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The International Sustainable Chemistry Collaborative Centre: Contributing to the UN Sustainable Development Goals and the Strategic Approach to International Chemicals Management through Sustainable Chemistry Innovation

1. The secretariat has the honor to provide, in the annex to the present note, submitted by the International Sustainable Chemistry Collaborative Centre (ISC_3); '*The International Sustainable Chemistry Collaborative Centre: Contributing to the UN Sustainable Development Goals and the Strategic Approach to International Chemicals Management through Sustainable Chemistry Innovation*'.

2. The document is presented as received by the secretariat, without formal editing.

Annex

The International Sustainable Chemistry Collaborative Centre: Contributing to the UN Sustainable Development Goals and the Strategic Approach to International Chemicals Management through Sustainable Chemistry Innovation

Submitted by the International Sustainable Chemistry Collaborative Centre (ISC_3)

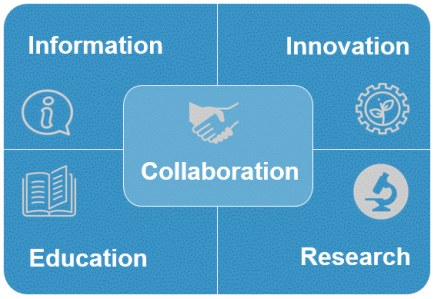
The International Sustainable Chemistry Collaborative Centre: Contributing to the UN Sustainable Development Goals and the Strategic Approach to International Chemicals Management through Sustainable Chemistry Innovation

The **International Sustainable Chemistry Collaborative Centre** (ISC_3) is a new independent, international institution promoting and developing sustainable chemistry solutions worldwide. Sustainable chemistry is the single largest opportunity **to transform the chemicals sector** and move entire supply chains towards sustainable **circular economy** models, avoiding waste, hazardous chemicals, and making better use of natural resources. The emerging concept aims to establish a **new system thinking** based on a circular approach and focusing on the entire **life cycle of products**. Sustainable Chemistry promotes the use of **environmentally and socially friendly** alternatives and supports **economic innovation**. Delivered at scale, it implies new business opportunities, new jobs, and a key contribution to the **UN Sustainable Development Goals** (SDGs) as well as to the **Strategic Approach to International Chemicals Management** (SAICM). The ISC_3 is committed to shape this transformation in cooperation with all stakeholders.

The ISC_3 is a globally acting **independent institution**, **multi-stakeholder platform** and **think tank**. It manages a knowledge platform with a network of experts and offers training and support especially for developing countries. The centre discusses **new policies** and carries out innovation scouting activities to foster **innovation** and create new **business models,** especially in the **developing countries**. As an independent **dialogue partner,** the ISC_3 engages with stakeholders from all sectors to develop **new solutions** for the many challenges of sustainable development and the SAICM approach beyond 2020.

Collaboration, Innovation, Education, Information and Research scaling up Sustainable Chemistry

The ISC_3 is a **catalyst for sustainable chemistry** and acts on five levels: collaboration, innovation, education, information and research. It connects stakeholders from the private sector, science and research as well as civil society and politics to develop a **transformative agenda** enabling sustainable chemistry to contribution to the international processes on the **sound management of chemicals and waste** and a pollution-free planet as well as to the implementation of a circular economy and the SDG's.



The ISC_3 creates a globally acting **think tank** and inspiring **dialogues,** thereby strengthening international discussion on the sound management of chemicals and waste as well as enabling co-creation and transformative collaboration on new solutions. It fosters **sustainable innovation** by promoting research, new business ideas and start-ups in developing countries and emerging markets as well as in industrialized countries. Furthermore, ISC_3 currently develops a **research agenda** on sustainable chemistry together with partners from developed and developing countries. The centre monitors trends in research and contributes to the global scientific discussion on sustainable chemistry issues. To actively **shape transformation** in the chemicals sector the ISC_3 is setting up joint **workstreams** with stakeholders. By promoting **cross-sectoral dialogue and collaboration** the ISC_3 helps to inspire **decision-makers** for sustainable values and raises awareness for the responsible use of chemicals and the potential of sustainable innovation – in business, politics and science.

Collaboration: Global Scenario Process and Workstreams

The ISC$_3$ connects relevant **stakeholders** from all sectors enabling them to promote sustainable chemistry easier and faster. Several workstreams will be initiated over the next years inviting all interested parties to join. The workstreams will address **topics regarding the SDGs** as well as **cross-cutting issues** such as: Sustainable Chemistry & Climate Change; Sustainable Chemistry & Buildings and Living; Sustainable Chemistry & Mobility as well as Circular Economy and Digitalization (Chemistry 4.0) and many more.

The workstreams will be prepared with workshops in the frame of a **global scenario process** which will be initiated later in 2018, inviting experts to debate how sustainable chemistry impacts our future: What kind of chemical products and chemical production processes do we need to shape a sustainable future? What are the societal, economic and political implications of sustainable chemistry? In what areas are chemical innovations key to achieving the SDGs? These and other questions will be addressed in dialogue-based scenarios, with the aim of delivering expert validated outcomes. They should provide an opportunity for civil society to voice expectations and concerns, help industry players in the refinement of their strategy and investments, provide input to policy makers in the shaping of regulatory frameworks and instruments, and they should spur further research.

