

To-Syn-Fuel Project To Convert Sewage Sludge In Value-Added Products

Fraunhofer UMSICHT

eEUBCE 2020
7 July 2020

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TO-SYN-FUEL

Project Overview

- Green fuels from Residues
- Project start May 2017
- Ends September 2022 (amendment ongoing)
- 11 partners from 5 different countries (amendment ongoing)



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Goals

- Production of green hydrogen, diesel and gasoline from sewage sludge
- Showcase for future sustainable investment and economic growth across Europe
- Development of a business case, LCA and dissemination of results
- Project Key Performance Indicators:
 - 2100 t/a of sewage sludge consumption within the project
 - minimum 300 kg/hr (biomass dry basis) plant demonstration scale
 - 210.000 l of fuels



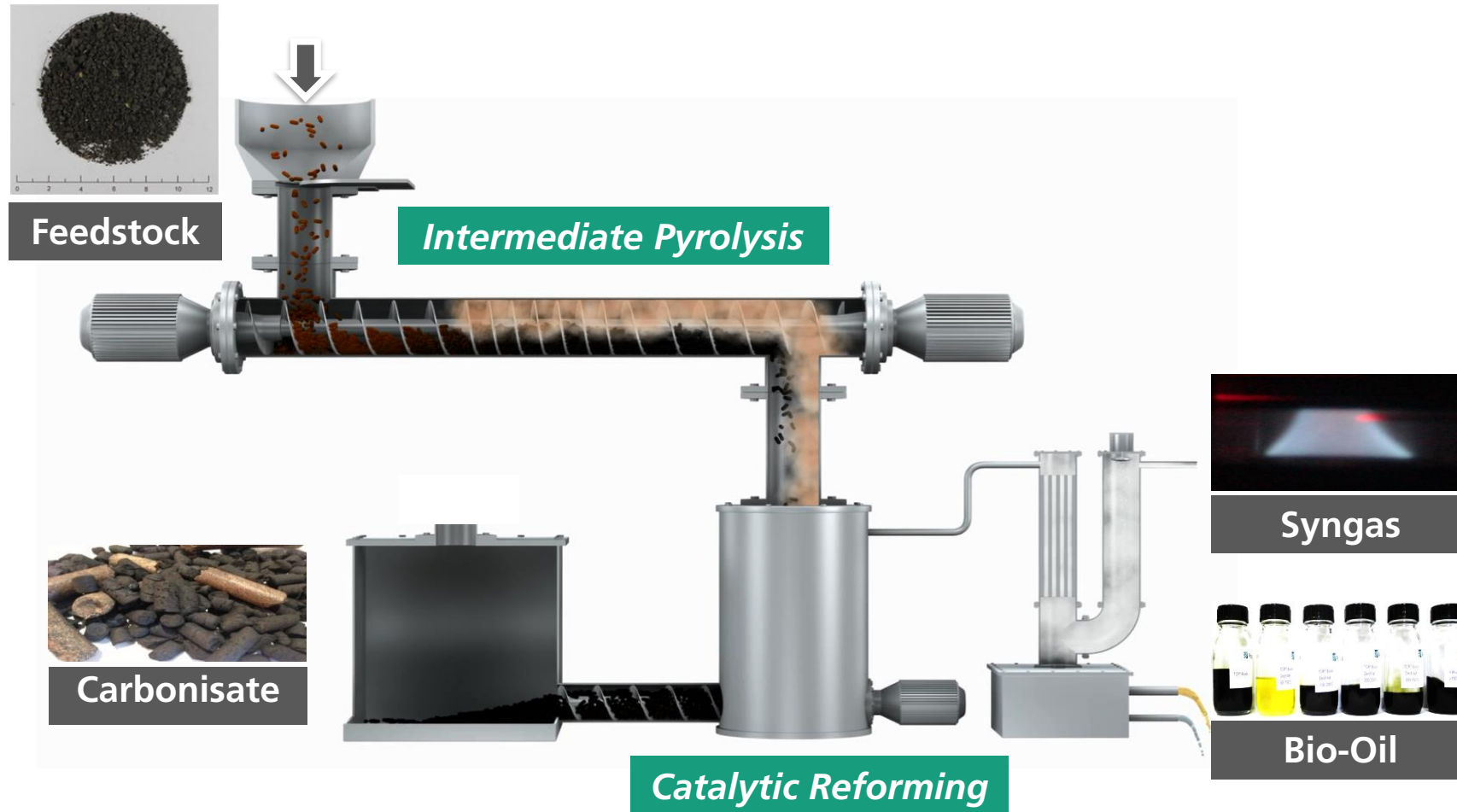
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Core components



