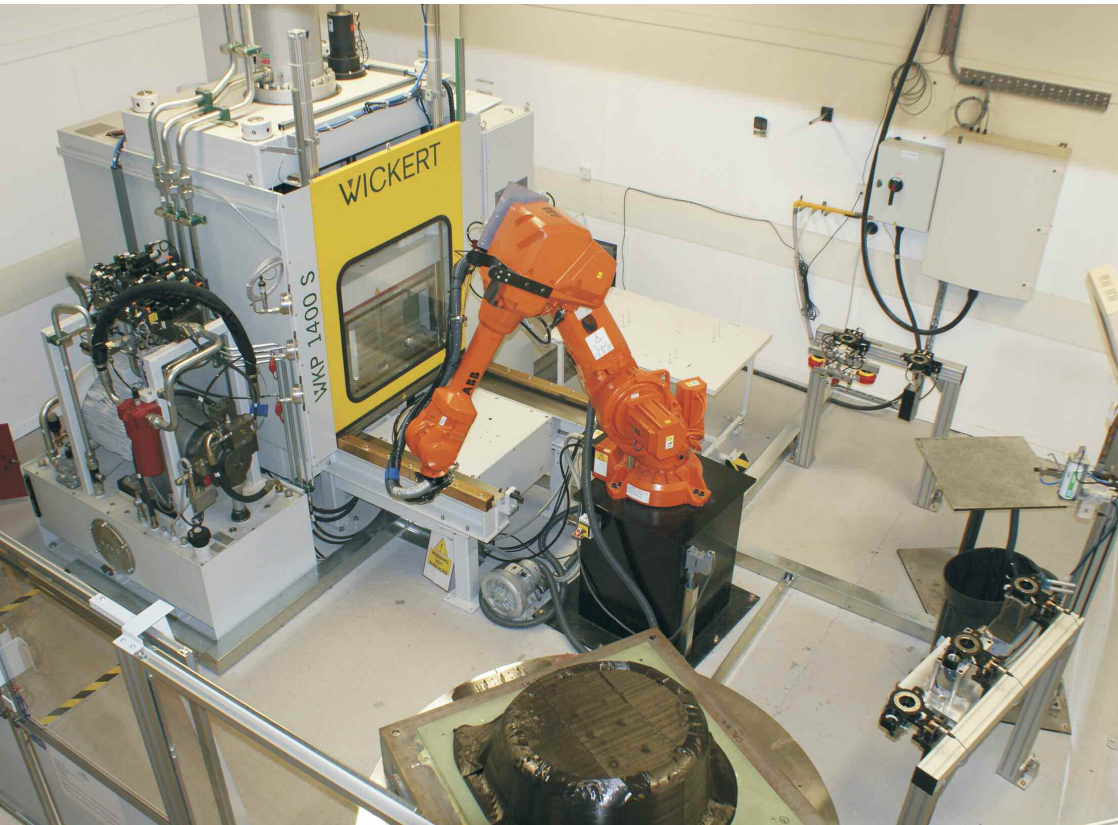


i composites



ARMATURE Automation Project



ACG is a member of Umeco Composites Structural Materials

Advanced Composites Group Ltd. leads ARMATURE, an automation project within i-Composites

ARMATURE - Automated high Rate Manufacture of Automotive composite strucTUREs

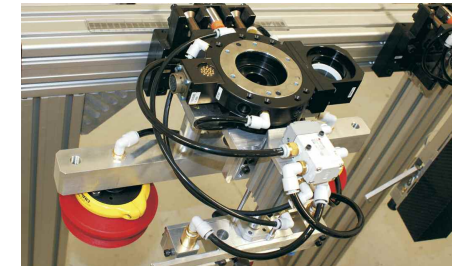
Project Partners:

- ACG - project lead, development of prepreg materials and processing technologies
- ABB - provision of robotics and systems integration
- Bentley - offered an end user perspective and case study component
- ESI - development of analytical techniques
- Assyst Bullmer - developed software and systems solutions for the automated pick and place cell
- Bowyer Engineering – assisted with the design and development of robotic end effectors

