

JOINT PRESS RELEASE

Industrial Mass Production Without Negative Impacts:

Start for Life Cycle Impact Zero Project at the Enapter Campus

- Enapter, Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, The Wuppertal Institute and The Institute of Sustainable Nutrition (iSuN) of FH Münster investigate the environmental impacts of the upcoming Enapter Campus in Saerbeck
- The comprehensive life cycle assessment, based on the ISO 14040 standard, has the goal of enabling maximum reduction of negative environmental impacts

Berlin, July 6, 2022. **The electrolyser producer Enapter has set itself the goal of developing its entire production process to run without negative impacts on the environment. As an important step on this journey, it is building the Enapter Campus production facility, which will be powered entirely from renewable energy produced on-site and in the neighbouring Bioenergiepark. The site in Saerbeck, North Rhine-Westphalia, combines electrolyser production, an R&D building, administration and office space, as well as a canteen over 82,000 square metres. Now the company wants to investigate what other measures can be implemented to achieve its “Life Cycle Impact Zero” aspirations – together with researchers from Fraunhofer UMSICHT, The Wuppertal Institute and The Institute of Sustainable Nutrition (iSuN) of FH Münster.**

With the Life Cycle Impact Zero project, started on April 15, 2022, the parties want to develop and apply an especially comprehensive and holistic approach to environmental assessment. This includes chemical manufacturing and electrolyser production, as well as matters like the use of energy and water resources, the generation of waste or the human factor in general. This is intended to cover all interactions between business and people. That includes Enapter’s employees, but also people in upstream and downstream value chains, users of the technology or residents close to the production site. A concept for sustainable employee catering is also being developed.

“On top of this, the project comprehensively explores the recycling of critical raw materials that are essential for electrolysis, which only emphasises the pioneering character of Life Cycle Impact Zero”, says Dr. Henning Wilts, Director of the Circular Economy Division at The Wuppertal Institute.

The basis for all environmental assessment that will be carried out is ISO 14040. The recognised international standard divides the research into four phases: Aim and scope of the study, inventory analysis, impact assessment, as well as interpretation. Sensitivity analyses and scenario techniques are also used as further methods.

Based on these analyses, the 18-month project should derive concrete measures to avoid negative environmental impacts completely, if possible, for example in production, employee mobility or in energy supply. Furthermore, it will examine whether these measures are transferable to Enapter’s other locations – such as in Italy. Following on from the project, the steps defined should be implemented by Enapter in the next phase. In the subsequent Phase 3, a renewed analysis is planned. This will determine if the technological innovations achieved by then in the production and use of Enapter’s electrolysers can enable additional ecological improvements.

“Electrolysers are a key component of a future hydrogen economy. We are excited that, together with Enapter and our scientific partners, we can work to anchor this technology regionally and in NRW, and in doing so, advance the achievement of important sustainability goals”, says Jürgen Bertling, Deputy Head of Department Sustainability and Participation at Fraunhofer UMSICHT.

The Life Cycle Impact Zero project is supported by the State of NRW.

More information: <https://wupperinst.org/en/p/wi/p/s/pd/2037>

About Enapter

Enapter is an innovative energy technology company that manufactures highly efficient hydrogen generators – known as electrolysers – to replace fossil fuels and thus drive the global energy transition. Their patented and proven Anion Exchange Membrane (AEM) technology enables the mass production of cost-effective plug-&-play electrolysers for green hydrogen production at any scale. Their modular systems are already used in 49 countries across the energy, mobility, industrial, heating and telecommunications sectors. Enapter has its main offices in Italy and Germany.

Enapter AG is listed on the regulated market of the Frankfurt and Hamburg stock exchanges, WKN: A255G0 .

Further information:

Webseite: <https://www.enapter.com>

Twitter: <https://twitter.com/Enapter>

LinkedIn: <https://www.linkedin.com/company/enapter/>

Facebook: <https://www.facebook.com/enapterenergystorage>

About Fraunhofer UMSICHT

Fraunhofer UMSICHT is a pioneer of sustainable energy and raw materials management. The institute is based in Oberhausen, Willich and Sulzbach-Rosenberg. Fraunhofer UMSICHT generated a turnover of more than 57.8 million euros in 2021, with a staff of 608 persons. The Department Sustainability and Participation optimises and assesses products, processes and companies according to economic, ecologic and technical-infrastructural criteria and embeds them in social contexts.

<https://www.umsicht.fraunhofer.de>

About The Wuppertal Institute for Climate, Environment and Energy

The Wuppertal Institute is a leading international think tank for sustainability research focused on impacts and practical application. Founded in 1991, the overriding goal of the Wuppertal Institute is to contribute to the achievement of the global sustainability goals. Its activities are centred on actively developing and showcasing transformation processes aimed at shaping a climate-friendly and resource-efficient future. To this end, its scientists research and develop, among other things, practical models and strategies for politics, the economy and society – at a local level, in Germany, in Europe and around the world.

wupperinst.org

About The Institute of Sustainable Nutrition

The Institute of Sustainable Nutrition (iSuN) of FH Münster works in transdisciplinary research and transfer projects in close cooperation with stakeholders relevant to the field of sustainable nutrition (food industry, trade, gastronomy, consumers, politics, NGOs). The iSuN is characterised by a holistic and comprehensive approach, both in terms of its understanding of sustainability, which considers ecological, health-related, social and economic aspects together, and with regard to the consideration of the entire food value chain.

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