



Universities, companies and society cooperation drive workforce employability and economic competitiveness for South Mediterranean region

The SM Weld project will establish a Welding Centre in the participating countries – Algeria and Tunisia – to coordinate the partnerships in place and implement welding quality certification of companies

The South Mediterranean region includes some of the most competitive African economies, as highlighted in the latest world competitiveness report from the World Economic Forum, with strong economic growth and a young population¹ eager to enter the workforce, which is often difficult since unemployment is still very high. The SM WELD (South Mediterranean Welding Centre for Education, Training and Quality Control) project aims at bringing together Universities, Enterprises and Society as a whole to improve workforce employability.

This will be achieved through a comprehensive initiative encompassing learning innovation, specialization, training and qualification through the creation of welding and joining consultancy, welding trainers and welding audit firms. The new educational and training model proposed by SM WELD aims at enhancing the employability of academic and technical personnel as well as fostering the entrepreneurial culture, thus contributing to the improvement of living standards. Another dimension is to drive the quality of the workforce while contributing to knowledge transfer, while supplying the North-African industry with highly qualified personnel.

SM WELD objectives are structured for three main audiences - the Academic community, Welding Personnel and Companies who need certification in welding in compliance with ISO 3884.

Partnership for competitiveness and workforce qualification in the South Mediterranean Countries

The Northern Africa region has some of the most thriving economies in the continent, with young population and still growing quickly. The high unemployment rate among young educated people highlights the fact that access to education does not secure job creation by itself, that quality of education and skills matching employers requirements requires a virtuous ecosystem involving all relevant players to be put in place to achieve growth. As manufacturing is widely perceived as the most important driving force for the modernization of the region versus the most traditional reliance on commodities², whose prices vary much more frequently, companies in this sector need to serve their local customers and, most of all, to be able to compete on global markets. Indeed, as pointed out by The Economist in 2014, few countries have been able to escape poverty without employing a significant amount of their

(1) [Over half the population](#) is under 25 years old according to 2011 Eurostat data

(2) KPMG Sector Report – Manufacturing in Africa, 2015

people in manufacturing activities. The SM WELD objectives are then structured in three key growing layers – Academic, Welding Personnel and Companies.

On the academic front, the focus is the MSc Specialization in Welding and Coordination in line with the International Welding Engineer / International Welding Technicians qualification. On a second layer, the focus is the implementation and coordination activities for training and qualification of welding personnel. Lastly, the project will look at coordinate the implementation and certification of welding organizations in compliance with ISO 3884.

The SM WELD project has the purpose to bring the university, enterprises and society closer to foster employability through learning innovation, specialization, training and qualification and enhancing entrepreneurship. This will be achieved by the creation of welding and joining consultancy, welding trainers and welding audit firms. By implementing the International System for Higher Education and Practical Qualification of Welding Personnel based on the harmonized European System for Welding, the project will address three key factors on workforce qualification and companies' competitiveness – Quality, Environment and Health and Safety. As a result, the project's aimed outputs are the integration of the module *Welding and Joining Specialization MSc* in manufacturing programmes and training with the objective of obtaining the International Welding Engineer Qualification, the development of training modules in *Welding* for non-tertiary education and certification training for International Welding Technologist Qualification, the creation of a common European recognized EdTrCert system for Partnership Countries (PCs) and, lastly, the establishment of the Welding Centre in the PCs to coordinate the partnerships and implement welding quality certification of companies.

Project outcomes and participating partners

SM Weld is being developed with a long-term vision of its regional role and its impact in students, teachers and the industry. The project will therefore increase student and staff mobility between South Mediterranean and European universities through the development of education programmes according to Bologna process system in Welding and Joining, as well as build partnerships between universities in Algeria and Tunisia, companies and other stakeholders for knowledge transfer, including the System for Education and Qualification of Welding Personnel and the creation of the Welding Centre. Another key benefit will be the growing welding knowledge and practical skills of students by developing and implementing comprehensive welding Open Education Resources (OERs) for both regions, which will contribute to a stronger competitiveness of regional companies on global markets by an easier access to the recognition of the EU Certification programmes for International Welding Engineers and welding audit for quality assessment of companies according to ISO 3834 in the South Mediterranean region. This, in turn, will improve welfare and the standards of living in the region through the creation of new jobs in strategic manufacturing areas.

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 training methodologies, and involved in the development of new technologies and uses for joining. Through its member organisations, EFW has established a firm link to the local industry, providing knowledge and training as

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well as participating in research initiatives that address the most pressing questions and challenges in the field of joining technologies.

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(2) KPMG Sector Report – Manufacturing in Africa, 2015