

Based in Karlsruhe, Germany
Founded in 2016
Headcount > 60

INERATEC GmbH

INNOVATIVE CHEMICAL REACTOR TECHNOLOGIES

Company Overview



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INERATEC

PROBLEM

WE ARE DEPENDING ON HYDROCARBONS MADE FROM OIL AND GAS



WORLDWIDE ENERGY CONSUMPTION 2035: >55% OIL AND GAS

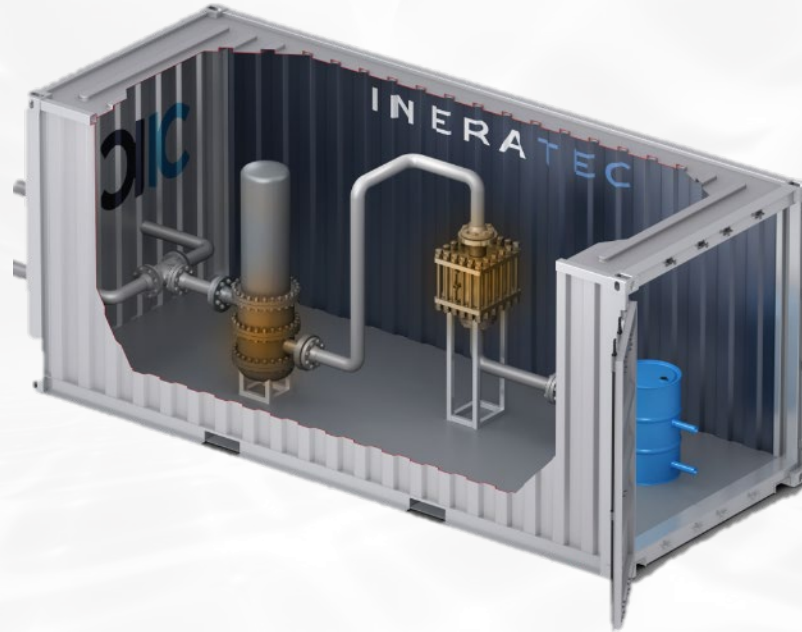
ANNUAL CO₂ EMISSIONS: >35,000,000,000 TONS

SOLUTION

COMPACT CHEMICAL PLANTS THAT PRODUCE RENEWABLE HYDROCARBONS

CH_4
Gas-to-X

$\text{CO}_2 + \text{H}_2$
Power-to-X



Renewable
Fuels and Materials

Greenhouse Gas Recycling by INERATEC[®]

