

# Symposium Agenda

## 25 September 2025 at TWI Ltd, Cambridge, UK

- 08:30 Registrations - Arrival and Refreshments  
09:00 Welcome, Dr Caroline Gumble, Chief Executive Officer, TWI  
09:10 Introductory Address, Simon Webster, Chair, TWI Research Board  
09:25 TWI Technology Roadmap, Dr Paul Woollin, Director of Research, TWI and Dr Samantha Thomas, Technology Roadmap and Investments Manager, TWI

### Theme: Inspection, Monitoring & End of Life

- 09:35 **In-Process Detection and Non-Destructive Testing of Electron Beam Weld Imperfections (35258)**  
*Dr Channa Nageswaran, Technology Fellow, Advanced Ultrasonic Testing, Non-Destructive Inspection Services Section*  
09:45 **Artificial Intelligence for NDT Scanning of Unknown Geometries using Collaborative Robots (1201/2025)**  
*Dr Calum Hoyle, Software and Robotics Team Manager, NDT Research and Technology Section*  
09:55 **PANEL DISCUSSION**  
10:25 **Elevator Pitches: CRP Project Engineers**  
10:35 **Speed Networking and Refreshment Break**

### Theme: Validating Reliability of Novel Manufacturing Techniques

- 10:55 **Development of Friction Stir Welding for Hydrogen Fuel Storage Tanks (1190/2024)**  
*Dr Pedro Santos, Senior Project Engineer, Friction Welding Processes Section*  
11:05 **A Review of Directed Energy Deposition CAM Tools to Help Industrial Decision Making (35254)**  
*Gustavo Prass, Project Engineer, Laser Additive Manufacturing Section*  
11:15 **PANEL DISCUSSION**  
11:45 **Elevator Pitches: CRP Project Engineers**  
11:55 **Speed Networking**  
12:15 **LUNCH**  
13:15 **KEYNOTE SPEAKER: Dr Roberto Morana, Senior Corrosion and Materials Engineer, BP**

### Theme: Structural Integrity for Safety & Sustainability

- 13:45 **Internal Bore Coatings for Applications in Corrosion and Hydrogen Environments (35283)**  
*Tomaso Maccio, Laboratories Manager and Project Engineer, Laser Additive Manufacturing Section*  
13:55 **Hydrogen Embrittlement Reduced by Oxygen and Moisture (35410)**  
*Dr Ahamed Ameen, Materials Engineer, Metallurgy, Corrosion and Surfacing Section*  
14:05 **Development of leak-before-break hydrogen storage composite pressure vessels (34729)**  
*Dr Swaroop Narayanan, Composites Engineer, Polymer and Composites Services Section*  
14:15 **Refreshment Break**  
14:30 **Environmental Fracture Mechanics Testing of Dissimilar Metal Welds (34252)**  
*Dr Mike Dodge, Team Manager, Metallurgy, Corrosion and Surfacing Section*  
14:40 **Establishing Assessment Methods for Determining Safe Service Limits of High-Temperature Materials in Extreme Environment (34742)**  
*Dr Dorothy Winful, Senior Project Engineer, Metallurgy, Corrosion and Surfacing Section*  
14:50 **PANEL DISCUSSION**  
15:20 **Awards Ceremony: The Richard Weck Award and NSIRC PhD Student Poster Award**  
15:25 **Thanks and Close: Simon Webster, Chair, TWI Research Board**  
15:30 **TWI Laboratories Showcase and Tour**  
16:30 **FINISH**