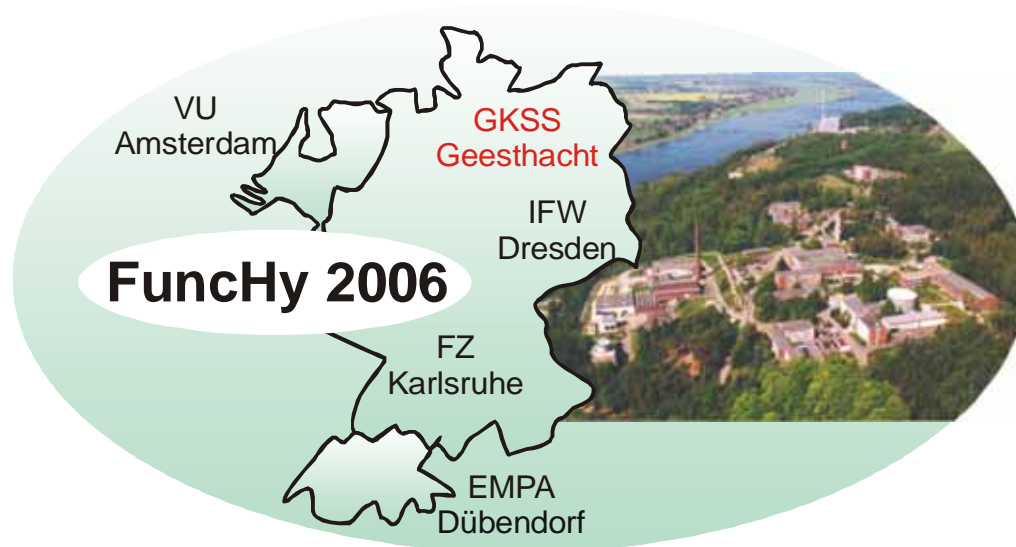


FuncHy 2006

1st Workshop of the Helmholtz Initiative Functional Materials for mobile Hydrogen Storage



GKSS Research Centre Geesthacht,
September 20-22, 2006

Challenges of a Future Hydrogen Economy

- Hydrogen generation by renewable energy sources
- Hydrogen separation and cleaning
- Hydrogen transport and infrastructure
- **Hydrogen storage**
- Use of hydrogen in fuel cells
- Safety aspects



Forschungszentrum Karlsruhe
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Helmholtz Centres:

