

# ENGINEERING

Network

Research & Development

Training & Counselling

Testing & Analysing

Joint projects

## Research in Luedenscheid

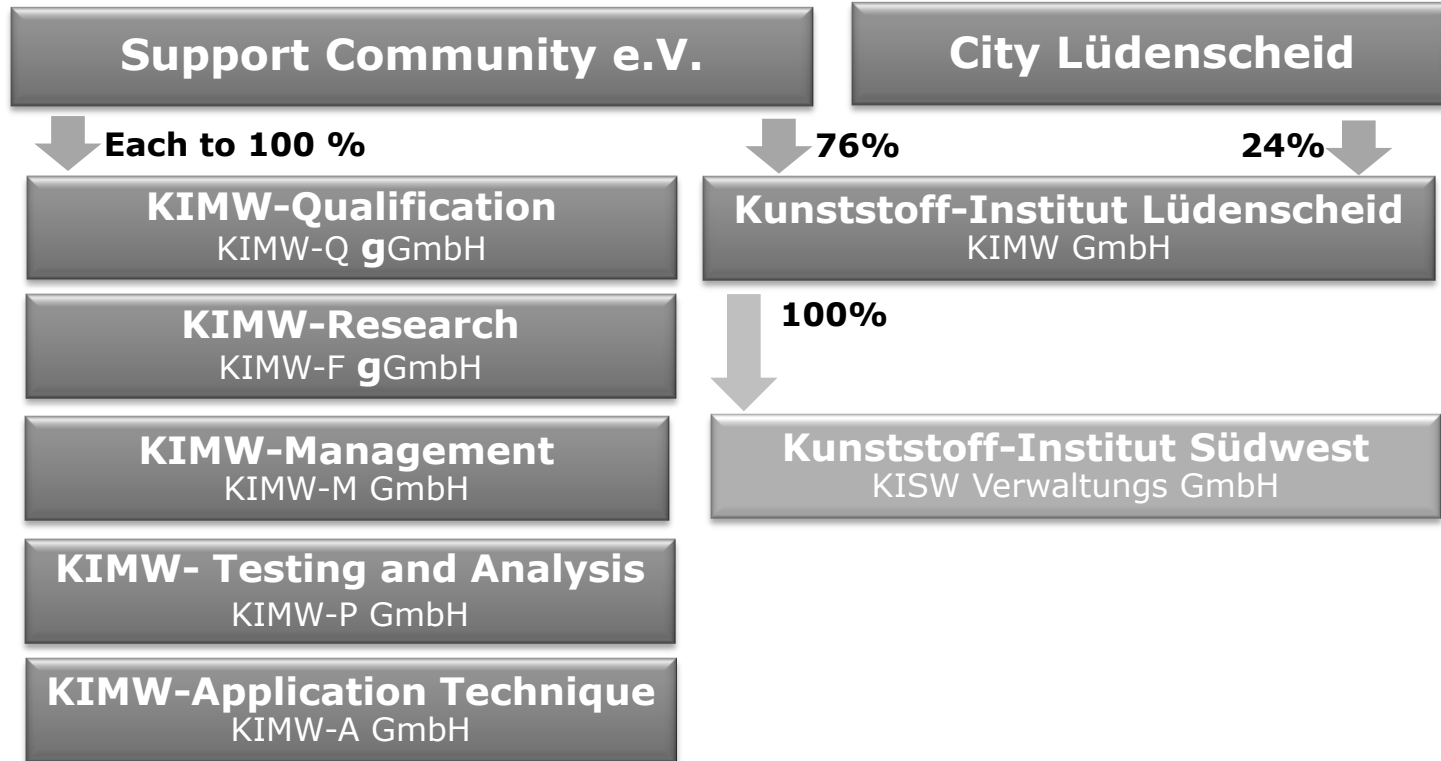
**Presentation of Kunststoff-Institut Luedenscheid &  
Non-profit KIMW Research Company**

- The Kunststoff-Institut supports you concerning
  - Selection
  - Development
  - Optimization and Implementationof products, moulds and processes in the field of plastic processing
  
- The institute finances itself exclusively by services in the form of consultations, network projects and development projects
  
- Objective of the Research Centre:
  - Realization of precompetitive R&D projects
  - Scientific contact centre for SMEs
  - Development of future and demand oriented technologies
  
- The Institute and the Research Centre are supported by an association of shareholders of currently 350 companies

# Fast, competent solutions for the plastics industry

- Competences of the Kunststoff-Institut in Luedenscheid, Germany





- Education programs concentrating on professional retraining and further qualification
- Augmented Reality
- Surface technology for plastic parts and moulds (Galvanizing-exchange, reactive surfaces treatments of moulds, thin layer technologies, isolative/ant-corrosive surface layers)
- 3-D printing/generative procedures (Rapid manufacturing-Rapid Tooling)
- All kind of special process technologies with focal point in chemical/physical foaming in combination with variothermal processes
- Smart plastics (integrated or adjustable material properties)
- High performance plastics -thermoplastics and thermosets – thermal conductivity, biocide properties, weight, scratch resistance,...

