Joining Dissimilar Materials

Amanda Allison

Materials Joining and Engineering Technologies

About TWI

- World leading research and technology organisation for welding, joining and structural integrity.
- Over 900 staff.
- Almost 700 Members worldwide, operating over 4500 locations
- Bases in the UK, North America, South East Asia, China, Australia, Central Asia, India and the Middle East.
- Services include generic research, contract R&D, technical information, consultancy, standards drafting, training and qualification.

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Unrivalled Expertise

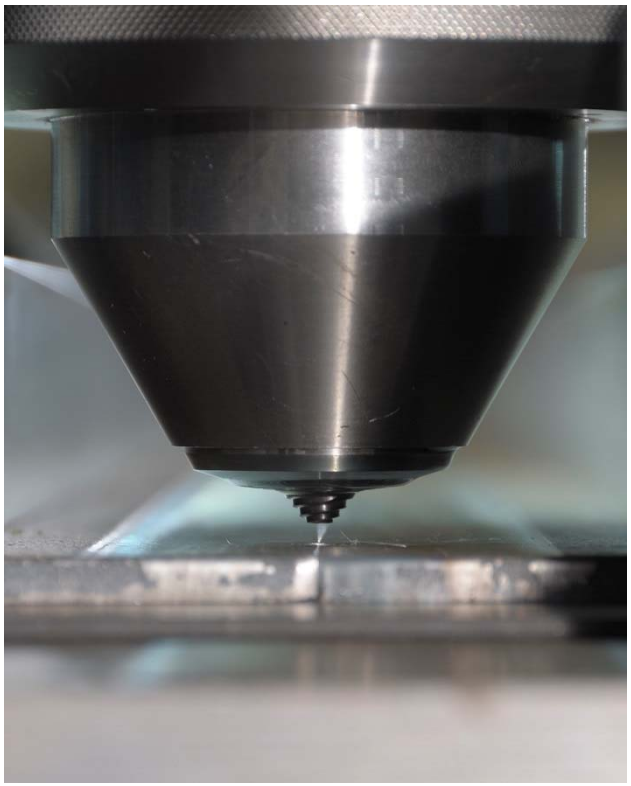


- Joining group
- Materials group
- Integrity management group

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Joining Group

- Adhesives, composites and sealants
- Business process support
- Electron beam processes
- Friction and forge processes
- Laser and sheet processes
- Manufacturing support
- Specialist materials and joining



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Materials Group

- Welding engineering
- Materials performance and ferrous alloys
- Corrosion testing
- Polymers and elastomers
- Stainless steels and non-ferrous alloys
- Surfacing



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Integrity Management Group





- Fitness For Service
- Asset integrity management
- Condition and structural monitoring of complex structures and machineries
- Guided Waves (Long Range Ultrasonics)
- Non destructive testing
- Fatigue and fracture testing and assessment
- Numerical modelling and optimisation

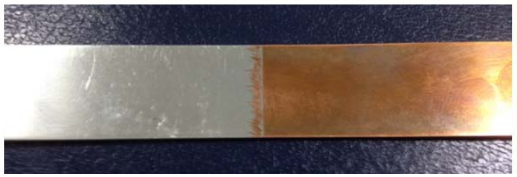
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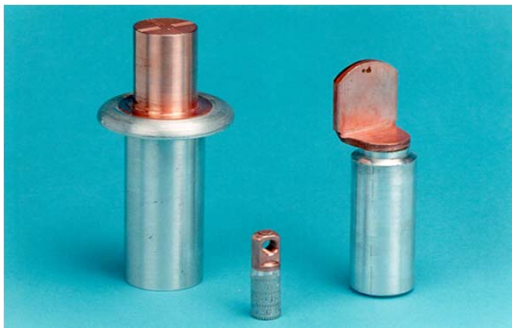
H2020 - Collaborative Proposals

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2191-fof-12-2015.html

Friction Welding of Al – Cu

(Electrical Connectors)





Call for Factories of the Future

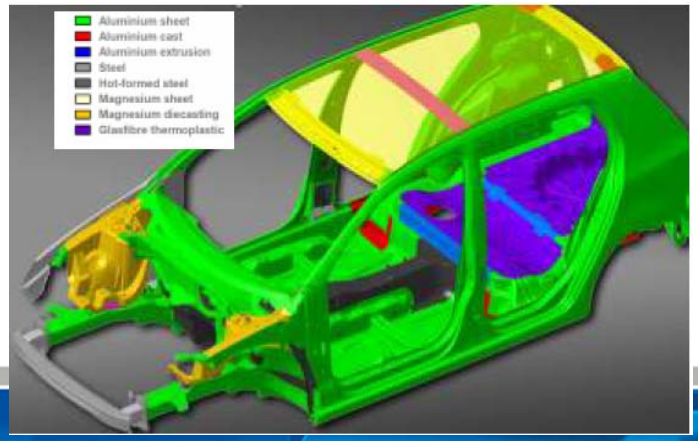
H2020-FoF-2015 — Sub call of: H2020-FoF-2014-2015

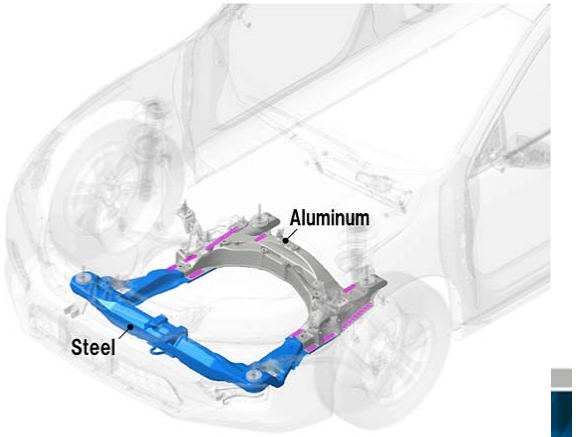
Publication date	2013-12-11	**Deadline Date**	2014-12-09 17:00:00 (Brussels local time)
Total Call Budget	€145,000,000	**Main Pillar**	Industrial Leadership
Status	Open	**OJ reference**	OJ C 361 of 11 December 2013

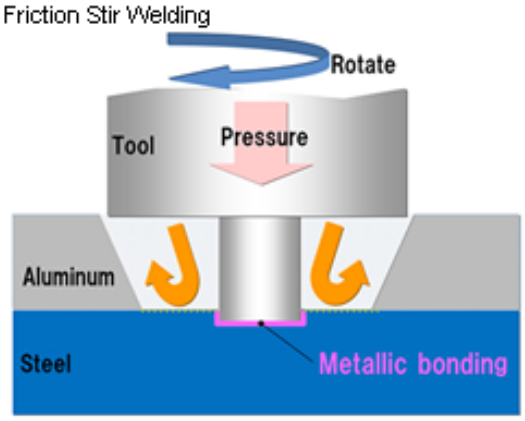
Topic: Industrial technologies for advanced joining and assembly processes for multi-materials **FoF-12-2015**

Automotive Weight Reduction Through Multi-Materials Welding

- Welding Steel with Aluminium alloys
- Welding Magnesium and Aluminium Alloys







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