SAWYER
SKILLS AND SAFETY NEEDS IN A CIRCULAR FURNITURE SECTOR
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Impacts of the twin transition on the EU furniture industry

Forecast of the sector by 2030 due to its circular economy transition and digital transformation

10 MARCH 2021 — 9:25 to 13:00 CET

9:25 – 9:30	Reception of attendees
9:30 – 9:35 Massimiliano Rumignani, CENFIM	Conference opening
9:35 – 9:45 Joaquim Solana, CENFIM	Welcome
9:45 – 9:55 Danny Scheerlinck, EU Commission	The European Social Dialogue on Furniture
9:55 – 10:00 Chiara Terraneo, FEDERLEGNO	Agenda Presentation
10:00 – 10:30 Maurizio Melis, Science and innovation communicator	Keynote speech: The Twin Transition
10:30 – 10:45 Julio Rodrigo, CENFIM	Update about the Sustainable Product Policy Initiative and its effects on the furniture sector
10.45 – 10.55 Julio Rodrigo, CENFIM	The SAWYER methodology in brief
	VIRTUAL COFFEE BREAK
11:10 – 11:30 Juan Carlos Alonso, Circular Economy Expert	General vision on how the Twin Transition will affect furniture sector jobs
11:30 – 11:45 Ellen Schmitz-Felten, OHS Expert	Forecasted OHS risks changes in furniture occupational profiles
11:45 – 12:00 Jeroen Doom, VET & Sector Expert	New knowledge, skills and competences needs
12:00 – 12:10 Massimiliano Rumignani, CENFIM	Recommendations for legislators, companies, VET regulators and providers
12:10 — 12:20 **SAWYER technical team**	Commenting participants remarks and questions
12:20 — 12:55 Gabriella Kemendi, EFIC Rolf Gehring, EFBWW Massimiliano Rumignani, CENFIM	Virtual debate & voting: key challenges ahead of furniture sector Twin Transition
12:55 — 13:00 Julio Rodrigo, CENFIM	Closure

Register here!

All project information on SAWYER website

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Julio Rodrigo, Innovation Manager at CENFIM

The “Sustainable Products Initiative” and its expected effects on the furniture sector

CENFIM Furnishings Cluster
European Federation of Building and Woodworkers
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FLA FEDERLEGNOARREDO
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6 Commission priorities for 2019-24

A European Green Deal

Europe aims to be the first climate-neutral continent by becoming a modern, resource-efficient economy.

A Europe fit for the digital age

The EU's digital strategy will empower people with a new generation of technologies.

An economy that works for people

The EU must create a more attractive investment environment, and growth that creates quality jobs, especially for young people and small businesses.

A stronger Europe in the world

The EU will strengthen its voice in the world by championing multilateralism and a rules-based global order.

Promoting our European way of life

Europe must protect the rule of law if it is to stand up for justice and the EU's core values.

A new push for European democracy

We need to give Europeans a bigger say and protect our democracy from external interference such as disinformation and online hate messages.

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The **European Green Deal** is a **plan** to **make the EU's economy sustainable.**

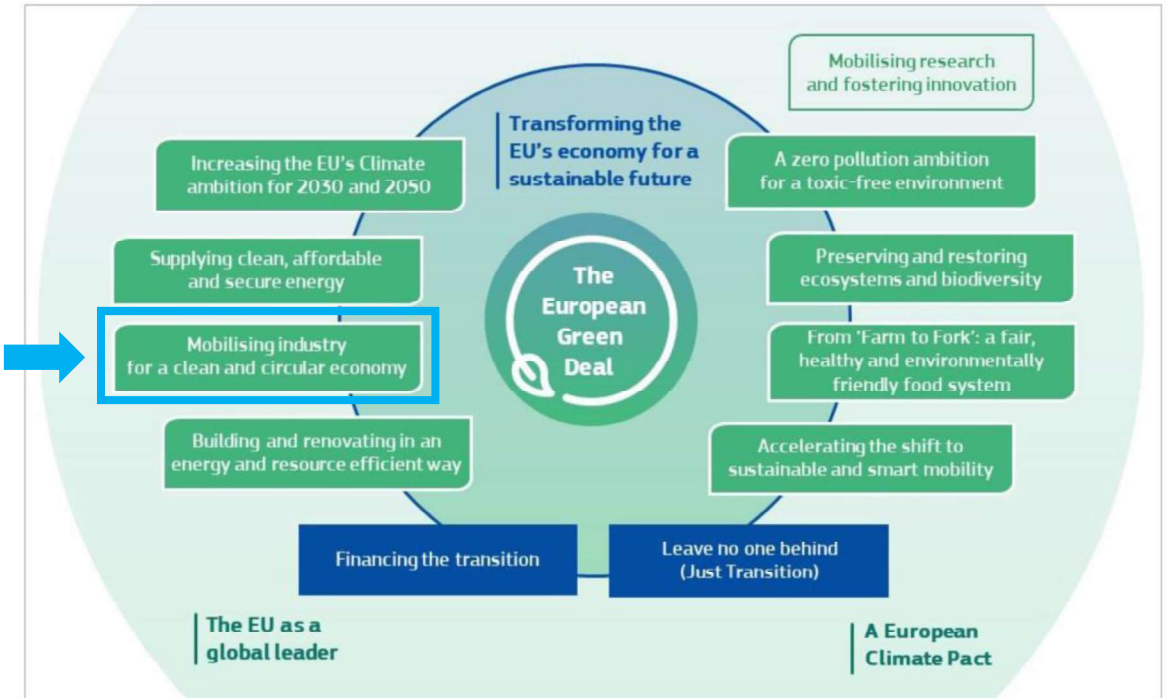
EUROPEAN COMMISSION

Brussels, 11.12.2019
COM(2019) 640 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

The European Green Deal

The **key elements** of the Green Deal:



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2.1.3. Mobilising industry for a clean and circular economy

Achieving a climate neutral and circular economy requires the full mobilisation of industry. It takes 25 years – a generation – to transform an industrial sector and all the value chains. To be ready in 2050, decisions and actions need to be taken in the next five years.

From 1970 to 2017, the annual global extraction of materials tripled and it continues to grow[13], posing a major global risk. About half of total greenhouse gas emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing of materials, fuels and food. The EU's industry has started the shift but still accounts for 20% of the EU's greenhouse gas emissions. It remains too 'linear', and dependent on a throughput of new materials extracted, traded and processed into goods, and finally disposed of as waste or emissions. Only 12% of the materials it uses come from recycling[14].

The transition is an opportunity to expand sustainable and job-intensive economic activity. There is significant potential in global markets for low-emission technologies, sustainable products and services. Likewise, the circular economy offers great potential for new activities and jobs. However, the transformation is taking place at a too slow pace with progress neither widespread nor uniform. The European Green Deal will support and accelerate the EU's industry transition to a sustainable model of inclusive growth.

In March 2020, the Commission will adopt an EU industrial strategy to address the twin challenge of the green and the digital transformation. Europe must leverage the potential of the digital transformation, which is a key enabler for reaching the Green Deal objectives. Together with the industrial strategy, **a new circular economy action plan** will help modernise the EU's economy and draw benefit from the opportunities of the circular economy domestically and globally. A key aim of the new policy framework will be to stimulate the development of lead markets for climate neutral and circular products, in the EU and beyond.

Energy-intensive industries, such as steel, chemicals and cement, are indispensable to Europe's economy, as they supply several key value chains. The decarbonisation and modernisation of this sector is essential. The recommendations published by the High Level Group of energy-intensive industries show the industry's commitment to these objectives[15].

The circular economy action plan will include a 'sustainable products' policy to support the circular design of all products based on a common methodology and principles. It will prioritise reducing and reusing materials before recycling them. It will foster new business models and set minimum requirements to prevent environmentally harmful products from being placed on the EU market. Extended producer responsibility will also be strengthened.

While the circular economy action plan will guide the transition of all sectors, **action will focus in particular on resource-intensive sectors such as textiles, construction, electronics and plastics**. The Commission will follow up on the 2018 plastics strategy focusing, among other things, on measures to tackle intentionally added micro plastics

[13] Global Resources Outlook 2019: Natural Resources for the Future We Want: The International Resource Panel.
[14] https://ec.europa.eu/eurostat/iam/table.do?tab=table&init=1&language=en&pcode=cei_srm030&plugin=1
[15] https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6353

and unintentional releases of plastics, for example from textiles and tyre abrasion. The Commission will develop requirements to ensure that all packaging in the EU market is reusable or recyclable in an economically viable manner by 2030, will develop a regulatory framework for biodegradable and bio-based plastics, and will implement measures on single use plastics.

The circular economy action plan will also include **measures to encourage businesses to offer, and to allow consumers to choose, reusable, durable and repairable products.** It will analyse the need for a 'right to repair', and curb the built-in obsolescence of devices, in particular for electronics. Consumer policy will help to empower consumers to make informed choices and play an active role in the ecological transition. New business models based on renting and sharing goods and services will play a role as long as they are truly sustainable and affordable.

Reliable, comparable and verifiable information also plays an important part in enabling buyers to make more sustainable decisions and reduces the risk of 'green washing'. Companies making 'green claims' should substantiate these against a standard methodology to assess their impact on the environment. The Commission will step up its regulatory and non-regulatory efforts to tackle false green claims. Digitalisation can also help improve the availability of information on the characteristics of products sold in the EU. For instance, an electronic product passport could provide information on a product's origin, composition, repair and dismantling possibilities, and end of life handling. Public authorities, including the EU institutions, should lead by example and ensure that their procurement is green. The Commission will propose further legislation and guidance on green public purchasing.

A sustainable product policy also has the potential to reduce waste significantly. Where waste cannot be avoided, its economic value must be recovered and its impact on the environment and on climate change avoided or minimised. This requires new legislation, including targets and measures for tackling over-packaging and waste generation. In parallel, EU companies should benefit from a robust and integrated single market for secondary raw materials and by-products. This requires deeper cooperation across value chains, as in the case of the Circular Plastics Alliance. The Commission will consider legal requirements to boost the market of secondary raw materials with mandatory recycled content (for instance for packaging, vehicles, construction materials and batteries). To simplify waste management for citizens and ensure cleaner secondary materials for businesses, the Commission will also propose an EU model for separate waste collection. The Commission is of the view that the EU should stop exporting its waste outside of the EU and will therefore revisit the rules on waste shipments and illegal exports.

Access to resources is also a strategic security question for Europe's ambition to deliver the Green Deal. Ensuring the supply of sustainable raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and defence applications, by diversifying supply from both primary and secondary sources, is therefore one of the pre-requisites to make this transition happen.

