



JOINING  
INNOVATION  
AND EXPERTISE

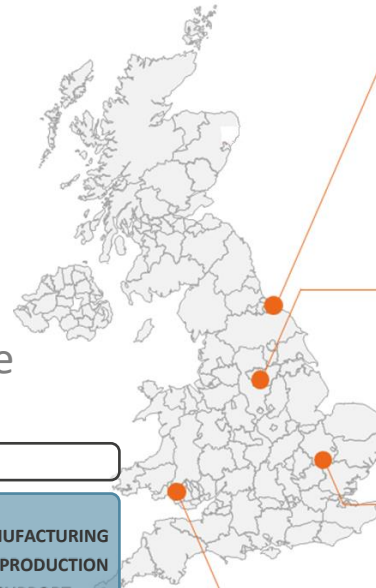
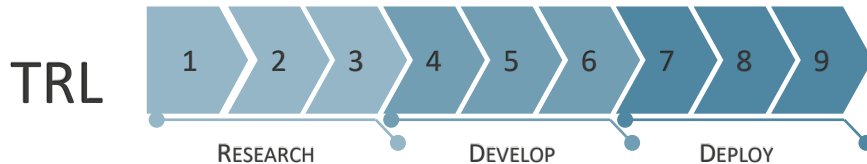
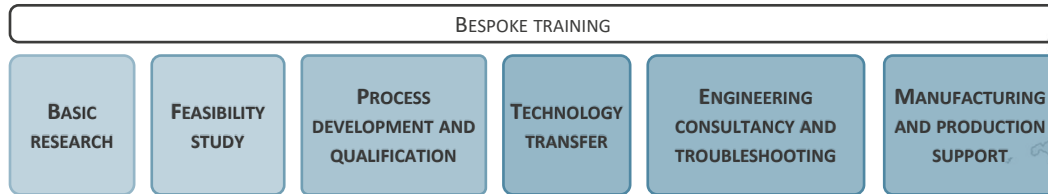
# ESA Technology Broker UK and Prepare for Space

**TWI Introduction**

Vito Di Pietro, 25/06/2024

## Non-profit distributing, membership driven RTO

- 100 years of heritage
- 630+ Industrial Members
- 650+ staff globally
- 2000+ professional members
- 4 main UK R&D centres, international presence



### Middlesbrough

Modelling and simulation, welding, underwater welding training



### Rotherham

Laser additive manufacturing and friction stir welding



### Cambridge HQ

Structural integrity labs, welding, NDT, NSIRC, innovation centres.



### Port Talbot

State-of-the-art NDT

# TECHNOLOGY DOMAINS

## ADVANCED MANUFACTURING TECHNOLOGIES



ARC WELDING ENGINEERING  
ELECTRON BEAM WELDING  
FRICTION WELDING PROCESSES  
THERMAL PROCESSES  
LASER WELDING & CUTTING  
PROCESSES  
LASER ADDITIVE MANUFACTURING  
NUMERICAL MODELLING AND  
SIMULATION

## MATERIALS AND STRUCTURAL INTEGRITY



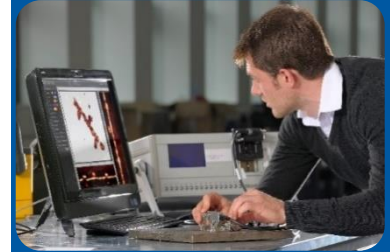
MATERIALS PERFORMANCE &  
FERROUS ALLOYS  
CORROSION TESTING  
STAINLESS STEELS & NON-FERROUS  
ALLOYS  
ASSET INTEGRITY MANAGEMENT  
FRACTURE INTEGRITY MANAGEMENT  
FATIGUE INTEGRITY MANAGEMENT  
THERMAL SPRAY & SURFACING