CONVENTIONAL

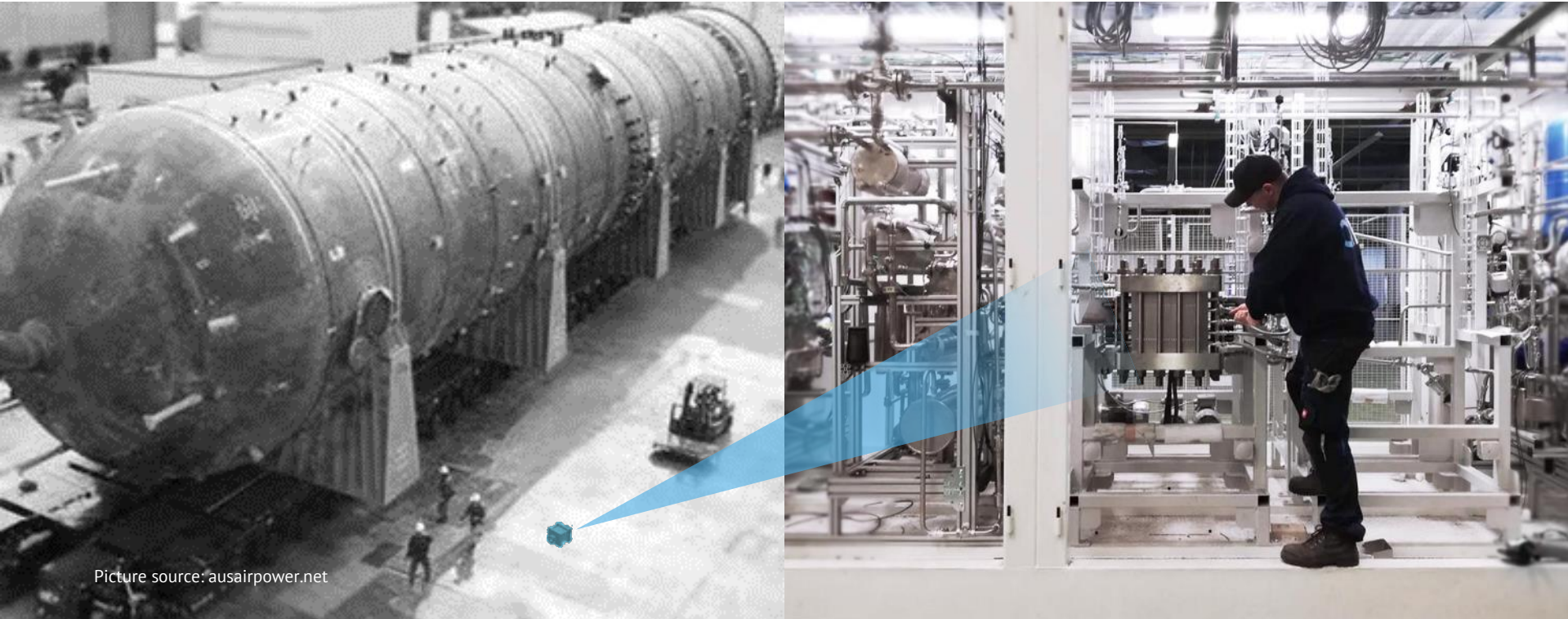
COMPETING TECHNOLOGIES DO NOT MATCH WITH RENEWABLE ENERGIES



Picture source: ausairpower.net

INNOVATION

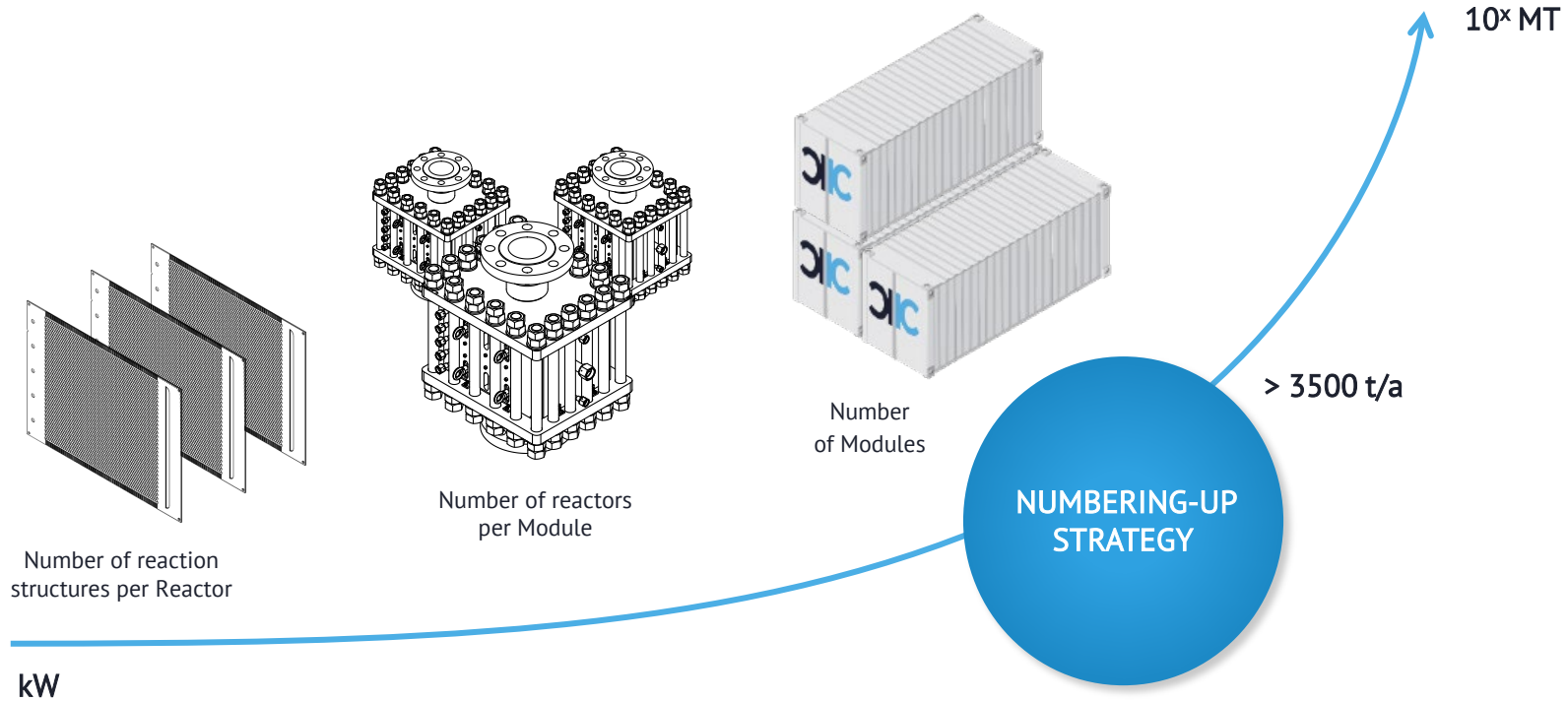
MOST COMPACT CHEMICAL REACTOR TECHNOLOGY IN THE WORLD