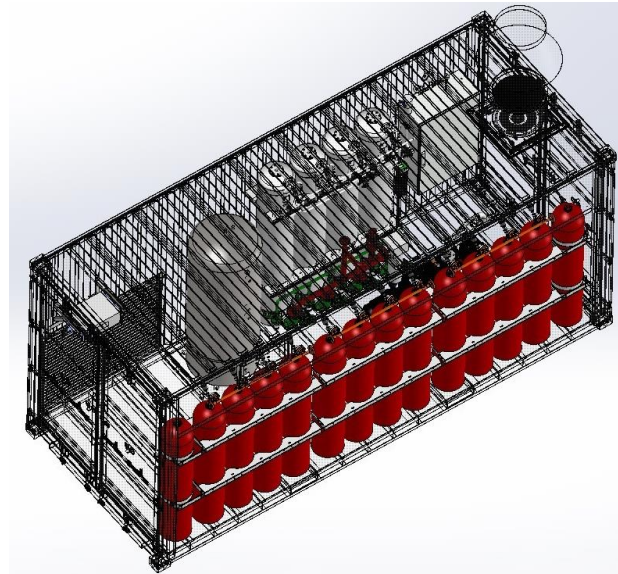
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Thermo-Catalytic Reforming (TCR[®])



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Pressure Swing Adsorption (PSA)



