

# Waste2H2

Reinhard Rauch

IECO Days 2021 on 5<sup>th</sup> October 2021



Participation of all scientists  
in teaching and research

*Cultural diversity*

Excellent research infrastructure

DEVELOPING SCIENTIFIC  
CAREER PATHS

**The Research University  
in the Helmholtz Association**

TRANSPARENT *KIT thinks and acts as ONE institution*

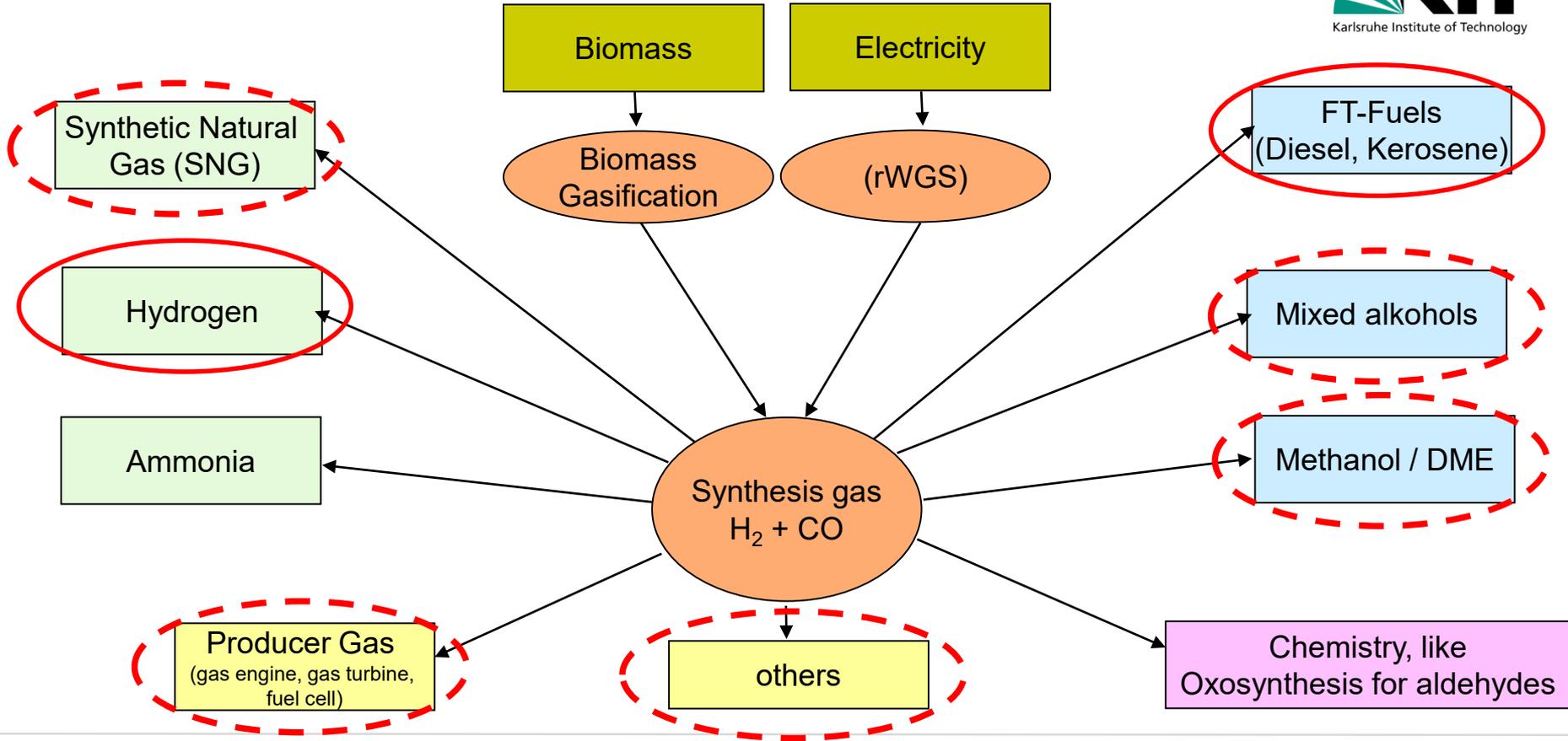
SERVICES FOR RESEARCH,  
TEACHING AND INNOVATION