Picture source: ausairpower.net

BUSINESS SCALE-UP

NUMBERING-UP



BUSINESS MODEL

PLANT & PRODUCT SALES



SINCE
2016

PLANT SALE



FROM
2020

e-PRODUCT SALE

PtL PIONEER PLANT FRANKFURT HÖCHST

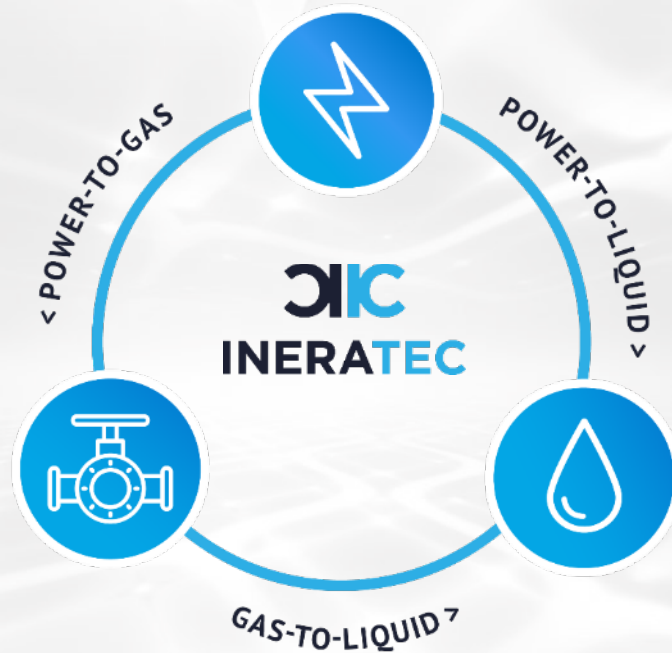
PROJECT STARTING 2020



- > Production Capacity 3500 T/a (Liters 4.35 M)
- > Investment: € 25 M
- > 5 Year off-takes are being negotiated
- > Off-take tender ongoing

