

# **OWI Science for Fuels gGmbH**

## **Presentation of Institute & Research Areas**

Dr.Ing- Sangeetha Ramaswamy, OWI, 05.01.2021

# Company structure: Our institute

<b>Proprietor:</b>	TEC4FUELS GmbH
<b>Director:</b>	Wilfried Plum, Dr. Elmar Pohl, Dipl.-Wirt.-Ing.
<b>Scientific director:</b>	Herbert Pfeifer, Prof. Dr.-Ing.

<b>Scientific advisory council:</b>
17 Council members
▪ Scientific / University (Cooperation R+D)
▪ Industry / Services

<b>Sustaining members:</b>
20 Companies and organization
▪ Component- and device manufacturer
▪ Mineral oil products- and additiv manufacturer

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## 42 employees:

Engineers and natural scientists, technical staff, administration

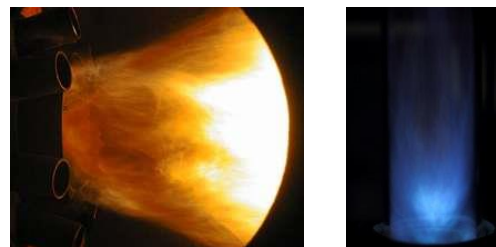
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## R&D Areas

fuels and lubricants



high-temperature technology



energy systems



# Our sponsoring members



Through close contacts with industry, we ensure the dissemination of research results.

Our supporting members make an important contribution to covering overhead costs and primarily enable research on liquid energy sources!

# Company structure: Our institute

## R&D fuels and lubricants division

### Topics:

- future fuels and additives
- ageing of fuels
- chemical-physical properties
- application properties
- combustion

### Skills:

- fuel / component interaction
- forced lifetime tests
- studies
- development of test methods
- performance tests for additives



component interaction



fuel properties



Fuel Analytics



component interaction

# Company structure: Our institute

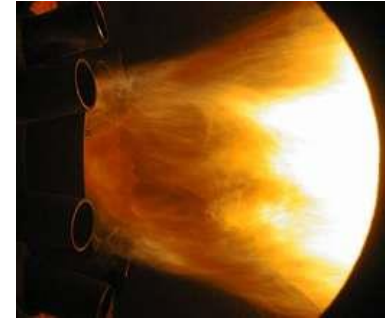
## R&D high-temperature technology division

### Topics:

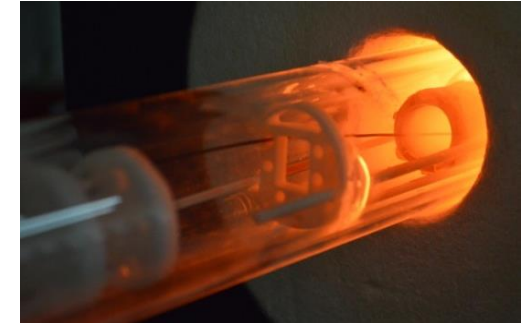
- combustion technology
- high-temperature material technology
- high-temperature process engineering
- technology for liquid fuels

### Skills:

- burner tests
- burner development
- tests in furnaces with different gas atmospheres
- material analysis
- computer aided engineering (CAE)



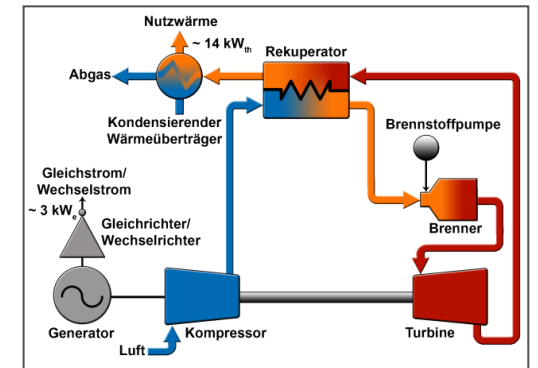
burner and furnaces



HT Materials



CFD Simulation



system simulation and analysis

# Company structure: Our institute

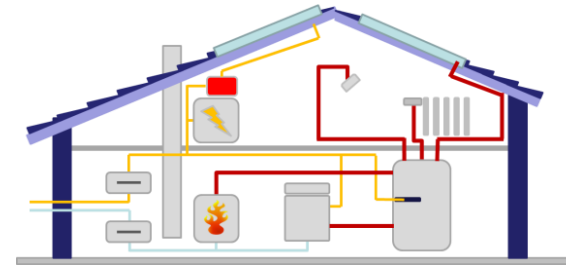
## R&D energy systems division

### Topics:

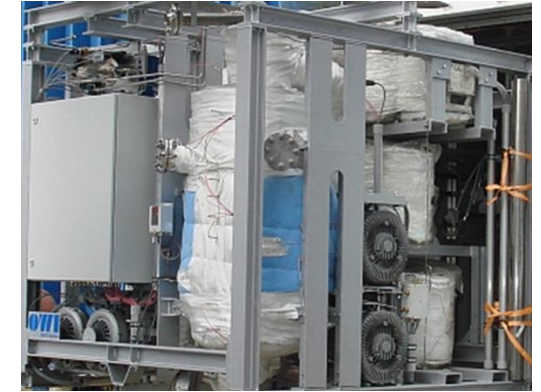
- fuel cell systems
- mixture formation
- reformation
- cogeneration of heat and power
- combustion

