

INERATEC and Ramboll drive industrial production of e-SAF in Europe

Cooperation to expand ERA ONE strengthens integrated production of synthetic aviation fuels and increases Europe's fuel resilience.

Frankfurt am Main / Karlsruhe – INERATEC and Ramboll are expanding their cooperation to further develop industrial e-SAF production. The focus of the cooperation is the expansion of the ERA ONE power-to-liquid plant in Frankfurt-Höchst with an upgrading unit that will convert synthetic raw products into standard-compliant fuels for aviation directly on site. The aim is to further advance the technological integration of the value chain and enable the production of Sustainable Aviation Fuel (e-SAF) on an industrial scale.

The collaboration follows on from the Pre-FEED phase, which has already been successfully completed, and both companies are currently working on the FEED phase (Front End Engineering Design) for the expansion of ERA ONE. The project addresses the upgrading of Fischer-Tropsch crude, a synthetic hydrocarbon mixture produced in the plant, into certified e-fuels, in particular e-SAF. To this end, the process steps isomerization, hydrocracking and distillation will be integrated into the existing production infrastructure.

With the implementation of the upgrading units, INERATEC is expanding its own technological vertical integration. In the future, the conversion of captured CO₂ and green hydrogen to usable synthetic aviation fuel will take place within an integrated production platform. This reduces dependence on external refinery infrastructure and creates conditions for scalable, decentralized fuel production.

"With the further development of our upgrading technology, we are taking the next important step on the way to the industrial production of drop-in-capable e-SAF. The expansion of ERA ONE enables us to take technological control over further process steps in the power-to-liquid value chain and to offer our customers a reliable supply of synthetic fuels in the long term." Dr. Ing. Tim Böltken, Co-Founder & CEO INERATEC

Ramboll brings its international experience in the planning and implementation of complex energy and industrial projects as well as extensive expertise in the field of Power-to-X and sustainable fuels to the project. The partnership combines INERATEC's modular power-to-liquid approach with engineering and project management expertise at an industrial level.

"The decarbonisation of aviation requires high-performance and scalable solutions for the production of sustainable aviation fuels. We are pleased to support INERATEC in the further development of ERA ONE and to jointly create the conditions for the industrial deployment of e-SAF." Anders Nimgaard Schultz, Director PtX & Gas Infrastructure, Ramboll



The project is supported by Breakthrough Energy Catalyst and the European Investment Bank. Both partners promote the commercialization of innovative climate technologies and help accelerate the market introduction of sustainable energy and fuel solutions.

ERA ONE is considered a blueprint for future industrial power-to-liquid plants from INERATEC. The integration of the upgrading technology represents another important step to increase the availability of synthetic aviation fuels, make Europe's fuel supply more resilient and drive the decarbonization of aviation.

About Ramboll

Ramboll is an international engineering, architecture and management consultancy founded in Denmark more than 80 years ago. Worldwide, more than 18,000 experts work as reliable partners on forward-looking projects in the fields of transport & infrastructure, energy, environment & health, building construction, architecture & landscape architecture and management consulting.

As a multidisciplinary provider, we combine local expertise and the technical expertise of more than 1,300 colleagues in Germany with international know-how from 35 countries to develop holistic solutions together with our customers.

Together, we are making a positive contribution to sustainable transformation, the mobility and energy transition and the decarbonisation of industry.

About INERATEC

INERATEC is committed to defossilizing and decarbonizing the world. The company produces e-fuels and e-chemicals: CO₂-neutral substitutes for fossil fuels for use in the aviation, shipping and chemical industries.

The modular, scalable plants use renewable hydrogen and CO₂ to produce synthetic kerosene, gasoline, diesel, waxes, methanol or synthetic natural gas. INERATEC recently opened Europe's largest e-fuels plant to date in Frankfurt, which will produce up to 2,500 tons of particularly low-CO₂ aviation fuel per year in the future.

The company is based in Karlsruhe and is supported by a broad group of international investors. www.ineratec.com

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