EU industry needs 'climate and resource frontrunners' to develop the first commercial applications of breakthrough technologies in key industrial sectors by 2030. Priority areas include clean hydrogen, fuel cells and other alternative fuels, energy storage, and carbon capture, storage and utilisation. As an example, the Commission will support clean steel breakthrough technologies leading to a zero-carbon steel making process by 2030 and will explore whether part of the funding being liquidated under the European

Coal and Steel Community can be used. More broadly, the EU Emissions Trading System Innovation Fund will help to deploy such large-scale innovative projects.

Promoting new forms of collaboration with industry and investments in strategic value chains are essential. The Commission will continue to implement the Strategic Action Plan on Batteries and support the European Battery Alliance. It will propose legislation in 2020 to ensure a safe, circular and sustainable battery value chain for all batteries, including to supply the growing market of electric vehicles. The Commission will also support other initiatives leading to alliances and to a large-scale pooling of resources, for example in the form of Important Projects of Common European Interest, where targeted time-bound State aid can help build new innovative value chains.

Digital technologies are a critical enabler for attaining the sustainability goals of the Green deal in many different sectors. The Commission will explore measures to ensure that digital technologies such as artificial intelligence, 5G, cloud and edge computing and the internet of things can accelerate and maximise the impact of policies to deal with climate change and protect the environment. Digitalisation also presents new opportunities for distance monitoring of air and water pollution, or for monitoring and optimising how energy and natural resources are used. At the same time, Europe needs a digital sector that puts sustainability at its heart. The Commission will also consider measures to improve the energy efficiency and circular economy performance of the sector itself, from broadband networks to data centres and ICT devices. The Commission will assess the need for more transparency on the environmental impact of electronic communication services, more stringent measures when deploying new networks and the benefits of supporting 'take-back' schemes to incentivise people to return their unwanted devices such as mobile phones, tablets and chargers.

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2.1.3. Mobilising industry for a clean and circular economy

…**climate neutrality** & **circular economy**…

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…expand **sustainable and job-intensive economic activity**…

…adoption of an EU **industrial strategy**…

…a new **circular economy action plan**…

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…the circular economy action plan will include a **"sustainable products" policy**…

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[15] https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6353

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…to encourage businesses to offer, and to allow consumers to choose, **reusable, durable and repairable products**…

…**reliable, comparable and verifiable information** enabling buyers to make more sustainable decisions…

…**waste reduction**…

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…**digital technologies**…

No specific mention to the **furniture sector** in the Green Deal.

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European Commission Timeline of the Green Deal (1/2)

08 July 2020

Adoption of the EU strategies for energy system integration and hydrogen to pave the way towards a fully decarbonised, more efficient and interconnected energy sector

20 May 2020

- Presentation of the EU Biodiversity Strategy for 2030 to protect the fragile natural resources on our planet
- Presentation of the 'Farm to fork strategy' to make food systems more sustainable

11 March 2020

Proposal of a Circular Economy Action Plan focusing on sustainable resource use

10 March 2020

Adoption of the European Industrial Strategy, a plan for a future-ready economy

4 March 2020

- Proposal for a European climate law to ensure a climate neutral European Union by 2050
- Public consultation (open until 17 June 2020) on the European Climate Pact bringing together regions, local communities, civil society, businesses and schools

14 January 2020

Presentation of the European Green Deal Investment Plan and the Just Transition Mechanism

11 December 2019

Presentation of the European Green Deal

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18 January 2021

New European Bauhaus

10 December 2020

European Battery Alliance

9 December 2020

European Climate Pact

19 November 2020

Offshore renewable energy

14 October 2020

- Renovation wave
- Methane Strategy
- Chemicals strategy for sustainability

17 September 2020

Presentation of the 2030 Climate Target Plan

The **New European Bauhaus** initiative **connects the European Green Deal to our living spaces.**

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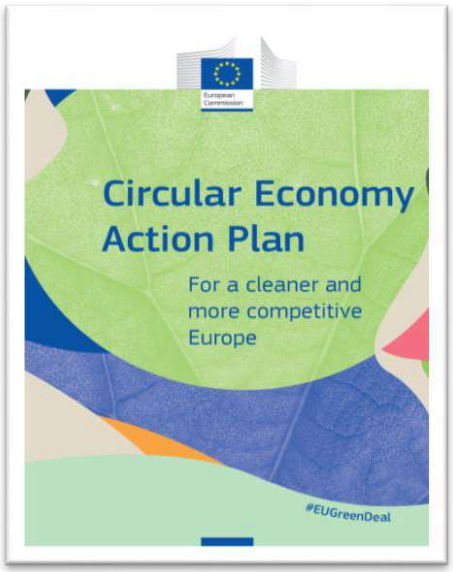

Contents

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The **furniture sector** is not considered a "**key product value chain**" in the new Circular Economy Action Plan… but let's wait to see what is said in the chapter 2…

KEY PRODUCT VALUE CHAINS	
Circular Electronics Initiative, **common charger solution,** and **reward systems to return old devices**	2020/2021
Review of the Directive on the **restriction of the use of certain hazardous substances in electrical and electronic equipment** and guidance to clarify its links with REACH and Ecodesign requirements	2021
Proposal for a new **regulatory framework for batteries**	2020
Review of the rules on **end-of-life vehicles**	2021
Review of the rules on proper treatment of **waste oils**	2022
Review to reinforce the **essential requirements for packaging** and **reduce (over)packaging and packaging waste**	2021
Mandatory requirements on **recycled plastic content** and **plastic waste reduction measures** for key products such as packaging, construction materials and vehicles	2021/2022
Restriction of **intentionally added microplastics** and measures on **unintentional release of microplastics**	2021
Policy framework for **bio-based plastics and biodegradable or compostable plastics**	2021
EU Strategy for Textiles	2021
Strategy for a Sustainable Built Environment	2021
Initiative to **substitute single-use packaging, tableware and cutlery by reusable products in food services**	2021

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Neither the furniture manufacturing activity nor the furniture at its end-of-life **are not "top priorities"** in this chapter.

Although this is a "**transversal**" aspect and the furniture sector/product will be affected.

LESS WASTE, MORE VALUE	
Waste reduction targets for specific streams and other measures on **waste prevention**	2022
EU-wide **harmonised model for separate collection of waste and labelling** to facilitate separate collection	2022
Methodologies to track and minimise the presence of substances of concern in recycled materials and articles made thereof	2021
Harmonised information systems for the presence of substances of concern	2021
Scoping the development of further **EU-wide end-of-waste and by-product criteria**	2021
Revision of the rules on **waste shipments**	2021

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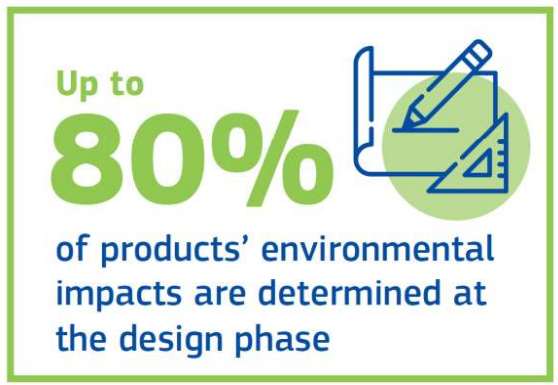
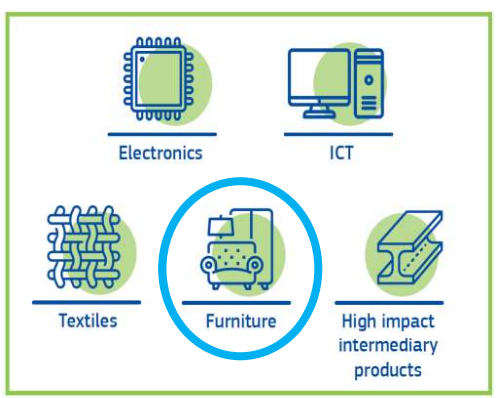


Priority will be given to addressing product groups identified in the context of the value chains featuring in this Action Plan, such as electronics, ICT and textiles but also **furniture** and **high impact intermediary products** such as steel, cement and chemicals. Further product groups will be identified based on their environmental impact and circularity potential.



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The **core of this legislative** initiative will be to widen the Ecodesign Directive beyond energy-related products so as to **make the Ecodesign framework applicable to the broadest possible range of products and make it deliver on circularity.**

As part of this legislative initiative, and, where appropriate, through complementary legislative proposals, the Commission will consider establishing **sustainability principles** and other appropriate ways to regulate the following aspects:

- improving product **durability, reusability, upgradability and reparability,** addressing the presence of **hazardous chemicals** in products, and increasing their **energy and resource efficiency;**
- increasing **recycled content in products,** while ensuring their performance and safety;
- enabling **remanufacturing and high-quality recycling;**
- reducing **carbon and environmental footprints;**
- restricting **single-use** and countering **premature obsolescence;**
- introducing a **ban on the destruction of unsold durable goods;**
- incentivising **product-as-a-service** or other models where **producers keep the ownership of the product** or the responsibility for its performance throughout its lifecycle;
- mobilising the potential of **digitalisation** of product information, including solutions such as **digital passports, tagging and watermarks;**
- rewarding products based on their **different sustainability performance,** including by linking high performance levels to incentives.

