DIGITAL TRANSFORMATION MANAGER

DITRAMA – DECEMBER 2019

"DIGITAL TRANSFORMATION MANAGER" FOR FURNITURE INDUSTRY: SURVEY ON THE SKILLS REQUIRED FOR A NEW PROFESSIONAL PROFILE

DITRAMA project, co-financed by the European Commission within the Erasmus + Program, aims to define the set of skills, knowledge and competence of new professional figure of Digital Transformation Manager for the furniture supply chain.

The context

Digital Transformation Manager for the furniture sector is the professional profile called to implement an organic digitalization strategy in all business processes.

It is a figure who must necessarily integrate 4 complementary skills:

- **PLAN:**
    o The Digitalization strategy of the company
    o The human, economic, infrastructural and technological resources of the Digitalization department required for the successfully implementation of the strategy

- **DO:**
    o Ensures the successful implementation of the Digitalization strategy
    o Coordinates the activities related with the company Digitalization strategy

- **CHECK**:
    o Designs the list of reports (and KPIs) for monitoring, measurement, analysis and evaluation of the digitization performance of the company
    o Coordinates the auditing activities in the field of Digitization, including the assessment of the digitization maturity level, of the company
    o Coordinates and supervises the investigation of new technologies, solutions, tools and methodologies in the field of Digitalization

- **ACT:**
    o Drives innovative / transformative / disruptive improvement projects in the field of Digitization, including corrective actions, within the Digitalization department and the company

o Identifies opportunities for improvement, including nonconformities, of the Digitalization department and of the part of the company management system related to Digitization and to the implementation of its strategy

The investigation methodology

Based on these final objectives, the project at the beginning, defined the main skills required of the Digital Transformation Manager.
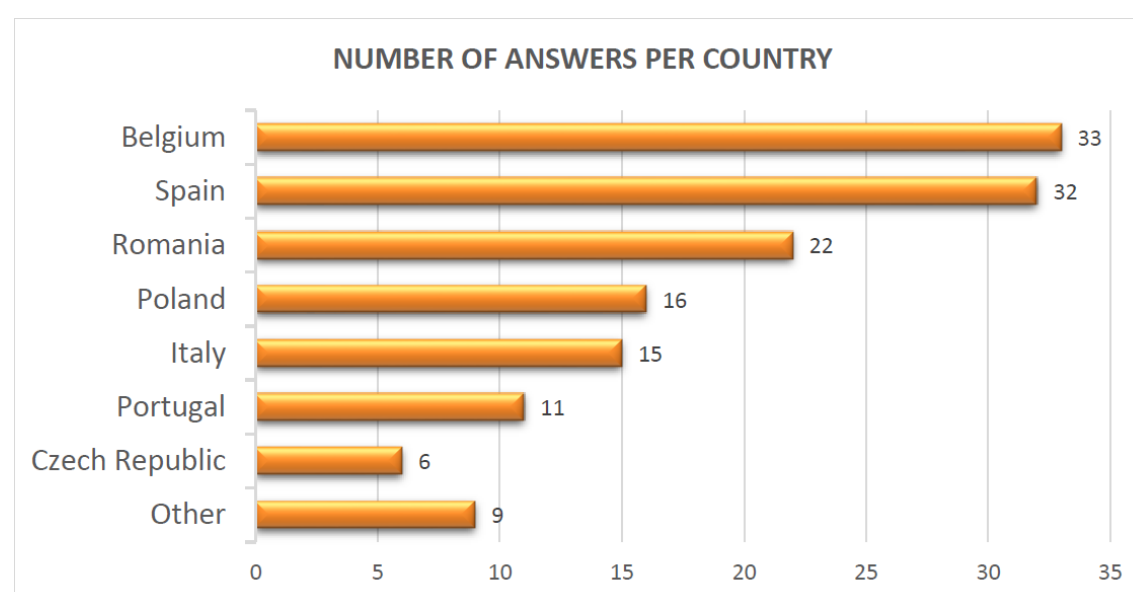
The first phase of the project involved **144 experts** from all over Europe, participated in an in-depth online interview, consisting of multiple choice questions:

