



# Horizon2020 Information Days on Public-Private Partnerships

Brokerage event  
21 October 2014

***PROCESS OPTIMIZED POLYMERS***

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**Basic  
Research**

# MRM Institute /Augsburg

**University Research**



MRM Institute



Physics  
Institute

Interdisciplinary Institute

**Materials  
Research  
Management**

**MRM**

**Prozess Technology**



DLR ZLP und Fraunhofer IPT

**Applied Research**

**Enduser**



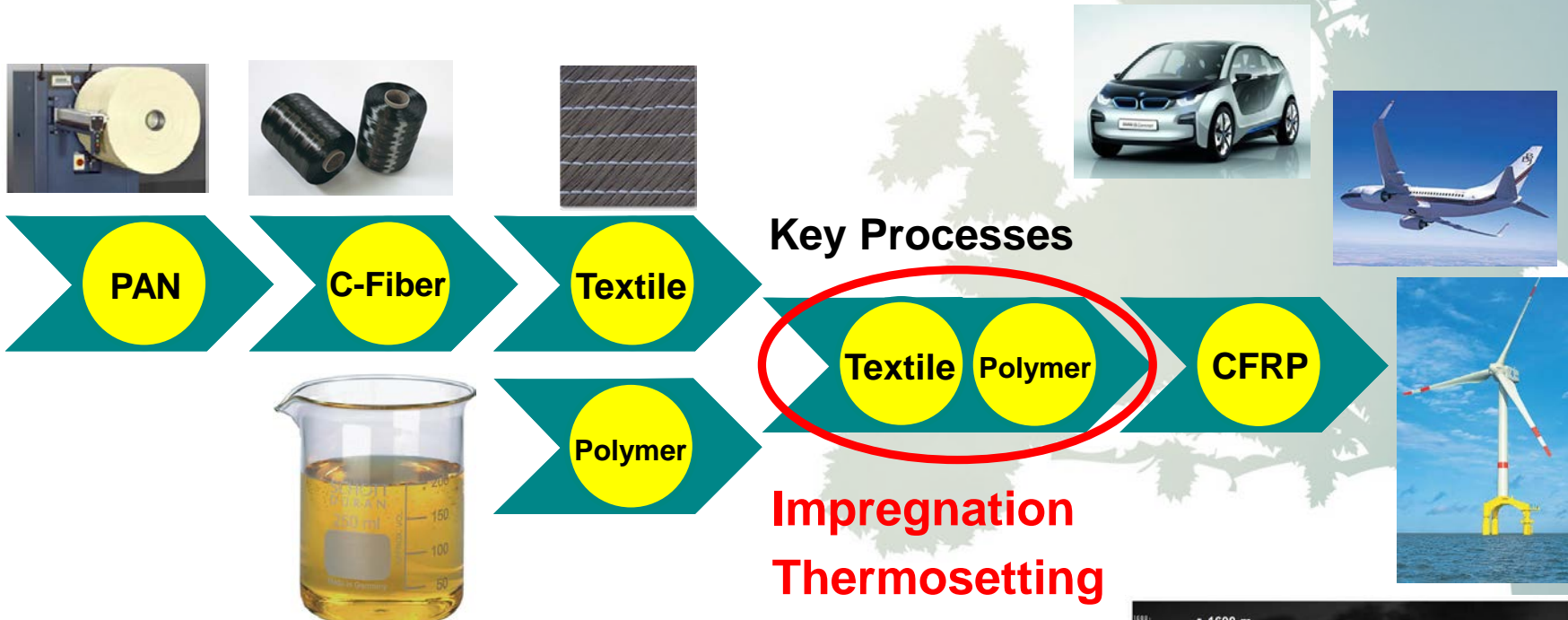
**Technology Center**



**Innovation Park Augsburg**

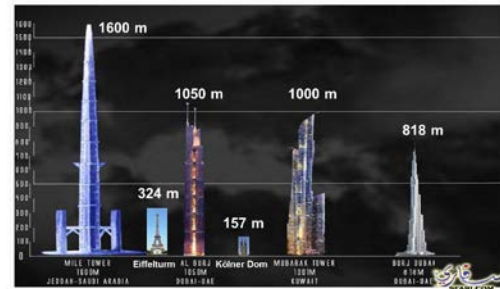
# PROJECT IDEA

New thermoset and thermoplastic polymer systems for light-weight carbon fiber constructions



*Key Action 3.1. New materials contributing to develop energy and resource efficient processes*

