

## EDITORIAL

### The Importance of Welding Research and Development to Brazil's "National Welding Capability"



Photo courtesy University of Wollongong

Welding technology is a critical enabling technology to the future growth of the Brazilian economy. The development and implementation of a 'National Welding Capability', is a mechanism to assist government and industry achieve sustainable growth in a sustainable environment.

Brazil can benefit from a recent example of Australian and International cooperation.

From 5 to 7 November 2014, as part of its National Welding Capability Project, WTIA hosted the 4<sup>th</sup> International Institute of Welding (IIW) Welding Research and Collaboration Colloquium. With over 85 speakers and delegates from 12 different countries, including 63 from Australia and Prof Americo Scotti and Prof Ana Sofia D'Oliveira from Brazil, the Colloquium was a unique and outstanding forum which brought together representatives from local and global industry and research to exchange ideas and establish cooperative networks for future communication and development.

Such colloquia are an initiative of the IIW Welding Research Strategy and Collaboration Group (SG-RES). Chaired by Prof Americo Scotti from Brazil, SG-RES has the key objective to analyse the growth of welding research around the world. At regular meetings, critical feedback is collected regarding how topics of industrial interest, and support for research in welding and allied techniques, are progressing in the participants' countries and strategies for future development are generated.

The Colloquium, organised and held in Wollongong by Australian IIW Responsible Member WTIA, was also sponsored by the Australian Nuclear Science and Technology Organisation (ANSTO), BOC Limited and the University of Wollongong. It was delivered through the valuable team effort of the Organising and Technical Committees, respectively chaired by Chris Smallbone, WTIA Industry Advocate and CEO Emeritus, and Americo Scotti, with Emeritus Professor John Norrish and Professor Madeleine du Toit of the University of Wollongong and WTIA's Event Coordinator Cena Josevska as members.

After the opening introduction by Chris Smallbone and Welcome to Country by Chris Cook, Executive Dean of the Faculty of Engineering and Information Sciences at the University of Wollongong, an overview of IIW was given by Dr Cécile Mayer, IIW CEO, and one on SG-RES by Americo Scotti.

Session 1 set the scene for an overview of research capabilities by Prof Heidi Cramer (SLV Munchen, Germany), Prof Madeleine du Toit (University of Wollongong), Dr Lenka Kuzmikova (Post-Doctoral Researcher, University of Wollongong), and Dr Anna Paradowska (Bragg Institute, ANSTO). Nine subsequent sessions, including 35 presentations, focussed on topics such as welding processes, modelling, applications, additive manufacturing, joint manufacture, automation, joining processes, and surface treatment, each chaired by a prominent industrial or research representative.

Prior to the group discussion session for 'The Way Forward', Chris Smallbone presented 'The IIW White Paper – Its significance to creating a National Welding Capability' which stimulated the brainstorming on how the R&D fraternity in Australia, collaborating with the IIW R&D network, could contribute effectively to Australia's future research needs and capabilities.

The Colloquium participants approved a Resolution 'To establish and maintain a WTIA National Welding Capability in Australia with the support of IIW, IIW SG-RES and the research collaborators within the IIW and Australian Networks'.

The positive feedback from those who attended the Colloquium was outstanding, reinforcing the belief that membership of IIW, and collaboration and cooperation opportunities such as the Colloquium, attendance at IIW Annual Assemblies and involvement in the IIW Technical Working Units, provide a country's industry and the community with immense technical, social and economic benefits.

Brazil can also benefit with a similar 'National Welding Capability' Project and greater involvement with the international community – let us take that opportunity.

Organizing committee of the 4th Welding research-collaboration colloquium  
Welding Technology Institute of Australia (WTIA).

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