



FUTURE 4.0



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Professional Profiles



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A challenging task in challenging time



Designing professional profiles throughout two deep waves of changes is a very challenging task:

- The Covid 19 pandemic **has suddenly accelerated the transformation of the entire nautical ecosystem**: shipyards, suppliers, value chains, companies that provide both traditional (legal, administrative, etc..) and innovative services.
- **Industry 4.0 technologies and digital services have been introduced to innovate processes, products and services.**

Nautical and shipyard sector is accelerating the speed of innovation and the Interreg. Adrion Future 4.0 has been the “place” where innovation has been nurtured for many SMEs that have used the project as a “surf” to face big waves of changes.



A challenging task in challenging time



Industry 4.0
Digital Transformation

COVID 19



Some lessons learned

1. All the organizations (from regional authorities, professional associations, universities and of course companies) **have realized they have to work in a collaborative way for finding and implementing solutions in an effective, simple and speedy way.**
2. **The new knowledge flows, thrives and turns in processes, products and services inside and among networks and ecosystems**
3. **Team working** has been the key to achieve efficiency improvements, increase speed, and provide new services
4. **Industry 4.0 and digital innovation are human drive innovation process fuelled by new competencies, motivation and passion**



New professional profiles are emerging

The sample

The partners have completed 60 interviews, 12 for each one.

The interviewees have been **entrepreneurs, but mostly managers and highly skilled technicians** working in SMEs.

We can consider all the interviewees as examples of **knowledge workers** in the shipping ecosystem: they have responsibilities in operation, supply chain management, marketing, business development, services and personnel management.

In the new competitive environment 4 key roles are emerging:

- IT Manager
- R&D Manager
- Supplier Manager
- HR Manager.



New competencies and skills

In the emerging competitive environment acquiring and transforming new knowledge in seasoned companies require a new pattern of competencies and modify the relationship among:

1. New digital and technological competencies
2. “Traditional” professional, technical and methodological competencies
3. New soft skills.

Digital Competencies

1. Additive Manufacturing
2. Cyber Security
3. Big data and Analytics
4. Augmented Reality
5. Advanced Manufacturing Solutions
6. Cloud Computing

1. Shipbuilding and nautical ecosystem
2. Economics / cost evaluation
3.
4.
5.
6.
7. Information technologies
8. Lean organization / process management
9. Quality tools
10. Project management

Specific for each role

1. Flexibility/Resilience
2. Emotional intelligence
3. People management
4. Change oriented mindset
5. Collaboration
6. Communication
7. Continuous learning
8. Creativity
9. Critical thinking
10. Customer orientation

Soft skills*



The recognition of new knowledge and skills

The recognition of the new skills developed by the participants has been **the final result of a process that started in close cooperation, coordination and agreement with all partners** from the early stages of the activities.

Trainers and Assessor have acted the **role of coaches and facilitators** in order to promote the development of new skills through dialogue, the search and the identification of evidences supporting the acquisition of new know-how.

To reinforce the recognition of the new skills the interviews have been done in two modalities in presence and/or via Skype or Zoom:

- at the end of the workshops
- in specific meetings .

Sharing the results with the participants has promoted the acquisition of a meta-competence: a methodology able to guide companies and people to identify and absorb innovative knowledge.

European Qualification Framework



The EQF is an 8-level (1 is the lowest and 8 the highest level) learning outcomes-based framework for all types of qualifications that:

1. Serves as a **translation tool** between different national qualifications frameworks
2. Improves **transparency** and portability of people's qualifications
3. Makes it possible to compare qualifications from different countries and institutions and provide a comprehensive map of all types and levels of qualifications in Europe.