- Technical and Industry 4.0 Technologies skills

- The No-technical skills and

- The biggest barriers for implementing Ind. 4.0 in furniture industry

The experts were selected in order to obtain a **representative panel** both by geographical origin and by occupation, divided between:

1) **Furniture sector employers and employees,**

2) **VET (Vocational Education and Training) / HE (Higher Education) professionals**

3) **Industry 4.0 technology experts.**

In graphs below it is possible to see the detail for each of the two selection criteria of the sample interviewed:
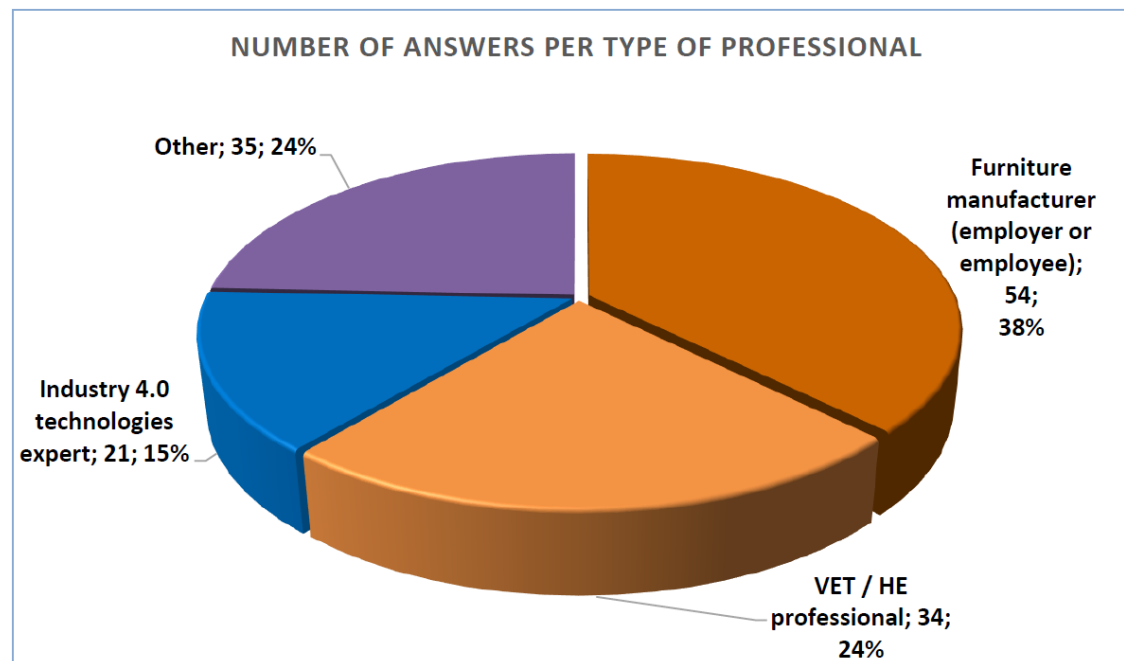

NUMBER OF ANSWERS PER COUNTRY

Country	Number
Belgium	33
Spain	32
Romania	22
Poland	16
Italy	15
Portugal	11
Czech Republic	6
Other	9

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Following the survey, a workshop was held in Brussels on 27 June 2019 with 27 experts who analyzed and commented the results of the interview, addressing the general definition of the Curriculum of the Digital Transformation Manager

The results of the investigation

The results in aggregate form that emerged from the responses to the questionnaire are shown below, divided into the three macro objectives initially defined.

1) The first cluster of questions defined the priority technological skills for the new figure of the Digital Transformation Manager.