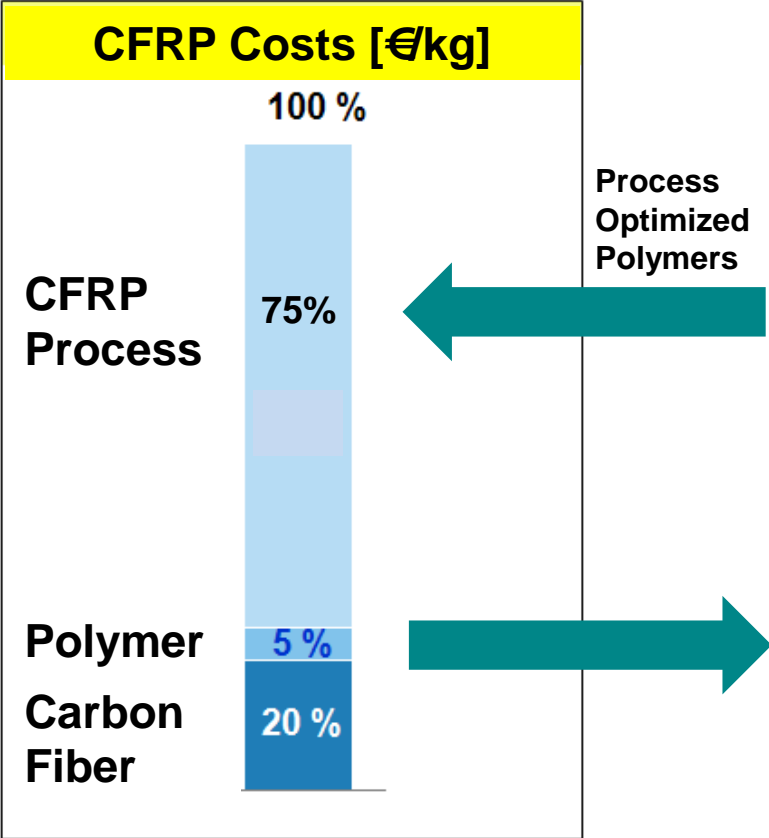
*Key Action 3.2.: New processes for energy and resource efficient materials applied in sectors down the value chain*



# EXPECTED IMPACT

Areas concerned

[Research](#), [Transport](#), [Energy](#), [Environment](#), [Industry](#), [Innovation](#), [New Technologies](#),



Processing Costs are directly influenced by:

- **Textile Processing**
- **Polymer Infiltration**
- **Thermosetting Reaction**
- **Polymerisation Reaction**



Formulation



New Monomers / Polymers

# EXPECTED IMPACT

## Energy & Resource Efficient Processes for:

New materials and design options for the future mobility demand



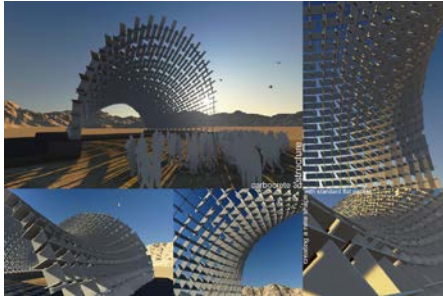
Quelle: Airbus / Bauhaus-Luftfahrt / BMW AG

New offshore and onshore wind power plants with much higher degrees of efficiency

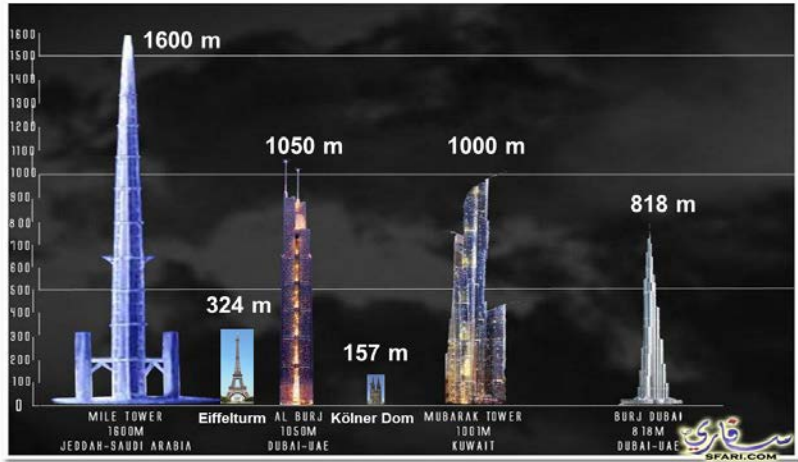


Foto: BARD-Gruppe

New carbon-fiber-reinforced concrete elements could be designed with much thinner cross-sections, while retaining at least the same load-bearing capacity



