

The aim of the Welding Systems Integration (WSI) team is to provide the next generation of **smart autonomous welding systems** based upon TWI's world-class process knowledge, developed within the context of the latest digital manufacturing philosophies underpinned by Industry 4.0.

Capabilities

- **Systems engineering** incorporating concept, design, process integration, manufacturing system verification and training.
- **Extensive industrial experience** within high value and high volume environments to exacting customer requirements.
- A focal point for the application and development of **Industry 4.0 philosophies** within a welding manufacturing technologies context.

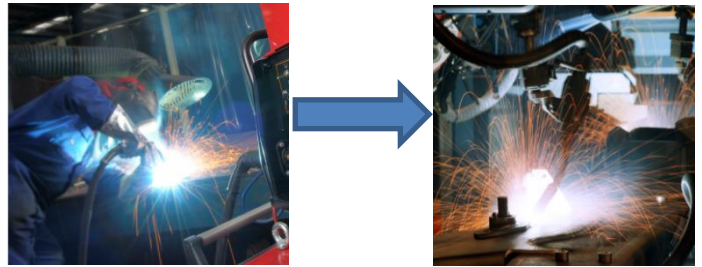
Offering

Member focussed service offering turnkey welding manufacturing systems architecture solutions:

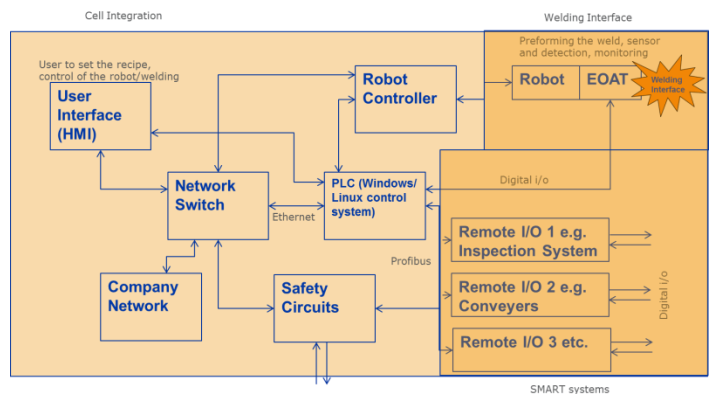
- Feasibility study and requirements capture
- Conceptualisation, design and maturity
- Integration of welding, smart technologies, automation and IT solutions
- Systems verification and demonstration using Technology Readiness Level (TRL) maturity process
- Training and on-going support
- Technology partner identification and supply chain development
- Project management ownership

Applications

The **benefits from developing and implementing smart autonomous welding systems** are wide ranging, from cost savings to embedded human knowledge within an automated process. We would welcome the opportunity to discuss your ideas and requirements further.



Embedding human craft (understanding, knowledge, and experience) **into robotic and autonomous welding systems for digital manufacturing**



Welding manufacturing systems architecture

About TWI

TWI is a world leading research and technology organisation. Over 900 staff provide impartial technical support in welding, joining, materials science, structural integrity, non-destructive testing, surfacing and packaging. Services include generic research, confidential R&D, technical information, technology transfer, training and qualification.

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