Within a range of different technologies, two emerged with particular relevance and urgency to guard: **Internet of Things and Cybersecurity.**

In the opinion of the experts interviewed, the digital connection between machines and objects and the protection of the safety of digital equipment within the company are two priorities on which the competence of the Digital Transformation Manager must be focused immediately.
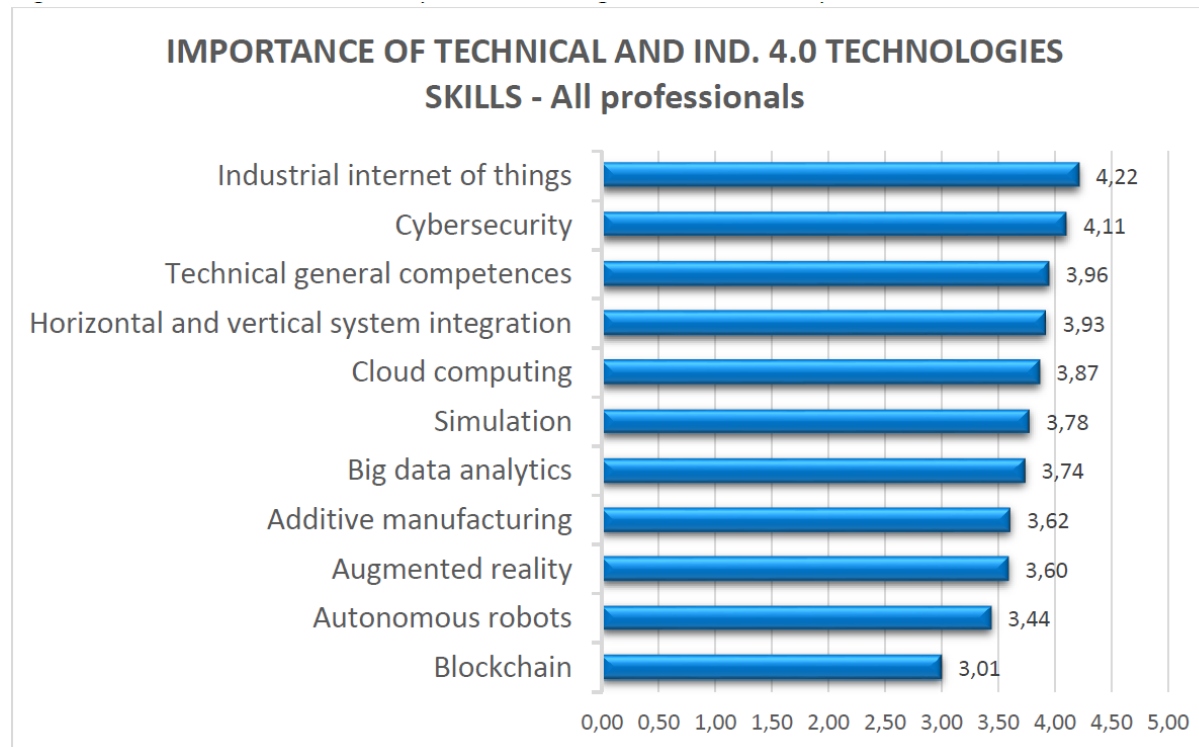
As can be seen from the graph, with the exception of the Blockchain - probably still far from the daily activities of the companies or not well understood in its developments in favor of the traceability and anti-counterfeiting of the product - all the technologies indicated in the questionnaire are considered relevant.
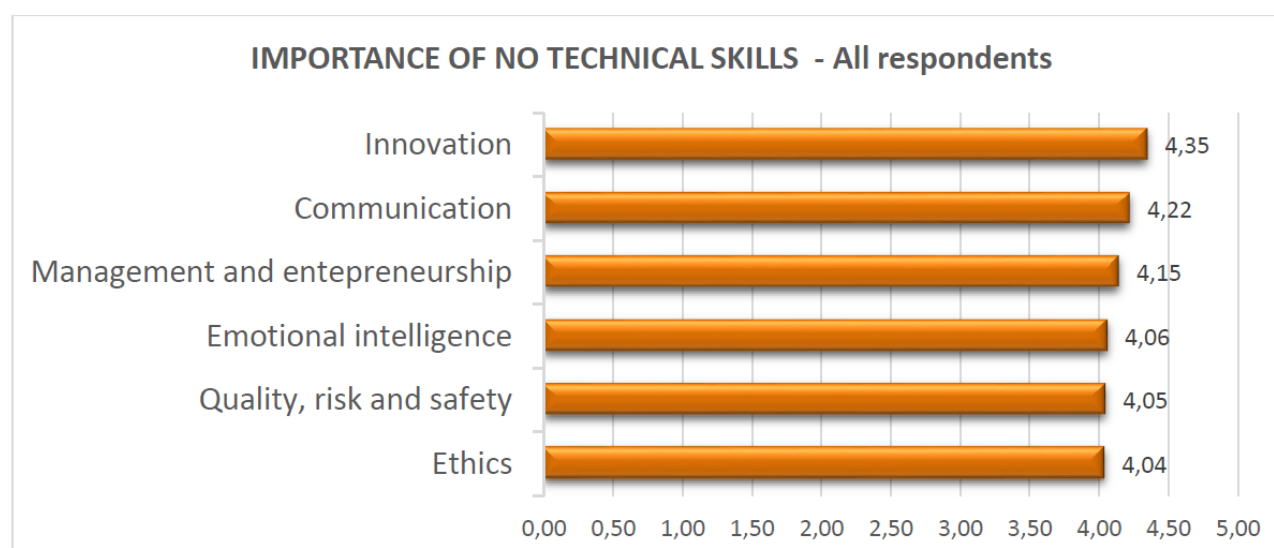
IMPORTANCE OF TECHNICAL AND IND. 4.0 TECHNOLOGIES SKILLS - All professionals