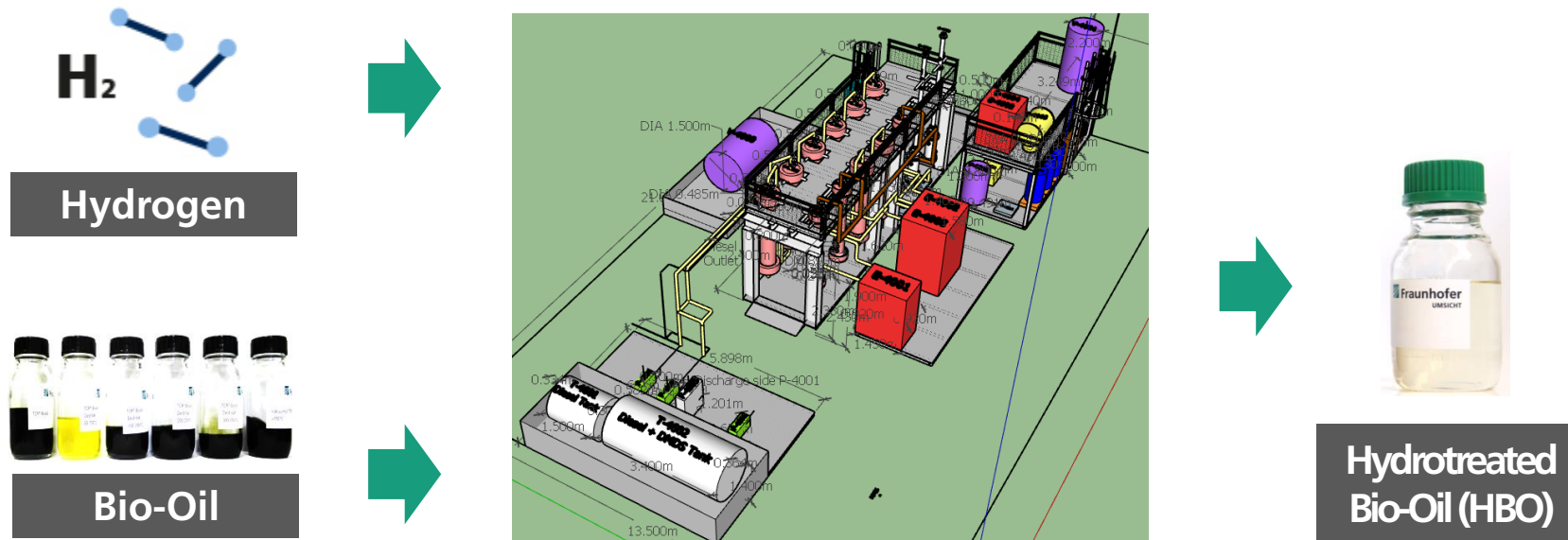
Hydrogen



Residual gas for
Heat & Power

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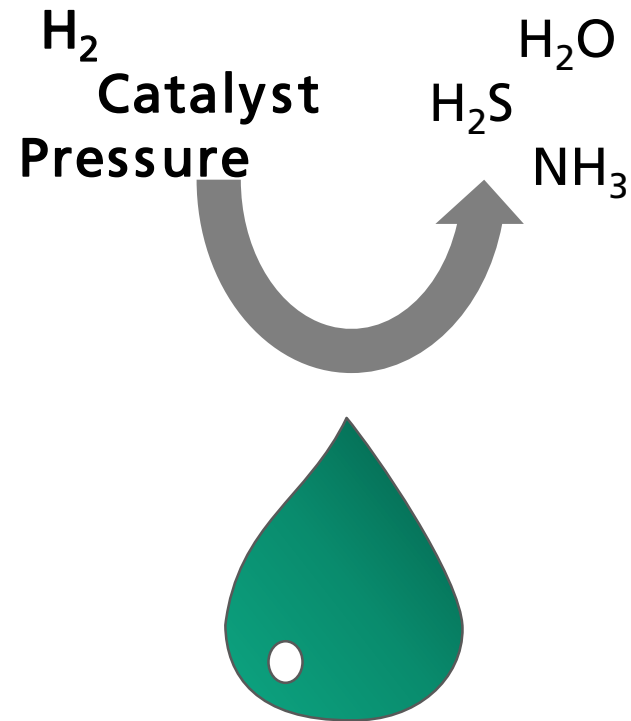
Hydrotreatment (HDO)



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Hydrodeoxygenation (HDO)



