

## Driving transformation towards sustainable chemistry through innovation and entrepreneurship - The ISC<sub>3</sub> Global Start-Up Service

The International Sustainable Chemistry Collaborative Centre (ISC<sub>3</sub>) is a new independent, international centre dedicated to shaping the transformation towards sustainability in the chemicals sector. By promoting the emerging concept of sustainable chemistry as a new holistic approach, the ISC<sub>3</sub> thrives to contribute to an ambitious framework for the Sound Management of Chemicals and Waste beyond 2020 as well as to the 2030 Agenda for sustainable development and its goals (SDGs). In this endeavour, the centre promotes sustainable chemistry innovation based on the understanding that we need to assess the whole life cycle of products, foster chemical solutions which are benign-by-design and promote new sustainable business models and services.<sup>1</sup>

### A new programme to accelerate transformative innovation in the chemicals sector



Through its Innovation Hub, hosted by DECHEMA e.V.<sup>2</sup>, the ISC<sub>3</sub> initiates and supports sustainable innovation and entrepreneurship in the chemicals and chemicals-related sectors. Acting as an innovation promoter, the ISC<sub>3</sub> Innovation Hub aims to shape the transformation towards sustainability across countries and along value chains whenever chemicals are applied. Jointly with a global network of partners, the ISC<sub>3</sub> catalyses tech transfer from science to industry and between regions and countries. At the heart of the innovation activities lies the ISC<sub>3</sub> Global Start-up Service with its goal of supporting entrepreneurs in becoming Sustainable Chemistry Changemakers. The main objective of the ISC<sub>3</sub> Start-up Service is to contribute to the global breakthrough of sustainable chemistry by supporting innovators along the entire innovation chain.

The ISC<sub>3</sub> Global Start-up Service addresses primarily innovators with either academic or private sector background in sustainable chemistry-related fields at the global, regional and local level. It targets students, researchers, professional staff in research institutions (ideators) as well as innovators at later stages of the innovation chain (early-stage innovators, grown-up start-ups). While the programme is implemented globally, a special focus are the needs of entrepreneurs at the early development stage and in developing countries and emerging economies. The rationale for this focus is the potentially high leverage effect of sustainable chemistry innovation in those regions, recognizing the global shift of chemicals production and consumption towards the Global East and South. The ISC<sub>3</sub> aims to address this issue by establishing a new global service programme based on four inter-related aspects: sustainability, chemistry, global reach, and tailored support.



<sup>1</sup> For further information on the ISC<sub>3</sub> and the emerging concept of sustainable chemistry please see the ISC<sub>3</sub> paper "Reaping the full potential of sustainable chemistry for SAICM, the Sound Management of Chemicals and Waste beyond 2020 and the 2030 Agenda", submitted as a contribution to the SAICM OEWG, Third Meeting, Montevideo, 2-4 April 2019

<sup>2</sup> DECHEMA e.V., Society for Chemical Engineering and Biotechnology, Frankfurt, Germany

## Support for sustainable chemistry changemakers along the innovation chain

While the main focus of the GSS is on the support of start-ups at an early development stage, the ISC<sub>3</sub> Innovation Hub also aims at providing services for ideators who have not yet founded a company, and grown-up start-ups. Since entrepreneurs in different development stages have different needs, and the content of services differs along the innovation chain, the hub clusters its services around the three following action fields:

**DISCOVER:** supporting inventors to discover new ideas and turning their ideas into early-stage innovations; this can be achieved e.g. via awareness-raising events, capacity-building of students, incubation programmes, hackathons etc.

**CREATE:** supporting entrepreneurs to develop concrete marketable value based on first ideas; this includes supporting innovators with a business idea related to sustainable chemistry to make the next steps towards market entry and market penetration.

**EXPAND:** providing support of innovators in their expansion and commercialisation strategies.

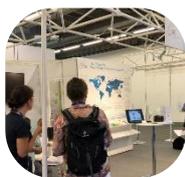
Services provided can include the following items<sup>3</sup>:



- Online Library, including an overview of publicly available information such as articles, tutorials and tools
- Sustainable Chemistry Toolbox providing customized guidance
- Specific ideation-related services as awareness-raising events and webinars
- Networking and matchmaking services across sectors and value chains: peer-to-peer, b2b/ b2c, between innovators and investors



- Facilitation of contacts to international experts and advisors
- Conduct of pitching and showcasing events
- Engagement in ISC<sub>3</sub> projects
- Support of drafting of grant applications and for access of funding opportunities
- Support in accessing lab infrastructure and understanding industry needs
- Providing opportunity to present the idea / start-up on ISC<sub>3</sub> communication channels



The standard approach of service delivery is “pro bono” and by means of providing immaterial benefits to innovators respectively. In addition, services may also include direct or indirect financial support, e.g. reimbursing travel costs, covering participation.

## A new global network to promote sustainable chemistry innovation

In order to reach out to entrepreneurs in all regions of the world, the ISC<sub>3</sub> is setting up a global network of multipliers. The ISC<sub>3</sub> Spiderweb Network represents the vision of a growing network of organisations and individuals with a shared vision of sustainable chemistry as an important contribution to the SAICM agenda, the Sound Management of Chemicals and Waste beyond 2020 as well as to the 2030 Agenda for sustainable development and its goals. Its actors foster the support of innovators in their regions, mobilise resources and knowledge towards sustainable chemistry and empower other players, in particular start-ups, to join the community. The ISC<sub>3</sub> Innovation Hub is currently looking for partners in all world regions to support sustainable chemistry changemakers.

<sup>3</sup> The list of services has been developed based on feedback provided by start-ups at different national, regional and global events, including a joined ISC<sub>3</sub>/ UN Environment start-up workshop (September 2017), a start-up session at the Third Green and Sustainable Chemistry Conference (May 2018), a start-up session at the ACHEMA (June 2018), a side event at the DAAD Tunisia Sustainable Agriculture and Sustainable Chemistry workshop (November 2018), etc.