Expanding the **scope** of the **Ecodesign Directive.**

New complementary **legislative instruments.**

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2.1. Designing sustainable products

2.2. Empowering consumers and public buyers

2.3. Circularity in production processes

A SUSTAINABLE PRODUCT POLICY FRAMEWORK	
Legislative proposal for **a sustainable product policy initiative**	2021
Legislative proposal **empowering consumers in the green transition**	2020
Legislative and non-legislative measures establishing a new "**right to repair**"	2021
Legislative proposal on substantiating **green claims**	2020
Mandatory Green Public Procurement (GPP) criteria and targets in sectoral legislation and phasing-in **mandatory reporting on GPP**	as of 2021
Review of the **Industrial Emissions Directive**, including the integration of circular economy practices in upcoming Best Available Techniques reference documents	as of 2021
Launch of an **industry-led industrial symbiosis reporting and certification system**	2022

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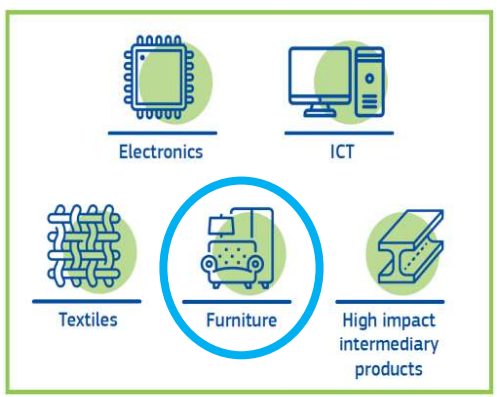
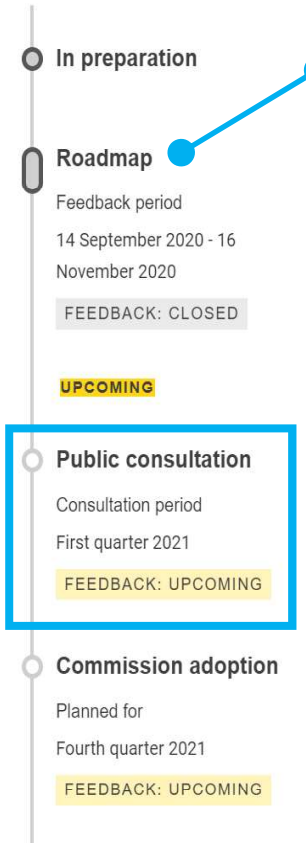
Sustainable Products Initiative:

This initiative will revise the **Ecodesign Directive** and propose **additional legislative measures** as appropriate, aims to make products placed on the EU market more sustainable.



Next step



Inception Impact Assessment or in other words the **Commission's plan** in relation to the "**legislative proposal for a Sustainable Products Initiative**" with the aim of collecting citizens / stakeholders feedback.

The Commission has received feedback from **193 entities** (e.g. EFIC). All these documents are public.

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- Widening the **scope of the Ecodesign Directive.**

The following **additional measures** will be considered:

- Establishing overarching product **sustainability principles.**
- Establishing EU rules to make producers responsible for providing **more circular products** and intervening before products can become waste.
- Establishing EU rules for setting requirements on mandatory **sustainability labelling** and/or **disclosure of information**.
- Establishing EU rules for setting mandatory minimum sustainability requirements on **public procurement of products**.

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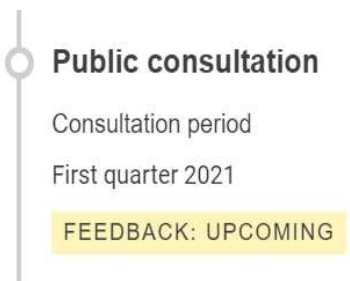
The following **additional measures** will be considered *(continuation)*:

- Requirements to address **social aspects.**
- Measures on **production processes.**
- Measures to ban the **destruction of unsold durable goods**.



we will know the details of its implementation soon...

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- The **European Green Deal** and its **instruments** (European Industrial Strategy, Circular Economy Action Plan and the foreseen legislative instruments) will force the **Twin Transition of the furniture sector**.

- The **Sustainable Products Initiative** will have a huge impact on the **furniture sector**: it will force **ecodesign** and **communication**, it will **extend** manufacturers' responsibility and it will affect **production.**

- The **Sustainable Products Initiative** is **not an "isolated" instrument**, it is interrelated with other future measures: empowering consumers, right to repair, green claims, mandatory GPP criteria and targets, etc.

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Julio Rodrigo, Innovation Manager at CENFIM

The SAWYER methodology in brief

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- Impacts of the **Twin Transition** on the EU **furniture industry**

- **Collaborative project:**

  5 partners
  5 national entities
  3 external experts
  51 experts in the survey
  20 experts in the workshop

Thank you very much to all of them !

SAWYER video:

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Forecast of the sector by 2030 due to its circular economy transition and digital transformation

Juan Carlos Alonso.- Circular Economy Expert

General vision on how the *Twin Transition* will affect furniture sector jobs

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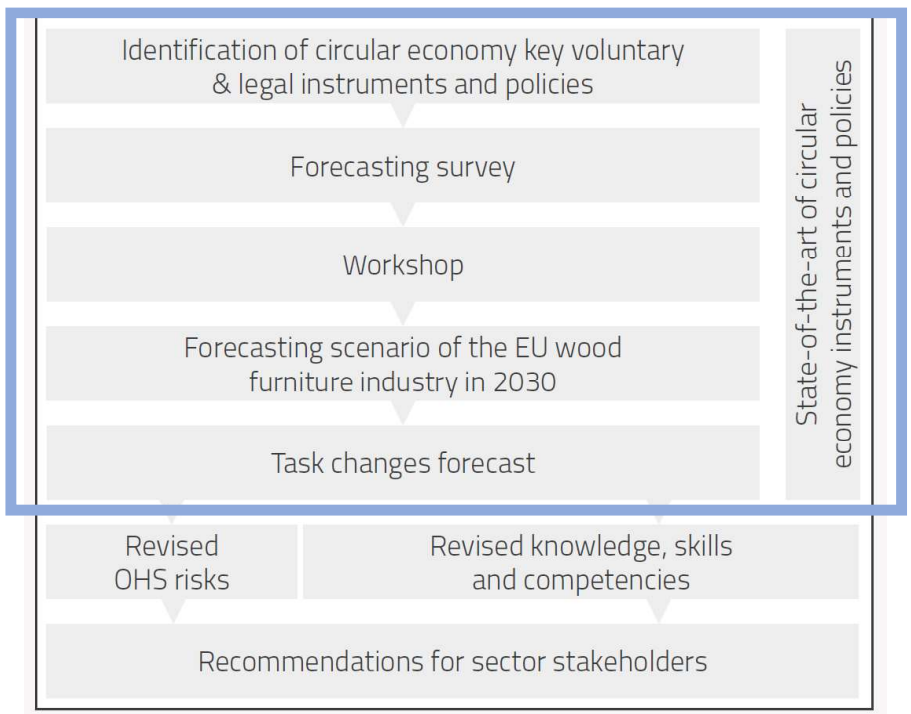
METHODOLOGY



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INSTRUMENTS.- Identification

Legislative Instruments:

- Circular Economy Package of the EC
- Waste Electrical and Electronic Equipment Directive (WEEE)
- Restriction of hazardous substances in Electrical and Electronic Equipment (ROHS)
- Energy related Products Directive (ErP or eco-design directive)
- Extended Producers Responsibility (EPR schemes)
- Hazardous substances / REACH Regulation
- Formaldehyde emissions
- EU's rules on "end-of-waste" criteria
- Flame retardants
- Renewable energy Directive (RED II)
- Illegal logging and illegal timber trade

Voluntary Instruments:

- Green Public Procurement
- Environmental management in organizations
- Eco design methodology
- Eco labels (Type I, II, and III)
- Chain of custody certification
- Green building certification

Other Policies and Strategies

- Cascading use of wood
- EU industry policy for Forestry
- Forest-based Industries Blueprint
- Bioeconomy

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INSTRUMENTS.- State of art in the furniture sector

- At EU level
- In 7 EU countries:

  Spain, Italy, France, The Netherlands, Romania, Bulgaria and Sweden

- Summary Table: Update at EU level

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INSTRUMENTS ANALYSIS.- Example summary table

Instrument	Description	Level of deployment	Situation/Impact on the furniture sector	
			EU level	Spanish level
Extended Producer Responsibility (EPR)	The Extended Producer Responsibility (EPR) is "an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle".	**4** Existing directives at EU level for some specific products (WEEE, batteries, end-of-life vehicles, packaging, etc.). At national level, EPR schemes for other products.	**3** Only France has implemented two ERP schemes for domestic and commercial furniture. The Commission is analysing to increase the ERP schemes to other products (including furniture).	**2** Only voluntary actions for separated collection of furniture waste are implemented in Spain, via municipality services or specialised organisations (NGOs or similar).

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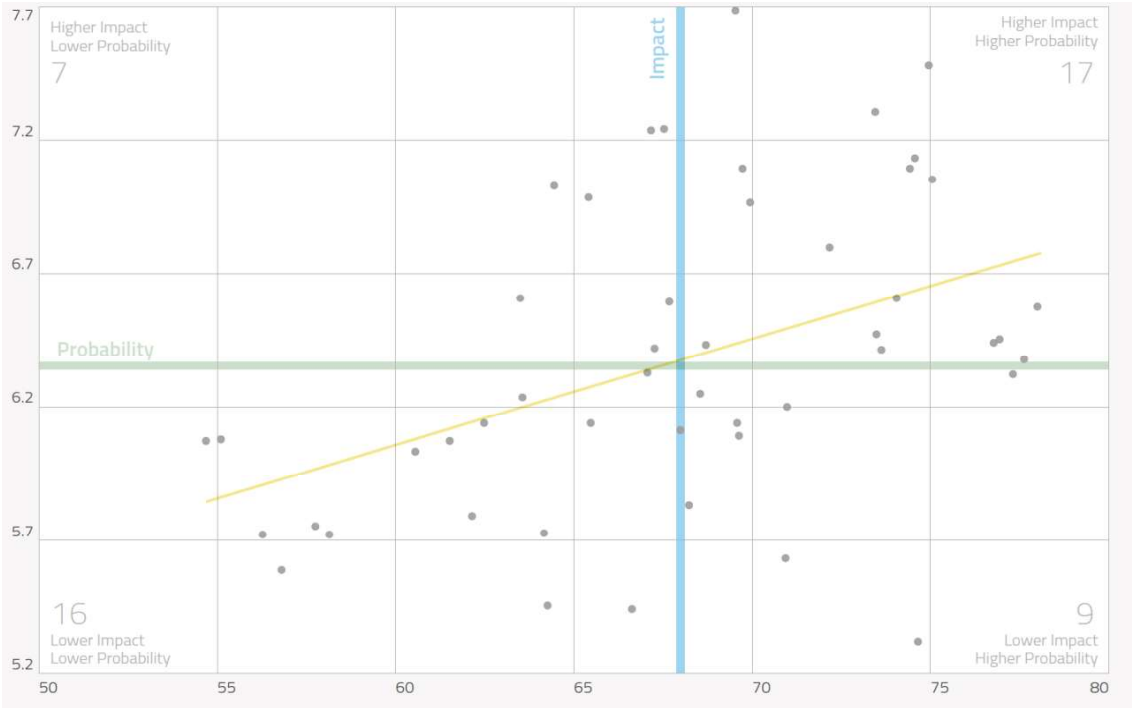
FORECASTING SURVEY & WORKSHOP.- Evolution of these instruments

1. Defined **49 forecasted evolutions** by 2030, for the different instruments
2. Evaluation of their level of **probability and impact** (on-line survey of 50 European professionals from 15 EU countries)
3. Fine-tuning in a **workshop** in Brussels, by 20 professionals coming from 9 EU countries

FORECASTING SURVEY & WORKSHOP.- Results

Higher Impact
Lower Probability



Higher Impact
Higher Probability

Lower Impact
Lower Probability

Lower Impact
Higher Probability

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FORECASTING SURVEY & WORKSHOP.- Results

Table 3 - Classification of forecasted evolutions 2030 - workshop results.