### Skills:

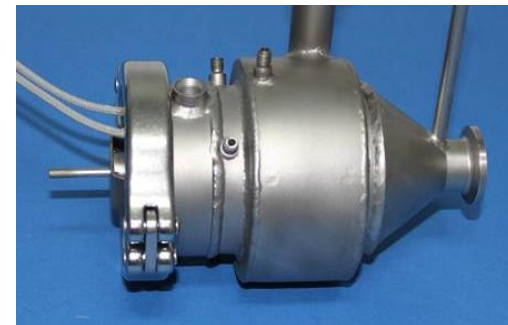
- component development
- system development
- automation
- test bench operation
- system simulation
- systems analysis
- concepts / studies
- thermochemical calculations



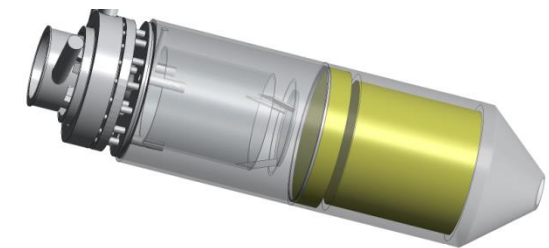
Domestic energy systems



Fuel cell system (for ships)

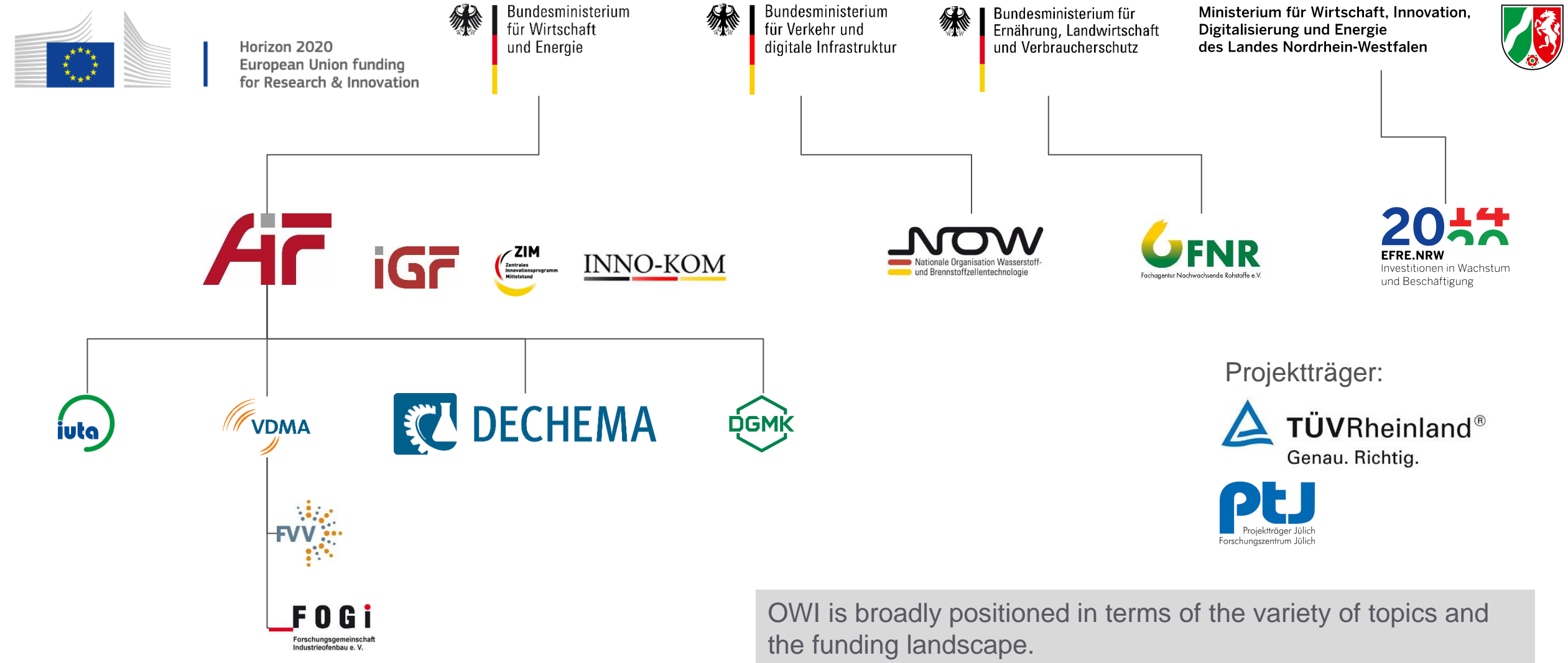


mixing system



Reformer design

# Research activities: Funding structures



OWI is broadly positioned in terms of the variety of topics and the funding landscape.

# Thank you very much!

## Contact details:

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