Skill	Value
Industrial internet of things	4,22
Cybersecurity	4,11
Technical general competences	3,96
Horizontal and vertical system integration	3,93
Cloud computing	3,87
Simulation	3,78
Big data analytics	3,74
Additive manufacturing	3,62
Augmented reality	3,60
Autonomous robots	3,44
Blockchain	3,01

2) The second cluster of questions investigated which non-technical skills are considered relevant to complete the profile of the Digital Transformation Manager and the respective degree of importance.

Respondents considered all the listed skills necessary to guide the digital transformation processes within the company, underline the priority of three of these: sensitivity towards innovation – understood in a general way -, communication skills and managerial and self-entrepreneurial skills. Emotional intelligence, sensitivity on the issues of quality management, risk and health and safety at work and strong ethical orientation complete the professional profile.

In the graph the detail of the answers.

IMPORTANCE OF NO TECHNICAL SKILLS - All respondents
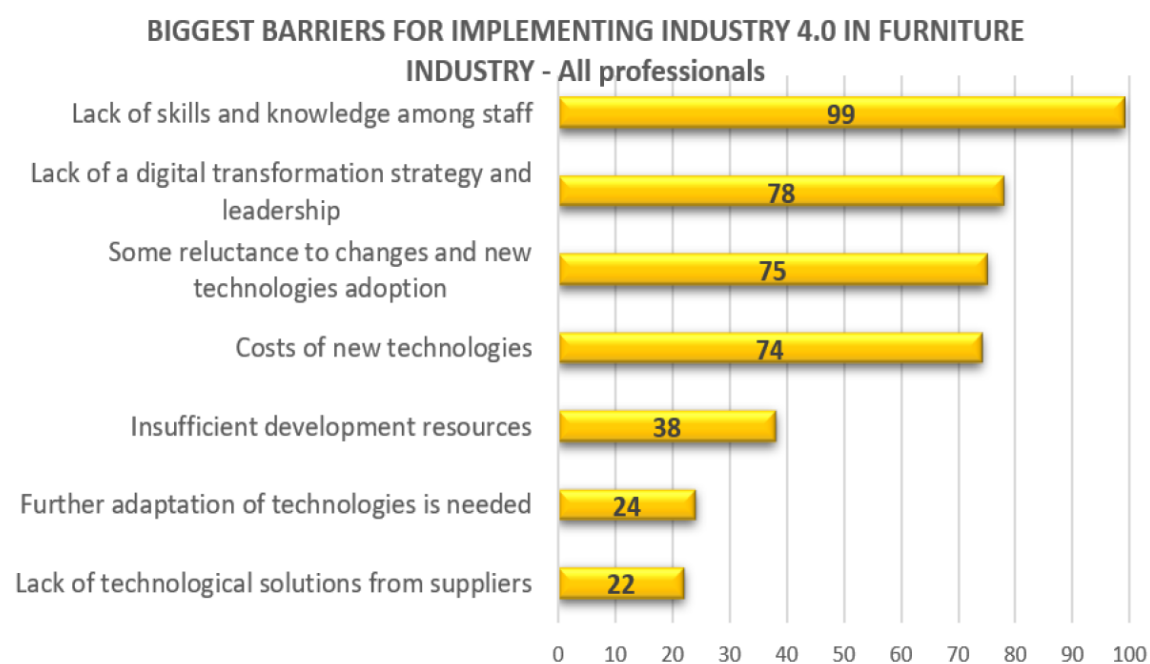
Skill	Value
Innovation	4,35
Communication	4,22
Management and entepreneurship	4,15
Emotional intelligence	4,06
Quality, risk and safety	4,05
Ethics	4,04