Class	Instrument	**Forecasted Evolution** Importance = Probability x Impact. Probability: scale 1 - 100. Impact: scale 1 - 10	**Importance**	Probability Mean Value	Probability Standard deviation	Impact Mean Value	Impact Standard deviation
1	ECD	The furniture is designed to reduce the impact of used raw materials (use of recycled materials, reduction of hazardous substances content, use of wood with lower environmental impact, use of proximity wood, etc.), provoking changes in the supply chains of companies and in the managing of old furniture collected when the new one is delivered, generating new business models.	561	75	15	7,48	1,61
2	ECD	Low, medium and high quality furniture is designed to optimize its recovery at the end of its life cycle (to facilitate materials disassembly and separation, modularity for reuse of certain parts, reuse and remanufacturing enhancement, etc.).	537	73	18	7,30	1,61
3	EPR	Some national authorities define an Extended Producer Responsibility scheme or take-back scheme for some furniture products, forcing to define a system for the collection and treatment of these products at the end of their life cycle, being the organisation that put the product on the market the one responsible for covering the associated costs.	534	70	23	7,68	1,79

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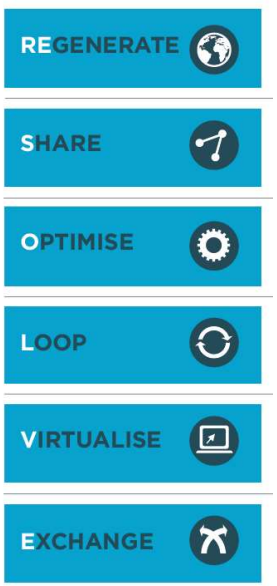
FORECASTING SCENARIO.- Vision statement

*By 2030, with a broadly **digitalised furniture sector**, the wood-based furniture manufacturing industry will offer **products and services** with **environmentally conscientious design** based on **low impact and traceable raw materials, sustainable manufacturing processes**, and promotion of the **best usage and recovery scenarios** for materials and discarded products. Customers (B2B or B2C) will demand more detailed information about products and their **sustainable characteristics**, including life-cycle indicators, and consumer empowerment will be key in the success of circularity objectives. Authorities (at local, national and European level) will facilitate circularity by boosting **sustainable end-of-life scenarios** for materials and wood-based products, expanding **green public and private procurement** schemes and promoting **material efficiency policies**.*

ReSOLVE levers for Circular Economy



1. Adaptation of levers for the furniture sector
2. Assessment of the impact of the previously identified instruments to the ReSOLVE levers
3. Effect of the ReSOLVE levers on the tasks of the different occupational profiles

Framework of the ReSOLVE levers developed by the McKinsey Center and Ellen MacArthur Foundation

Source: McKinsey (2015) Growth within: a circular economy vision for a competitive Europe. Report commissioned by Ellen MacArthur Foundation.

ReSOLVE levers

REGENERATE	Shift to renewable energies
	Shift to renewable materials
	Reclaim, retain, and regenerate health of ecosystems
	Return recovered biological resources to the biosphere
SHARE	Reduce product replacement speed and increase product utilisation by sharing it among different users
	Reuse products throughout their technical lifetime
	Prolong products lifetime through maintenance
	Prolong products lifetime through repair
	Prolong products lifetime through design for durability
OPTIMISE	Increase performance/efficiency of products
	Customisation/made to order
	Reproductible and adaptable manufacturing
	Minimize waste in production and supply chain
	Increase efficiency of production processes
LOOP	Remanufacturing products and/or components
	Implement Take Back programs
	Recycling materials
	Promote the cascade use of wood
	Promote extraction of biochemicals from organic waste
VIRTUALISE	Virtualise direct aspects of the product
	Virtualise indirect aspects of the product
EXCHANGE	Replace old materials with advanced renewable ones
	Apply new technologies
	Choose new products and services

Foreseen Impact of Instruments on ReSOLVE levers

	ReSOLVE lever	.....
Instrument	x	
.....		

Scores (X):
0.- No impact foreseen in 2030 on wood-based furniture Manufacturers
1.- Small impact foreseen in 2030 on wood-based furniture manufacturers
3.- Medium impact foreseen in 2030 on wood-based furniture manufacturers
5.- Large impact foreseen in 2030 on wood-based furniture manufacturer

ReSOLVE levers	Score
Recycling materials	68
Shift to renewable materials	58
Promote the cascade use of wood	55
Choose new products and services	50
Apply new technologies	48

Instruments	Score
Circular Economy Package of the EC	84
Extended Producers Responsibility (EPR schemes)	78
Green Public Procurement	74
Ecodesign methodology	64
Cascading use of wood	60

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Occupational profiles

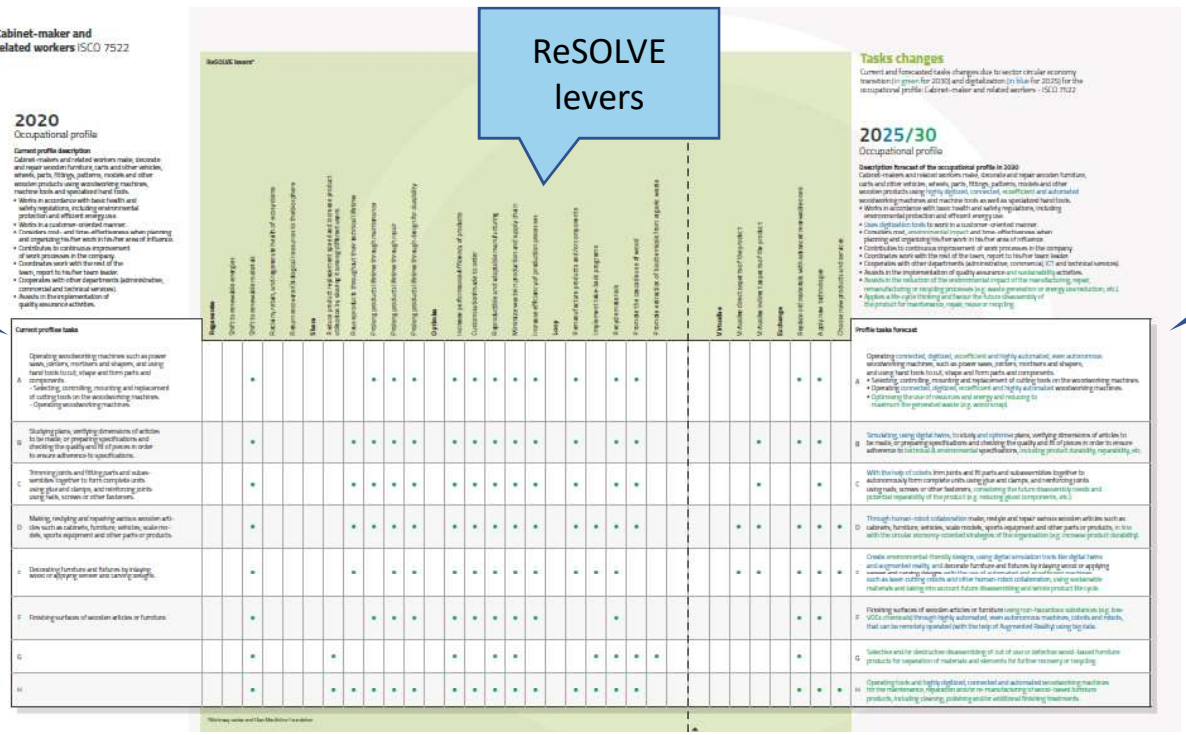
ISCO id	
1221	Sales and marketing managers
1321s	Industrial production manager
1324s	Supply Chain manager (Supply, distribution and related managers)
2141s	Maintenance & repair engineer (machinery maintenance and repair workers)
2163s	Furniture designers (Product and garment designers)
7522	Cabinet-makers and related workers
7523	Woodworking-machine tool setters and operators
7534	Upholsterers and related workers
8172	Wood processing plant operators
8219s	Furniture assembler
9329	Factory hand

Occupational profiles assessment

Current profile description & tasks

ReSOLVE levers

Forecasted profile description & tasks



TWIN TRANSITION
Circular economy transition (in green for 2030)

Digitalization (in blue for 2025)

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Example.- Cabinet-maker and related workers ISCO 7522 (1)

2020

Occupational profile

Current profile description

Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialized hand tools.

- Works in accordance with basic health and safety regulations, including environmental protection and efficient energy use.
- Works in a customer-oriented manner.
- Considers cost- and time-effectiveness when planning and organizing his/her work in his/her area of influence.
- Contributes to continuous improvement of work processes in the company.
- Coordinates work with the rest of the team, report to his/her team leader.
- Cooperates with other departments (administrative, commercial and technical services).
- Assists in the implementation of quality assurance activities.

2025/30

Occupational profile

Description forecast of the occupational profile in 2030

Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using highly digitized, connected, ecoefficient and automated woodworking machines and machine tools as well as specialized hand tools.

- Works in accordance with basic health and safety regulations, including environmental protection and efficient energy use.
- Uses digitization tools to work in a customer-oriented manner.
- Considers cost, environmental impact and time-effectiveness when planning and organizing his/her work in his/her area of influence.
- Contributes to continuous improvement of work processes in the company.
- Coordinates work with the rest of the team, report to his/her team leader.
- Cooperates with other departments (administrative, commercial, ICT and technical services).
- Assists in the implementation of quality assurance and sustainability activities.
- Assists in the reduction of the environmental impact of the manufacturing, repair, remanufacturing or recycling processes (e.g. waste generation or energy use reduction, etc.).
- Applies a life-cycle thinking and favour the future disassembly of the product for maintenance, repair, reuse or recycling.

With financial support from the European Union

Example.- Cabinet-maker and related workers ISCO 7522 (2)

Current profiles tasks

A Operating woodworking machines such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components.
- Selecting, controlling, mounting and replacement of cutting tools on the woodworking machines.
- Operating woodworking machines.