*Research-based teaching  
and learning*

Energy  
Mobility  
Information

INNOVATION AS A STATUTORY MISSION  
TOWARDS A LEADING POSITION IN EUROPE

# My Focus at KIT



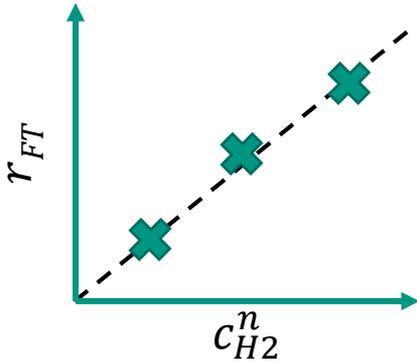
# CO<sub>2</sub>-FT\* in flexible bubble column reactors

## Aims of the work:

- Development of CO<sub>2</sub>-FT-Synthesis in bubble columns
- Measurement of the effective reaction kinetics
- Modelling of the reactor

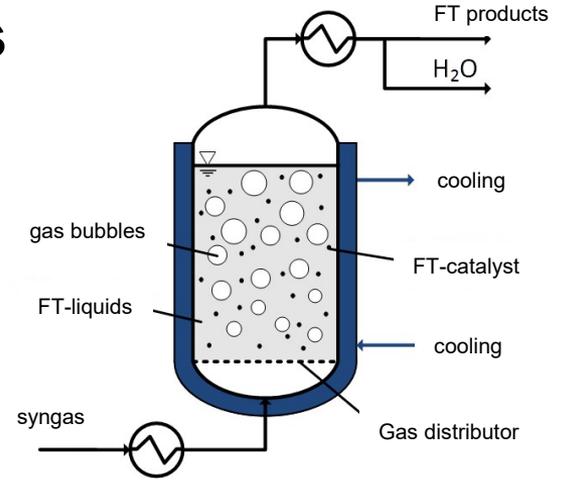


\*Fischer-Tropsch



## Work at EBI-ceb:

- Modification of an existing FT-reactor
- Measurement of the reaction kinetics in a 3-Phase-Autoclave reactor
- Investigation of the stability of the catalyst
- Adaption and validation of a axial dispersion model for CO<sub>2</sub>-FT in bubble columns



# WASTE 2H2

## Waste to Hydrogen

### COORDINATION AND SUPPORT ACTIONS

Topic: WIDESPREAD-05-2020: “Twinning”

- strengthening of the region Alentejo (Portugal)
- Know How transfer in the area of Hydrogen production



Koordinator, Portugal



Karlsruhe Institute of Technology  
Germany



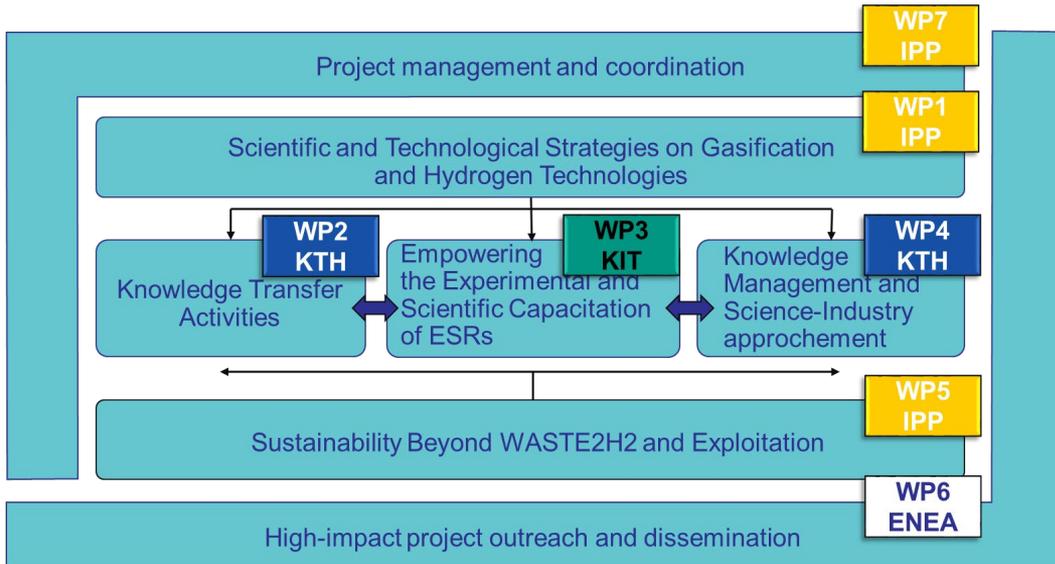
Sweden



Italy

Work of EBI ceb :

- PhD exchange
- Organisation of a summer-school “Analysis of synthesis gas”
- Organisation of a Workshop “entrained flow and dual fluidized bed gasification”
- Organisation of a training to improve the R&D capabilities and career of the scientists from Alentejo



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