## Non-profit KIMW Research company/ gemeinnützige KIMW Forschungs-GmbH (KIMW-F)

- Founded: 01.07.2013
- Employees: 13
- Location: Luedenscheid, Germany
- KIMW-F is a non-profit research organization
- KIMW-F is supported by an association of shareholders of currently 350 companies



- The non-commercial objectives of the research company KIMW-F is supporting research and development within the domain of plastic technologies. The organization acts as a research and transfer centre.
- The main objectives of the KIMW-F are:
  - Realization of precompetitive R&D projects
  - Scientific contact centre for SMEs
  - Development of future and demand oriented technologies
  - Technology scouting
  - Education and training of scientific-technical employees, in particular for SME enterprises

## Field of Research

### Surface and Coating Technologies

Definition:

Development of coatings and coating processes using **CVD**-technology, partially combined with PVD-technology

- Economic process line vs. PVD
- Very high 3D conformity
- Gap and pores conformity
- Open funding possibilities vs. PVD

### Process Development and Mould Technologies

Definition:

New developments in the plastic manufacturing and mould technology

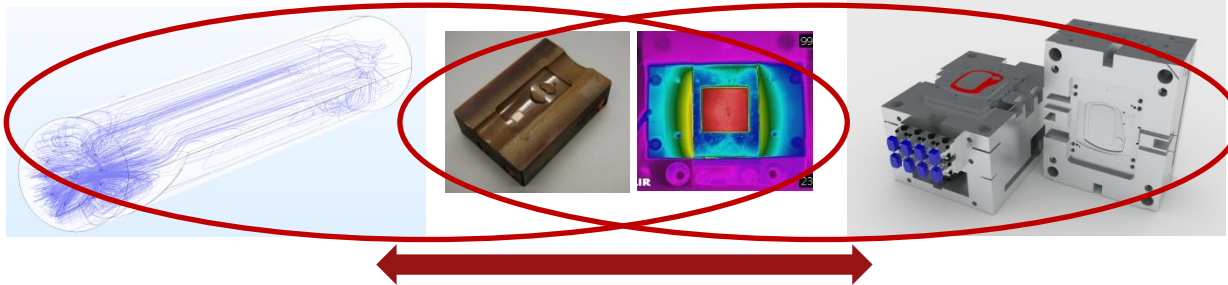
- Expanding core skills of "mould technology" in Germany and adaptation to associated and transfer to new processes