Profile tasks forecast

A Operating connected, digitized, ecoefficient and highly automated, even autonomous woodworking machines, such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components.
- Selecting, controlling, mounting and replacement of cutting tools on the woodworking machines.
- Operating connected, digitized, ecoefficient and highly automated woodworking machines.
- Optimising the use of resources and energy and reducing to maximum the generated waste (e.g. wood scrap).

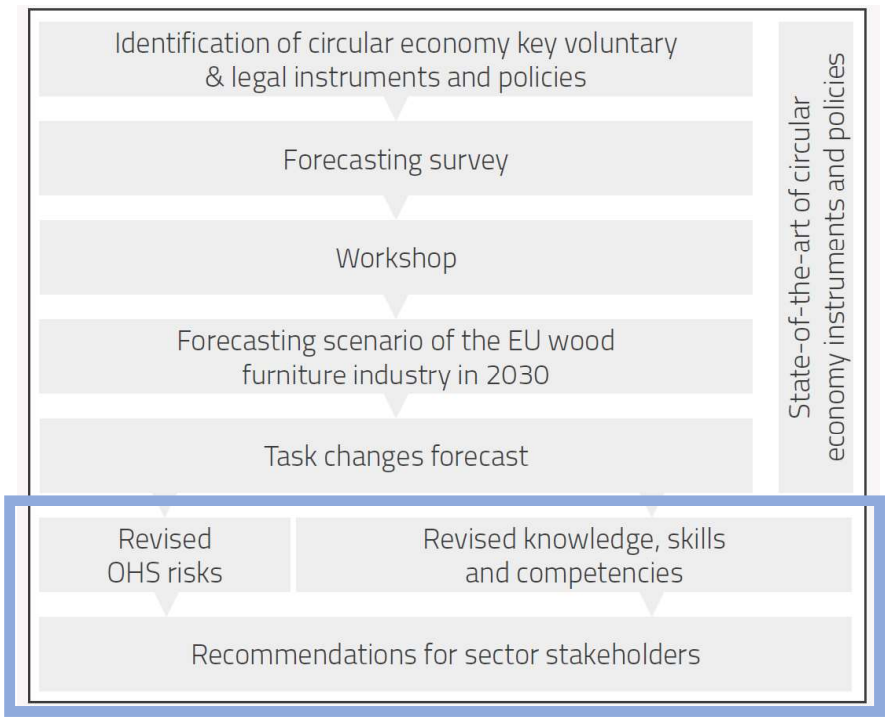
New tasks

G Selective and/or destructive disassembling of out of use or defective wood-based furniture products for separation of materials and elements for further recovery or recycling.

H Operating tools and highly digitized, connected and automated woodworking machines for the maintenance, reparation and/or re-manufacturing of wood-based furniture products, including cleaning, polishing and/or additional finishing treatments.

With financial support from the European Union

Task changes forecast is the basis for the following assessments



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Impacts of the twin transition on the EU furniture industry

Forecast of the sector by 2030 due to its circular economy transition and digital transformation

MANY THANKS FOR YOUR ATTENTION!!

Juan Carlos Alonso.- Circular Economy Expert
jcarlos.alonso67@gmail.com

CENFIM Furnishings Cluster
European Federation of Building and Woodworkers
EFIC European Furniture Industries Confederation
FLA FEDERLEGNOARREDO
UEA

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Impacts of the twin transition on the EU furniture industry

Forecast of the sector by 2030 due to its circular economy transition and digital transformation

Ellen Schmitz-Felten

Forecasted OSH risks changes in furniture occupational profiles

With financial support from the European Union

Introduction

Furniture industry Twin Transition: new challenges for occupational health and safety.

- New types of workplaces, new processes, new technologies and new materials and products → new work-related health and safety risks?

- Identify and understand what the work-related health and safety risks are
- manage worker' health and safety risks
- →workers' health and safety can clearly be improved.

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Risk Factors

- Mechanical Hazards
- Ergonomic/ Physical Workload
- Electrical Hazards
- Hazards due to Physical Effects
- Fire and Explosion Hazards
- Work environmental hazards
- Hazardous Substances
- Biological Agents
- Psychosocial Hazards/Mental Workload

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Risk factors in the furniture industry

Hazards	Risks
Mechanical hazards	
• Unprotected moving parts • Parts with hazardous shapes • Moving means of transport and tools • Uncontrolled moving parts	Risk of stabs, cuts, amputations of fingers from hand and power tools. ⬇ Risk of entanglement of body parts into rotating parts or machinery. Risk from uncontrolled moving cobots and robots ⬆ Remanufacturing and selective disassembling could require new types of tools. ⬆
Ergonomic hazards	
• Heavy loads/heavy dynamic work • Awkward position/unbalanced strain • Repetitive movements • Lack of exercise; inactivity	Risk of pain from heavy loads and heavy dynamic work. May decrease - due to use of robots/cobots ⬇ May increase - dismantling of manufactured goods ⬆ Risk of pain or injury from performing repetitive tasks. Risk of inactivity – working on digital devices/control centres - chronic neck and back pain, obesity and cardiovascular diseases ⬆

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Risk factors in the furniture industry

Hazards	Risks
Electrical hazards	
Electric shock	Risk of electrocution from poorly maintained or broken machinery and electrical cables.
Hazards due to physical effects	
Noise	Exposure to loud noise from machinery and tools. May increase - repair activities or may decrease due to eco-design of machinery operating quieter and more environmental-friendly.
Vibration	Risk of hand-arm vibration from vibrating tools or workpieces. May increase - repair activities or may decrease due to eco-design of machinery operating with less vibration energy and more environmental-friendly.
Laser light	Exposure to laser light from laser cutting machines.

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Risk factors in the furniture industry

Hazards	Risks
Fire and explosion hazards	
• Flammable substances • Explosion	Risk of fire and explosion risks from chemicals and wood dust. May increase - recycling of wood products → wood dust and fine particles during the crushing. ⬆ May decrease – less hazardous substances (solvents, cleaning products and lubricants) ; efficient dust extraction ⬇
Work environmental hazards	
• Poor lighting conditions • Climate • Poor ventilation	Risk of glare or insufficient light as well as flickering light. Risk of being exposed to hot or cold work environment Risk of being exposed to a working environment with poor ventilation or fresh air.

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Risk factors in the furniture industry

Hazards	Risks
Dangerous substances	
• Dust • Solvents • Carcinogens • New materials (e.g. Nanomaterials) • Recycled materials	Risk when handling dangerous substances Risk may decrease - use of robots/cobots and digital machinery ⬇ Risk may decrease – include OSH in the design of products, use of less dangerous substances ⬇ Risk may increase - using recycled material (lack of information on chemicals in recycled products); using new materials (unknown hazards) ⬆
Biological hazards	
• Handling microorganism	Risk from non-targeted activities with microorganism Risk may increase - remanufacturing activities and take-back systems of old furniture (e.g . mould) ⬆

With financial support from the European Union

Risk factors in the furniture industry

Hazards	Risks
Psychosocial hazards	
• Cognitive strain	Cognitive interactions with autonomous equipment and virtual reality → stress Increased demand on competences and up-to-date knowledge → stress.
• Stress due to long period concentration and awareness	Long period of concentration (computer, new software, multitasks).
• Increased demands on flexibility	Working from everywhere (mobile devices). Risk of being permanent available outside working hours. Remanufacturing and repair, working with recycled material, deciding on circular economic and sustainable oriented strategies/products/marketing projects, and use of renewable energy sources
• Lack of work experience	New software and digital devices require training →overloaded, not experienced enough. New materials/new methods and procedures, new strategies → new skills needed, not experienced enough
• Working alone/isolation	Working without colleagues or only with robots → isolation

With financial support from the European Union

Cabinet-Makers

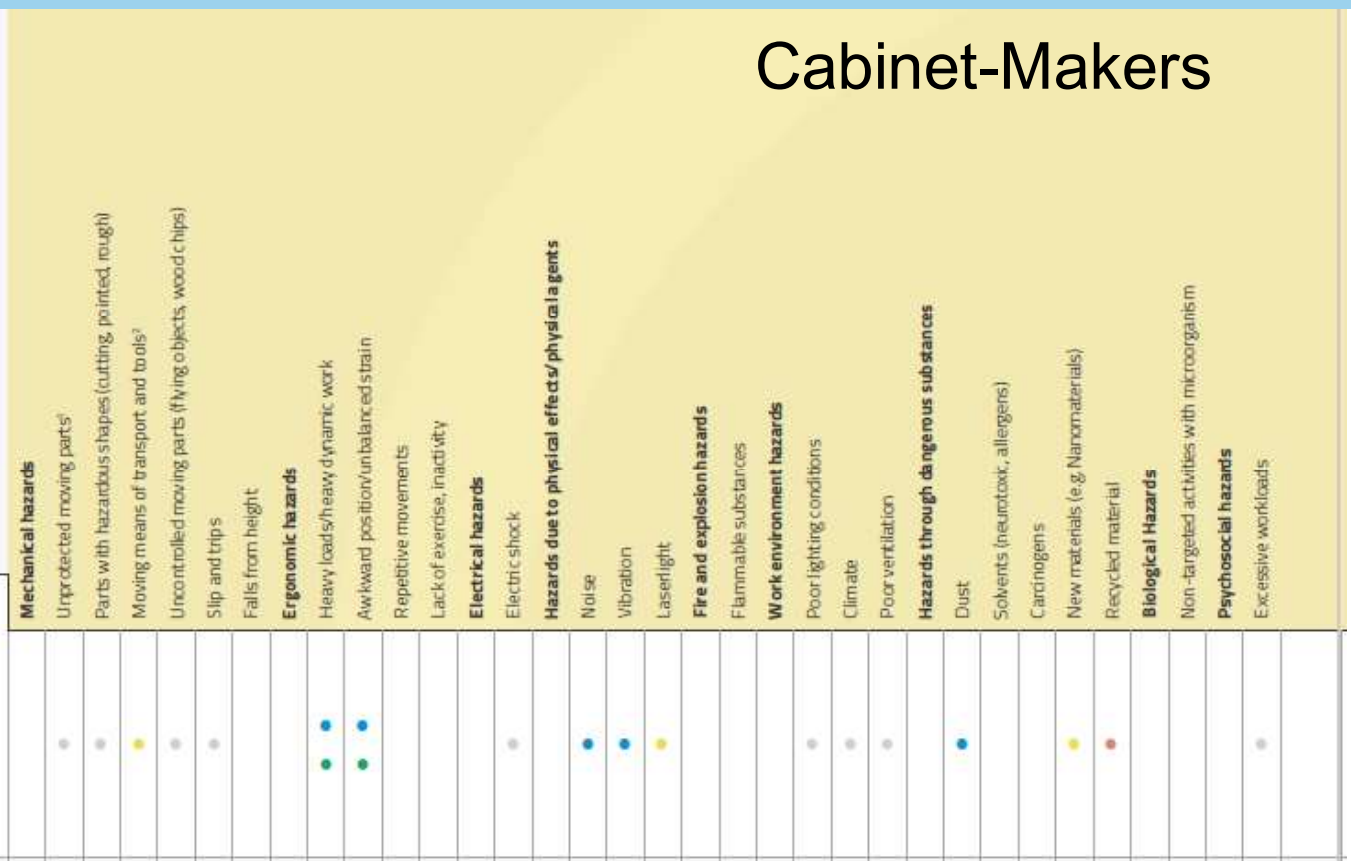
2020
Occupational profile

Current profile description
Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialized hand tools.