PROCESSES

POWER-TO-GAS, POWER-TO-LIQUID AND GAS-TO-LIQUID



REFERENCE




PtL/GtL Project:
Pilot plant installed
in Finland in 2016

REFERENCE



PtG Project:
Methanation pilot plant
near Barcelona in 2018

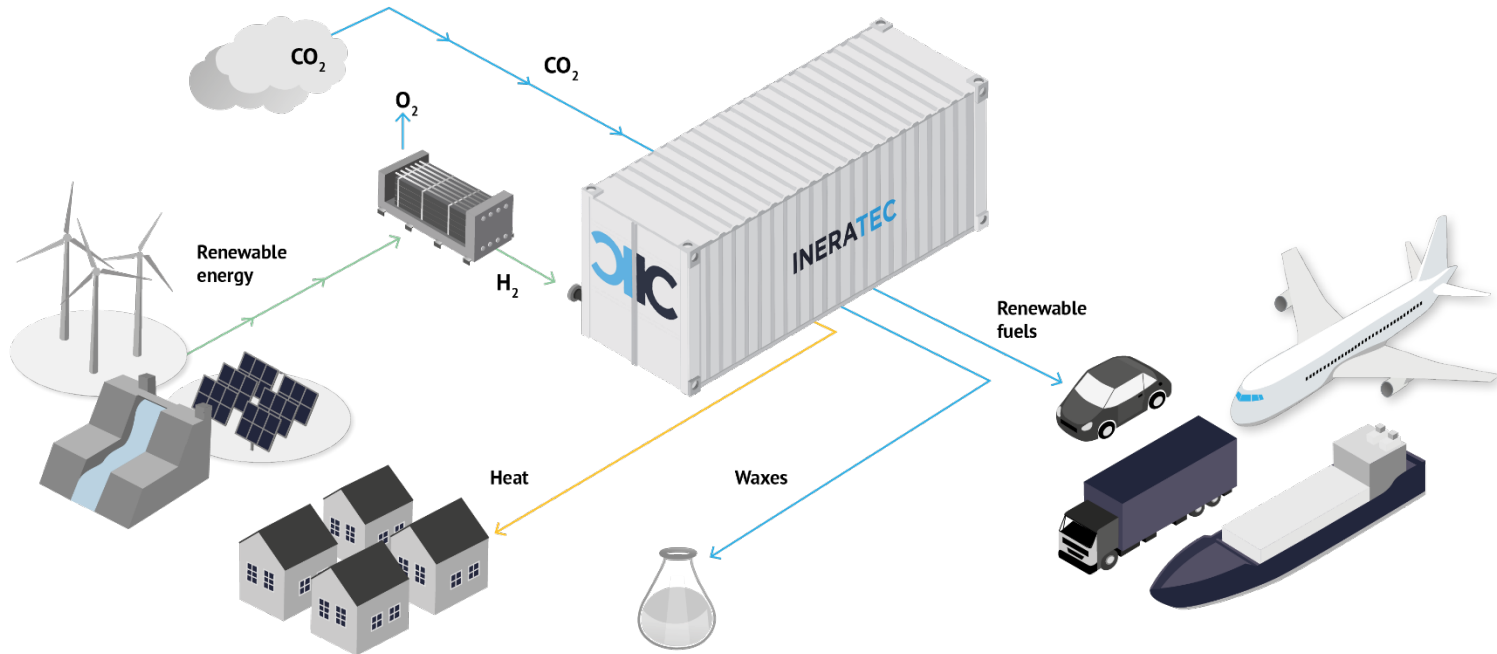
REFERENCE



Power-to-X compound
plant for e-kerosene
synthesis

NEXT STEPS

Industrial-Scale Power-to-Liquid plant for e-kerosene in 2020



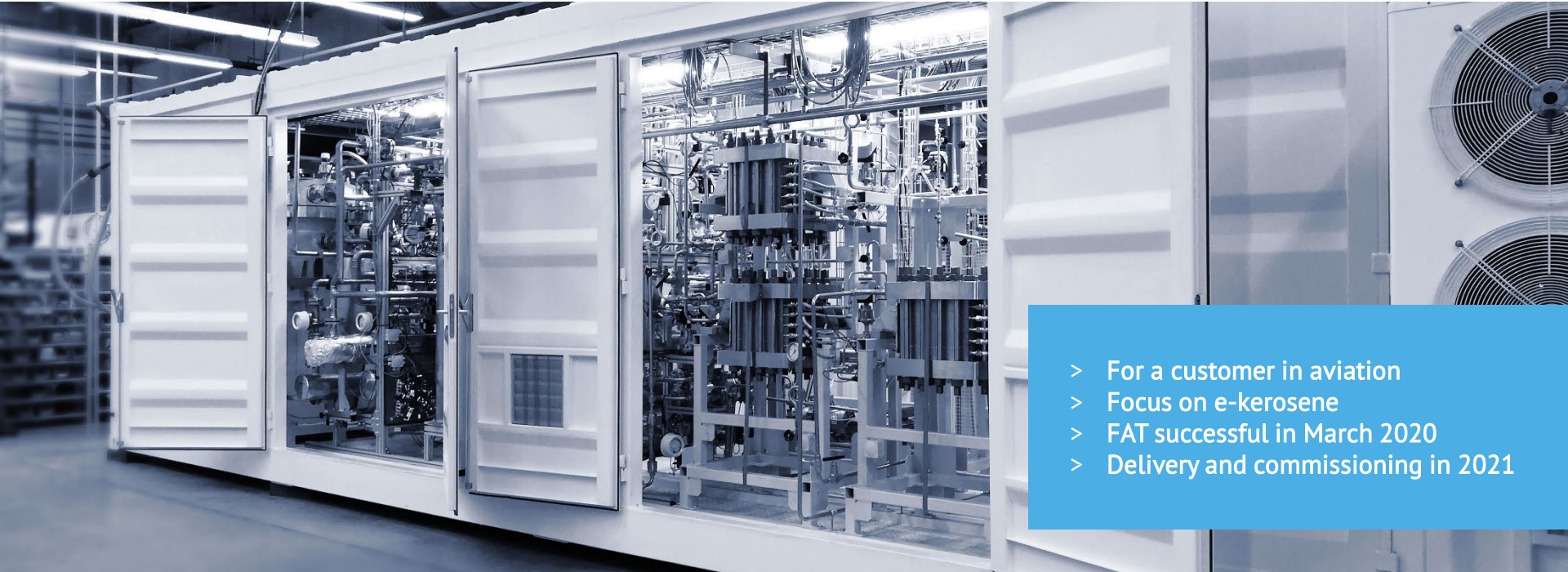
Waste heat from the chemical processes can be used in the industry as well as in residential areas.

Renewable waxes can be applied in the cosmetics-, food- and chemical industry.

Application in various traffic sectors and near to climate-neutral mobility.

INDUSTRIAL SCALE

First PtL module worldwide (350 t/a)



- > For a customer in aviation
- > Focus on e-kerosene
- > FAT successful in March 2020
- > Delivery and commissioning in 2021

INERATEC GmbH

SUSTAINABLE, AFFORDABLE FUELS
& MATERIALS FOR EVERYONE

AWARDS



LOTHAR SPÄTH AWARD | 2018

Für herausragende Innovationen
in Wissenschaft & Wirtschaft

INNOVATIONSPREIS DER DEUTSCHEN GASWIRTSCHAFT 2018