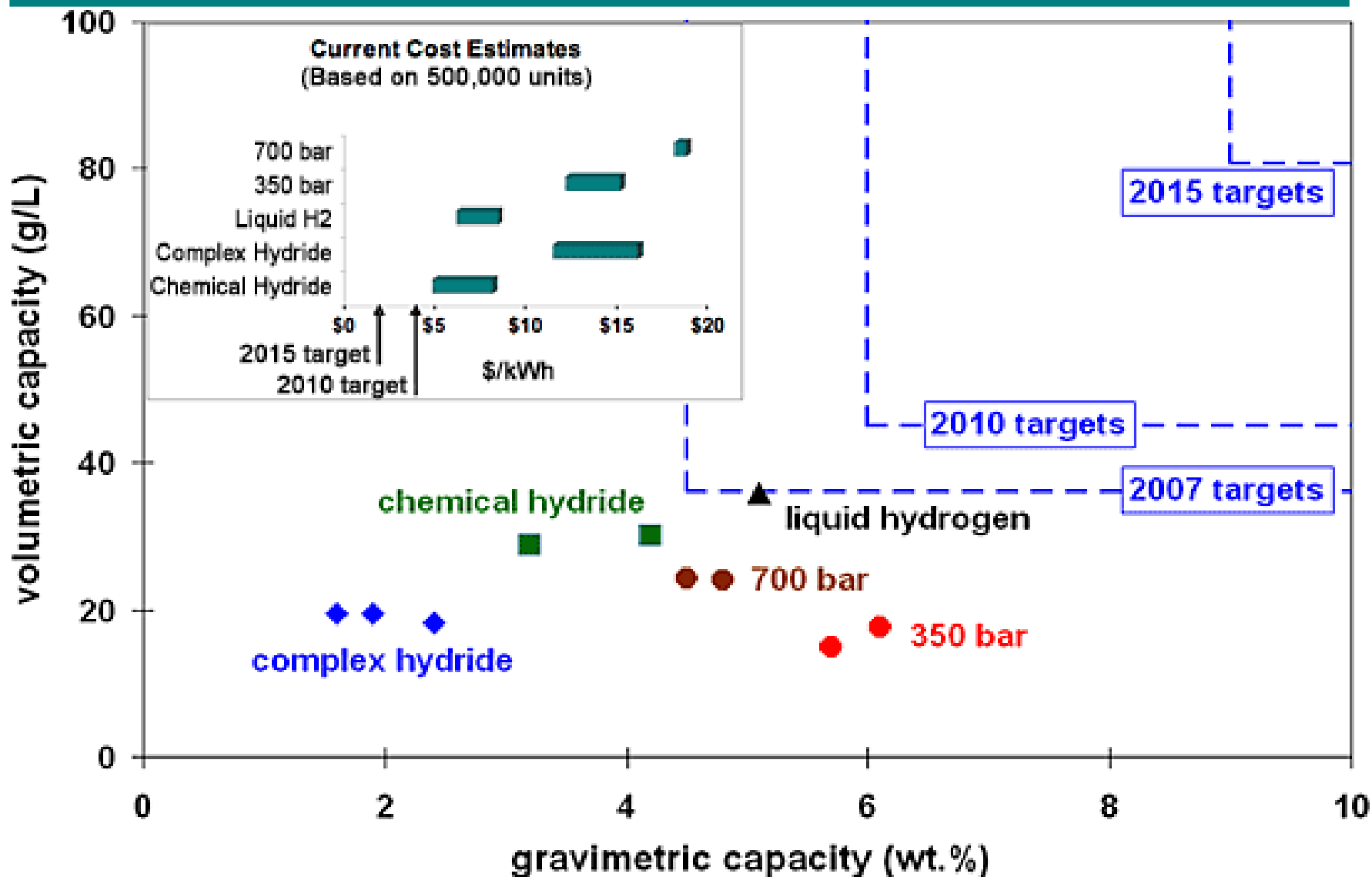
- **GKSS Research Centre Geesthacht GmbH (GKSS)**, Institute for Materials Research, Prof. R. Bormann,
- **Forschungszentrum Karlsruhe GmbH (FZK)**, Institute for Nanotechnology, Prof. H. Hahn

