DIGIT-FUR
IMPACTS OF THE DIGITAL TRANSFORMATION IN THE WOOD FURNITURE INDUSTRY

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EXECUTIVE SUMMARY

CENFIM
Home & Contract furnishings cluster and innovation hub

European Federation of Building and Woodworkers

UEA

EFIC
European Furniture Industries Confederation

With financial support from the European Union.

Executive summary

The **DIGIT-FUR** project - Impacts of the digital transformation on the wood furniture industry has focused its research on the changes caused by the **Industrial Digitization (or Industry 4.0)** on the **European wood furniture sector in 2025 (NACE 31.0)**. It has been funded by the European Commission call: Support for Social Dialogue VP/2016/001. Grant Agreement Reference VS/2017/0027.

Project partners were: **CENFIM –** Home & Contract Furnishings Cluster and Innovation Hub (Lead Partner); **EFBWW –** European Federation of Building and Woodworkers; **UEA –** European Furniture Manufacturers Federation and **EFIC –** European Furniture Industries Confederation.

The project has provided a better understanding of the possible **scenario of the furniture sector due to digitization impact in 2025** and it forecasted which will be the effects of this transformation on 11 ESCO occupational profiles (ESCO – European classification of Skills/Competences, qualifications and Occupations) in relation to the **changes in their tasks, occupational health and safety (OHS) risks** and the related new **skills, knowledge and competencies (VET)** needed. This forecast exercise and the forecasted scenario in 2025 are the key part of the study and it is presented in the central part of this report through specific tables for each of these aspects and profiles.

Profiles selection was implemented looking at those **occupations specific** to the furniture sector and their **relevance** for the functioning of companies. The 11 occupational profiles analysed are:

- Cabinet-makers and related workers
- Woodworking-machine tool setters and operators
- Upholsterers and related workers
- Wood processing plant operators
- Sales and marketing manager
- Factory hand
- Industrial production manager
- Supply chain manager (Supply, distribution and related managers)
- Maintenance & repair engineer (machinery maintenance and repair workers)
- Furniture designers
- Furniture assembler

The main research outcomes are the following:

The adoption of **Industry 4.0 new technologies** is believed being one of **the key drivers of change** during this and next decades for the European industries, together with the Circular Economy. This research **aimed to anticipate the understanding of these changes** in order to facilitate and thus support the social dialogue among sector key actors and stakeholders and to properly face next years challenges and **secure workers employability and safety, and companies' competitiveness**.

With a massively connected and globalised economy, the wood furniture manufacturing industry will offer personalised smart products and services based on **digital manufacturing systems** supplied by resource-efficient and sustainable industries with an immense need for enough digitization talents and skills securing a competitive transformation of the industry. A number of **new technologies offer transformative business potentials**, both in terms of the products and manufacturing processes, for those companies able to properly use and adopt them. An even greater transformation can come from the **accumulated effect** of the combination of several of these new technologies. Most of these technologies can be utilised by SMEs' and large enterprises, making them suitable for a large part of the European wood furniture industry.

Digitization poses **new challenges for occupational health and safety**, but new types of workplaces, processes and technologies **can increase the safety and health of workers**. Workers may be removed from hazardous environments, and sensors may facilitate machineries maintenance. However, digitalization gives also rise to many **new challenges and stresses for workers**. Increasing automation can lead to a lack of sufficient understanding of the new processes and technologies. Workers may also be exposed to time pressure, an increased pace of work and workloads, tasks complexity, excessive working hours and constant reachability. The use of and cognitive interactions with robots/cobots can lead to mental stress or the risk of working alone and feeling isolated. Long working hours on computer screens and poor ergonomic design of non-office visual display unit workplaces may lead to musculoskeletal disorders.

In order to **reduce the above mentioned possible negative impacts** while properly **exploit the digitization opportunities**, companies, workers and all sector stakeholders and associations will have to join efforts and **increase collaborations. Formal, Informal, Initial and Continuous VET** will play a key role in supporting workers and managers and provide the new demanded skills, knowledge and competencies such as the seven survival skills of the future and the ones related with digital literacy, data security, engineering, science, technology and ICT.

Changes in jobs tasks will create new needs for **skills, knowledge and competences.** Future employees of the furniture industry not only have to be able to efficiently perform tasks, but they have to possess as well the **skills and ability to recognize, adopt and adapt to continuous changes.** There is no increased need for hard skills, but the hard skills or technical skills need a **complete integration of all relevant digital skills.** Technical knowledge remains essential and forms the foundation; cognitive, social and behavioral skills will become a priority. People will no longer being selected on the basis of their diploma, but in function of their mindset. **Each individual will become responsible for his or her own proficiency** in learning and self-improvement.

A **key follow-up step** of this project is the approval of the project proposal DITRAMA in the 2017 Sector Skills Alliances call of the ERASMUS+ program. Furniture sector companies, challenged by the 4th Industrial revolution, need professionals able to properly lead their digital transformation. **DITRAMA project** aims to provide an innovative **Massive Online Open Course** for a new key occupational profile for the Furniture sector: the **Digital Transformation Manager**. This MOOC will train managers to **successfully lead the digital transformation** along the whole value chain.