- Works in accordance with basic health and safety regulations, including environmental protection and efficient energy use.
- Works in a customer-oriented manner.
- Considers cost- and time-effectiveness when planning and organizing his/her work in his/her area of influence.
- Contributes to continuous improvement of work processes in the company.
- Coordinates work with the rest of the team, report to his/her team leader.
- Cooperates with other departments (administrative, commercial and technical services).
- Assists in the implementation of quality assurance activities.

Current profiles tasks

A Operating woodworking machines such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components.
- Selecting, controlling, mounting and replacement of cutting tools on the woodworking machines.
- Operating woodworking machines.



No changes · Reduced due to Circular Economy · New or increased due to Circular Economy · Reduced due to digitalization · New or increased due to digitalization

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Cabinet-Makers

Hazards and risks changes

Current and forecasted risks changes due to sector circular economy transition (in green for 2030) and digitalization (in blue for 2025) for the occupational profile: Cabinet-maker and related workers - ISCO 7522

2020 Current situation	2025-30 Situation forecast
Work area: workshops with wood processing machines, hand and power tools such as (sanders, circular/crosscut/ripsaws), wood storage, finishing of wood products.	Work area: workshops with wood processing machines, hand and power tools such as (sanders, circular/crosscut/ripsaws), wood storage, storage of new and recycled materials, finishing of wood products, use of digitalized tools, disassembly, dismantling, repair, reuse, maintenance and remanufacturing of furniture.
Mechanical hazards	
• Mechanical hazards from moving machines and tools. Woodworking machinery exposes workers to risks of being injured by unprotected moving parts, contact with moving blades (saw blade, drill, kick back etc), uncontrolled moving parts (flying objects, wood chips) and parts with hazardous shapes (cutting, pointed, rough).	• Mechanical hazards from moving machines and tools and from cobots and robots. Woodworking machinery exposes workers to risks of being injured by unprotected moving parts, contact with moving blades (saw blade, drill, kick back etc), uncontrolled moving parts (flying objects, wood chips) and parts with hazardous shapes (cutting, pointed, rough). Some risks from mechanical hazards may decrease, depending on takeover of specific tasks by cobots/robots. Most of industrial cobots and robots are unaware of their surroundings therefore they can be dangerous to workers. Industrial robots can pose several types of hazards based on their origin: Mechanical hazards such as those arising from unintended and unexpected movements or release of tools. Remanufacturing and selective disassembling could require new type of tools not available. Better design of products (ecodesign) could reduce hazards associated to assembly/disassembly operations, using optimised joining systems, etc.
Effects: severe bruises, amputations, cuts and sharp injuries, crushing.	**Effects**: severe bruises, amputations, cuts and sharp injuries, crushing.
• Slips and trips, obstacles, table edges, moving vehicles, machines.	• Slips and trips, obstacles, table edges, moving vehicles, machines.
Effects: squeezing, cutting, twisting, spraining, bumps and bruises.	**Effects**: squeezing, cutting, twisting, spraining, bumps and bruises.

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Conclusion

Digitization:

- Lighten work that is physically demanding or monotonous ☺
- Remove workers from hazardous environments ☺
- Automatically indicate whether a machine needs maintenance ☺
- Psychosocial risks: increasing workloads and task complexity, excessive working hours and constant reachability, isolation ☹
- Lack of exercise; inactivity ☹

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Conclusion

Circular economy/Green economy:

- Recycling - lack of information on chemicals in recycled products ☹
- Green chemistry – less hazardous substances ☺
- Dismanteling and repair - mechanical and ergonomic risks ☹
- Ecodesign - reducing ergonomic risks ☺

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Conclusion

The twin transition offers a chance to sustainable growth, health and safety of workers, while saving the environment and its natural resources. However, the integration of occupational safety and health from the very beginning – during the design of production processes in accordance with sustainability and green principles - is essential. The furniture industry can only be truly sustainable when ensuring the safety, health, and welfare of its most important resource: its workers!

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SKILLS AND SAFETY NEEDS IN A CIRCULAR FURNITURE SECTOR
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Impacts of the twin transition on the EU furniture industry

Forecast of the sector by 2030 due to its circular economy transition and digital transformation

Jeroen Doom – WOODWIZE (BE)

Forecast changes in skills, knowledge and competences due to the Twin Transition

10/03/2021

With financial support from the European Union

Methodology SKC

ESCO profiles (11 related to furniture sector)

1. Analysing tasks, following description in ESCO
2. Impact ReSOLVE levers *(Mc Kinsey center and Ellen MacArthur Foundation)*
3. Definition of the changes in tasks due to Twin Transition

Methodology

4. Skills and competence needs
   based upon the impact of the ReSOLVE levers as main causes and reasons of this change*

   a. Essential skills and competences
   b. Essential knowledge
   c. New essential skills and competences
   d. Generic green skills, knowledge and competences

* *Mc Kinsey center and Ellen MacArthur Foundation*


Circular Hub
Une seconde vie pour nos meubles
Simplifiez-vous la vie
Offre du jour
Prenez part à quelque chose de nouveau.

Cabinet-makers

Skills and competences needs

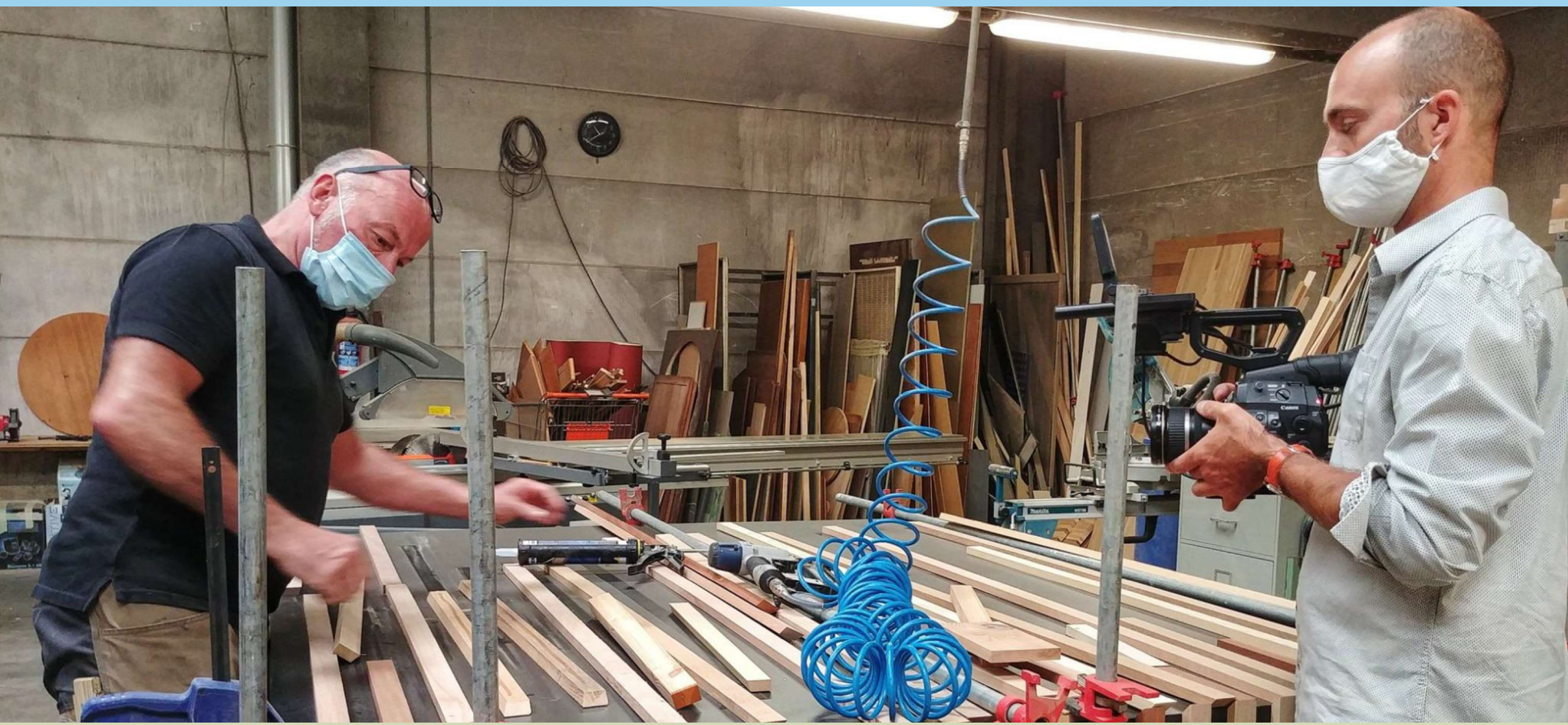
Forecast of training new needs due to sector circular economy transition (in green for 2030) and digitalization (in blue for 2025) for the occupational profile: Cabinet-maker and related workers - ISCO 7522