3) It was asked to identify the main barriers to the implementation of technologies related to Industry 4.0 and to the processes digital transformation in companies belonging to the furniture sector.

Unlike the previous answers, the results are very polarized.

The main barrier is **the inadequacy of current technological knowledge and skills within the company**, combined with a **weak strategic vision** inherent in planning digital transformation.

This result strongly emerges the need not only for the specific definition of a professional figure who has organic responsibility for the digital transformation of business processes - today very often fragmented between offices and different roles - but also a **strong demand for education and specific training.**

BIGGEST BARRIERS FOR IMPLEMENTING INDUSTRY 4.0 IN FURNITURE INDUSTRY - All professionals

Barrier	Value
Lack of skills and knowledge among staff	99
Lack of a digital transformation strategy and leadership	78
Some reluctance to changes and new technologies adoption	75
Costs of new technologies	74
Insufficient development resources	38
Further adaptation of technologies is needed	24
Lack of technological solutions from suppliers	22

The adequate training of professional profiles able to effectively guiding the digital transformation of European furniture companies is a recognized urgency, to which DITRAMA project wishes to respond through the development of a multimedia and interactive **MOOC (Massive Open On Line Course)**, open to anyone wishing to explore this important issue.

Co-funded by the
Erasmus+ Programme
of the European Union

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The Project

The 36-month project sees the collaboration of **12 partners**, from 8 different European countries, and a representation of the world of the **university, business, applied research** and **professional training.**

Project leader:

CENFIM – Centre de Difusiò Tecnologica de la Fusta i del Moble de Catalunya (Barcelona – Spain)

Partners

Aarhus Universitet (Aarhus – Denmark)

Woodwize (Brussel – Belgium)

CETEM – Centro Tecnologico del Mueble y la Madeira de la Region de Murcia (Murcia – Spain)

U.E.A. – European Furniture Manufacturers Federation based in Prague (Czech Republic)

AMIC – Associacio Agrupacio Moble Innovador de Catalunya (Barcelona – Spain)

CFPIMM – Centro de Formação Profissional das Indústrias da Madeira e Mobiliário (Lordelo – Portugal)

FederlegnoArredo – Federazione Italiana delle industrie del legno, del sughero, del mobile, dell'illuminazione, dell'arredamento (Milano – Italy)

OIGPM – Ogolnopolska Izba Gospodarcza Producentow Mebli (Warsaw – Poland)

Método Estudio Consultores – (Vigo – Spain)

HOGENT – (Gent – Belgium)

Universitatea Transilvania din Brasov (Brasov – Romania)

More info:

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