



Start-up Slam for Sustainable Chemistry at ACHEMA 2022

International Sustainable Chemistry Collaborative Centre (ISC3) presents innovative solutions of twelve Start-ups at ACHEMA in Frankfurt am Main

Reversible fuel cells for clean energy, bioplastics made from starch, and secondary raw materials by innovative recycling process of waste diapers – these are just some of the many fledgling ideas for Sustainable Chemistry being showcased by the [International Sustainable Chemistry Collaborative Centre \(ISC3\)](#) at ACHEMA in Frankfurt am Main (B73, 6.0/Green Innovation Zone) from August 22 to 26, 2022. The ISC3 was founded on the initiative of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV, formerly BMU) and the Federal Environment Agency (UBA) and it is implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and supported by DECHEMA and the Leuphana University.

At ACHEMA the ISC3 will focus on innovative ideas for Sustainable Chemistry. Among other things, two start-up companies will be showcased at the booth each day. They will present their solutions for a more sustainable world, some of which have already been features as “Start-up of the Month” as part of the [ISC3’s Global Start-up Service](#). The International Collaborative Centre will also be hosting an ISC3 and Friends Pitch Slam from 10:30 a.m. to 1 p.m. on Wednesday, August 24, 2022. Together with three partner organizations – Forum Startup Chemie and 5-HT from Germany, as well as Brightlands from the Netherlands – the ISC3 will introduce twelve start-ups from Brazil, Germany, Estonia, Finland, France, Kenya, Colombia, and the Netherlands who will showcase their ideas on the Innovation Stage in Hall 6.0.

“Together with the Research and Education Hub, our Innovation Hub’s Global Start-up Service is a cornerstone of the ISC3’s activities and a unique source of knowledge and innovation that can make a substantial contribution to a more sustainable future,” reports Dr. Alexis Bazzanella, Director of the ISC3 Innovation Hub. The Global Start-up Service is the world’s first program to offer innovators in the field of Sustainable Chemistry comprehensive support. The list of the young companies which have been supported since 2018 illustrates the immense creativity and innovative capacity of company founders all over the world. “To overcome the global challenges and achieve the goals of the United Nations’ 2030 Agenda, a rethink is needed in the chemical industry and all its related sectors. Our Global Start-up Service supports innovative solutions and thus contributes to this process,” says Dr. Thomas Wanner, Managing Director of ISC3.

The ISC3’s joint booth with Start-ups from Brazil, Germany, Estonia, Finland, France, Kenya, and Colombia will be located in Hall 6.0 at ACHEMA. The “Green Innovation Zone” will focus on the

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challenges and solutions on the way to achieving climate-neutral production. Pioneers, experts, and providers of solutions from industry, politics, and science will come together with decision makers and users. Alongside climate-neutral production, the key topics will be Industrial Water, Circular Economy, Sustainable Chemistry, and Biobased Economy. In addition to the Start-up Slam, the ISC3 invites companies and trade visitors to a discussion of its focus topic in 2022, “Sustainable Chemistry for Sustainable Energy”.

ISC3 and Friends Pitch on the Innovation Stage at ACHEMA 2022

Twelve Start-ups chosen from the ISC3 Global Start-up Service as well as of three partner organizations – Forum Startup Chemie, 5-HT from Germany, and Brightlands from the Netherlands – will present twelve solutions for a sustainable future on the Innovation Stage in Hall 6.0 from 10:30 a.m. to 1 p.m. on Wednesday, August 24, 2022:

UP Catalyst is an Estonian technology Start-up which uses CO₂ rich flue gases from heavy industry emitters as a feedstock for producing sustainable carbon nanomaterials and graphite, a critical raw material both in the EU and the US. www.upcatalyst.com

Reverion enables an emission-free future and ensures a successful energy transition. The technology reaches electrical efficiencies of 80% and stabilizes the power grid in electrolysis mode. www.reverion.de

Biosolvit is a biotechnology company applied to sustainability, currently structured into three main areas: research and development of new materials, and industrialization of products for the preservation of flora and water. www.biosolvit.com

Block solutions has developed environmentally friendly Block-modules made from recycled materials. Modules are used for building sustainable and safe homes for people all around the world. www.block-solutions.com

Packengeers is the only consulting company for industrial packaging. Its own product portfolio with a sustainable packaging concept for solid product enables ecological and economical optimization. www.packengeers.com

NASKA robotics / RockFarm is a scalable carbon removal service for business. Replicator devices absorb CO₂ and generate replicator material. More replicators are available for leasing every year and in your region. www.rockfarm.io

Innoverda is developing new, innovative processes for the pharma and cosmetics industry that substitute toxic and corrosive chemicals. The aim of the French Start-up is to achieve cost and waste reductions. www.innoverda.com

Natupla developed compostable and biodegradable solutions for single-use plastic from cassava starch. Solving the low recyclability problem of PE and LDPE while having a positive social. www.natupla.com

LeafyLife has developed a novel and sustainable chemical process to recycle waste diapers in an energy-efficient way. The technique enables the diversion of diapers from landfills and produces secondary raw materials, fostering the circular economy. www.leafy-life.com

Carbonauten from Germany is developing a system for industry, companies, and municipalities that reduces carbon emissions and costs. One of its aims is to reduce greenhouse gases by gigatons starting in 2022. www.carbonauten.com

Sypox from Germany offers new technologies to electrify chemical processes. The technologies rely on a simplified design viable for both small modular applications and big industrial plants. www.sypox.eu

ReSolved Technologies from the Netherlands is developing solvent-based technologies for recycling technical plastics and (flexible) PVC. Founded at the end of 2020, the Start-up is based at the Brightlands Chemelot Campus in Geleen. www.resolved-tech.com

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Higher efficiency in the generation of renewable energies: Maximilian Hauck (CTO), Felix Fischer (COO) und Jeremias Weinreich (CPO) from the Start-up Reverion during field trial.
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New processes for the pharma and cosmetics industry: Innoverda innovation team with Dr. Irene Erdelmeier (Founder/CEO, 2. from left) and Sylvain Daunay (Co-Founder and Lab-Head, 3. from left). ©Yann Cainjo



Producing various carbon nanomaterials from CO₂: Dr. Gary Urb (CEO) and Dr. Einar Karu (CTO) in the laboratory. ©UP Catalyst



Innovative, energy-efficient and sustainable. Melvin Kizoto (Co-founder / CTO) and Dennis Muguta (Co-founder / CEO) recycling diapers in the laboratory. ©Dennis Muguta

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About ISC3

ISC3 is an international centre that fosters the transition of the chemical and chemical-related sectors to Sustainable Chemistry, promoting a circular economy that is striving to implement multifaceted aspects of sustainability at every step of the life cycle of products, and changing all stakeholder behavior. Therefore, the Centre takes a multi-stakeholder approach, targeting policy makers, the public and private sectors, academia and civil society. ISC3 contributes globally to international chemicals policy, develops professional and academic trainings, offers advisory services, fosters innovations, supports entrepreneurship and conducts research. The ISC3 is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and supported by Leuphana University Lüneburg as ISC3 Research & Education Hub and DECHEMA - Society for Chemical Engineering and Biotechnology (DECHEMA e. V.) as ISC3 Innovation Hub. The Centre was founded in 2017 on the initiative of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV, formerly BMU) and the Federal Environment Agency (UBA).