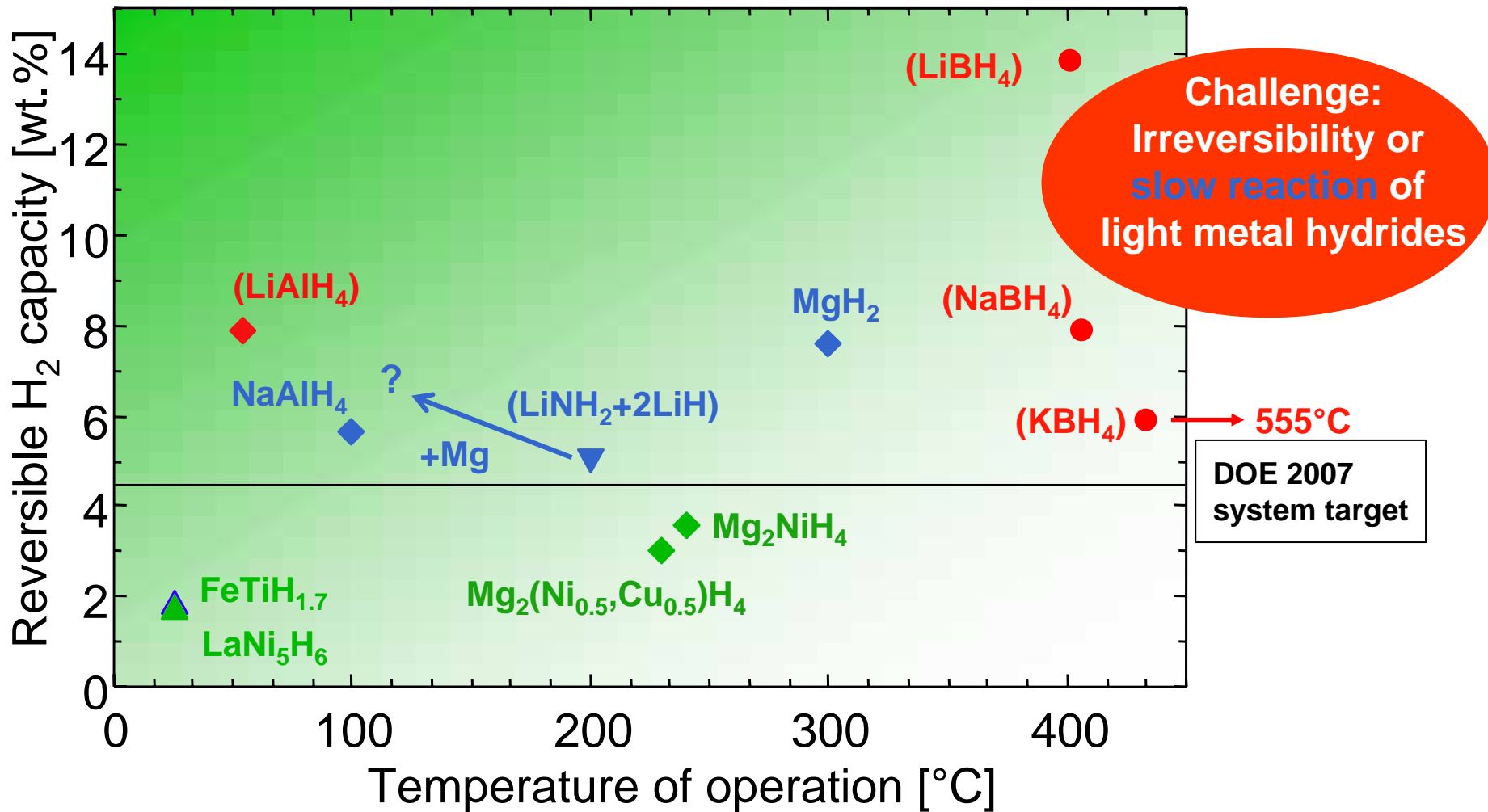
Core Partners:

- **Leibniz Institute for Solid State and Materials Research Dresden (IWF)**, Institute for Metallic Materials, Prof. L. Schultz
- **Empa, Switzerland**, Materials Science & Technology, Hydrogen & Energy, Prof. A. Züttel
- **Vrije Universiteit, Amsterdam, Netherlands (VU)**, Condensed Matter Physics, Prof. R. Griessen

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 - **GKSS Research Centre Geesthacht GmbH**, Institute for Polymer Research, Prof. V. Abetz
 - **Forschungszentrum Karlsruhe GmbH**, Institute for Nuclear & Energy Technologies, Prof. T. Schulenberg
-





Materials

- **Alanates** (task leader Dr. Maximilian Fichtner, FZK)
- **Borohydrides** (task leader Prof. Andreas Züttel, EMPA)
- **Amides** (task leader Dr. Wiebke Lohstroh, FZK)
- **Reactive Hydride Composites** (task leader Dr. Martin Dornheim, GKSS)

Cross Cutting Tasks

- **Thermodynamic and Kinetic Characterisation**
(task leader Dr. Oliver Gutfleisch, IFW)
 - **Combinatorial Search for Hydrogen Storage Materials**
(task leader Prof. Ronald Griessen, VU)
 - **System Integration of Selected Hydrogen Storage Materials**
(task leader Dr. Nico Eigen, GKSS)
-

EU IP NESSHY:
Novel Efficient Solid
Storage for Hydrogen

EU MC RTN COSY:
Complex Solid State Reactions for
Energy Efficient Hydrogen Storage

EU STREP MOREPOWER:
Compact Direct (M)Ethanol Fuel Cell
for Portable Application

EU IP STORHY:
Hydrogen Storage Systems for
Automotive Applications

**HGF Initiative
Functional Materials for
Mobile Hydrogen Storage**

Helmholtz Virtual Institute
**Asymmetric Structures for
Polymer Electrolyte Fuel Cells**



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