## POLYMER AND COMPOSITE TECHNOLOGIES



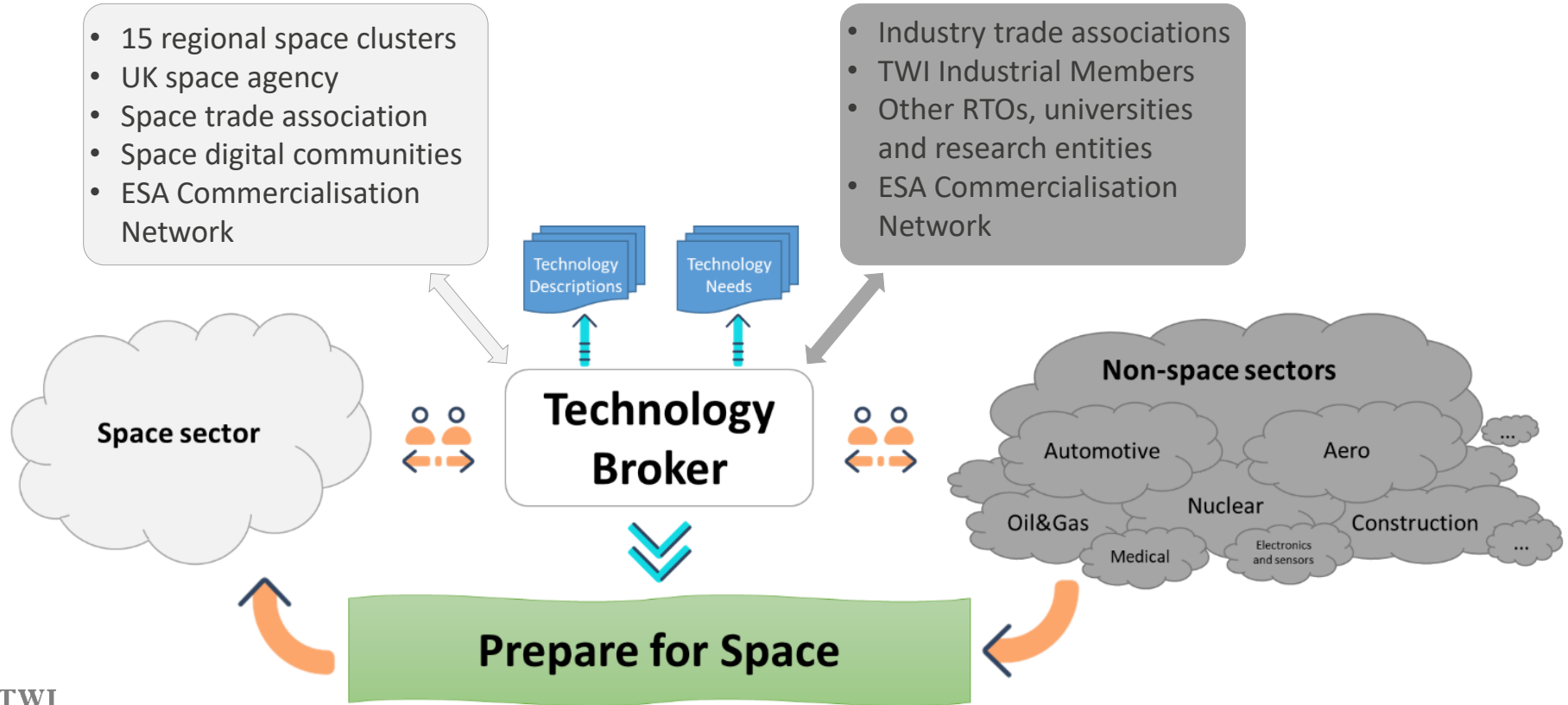
POLYMERS & ELASTOMERS  
FUNCTIONAL COATINGS & RESINS  
ADHESIVES & SEALANTS  
COMPOSITES

## NON-DESTRUCTIVE TESTING



LONG RANGE ULTRASONIC TESTING  
NON-DESTRUCTIVE TESTING  
NDT VALIDATION  
CONDITION & STRUCTURAL HEALTH  
MONITORING

# TWI is the ESA Technology Broker in the UK



# Examples of Services for Prepare for Space

## **BUSINESS SERVICES**

*Market Analysis*

*Business Case Development*

*Long-term Coaching*

*Funding Guidance*

*Networking Opportunities*

*IP Strategy*

*Export Control Checks and Training*

*Marketing as a Service*

## **TECHNICAL SERVICES**

*Technology Assessment*

*Space Qualification and Standards  
Guidance and Interpretation*

*Prototyping and Testing*

*Collaborative Research*

*Technology Transfer Guidance*

*Training and Workshops*

*Project Management support  
and best practice*

## Next steps

- **Do you have a product, service or technology with potential to spin into the space industry or to spin out? Get in touch with me.**
- Currently engaging with space and non-space companies to collect *Technology Description and Technology Needs* enabling cross-sector technology transfer in the UK and other ESA Member States
- **Prepare for Space Open Call to be launched in August 2024**
- Launch event at TWI Cambridge in September/October 2024

# Engage with the future of space manufacturing



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