

**C-XVIII****Quality Management in Welding and Allied Processes****Draft Agenda, Annual Assembly 2025****XVIII-0332-2025****Author:** Robert E. Shaw, Jr.**Comments:** Wednesday, 25 June 2025, 14.00 to 18.00, Room "Zefiro"

Meeting to be held in person only, not hybrid

Members are asked to review all documents prior to the meeting.

1. Agenda

14.00	1. Introduction		
	1. Welcome and apologies		Shaw
	2. Approval of Agenda	XVIII-0332-2025	Motion required
	3. Code of Conduct	XVIII-0333-2025	information
	4. Antitrust Statement	XVIII-0334-2025	information
	5. Confidentiality Statement	XVIII-0335-2025	Information
	6. Approval of Minutes, 24 March 24 2025	XVIII-0331-2025	Motion required
	7. Approval of Minutes, 11 July 2024	XVIII-0327-2024	Motion required
	8. Review of List of Documents	XVIII-0336-2025	Information
	9. Review of Terms of Reference	3 Terms of Reference	Information
	10. Roll Call of Delegates		Shaw
14.15	2. Election for Chair of C-XVIII (2025-2028)		Secretariat
14.20	3. Presentations		
14.20	3.1 Bridging SME Skill Gaps for Intelligent Manufacturing (XVIII-0337-2025) Rita Gomes Bola, S. Fernandes; European Welding Federation The integration of intelligent manufacturing technologies—encompassing digitalization, inspection, predictive maintenance, and process optimization—is reshaping industrial production. However, small, and medium-sized enterprises (SMEs) often struggle to leverage these advancements due to skill gaps and resource constraints. This paper examines the evolving skill requirements in intelligent manufacturing, drawing insights from the AIRISE and AID4SME projects, which have mapped SME training needs in artificial intelligence (AI)-driven manufacturing contexts. Our analysis highlights key competencies necessary for SMEs to effectively implement digitalized inspection techniques, predictive maintenance strategies, and process optimization solutions. We discuss tailored training approaches that bridge existing knowledge gaps, ensuring that SME personnel can adopt AI-driven tools with confidence. By addressing workforce readiness, this contribution aims to support SMEs in harnessing intelligent manufacturing to enhance efficiency, quality, and competitiveness. Keywords: Artificial Intelligence (AI), Digitalization, Skills Gaps, AI Skills needs, SMEs		

14.40	3.2 Applications of Artificial Intelligence (Title to be determined) (XVIII-0339-2025) Jithesh Parol Kundantavide ; International Maritime Industries-Saudi Arabia Abstract: to be provided Keywords:		
15.00	3.3 Optimal management of welding quality of wind power tower based on AHP and PDCA cycle (XVIII-0338-2025) Yukun Cao, X.C Lyu, X. Guo, C. Wei ; Harbin Welding Institute Co.Ltd The integration of AHP (Analytic Hierarchy Process) and PDCA (Plan-Do-Check-Act) cycle provides an optimal approach for managing welding quality in wind power tower manufacturing. The findings of this study have significant implications for enhancing the safety, reliability, and efficiency of wind energy infrastructure. Further research and application of this approach are recommended to drive continuous improvement in welding quality management practices. Keywords: Wind power tower, welding process, quality management optimization, process parameter control, comprehensive quality management system		
15.20	4. XVIII-C Quality management standards		Freckingham
15.20	1. ISO 22688 Brazing - Quality requirements for brazing of metallic materials – (Systematic Review, begins 2024-04-15)	ISO 22688:2020	Freckingham
15.35	2. Brazing coordination – Tasks and responsibilities	XVIII-296r2-2020	Freckingham
15.45	5. Break (30 minutes)		
16.15	6. XVIII-A Quality personnel		Gandolfo
16.15	1. Recommendations for competences for personnel involved in auditing to verify compliance in accordance with quality systems in the field of welding and allied processes	XVIII-297R3-2021	Gandolfo
16.35	XVIII-A Quality personnel (continued)		Gandolfo
	2. Adhesive (structural) bonding		Gandolfo
	3. Auditing guidelines		Gandolfo
	4. XVIII-A Discussion		Gandolfo
17.05	7. XVIII- management systems		Jaswal
	1. Use of Artificial Intelligence	XVIII-0325-2024	Jaswal
	2.		
17.25	XVIII- management systems (continued)		Jaswal
	1. Sustainability	XVIII-0326-2024	Jaswal
	2.		
17.45	8. Commission Business		Shaw
	1. Other XVIII documents		Shaw
	2. Updates to Terms of Reference		Shaw
	3. Resolutions and Actions		Shaw
	4. Closing Remarks		
	5. Address by the incoming Chair of XVIII		
18.00	9. Adjournment		Motion required

2. Commission Leadership

Commission XVIII — Quality Management in Welding and Allied Processes			
Chair	Robert E SHAW Jr	USA	robert.shaw@iiwelding.net
Vice Chairs	Mathias LUNDIN	Sweden	mathias.lundin@svets.se
	Giovannibattista (GB) GARBARINO	Italy	giovanni.garbarino@iis.it
XVIII-A Quality personnel			
Chair	Emanuele GANDOLFO	Italy	Emanuele.Gandolfo@iiscert.it
Vice-Chair			
XVIII-B Quality management systems			
Chair	Inderpal JASWAL	Canada	Inderpal.Jaswal@cwbggroup.org
Vice-Chair			
XVIII-C Quality management standards			
Chair	Emma FRECKINGHAM	UK	robert.shaw@iiwelding.net
Vice-Chair	Robert E SHAW Jr	USA	emma.freckingham@twicertification.com

3. Terms of Reference

C-XVIII Summary for 2024 Annual Report

Commission XVIII works to identify, create, develop, and transfer global best practices in the field of quality management for welding and allied processes, focusing on quality management systems and the qualifications for personnel and companies involved in welding and allied processes. As an interdisciplinary body for the IIW, it works with other Commissions to develop industry documents and standards for use by technical experts, quality managers, and production personnel.

Commission XVIII recently completed "IIW Recommendations and Best Practices for Welding Inspection - Tasks and Responsibilities" and "IIW Recommendations and Best Practices for Welding Coordination to ISO 14731 - Tasks and Responsibilities". It manages ISO 22688 "Brazing - Quality requirements for brazing of metallic materials" in collaboration with Commission XVII. New topics under consideration include management of intelligent manufacturing, artificial intelligence, and machine learning; adhesive (structural) bonding; auditing guidelines; and guidelines on the inspection of steel structures.

C-XVIII will continue its work to improve existing qualification standards and guidelines for welding personnel and for companies, with a careful eye for the needs of new joining processes and new developments in existing processes. This work also supports the work being done within the IIW International Authorization Board (IAB) and other organizations.

Quality Management in Welding and Allied Processes <https://iiwelding.org/iiw-working-groups/iiw-c-xviii/>

Commission XVIII, formerly SC-QUAL, maintains the goal to identify, create, develop and transfer global best practices in the field of quality management for welding and allied processes.

It focuses on quality management systems and the requirements for personnel and companies involved in welding and allied processes.

Commission XVIII acts as an interdisciplinary body for the IIW, working with other Commissions to develop industry documents and standards for use by technical experts, quality managers and production personnel.