The descriptors defining levels in EQF are:

- **Knowledge:** described as theoretical and/or factual
- **Skills:** described as cognitive (involving the use of logical, intuitive and creative thinking) and practical
- **Autonomy** is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility



Professional profiles: main criteria

The professional profiles :

- Refer to roles that are **implementing knowledge transfer and digital transformation processes** and play an active and driving force in innovation process
- Can be an **effective reference point for companies** and professionals working in the sector. The profiles can provide useful benchmarking: for example, in order to identify skill gaps to define training programs.
- Highlight the **importance of sustainability** issues for all those who work in and for the sea.

EQF: Supplier Manager in nautical and ship building sector (level 5)

KNOWLEDGE	SKILLS	RESPONSIBILITY AND AUTONOMY
<p>To know shipbuilding and nautical sector and ecosystem: competitors, market segments, suppliers, start up, competence centers, etc.</p> <p>To know modern techniques of planning and forecasting</p> <p>To know the potential impact of new technologies in the supplier management process of companies of shipbuilding and nautical sector</p> <p>To know how to identify company digital innovation needs and opportunities in the supplier management process of the companies of shipbuilding and nautical sector</p> <p>To know how to identify and resolve constraints, problems and issues connected with the use of the new digital technology to innovate company processes and products</p> <p>To know key financial principles in the company context to evaluate suppliers' costs and make decisions based on available data.</p> <p>To know principles and main issues on sustainability</p>	<p>Ability to understand the changing future needs of the company in consistency with its guidelines and strategy</p> <p>Ability to understand company processes, main decisions and dynamics</p> <p>Ability to seek and obtain necessary approval on his/her proposals</p> <p>Ability of dealing with uncertainty and volatility</p> <p>Ability to speak fluent English</p>	<p>Long- and medium-term planning on activities and contracts with key suppliers of the supply chain in compliance with the guidelines and indications of the CEO and/or the entrepreneur in order to achieve the company objectives</p>

EQF: Supplier Manager

<p>To know how to manage, control and improve in terms of efficiency and performances the processes of logistics, warehousing and distribution</p> <p>To know main techniques of lean organization / just in time</p> <p>To know how reduce costs and improve efficiency through activities such as demand planning, inventory optimization, safety stock management, excess and obsolete inventory</p> <p>To know European, national and local law on sustainability that have an impact on the selection and management of the suppliers</p>	<p>Ability to implement actions and activities to control and improve supplier management processes</p> <p>Ability to find out and solve problems according data and information available</p> <p>Ability to communicate and collaborate with CEO, entrepreneur, and others company departments</p> <p>Ability to communicate effectively with suppliers</p> <p>Ability to negotiate with the suppliers in win way</p> <p>Ability to find fast solutions</p> <p>Ability to be flexible, innovative and creative in solving problems</p>	<p>Implementing day by day activities with key and second tiers suppliers to ensure the right and timely deliveries according to the specific company needs (for example, manufacturing, logistics, warehousing, inventory and distribution processes) in order to reduce costs, increase corporate profitability and efficiency</p>
<p>To know how to use computer software (for example, Excel, ppt, etc..), IT tools (for example SAP) and new technologies to track goods from origin to delivery and to plan, manage and control each supplier and the supplier network through the adequate KPIs, measurement and performance systems</p> <p>To know how to apply methodologies of agile project management</p>	<p>Ability to plan and implement projects having the aim to introduce new technologies for supply chain management</p> <p>Ability to analyze logistics, warehousing and distribution processes</p>	<p>Ensuring the appropriate and consistent use of specialized Information Technologies tools for Supply Chain Management</p> <p>Introducing new technologies to improve effectiveness of supply chain to achieve company objectives and strategies</p>
<p>To know how human resources methodologies and techniques</p> <p>To know how to use techniques for distributing responsibilities and activities among his / her subordinates in a fair way</p>	<p>Ability of communicate with his/her subordinates</p> <p>Ability of motivation and empowerment</p> <p>Ability of team leading and team working</p>	<p>Ensuring the appropriate management of his/her team and of each subordinate in consistency with law and company guidelines</p>

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**Highlight the route to innovation
and sustainability (Innovability)**



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