



# INNOVATIVE FUELS FOR THE INDUSTRY OF TOMORROW

Renewables Everywhere

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# LEADER IN FUELS MADE FROM ELECTRICITY

- Leading provider of solutions to produce fuels and gases from renewable electricity
- Applying superior Solid-Oxide-Cell technology for highest efficiency and low future cost
- Highly competent team of 170 people and prominent investors (e.g. EPC partner for commercial projects)
- More than 60 patent families including »Sunfire process patent« (WO/2008/014854) on PtL



Sunfire technicians at work



# WORLDS FIRST DEMONSTRATION

- Industrial Power-to-Liquid showcase following the Sunfire Power-to-Liquid Process Patent
- Inaugurated in 2014
- More than 3000 kg of fuel produced



Sunfire Electrolyser installed at the Steel Plant of Salzgitter, to be upscaled to MW scale within the GrInHy 2.0 project

# CONTINUOUS VALIDATION

MW scale SOEC to be installed in Leuna (Total) within the E-CO2MET research and development project for green Methanol production





KOPERNIKUS  
PROJEKTE  
Die Zukunft unserer Energie



GEFÖRDERT VOM

Bundesministerium  
für Bildung  
und Forschung

## NEXT STEP IMPROVEMENTS

- Fully integrated process from air to fuel
- Based on Sunfire's SOEC Co-Electrolysis for improved efficiency
- System developed within the framework of the BMBF-funded project Kopernikus Power-to-X



# COMMERCIAL PHASE

- Scale up in Norway by the Norsk e-Fuel Consortium
- Strong consortium including world leading EPC Paul Wurth
- 8000 t/a production capacity
- 2 EUR/Liter targeted selling price

# SUMMARY



Technology is ready for deployment at megawatt-scale today



Immediate CO<sub>2</sub>-reduction potential via blend in existing legacy fleets



Improved fuel quality compared to fossil based solutions



Economically competitive with bio-based renewable fuel solutions



Most ecological approach (no critical resources required)

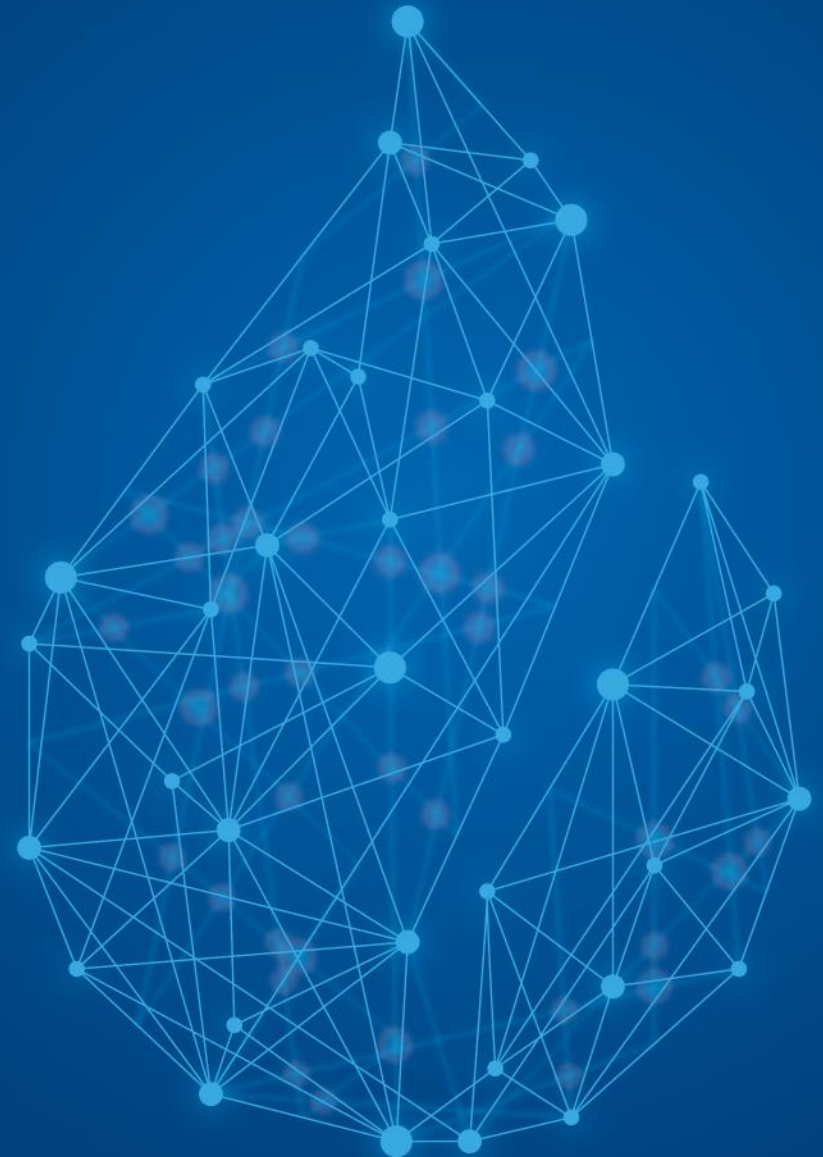
**The time to act is now!**

**Legislation needs to create a market for renewable fuels to kick-start investment into upscaling!**

# THANK YOU!

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# COMPANY FACTS

## Knowhow

- ~ 160 Employees in Dresden and Neubrandenburg
- Full value chain from Ceramics, Engineering, Stack + System Production, up to Synthesis Processes, Service etc.

## Patents

- More than 60 patent families (e.g. »process patent sunfire« WO/2008/014854)

## Revenues

- Multi-million Euro Revenues in Global Markets since 2011

## Investors



Sunfire Headquarters

2019 GLOBAL  
CLEANTECH **100**  
COMPANY

National and international awards  
for innovative and pioneering technology

# IMPRESSIONS



Sunfire  
Headquarter  
in Dresden



e-Fuels plant



Stack  
production



Test facilities