SGL Rotec GmbH & Co. KG



# EXISTING PROJECT CONSORTIUM

Basic Research in Polymers

Basic Research Interaction C-Fibers with Polymers

Process optimized Polymers

Energy and Resource Efficient Processes

New Applications for New & Existing Markets

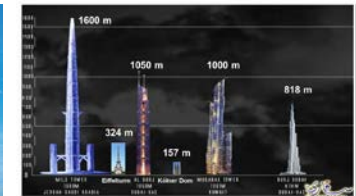
*Key Action 5.2: Methodologies and tools for cross-sectorial Life Cycle and Cost Assessment as well as novel social Life Cycle Assessment of energy and resource efficiency solutions*



Augsburg Area

See also "Leading-Edge-Cluster" MAICarbon: <http://www.mai-carbon.de/index.php/en/> and Carbon Composite e.V.: <http://www.carbon-composites.eu/>

OEMs



not yet completed

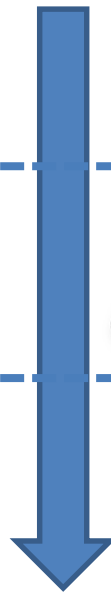
# LOOKING FOR PARTNERS

Basic Research in  
Polymers



Institutes for Präparative Polymer Research  
Large Scale / SME Industry with Präparative  
Polymer Research

Basic Research  
Interaction C-Fibers  
with Polymers



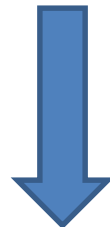
Process  
optimized  
Polymers

Energy and  
Resource Efficient  
Processes

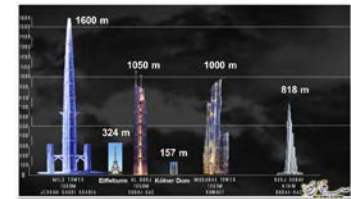
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Large Scale /SME Industry with Polymer  
Upscaling Potential

New Applications  
for New & Existing  
Markets



OEMs



Additional Partners

# CONTACT DETAILS

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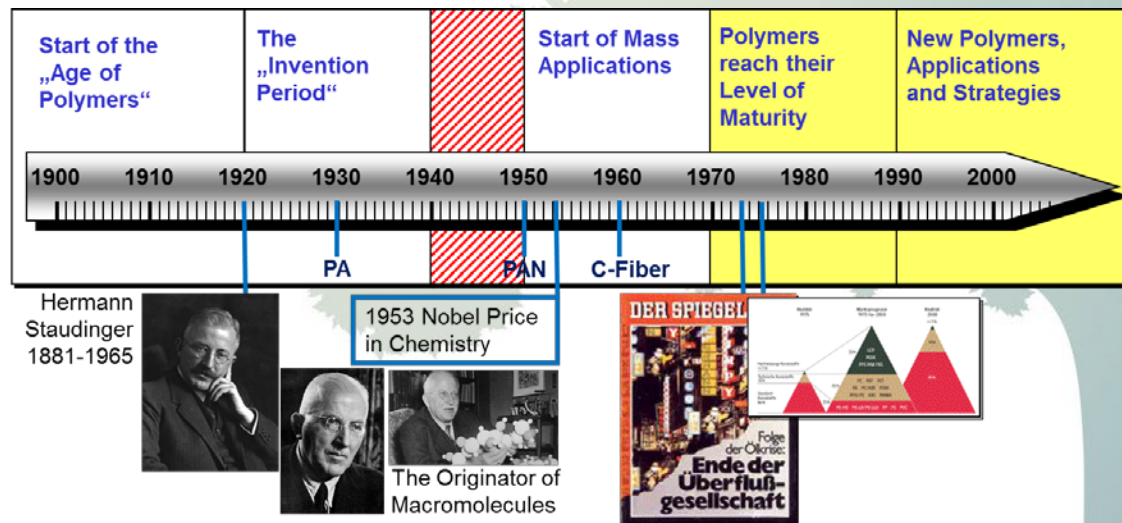
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Let's make a vision to a mission



„The Variety of Polymers is endless !“



„Taylor-made Process Optimized  
 Polymers should be possible !“