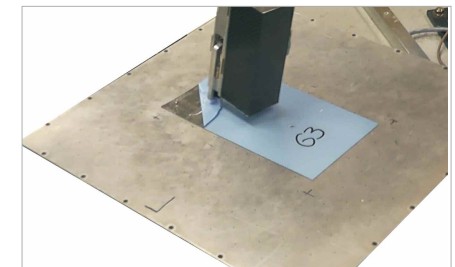
i-composites



Robotic preforming and compression moulding cell



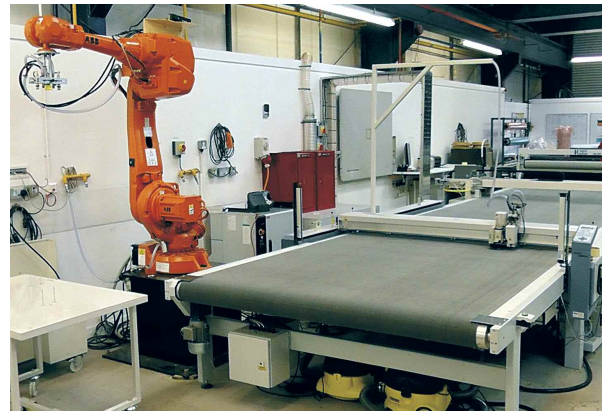
Bespoke end effectors



Backing film removal techniques

Objectives:

- Cost reduction
- Improved production rate, in excess of 10,000 parts per annum
- Enhanced part repeatability



Conveyorised NC cutting and robotic pick and place cell



Robotic picking

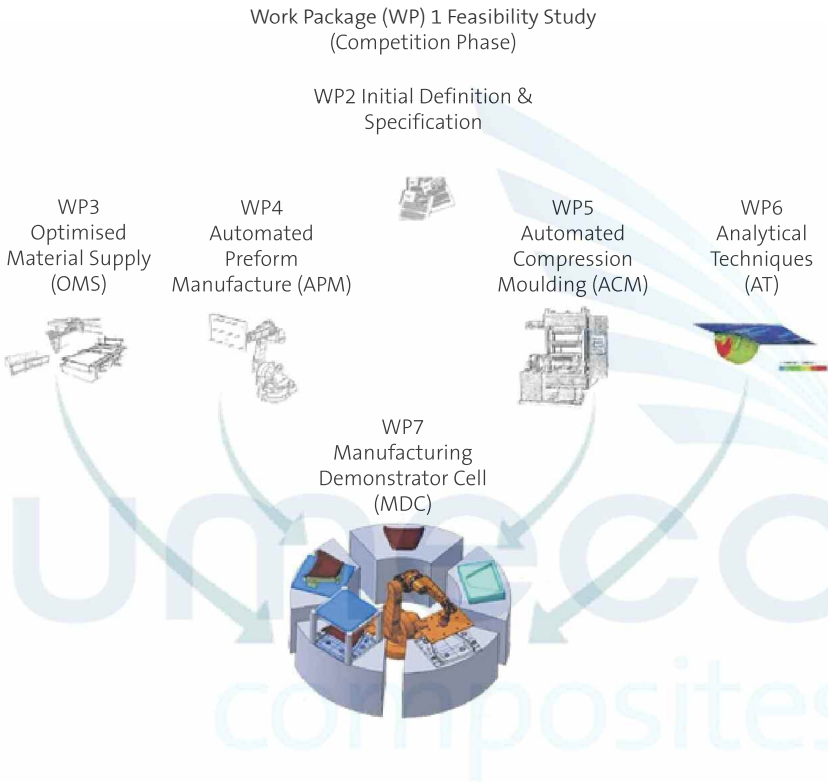
Enabling Technologies:

- Robotic pick, place and form
- Highly conformable prepreg materials (DForm®)
- Novel techniques for preform construction
- Automated compression moulding techniques



Automated compression moulding





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