

# Impression Technologies

22<sup>nd</sup> January 2015

*2003, The University of Birmingham, UK*

**Early test work** starts on a new aluminium forming method. EPSRC funds **HFQ** research project



*2008, Imperial College London, UK*

Research moves to Imperial College London. **Promising results** lead to extension of the work to trial geometries

*2010, Imperial College London, UK*

**Modelling and testing** are extended to realistic geometries for automotive and aerospace project partners



*2012, Imperial Innovations, UK*

Excellent lab-scale results suggest HFQ is a viable technology.

**Commercial research begins**

*2013-4, Impression Technologies, UK*

Technology licensed to Tier-1 suppliers. **Commercial production.**

Mercia invests in Impression Technologies

Production tools ordered for vehicles (SOP end 2015)



*2015, Impression Technologies, UK*

**Work begins on World's first dedicated HFQ® production line to be operational Jan 2016**

# Impression Technologies Ltd

An **Imperial College London (ICL)** Spin-off company

- Formed to :
  - Market the patented HFQ and related technologies
  - Further Develop HFQ Technology
  - Work with designers to translate components to HFQ
- Backed by:
  - Imperial Innovations
  - Mercia Fund
- Experienced management and technical team
- Participating in a number of UK government backed research projects
- Participating in EU FP7 project, LoCoLite

## **Why HFQ ?**

**HFQ is a hot forming process for aluminium alloy sheet.**

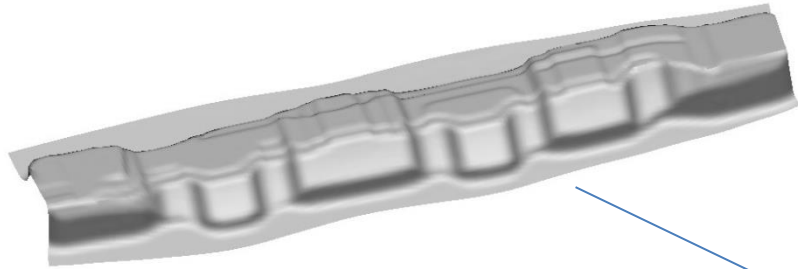
**It is the only volume production technology that allows high strength aluminium alloys to be formed into complex shapes suitable for automobile, aerospace and rail applications.**

**Aluminium is a major material for future automotive light-weighting activities.**

**Lighter weight is a key strategy for reduced CO2 emissions levels in all vehicles.**

**CRF (FIAT)**

**HFQ makes difficult parts!**



**Computer simulation**

**Ultra high strength aluminium, not formable any other way**



**Pressed Part**

**Work done as part of EU FP7 project 'LoCoLite'**

## ITL – Business status

- ITL has two end customers who will use HFQ technology on vehicles to be made in 2015.
- ITL is securing funding to develop the world's first HFQ production line in Coventry (starting January 2016).
- Many more business opportunities are under discussion.