## Field of research

**Surface and coating technologies**

**Process development and mould technologies**



## ➤ **Research 4i** - Research and development for the plastics industry

**Integrated**

Research and service from one source



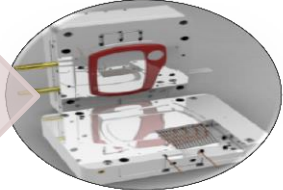
**Interdisciplinary**

Processes and products for the customer



**Industry-oriented**

Market-relevant innovations and highly implementable transfer of results

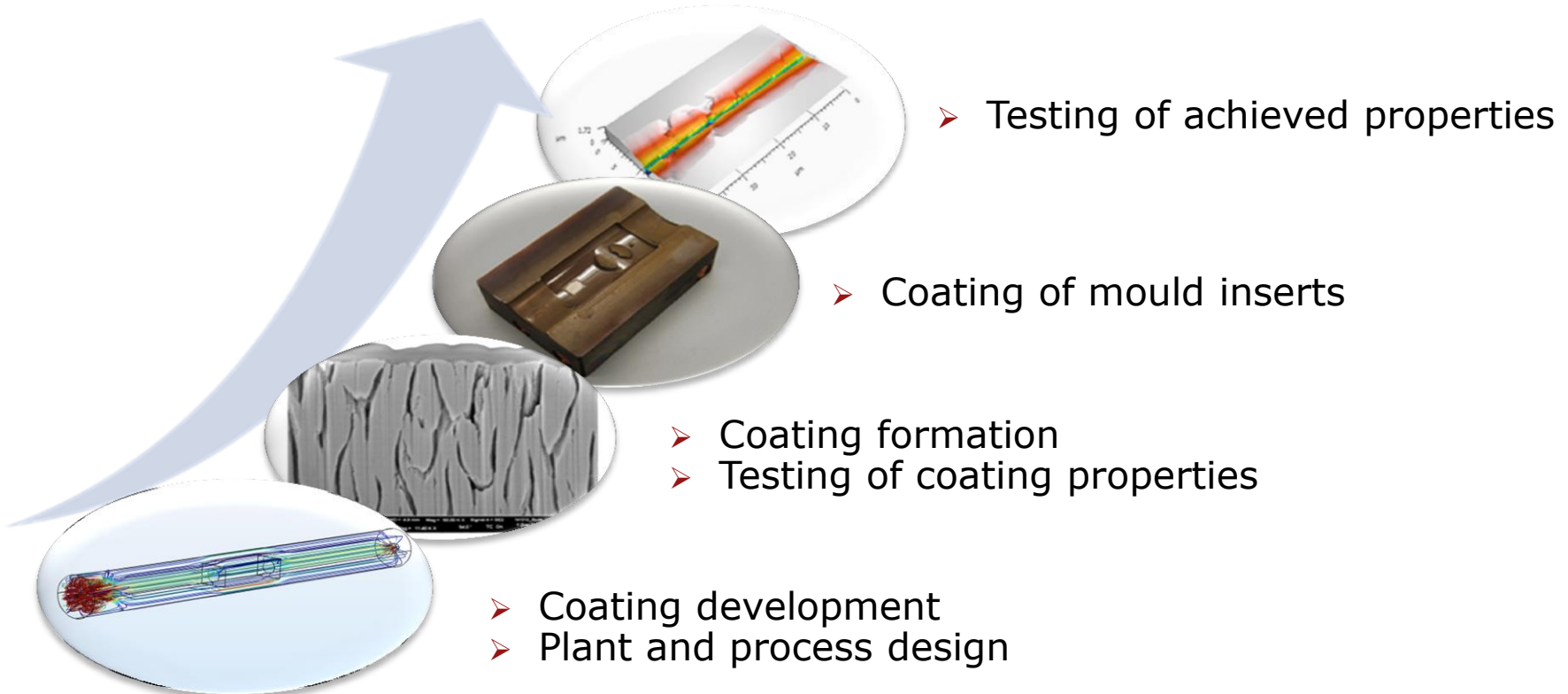


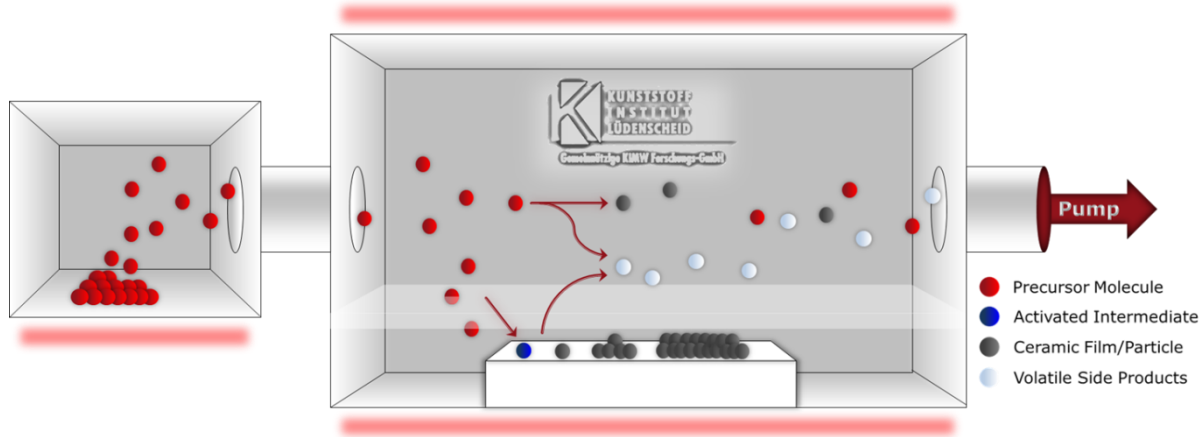
**International**

Networking for the knowledge of tomorrow

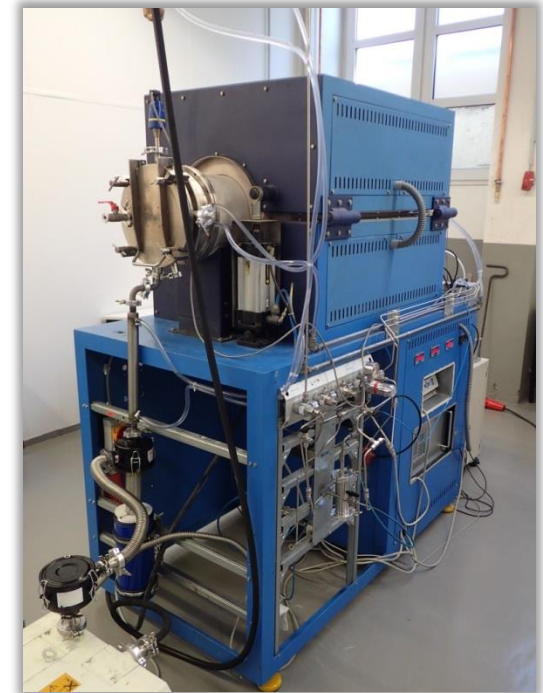


## ➤ Development of processing and coating





Schematic sketch of the CVD process



CVD hot wall reactor  
at KIMW-F

# ENGINEERING

Netzwerk

forschen & entwickeln

bilden & beraten

**Thank You for Your attention!**

Verbundprojekte

Kunststoff-Institut Lüdenscheid  
Karolinenstr. 8  
58507 Lüdenscheid  
[www.kunststoff-institut.de](http://www.kunststoff-institut.de)

Vanessa Frettlöh  
+49 (0) 23 51.67 99-911  
frettloeh@kunststoff-institut.de  
gemeinnützige KIMW Forschungs-GmbH