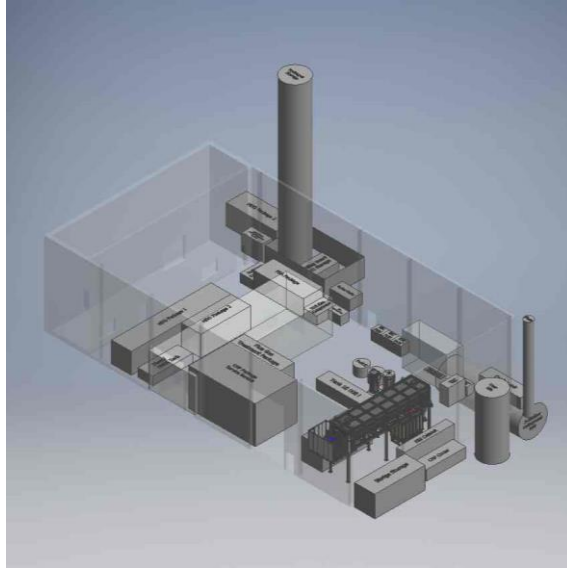
Where we are at the moment

Demonstrator is growing – assembly started

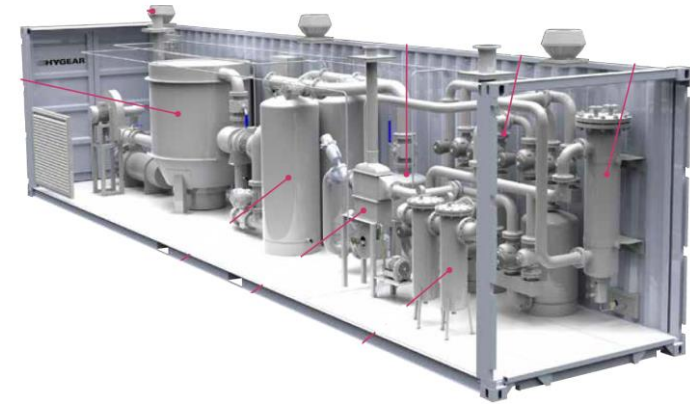


Where we are at the moment

Demonstrator is growing – assembly started



Where we are at the moment



PSA Unit delivered to site location



Where we are at the moment

Test drive with first green fuel

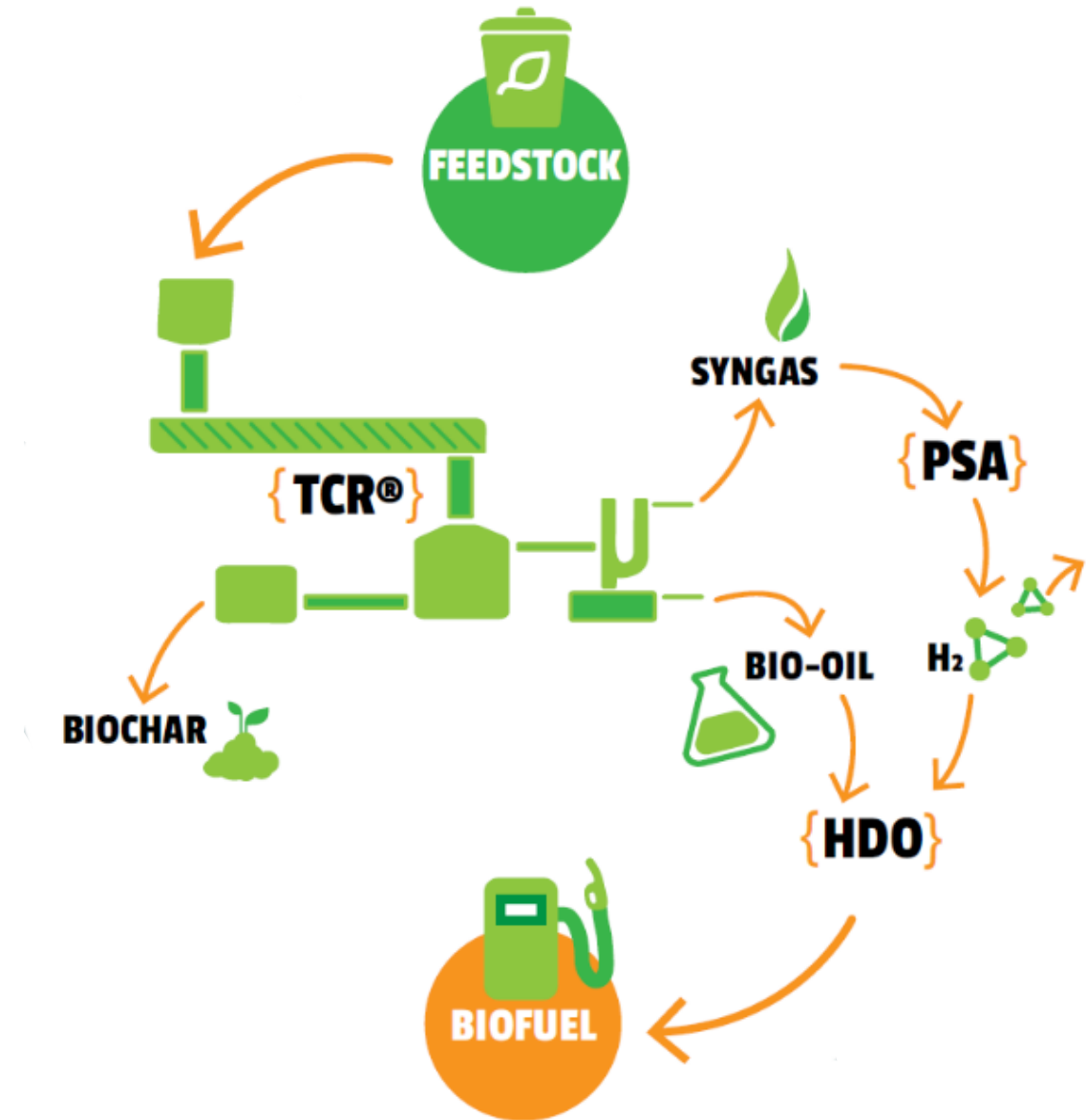


Former rally world champion
Walter Röhrl



Conclusion & next steps

- Longtime demonstrator of integrated technology
- Biogenic residues to green fuel and green hydrogen
- Demonstrator under construction
- Commissioning in 2020
- VISIT OUR ONLINE BOOTH



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Contact

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