Innovation: Global Start-up Service and Funding

Innovative solutions to combat and prevent pollution in the areas of mobility, energy, urbanisation, and agriculture very often originate in the chemical sector, its research community and in start-up companies. Examples are the replacements for fossil fuels, new energy storage systems and new construction and insolation materials. However, **innovative solutions**, that are able to contribute to a **pollution free planet**, do not find their way easily to the markets. ISC$_3$ has therefore initiated a new global start-up service and network to identify and **support start-up companies** in the developed as well as in the developing countries. In the first phase, the start-up service will provide communication support, network events, trainings and access to investors.

The **ISC$_3$-Innovation Hub** will initiate and support innovation in the field of sustainable chemistry to contribute to the urgent societal challenges. Starting from **R&D projects**, the ISC$_3$-Innovation Hub will catalyse **tech transfer** from science to industry and to the developing countries. Furthermore, the Innovation Hub will support potential entrepreneurs by evaluating innovative approaches. An international **Innovation Award** will shine the light on outstanding projects all over the world, providing both an incentive and a showcase for the best innovations in the field of sustainable chemistry.

Education: International School and Capacity Development

Sustainable Chemistry has the potential to become a game changer for all industries. In order to reach scale, sustainable chemistry needs to be able to rely on the sound knowledge of executives, researchers and practitioners. To scale up sustainable chemistry knowhow the **ISC$_3$-Research Hub** screens, assesses, develops and implements international study programs of sustainable chemistry. For a proper understanding of

Innovation is a key to sustainable development. Achieving the **Sustainable Development Goals (SDGs)** will only be possible by developing and implementing innovative solutions and by transforming our way of consuming and producing.
Chemistry is one major driving force of innovation and crucial for establishing sustainable consumption and production, designing a circular economy, combating climate change, and much more. Unfortunately, the benefits of chemical innovation are in many cases combined with the consumption of vast quantities of raw materials, energy use and pollution by hazardous substances.
ISC$_3$ considers that the emerging concept of **sustainable chemistry** offers a way to strengthen the benefits of chemical innovation - whilst protecting health and the environment. Based on the application of ecological principles in chemical production and by reshaping product design, manufacturing, and consumption of resources in a sustainable way, as well as ensuring health and safety for workers and users, sustainability-based chemical research and production offer broad opportunities for economic progress especially in developing and emerging countries.

Learn more about the concept of sustainable chemistry at www.isc3.org

sustainable chemistry, knowhow about green chemistry, i.e. synthesis and product related topics, needs to be complemented by a broad expertise on circular economy and product life cycle, recycling, feedstock, new business and service models, regulations, international chemicals management, environmental chemistry, toxicology and economics.

With the establishment of the **International School for Sustainable Chemistry** the ISC3 aims at making sustainable chemistry an integral part of scientific and executive education. The ISC3-Research Hub offers scientific **courses and trainings** on a global level and helps interested third parties, such as universities or authorities especially from developing countries, to establish similar programs in their institutions. Furthermore, the ISC3-Research Hub holds the **Summer School on Sustainable Chemistry** each year, which addresses not only academia but also aims to interlink young academics with professionals from authorities, industry, and non-governmental organisations. The summer school is accompanied by the annual scientific **Conference on Green and Sustainable Chemistry**.

The ISC3 was established in May 2017 by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety as a contribution to the international processes on the sound management of chemicals and waste and in particular to the Strategic Approach to International Chemicals Management (SAICM). The ISC3 is presently hosted by GIZ - the German Development Cooperation.

The ISC3 Headquarters are located in the UN-City Bonn, Germany. The centre has established a Research Hub at the Leuphana University of Lüneburg and an Innovation Hub at DECHEMA in Frankfurt a.M. Regional Hubs across all continents will be established over the next years to achieve global impact. The first Regional Hub will be established at the University of Massachusetts Lowell (USA) with the mission to reach out to the Americas.

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Upcoming Events

International Workshop Series in Cooperation with UN Environment

ISC3 and UN Environment are organising a series of regional expert workshops to understand trends, risks and opportunities relevant for sustainable chemistry innovation and the development of the next Global Chemicals Outlook II.
The first workshop focussed on the African region and took place in Nairobi, Kenya, on 7-8 March 2018.
The second workshop will focus on the European region and take place in Frankfurt a. M., Germany, on 26-27 March 2018.
Two more workshops will follow in April focussing on the Americas (12-13 April, Panama) and the Asian Region (25-26 April, Bangkok).

3rd Green and Sustainable Chemistry Conference, 13-16 May 2018 in Berlin

Chaired by ISC3 Scientific Director Klaus Kümmerer, the conference brings together international researchers from academia and industry, from authorities and other institutions to communicate and share the latest developments across the fields of green and sustainable chemistry. Special features of this conference will be the Elsevier Foundation Green and Sustainable Chemistry Challenge and a Start-up Workshop hosted by the ISC3-Innovation Hub.

4th Summer School on Sustainable Chemistry, 24-28 September 2018 at Leuphana University

The Summer School on Sustainable Chemistry will provide the participants with an understanding of the latest developments of the concepts of sustainable chemistry and chemicals management. The program of the summer school includes a theoretical part (lectures) and practical exercises/case studies, group discussions and an excursion to exemplify important aspects of sustainable chemistry.

1st ISC3 Stakeholder Forum, 25-26 October 2018 in Frankfurt a.M

The ISC3 Stakeholder Forum will provide stakeholders from all sectors with the opportunity to discuss sustainable chemistry issues and engage with the ISC3 experts on the activities of the centre.

For more information visit our website www.isc3.org and follow us on: twitter facebook YouTube **#ISC3**