

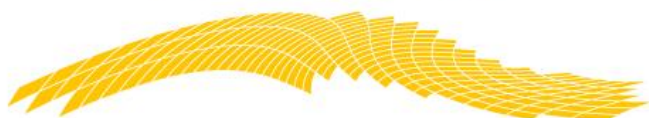
Interreg ADRION



ADRIATIC-IONIAN

European Regional Development Fund - Instrument for Pre-Accession II Fund

FUTURE 4.0



**MANUFACTURING
EDUCATION AND TRAINING
GOVERNANCE MODEL FOR INDUSTRY 4.0
IN THE ADRIATIC-IONIAN AREA**



REGIONE DEL VENETO



CONFINDUSTRIA
Veneto SIAV S.p.A.



LMS

Laboratory for
Manufacturing Systems
& Automation



REGIONE PUGLIA



UNIVERSITY OF FIUME
FACULTY OF ECONOMICS

The INTERREG - ADRION Project Future 4.0: Results and Perspectives

One of Europe's major weaknesses lies in its inferiority, when compared to other developed economies of the planet, in terms of transforming the results of technological research and skills into innovations and competitive advantages. This assumption, taken from the EU Green Paper on innovation published so many years ago, seems still true.

To fill this gap, the **INTERREG - ADRION project Future 4.0** has worked for three years and is now ready to present results and share outcomes. In particular, the project aimed to face the challenges brought about by the Fourth industrial revolution with a specific focus to the maritime, naval and shipbuilding sector. This sector - just like or even more than other manufacturing sectors - is affected by the progressive introduction in productive processes of cyber - physical systems, which combine traditional processes with artificial intelligence, and which are tearing down the borders between the real world and the virtual one. Adriatic - Ionian societies, industries and economies are involved as well in this transformation, with effects on production, on relations between companies and on human capital development. To face this challenge, the project aimed to design an Industry 4.0 model to improve the competitiveness of the maritime and shipbuilding sector in **two Italian regions (Veneto and Apulia), in Croatia, Greece and Albania.**

The partnership Future 4.0 is multi actor and encompass public and private bodies (such as the Veneto Region that is the lead partner, the Primorje - Gorski Kotar county, the Chamber of commerce of Tirana, The Chamber of Commerce of Achaia), **universities** (The Polytechnic of Bari, the University of Rijeka, the University of Patras, the Mediterranean University of Albania) and **company support organizations** (Confindustria Veneto SIAV), all active in promoting Industry 4.0.

An exhaustive research activity was the steppingstone of the project aiming at investigating the characteristics of partner regions in terms of economy, development trends, demography, and specificities of the maritime and nautical sector. The analysis was also the occasion to consider the skills and the professional profiles currently in use in the shipbuilding sector and to discuss with companies the skills and profiles to implement

Industry 4.0. This analysis of the industrial needs was at the very heart of the design of the **Smart learning model**, i.e., partners' approach to support companies in upskilling and reskilling their workforce. The model was developed within the concept of knowledge transfer, which is not limited to the sole idea of technological transfer but deals also with the need to prepare the company to acquire new external knowledge and to transform it to make it usable in the receiving organization. An on-line platform was designed to support the application of the learning model and to make available an open learning environment.

The learning model was tested in the five partner regions through the realization of as many local action plans, which involved 60 public and private stakeholders and 132 companies of the maritime industry. The plans introduced enterprises to the fundamentals of enabling technologies linked to Industry 4.0, such, for instance, Cloud computing, augmented reality, and advanced manufacturing systems. The plans were useful as well to validate the learning model and to propose four innovative professional profiles to improve the learning offer linked to Industry 4.0 in the shipbuilding sector. **The four profiles are: IT Manager, Technical Area - Research and Development Manager, Supply Manager, and Human resource manager.**

Not only did **project results** meet project objectives, but they also had three positive consequences on the maritime and naval industry in the Adriatic - Ionian area. First, **companies transferred new knowledge** linked to the Fourth industrial revolution, improving their potential in terms of innovation, effectiveness, cost



reduction, new operative and managerial processes, and development of new skills.

Second, **links, partnerships and connections between enterprises, knowledge providers, universities and public administrations have been created**; these links strengthen the sense of belonging of operators who, in implementing Industry 4.0, are facing common challenges and problems. Third, the project dealt with the issues of the Fourth industrial revolution, mixing them with other cross-cutting issues linked to all productive sectors, like climate change, the progressive exhaustion of resources, demography. As a result, **sustainability itself of the maritime sector is increased and the contribution of the naval sector to the development of the Adriatic - Ionian area is empowered.**

Partners decided at the end of the project to subscribe a formal cooperation agreement, to continue their collaboration on Industry 4.0 in the maritime sector, to continue working with the Future 4.0 platform and to go on supporting companies in the digital transformation processes.