Skills, knowledge and competences	Will it continue to be needed?	Main causes/reasons of change: Shift to renewable materials	Increase performance/efficiency of products	Reproducible and adaptable manufacturing	Minimize waste in production and supply chain	Remanufacture products and/or components	Recycle materials	Promote the cascade use of wood	Apply new technologies	Use digitization tools to work in a customer-oriented manner	Using highly aligned, connected and automated autonomous woodworking	Simulation and use of digital twins to study and optimize	Human–robot collaboration, use of cobots, that can be remotely operated with the help of augmented reality/using big data	Create designs, using digital simulation tools, like digital twins and augmented reality
Essential skills and competences														
Apply a protective layer	YES, changed	•	•		•		•		•		•		•	
Apply wood finishes	YES, changed	•	•		•		•		•		•		•	
Clean wood surface	YES, changed					•	•	•	•		•		•	
Create furniture frames	YES, changed		•	•			•	•	•		•		•	
Create smooth wood surface	YES, changed						•	•	•		•		•	
Design objects to be crafted	YES, changed	•			•		•	•	•			•		•
Design original furniture	YES, changed	•					•	•	•			•		•
Join wood elements	YES, changed	•	•	•			•	•	•		•		•	
Operate drilling equipment	YES, changed		•	•			•		•		•		•	
Operate wood sawing equipment	YES, changed		•	•			•		•		•		•	
Repair furniture frames	YES, changed	•	•	•	•		•	•	•		•		•	
Sand wood	YES, changed						•	•	•		•		•	
Tend boring machine	YES, changed		•	•			•		•		•		•	
Disassemble wood-based furniture products	NEW	•	•	•	•		•	•	•		•		•	
Examine disassembled pieces for further steps (reuse, recycle, upcycle)	NEW	•	•	•	•		•	•	•		•		•	
Repair wood-based furniture pieces, where needed	NEW	•	•	•	•		•	•	•		•		•	
Essential knowledge														
Construction products	YES, changed	•	•	•	•		•	•	•	•		•		•
Furniture trends	YES, changed	•	•	•			•	•	•	•		•		
Sanding techniques	YES, changed						•		•		•		•	
Technical drawings	YES, changed	•	•	•			•	•	•	•		•		•
Types of wood	YES, changed	•	•		•		•	•	•					
Wood products	YES, changed	•	•		•		•	•	•					
Woodturning	YES, changed		•	•			•		•		•		•	
Generic green skills, knowledge and competences (*)														
Environmental awareness and willingness to learn	NEW		•	•			•	•	•					
Systems and risk analysis skills	NA													
Innovation skills	NEW	•	•	•			•		•					
Coordination, management and business skills	NA													
Communication and negotiation skills	NEW	•							•					
Marketing skills	NA													
Strategic and leadership skills	NA													
Consulting skills	NEW	•	•	•	•				•					
Networking, information technology and language skills	NA													
Adaptability and transferability skills	NEW	•	•	•			•	•	•					
Entrepreneurial skills	NA													
Waste, energy and water quantification and monitoring	NEW	•	•	•	•		•	•	•					
Material use and impact quantification and monitoring	NEW	•	•	•	•		•	•	•					
Material use and impact minimization	NEW	•	•		•		•	•	•					

Cabinet-makers

SKC

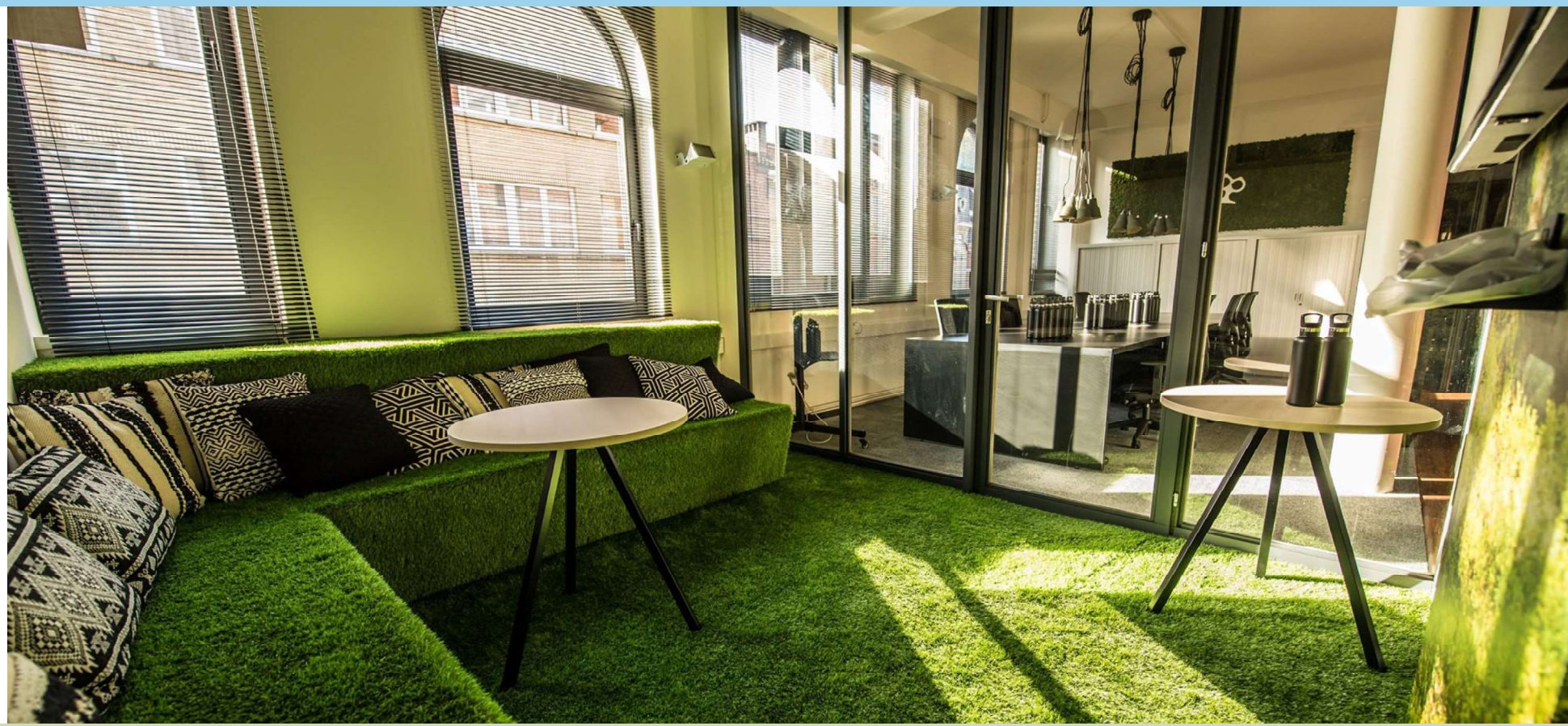
Skills, knowledge and competences	Will it continue to be needed?	Shift to renewable materials	Increase performance efficacy of products	Reproductible and adaptable manufacturing	Minimize waste in products and supply chain	Remanufacture products and/or components	Recycle materials	Promote the cascade use of wood	Apply new technologies	Use digitization tools to work in a customer-oriented manner	Using highly digitized, connected and automated (autonomous) woodworking machines	Simulation and use of digital twins to study and optimize	Human-robot collaboration, use of cobots, that can be remotely operated (with the help of Augmented Reality) using big data	Create designs, using digital simulation tools like digital twins and augmented reality
Essential skills and competences														
Apply a protective layer	YES, changed	●	●		●	●			●		●		●	
Apply wood finishes	YES, changed	●	●		●	●			●		●		●	
Clean wood surface	YES, changed					●	●	●	●		●		●	
Create furniture frames	YES, changed		●	●		●	●	●	●		●		●	
Create smooth wood surface	YES, changed										●		●	
Design objects to be crafted	YES, changed	●			●	●	●	●	●			●		●
Design original furniture	YES, changed	●				●	●	●	●			●		●
Join wood elements	YES, changed	●	●	●		●	●	●	●		●		●	
Operate drilling equipment	YES, changed		●	●		●			●		●		●	
Operate wood sawing equipment	YES, changed		●	●		●			●		●		●	
Repair furniture frames	YES, changed	●	●	●	●	●	●	●	●		●		●	
Sand wood	YES, changed					●	●	●	●		●		●	
Tend boring machine	YES, changed		●	●		●			●		●		●	
Disassemble wood-based furniture products	NEW	●	●	●	●	●	●	●	●		●		●	
Examine disassembled pieces for further steps (reuse, recylce, upcycle)	NEW	●	●	●	●	●	●	●	●		●		●	
Repair wood-based furniture pieces, where needed	NEW	●	●	●	●	●	●	●	●		●		●	
Essential knowledge														
Construction products	YES, changed	●	●	●	●	●	●	●	●	●		●		●
Repair furniture frames	YES, changed	●	●	●	●	●	●	●	●					
Sand wood	YES, changed					●	●	●	●					
Tend boring machine	YES, changed		●	●		●			●					
Disassemble wood-based furniture products	NEW	●	●	●	●	●	●	●	●					
Examine disassembled pieces for further steps (reuse, recylce, upcycle)	NEW	●	●	●	●	●	●	●	●					
Repair wood-based furniture pieces, where needed	NEW	●	●	●	●	●	●	●	●					
Essential knowledge														
Construction products	YES, changed	●	●	●	●	●	●	●	●					
Furniture trends	YES, changed	●	●	●		●	●	●	●					
Sanding techniques	YES, changed					●	●		●					
Technical drawings	YES, changed	●	●	●		●	●		●					
Types of wood	YES, changed	●	●		●	●	●	●	●					
Wood products	YES, changed	●	●		●	●	●	●	●					
Woodturning	YES, changed		●	●		●			●					
Generic green skills, knowledge and competences (*)														
Environmental awareness and willingness to learn	NEW		●	●		●	●	●	●					
Systems and risk analysis skills	NA													
Innovation skills	NEW	●	●	●		●		●	●					
Coordination, management and business skills	NA													
Communication and negotiation skills	NEW	●						●						
Marketing skills	NA													
Strategic and leadership skills	NA													
Consulting skills	NEW	●	●	●	●			●						
Networking, information technology and language skills	NA													
Adaptability and transferability skills	NEW	●	●	●		●	●	●	●					
Entrepreneurial skills	NA													
Waste, energy and water quantification and monitoring	NEW	●	●	●	●	●	●	●	●					
Material use and impact quantification and monitoring	NEW	●	●	●	●	●	●	●	●					
Material use and impact minimisation	NEW	●	●		●	●	●	●	●					



New specific technical green skillsets

- Disassemble wood-based furniture products
- Examine disassembled pieces for further steps (re-use, re-manufacture, recycle, upcycle)
- Repair wood-based furniture pieces, where needed

=> “topping up”



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Generic green skills*

Four categories

1. **Cognitive competencies** (1 to 3)

    1 Environmental awareness and willingness to learn
    2 Systems and risks analysis skills
    3 Innovation skills

** Dr Margarita Pavlova (Unevoc & Unesco)*

Generic green skills

Four categories

2. **Interpersonal competencies** (4 to 9)

4	Coordination, management and business skills
5	Communication and negotiation skills
6	Marketing skills
7	Strategic and leadership skills
8	Consulting skills
9	Networking, information technology and language skills

