Participants from start-up companies will be identified following a review of a statement of interest (please see below). Sponsored participants will also be supported to join the Hackaton event taking place during the 150th anniversary of the German Chemical Society.

4. Programme and Methodology

The workshop will use a case study approach. Participants will have the opportunity to share their start-up case studies in the field of green and sustainable chemistry. Case studies will be discussed in an open and interactive manner in order to extract insights and lessons learned. Case studies will feature both initiatives that are already successfully operationalized and may include concepts still under development.

The one-day workshop will include the following sessions:

- *Session 1: The context of green and sustainable chemistry*
- *Session 2: Knowledge-sharing about sustainable chemistry start-up initiatives*
- *Session 3: Extracting determinants of success and generating policy insights*
- *Session 4: Identifying opportunities for further work and follow-up*

For additional outline on the scope of each session, please see the Annex.

5. Partners

The workshop is jointly organized by UN Environment, Economy Division, Chemicals and Health Branch and the International Sustainable Chemistry Collaborative Centre (ISC₃) in cooperation with the German Chemical Society and the Freie Universität Berlin.

6. Expression of Interest

Entrepreneurs interested in participating in the workshop and presenting their start-up initiatives as well as lessons learned should send a brief statement of interest to UN Environment by 25 July 2017. The statement should include the following:

- Brief description of the start-up initiative
- Brief explanation how it contributes to advancing green or sustainable chemistry
- Brief analysis why the initiative generates interesting lessons learned

The expression of interest is expected to be no longer than 1 page in length. Selected candidates would be ready to present the case study at the workshop and submit the case study as a brief background document for the workshop.

7. Logistics

The workshop will take place in Berlin, Germany, on 14 September 2017. It will be held back-to-back with the 150th Anniversary of the German Chemical Society which will feature a 24 hour Hackathon event which will identify action for stakeholder groups to promote a new sustainable chemistry innovation age in Germany, which will be held on 12-13 September 2017. All international participants sponsored for the UN Environment/ISC3 workshop on 14 September will have the opportunity to participate in the Hackathon taking place from 12-13 September. For more information, please contact gco@unep.org.

Annex: Draft Outline of the Workshop Sessions**Session 1: The context of green and sustainable chemistry**

- Discuss the growing momentum around green and sustainable chemistry, including the international policy context
- Share summary insights from the start-up company Berlin Hackaton event

Session 2: Knowledge-sharing about sustainable chemistry start-up initiatives

- Present and review case studies of selected start-up initiatives
- Clarify what constitutes a green or sustainable chemistry start-up initiatives

Session 3: Extracting determinants of success and generating policy insights

- Identify common characteristics of successful start-up initiatives
- Identify elements of an enabling environment for successful start-up initiatives as well as lessons learned from unsuccessful initiatives

Session 4: Identifying opportunities for further work and follow-up

- Exchange ideas for future activities at the global level to advance entrepreneurship and startup initiatives
- Recapitulate the main outcomes of the workshop and agree on next steps