

## European industry's employment and qualification opportunities as seen by the joining sector

Europe's economies have grown on a thriving industrial base. Albeit still a powerhouse, it needs to reinvent itself to regain competitiveness and leverage new growth opportunities. Enabling technologies, such as joining, can play a pivotal role in its future. That is the focus of a special Whitepaper developed highlighting the current and future shortage of skills to support this growth. Read more on EWF's website

Europe is the birthplace of the industrial revolution. Although services have been more recently perceived as a growth area for the continent as a whole at the same time that industrial production has taken a less visible role, manufacturing is still a hallmark of Europe and an area of ample wealth generation and employment opportunities. Industrial activities still account for over 80% of Europe's exports and 80% of private research and innovation. It also plays a pivotal role in EU competitiveness and growth opportunities moving forward, as it has been reinforced by the Commission and the guidelines of Program Horizon 2020. And, as key enabling and pervasive technologies in all manufacturing processes, joining and welding are cornerstones of manufacturing success and competitiveness. In itself, welding is considered as a 'Special Process', which means that its quality cannot be readily verified and its successful application requires specialist management, personnel and procedures above and beyond those that are considered for general quality systems such as ISO 9001. It also represents a cross-generation profession, with employment and career opportunities for all ages. Its relevance has been highlighted by the Commission's Industrial Renaissance in Europe communication as well as, amongst other initiatives, the launch of the Technology Platform "Manufuture" and, more recently, the creation of the Joining Sub-Platform within Manufuture.

In spite of this vision and long-term positive prospects for welding and joining, the sector has seen a worrying trend in which the number of youngsters embracing the profession has dwindled in the last decade, while retraining of current professionals has also followed the same route. This trend could potentially hinder the growth and competitiveness of manufacturing industries in Europe. So, in order to maintain the quality level in manufacturing and the engineering sector at large, and to prevent future issues with professionals' shortage, it is fundamental to invest in people's training and qualification.

The harmonised international EWF training, qualification and certification systems provide manufacturing companies worldwide and their workforce with a convenient, comprehensive and convincing way of demonstrating compliance with EN ISO 3834 and EN ISO 14731, as well as the most recent EN 1090 and EN 15085, which is a mandatory requirement to obtain CE Marking and, as such, entry into all European Union Markets. These systems have achieved considerable maturity and recognition, and are being continuously improved.

## **The role of the training and qualification stakeholders**

The shortage of welding and joining professionals means actions need to be taken to address it. Beyond regular training, this can also be achieved through increasingly sophisticated distance-learning technologies, increasing its reach and attractiveness to younger, more technology-savvy, audiences.

EFW, as well as other relevant players in the industry, is actively working to raise awareness amongst all of the potential professionals about the increasing opportunities that exist on the manufacturing sector. For EFW specifically, the focus has been on developing relevant initiatives, ranging from recognition through awards for young welders, best welding coordinator and Lifetime achievement to implementing innovative teaching methods, including implementation of Virtual Technology in education of welders and welding specialists as well as through the launch of the Welding Dictionary app, currently available on the Apple App Store and in the implementation of distance learning in welding / joining technologies.

To ensure the long-term success of the profession, further initiatives are required, such as working closely with EFW members to qualify existing workforce and get them up to speed on the new technologies and materials used in joining. Also, looking ahead, reaching out to secondary school students, reinforcing the distance-learning modules, creating new mobile programs and solutions that respond to current and future workforce needs and methods, as well as to technological evolution. These challenges are the cornerstone of future evolution of Joining technology and where EFW will be working in the future to develop its programs and initiatives.

## **About the European Federation for Welding, Joining and Cutting**

EFW is a pioneer in implementing a harmonized qualification and certification system for joining professionals. Through European projects EFW has been innovating in welding training methodologies, and involved in the development of new technologies and uses for welding and joining. Through its member organisations, EFW has established a firm link to the local industry, providing knowledge and training as well as participating in research initiatives that address the most pressing questions and challenges in the field of welding.

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