Generic green skills

Four categories

3. **Intrapersonal competencies** (10 and 11)

    10 Adaptability and transferability skills
    11 Entrepreneurial skills

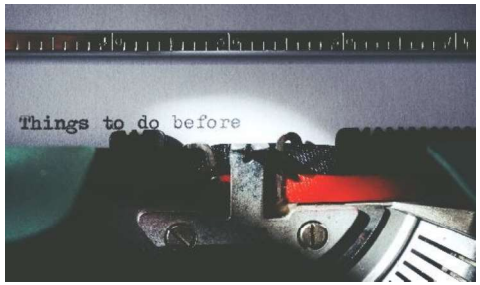
Generic green skills

Four categories

4. **Technological competencies** (12 to 14)

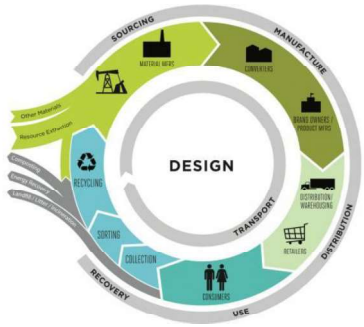
    12 Waste, energy and water quantification and monitoring
    13 Material use and impact quantification and monitoring
    14 Material use and impact minimization

Conclusions SKC (1)



- Qualification level: higher and more specialized
- No increased need for (new) hard skills, only some ‘topping up’
- Complete integration of digital and green skills

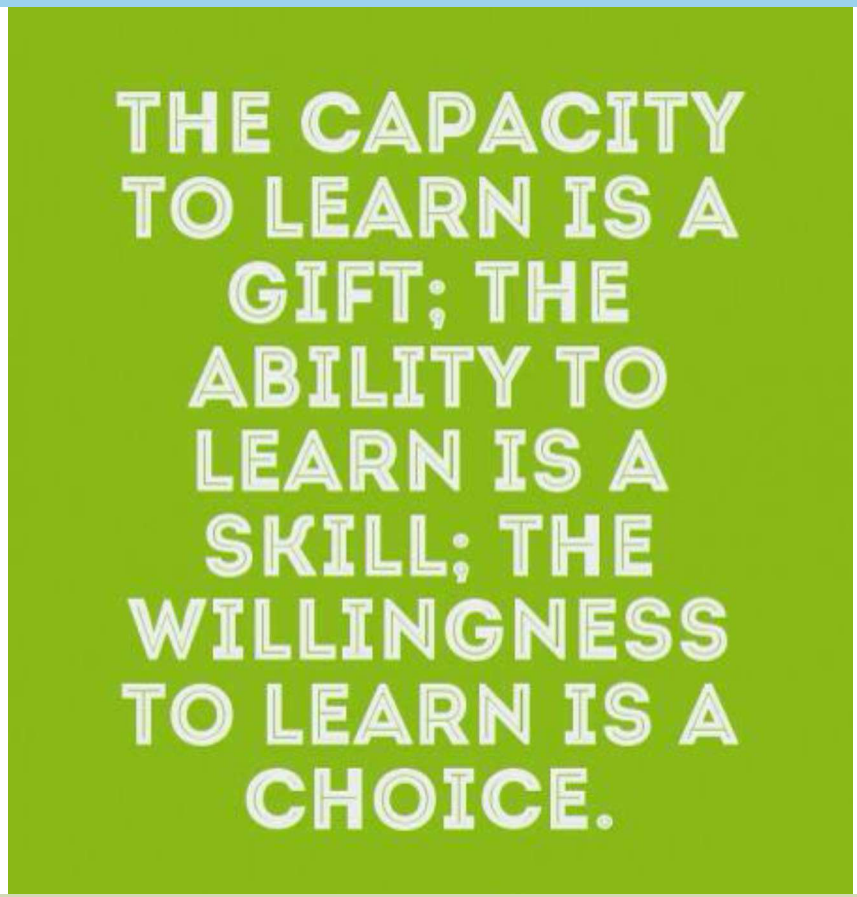
Conclusions SKC (2)



- Cognitive, social and behavioural skills become priority
- Mindset !
- Own responsibility for learning and self-improvement

Vocational Education & Training

- Green & digital & open campus
- Hybrid learning environments & WBL
- Green & digital curriculum: adaptive and evolving
- Green & digital research & recognition of skills
- Green & digital & learning culture


THE CAPACITY TO LEARN IS A GIFT; THE ABILITY TO LEARN IS A SKILL; THE WILLINGNESS TO LEARN IS A CHOICE.


THANK
YOU

SAWYER
SKILLS AND SAFETY NEEDS IN A CIRCULAR FURNITURE SECTOR
www.circularfurniture-sawyer.eu

Impacts of the twin transition on the EU furniture industry

Forecast of the sector by 2030 due to its circular economy transition and digital transformation

Speaker: Massimiliano Rumignani - CENFIM

Recommendations for legislators, companies, VET regulators and providers

CENFIM Furnishings Cluster
European Federation of Building and Woodworkers
EFIC European Furniture Industries Confederation
FLA FEDERLEGNOARREDO
UEA

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Introduction

Aim of this presentation:

Provide **few hints to sector stakeholders** on how to deal with the sector Twin Transition, specifically for:

Legislators / policy-makers

Entrepreneurs and companies

VET providers and regulatory entities

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Need to keep in mind sector general framework

- A sector with more **digitalized, interconnected, more circular products**
- Produced in new types of **workplaces**
- Produced using:
  - **New materials**
  - **New technologies**
  - **New manufacturing processes**
- Offered through new different **business models**

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Sector needs

- Companies and workers will need **new KSCs**
- Need to look at new or changed **OHS risks**
- Need for clear, effective and sustainable **legal frameworks and rules**
- Communicate better their **environmental achievements**

Strong & continuous collaboration among **all sector stakeholders**

key role for its implementation:

Policy-makers and **VET regulatory entities and provider**

Recommendations for the EU VET system

When redesign our educational policies and programs:

- **Strengthen the cooperation** with all stakeholders, especially sector industry
- Keep **sight on the long-term,** anticipate & build skills **for the future**
- **Integrate new skills sets** (for green and digital world) already at early stage
- Support workforce in developing a **new mindset** of continuous learning
- Increasing importance of **demand driven systems**

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Practical recommendations

- Look at new and emerging **digital learning methods** (e.g. MOOC)
- **Work-based training** is provided in collaboration with current specialized workforce
- **Increase green training** programs, courses and practices
- Join **skills alliances** within the sector
- Join **research on the recognition of skills** outside of normal learning paths
- Contribute to create a **learning culture** within the companies

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Recommendations for policy makers

- Support and facilitate the **social dialogue** at all levels within the sector
- Produce **harmonized rules** at National / EU / international level
- **Simple and smarter Circular Economy rules** for companies
- Facilitate **harmonized information** are provided to consumers & businesses
- **Support** both the **EU VET systems** and **companies transformation**

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Few practical examples

- Facilitate and **promote ecodesign**
- Promote better usage and **recovery scenarios**
- Expanding public and private **green procurement schemes**
- Provide **specific and financial support** to companies and VET provision

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Recommendations for companies

Look at the Twin Transition from 2 different perspectives:

- **Challenges** and threats to be tackled and overcome
- **Opportunities** to be exploited and communicated

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From a strategical perspective look at:

- The **new emerging legislations** and **voluntary instruments**
- The **Key Enabling Technologies** and the emerging ones
- The emerging **market demands** putting attention on:
    - **New business models** for their products (such as servitization, etc)
    - The **different opportunities** that can emerge
- And in general the different **opportunities that can emerge**

From a practical perspective, look at:

- The needs for the **new or increased KSCs**
- New or changed Occupational **Health and Safety risks**
- Possibilities offered by the **shared economy** and by the **collaboration** with complementary companies and entities
- **Communicate environmental achievement** and exploit **opportunities for funding** and support

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Properly **respond** to **challenges and threats**

Properly **exploit the opportunities**

posed and offered by the Twin Transition

support companies long-term competitiveness at world level

preserving workers health, safety and jobs

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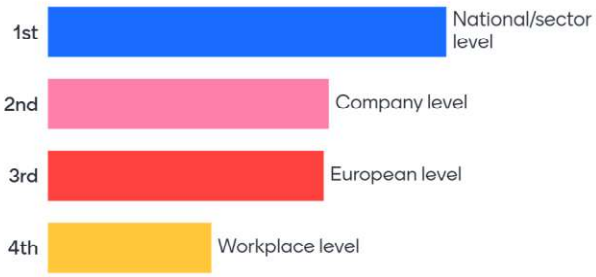
RESULTS SAWYER conference mentimeter 10/03/2021

Which do you think is the most relevant level of social dialogue in the Twin Transition process?

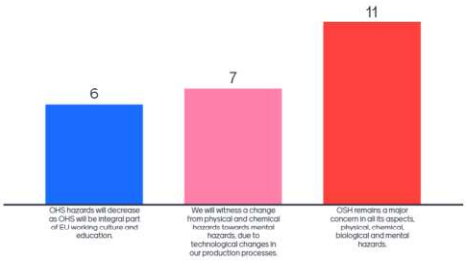
Mentimeter



27

Which one of the following statements better characterises the coming transition process in the furniture sector?

Mentimeter



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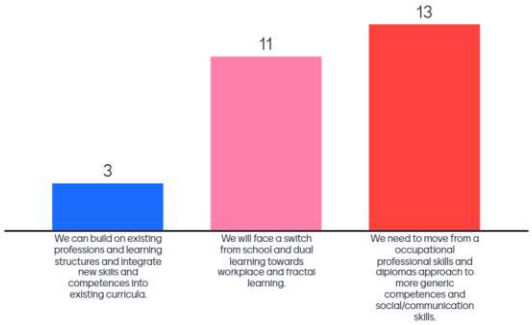
Which of the following statements better characterises the coming transition process in the furniture sector?

Mentimeter



27

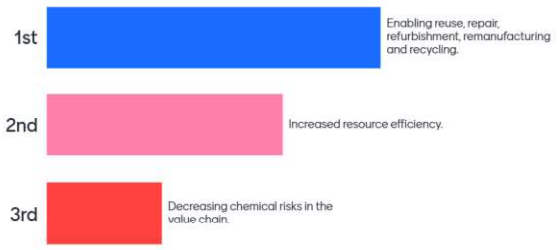
Which should be the main recommendation to legislators when developing circular economy rules?

Mentimeter

24

Which benefits does a more circular design bring?

Mentimeter



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Which should be the main role of EU Social Partners in the Twin Transition?

Mentimeter

20