



Transfer-Workshop Cluster 1

G.Pöllmann, Magna Steyr

Dusseldorf 18th April 2012

We offer ...



Engineering

Engineering services including complete vehicle development

Vehicle Contract Manufacturing

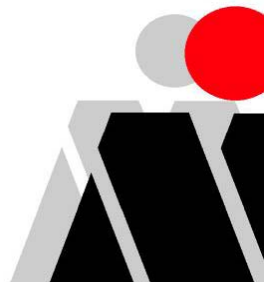
Flexible solutions from niche to volume production

Fuel Systems

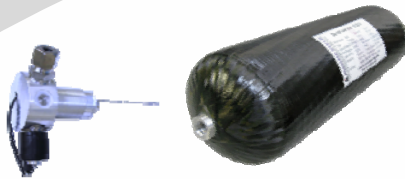
Innovative fuel systems

Roof Systems

Entire range of roof systems



● Components



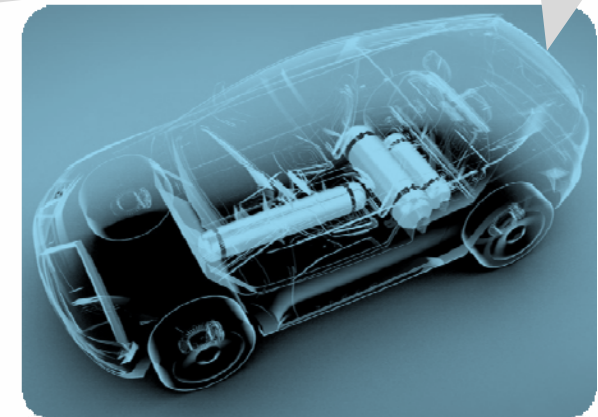
- Development & production of fully wrapped composite cylinders & components up to 70 MPa

● H2 storages



- Assembly and quality assured supply of modules
- System qualification, validation & certification

● Vehicle integration



- Packaging of modules
- Installation of system
- Vehicle validation & certification

**Global supplier of industrial hydrogen storage solutions
On stop shop for customers**



Astrium Projects:

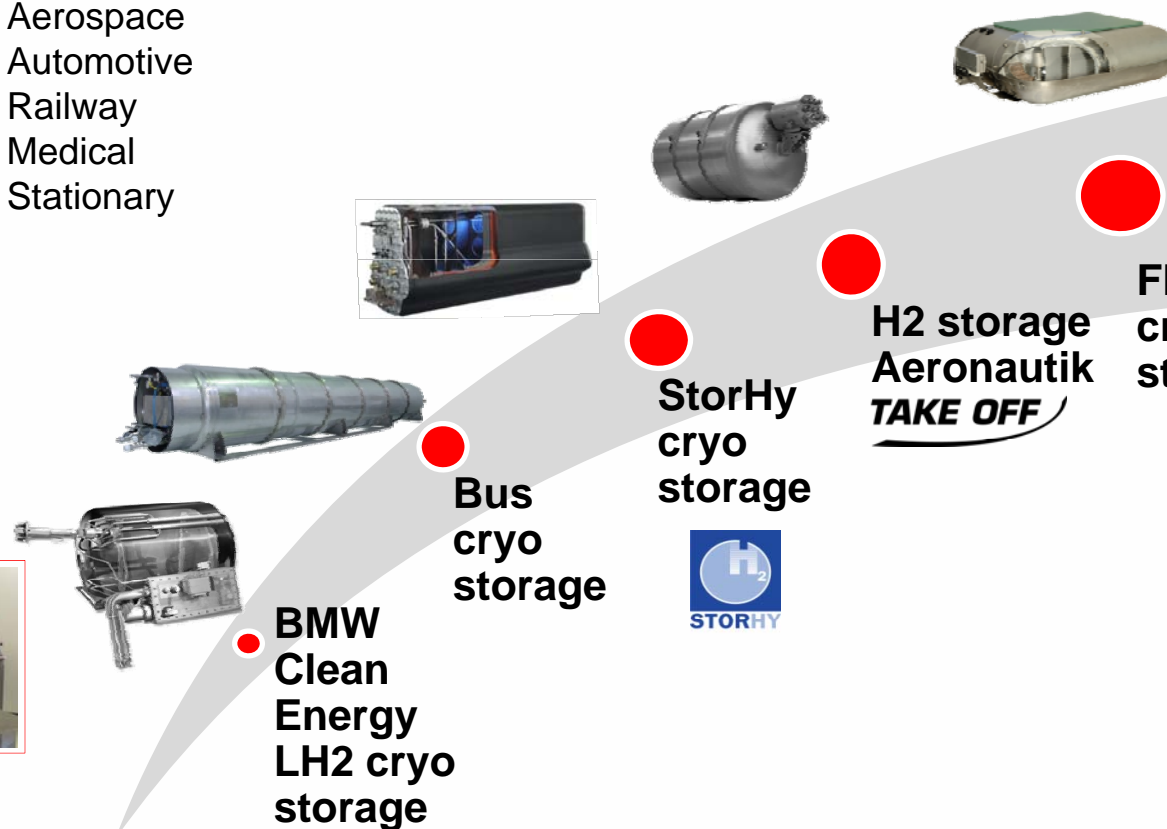
Ariane 5 feedlines

- Development
- Production



Competence at many different applications and markets

- Aerospace
- Automotive
- Railway
- Medical
- Stationary



ESA Projects:

- Double wall cryogenic composite vessel for LHe
- Cryogenic feedline demonstrator for LHe, LH2 and LOX



Project Proposal

Hydrogen Technology – Synergy for Mobility



Challenges

- Commercialisation of Hydrogen technology for **stationary and mobile applications**
- New technologies include **significant spending, research & development risks** for each industry/application separately
- Global harmonisation of hydrogen standards and certification

Project Proposal

- **Capitalization of synergies** by combining **efforts for commercialisation** at mobility (automotive, rail, aerospace,...) and stationary applications
- Combining customer or demonstration projects to leverage scales

Synergy Potentials

- Development of H₂ systems and components e.g. vessels, pressure regulator, valves
- Systems e.g. fuel cell sub-/systems, integration, testing and validation
- Infrastructure: H₂ supply, accredited testing & instrumentation environment
- Industrialisation: production processes and technologies, validation and EOL testing

