

# FROM FOREST TO FURNITURE

## Towards a circular value chain



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

*Wednesday 29 November 2023 15.00- 17.00*  
**YUMAN**



# YOUR HOST TODAY: ECORES

EcoRes is a sustainability consultancy cooperative that assists companies, public organisations and territories on the transition towards a regenerative and circular economy.

EcoRes provides a wide range of services related to studies and research, training and coaching activities around sustainability challenges.



## CLIMATE RESILIENCE

EcoRes supports and empowers you to ensure the climate resilience of your business or territory.



## CIRCULAR ECONOMY

EcoRes supports you in the implementation of your circular economy strategy.



## COLLECTIVE INTELLIGENCE AND COOPERATION

EcoRes supports and coordinates dynamic approaches to social innovation within the ecological transition of our society.



## FOOD SYSTEM

EcoRes supports you to develop your strategic plan in sustainable food and/or sustainable agriculture.

# AGENDA

FROM FOREST TO FURNITURE

15.00 - 15.10

WELCOMING WORDS

15.10 - 15.30

SUSTAINABILITY IN THE FURNITURE INDUSTRY - RECENT  
DEVELOPMENTS IN BELGIUM

*FILIP DE JAEGER - COO FEDUSTRIA*

15.30-16.00

INTRUST - E-LEARNING SOLUTION FOR  
THE WOOD-FURNITURE VALUE CHAIN

*ERWAN MOUZAN - CIRCULAR ECONOMY MANAGER  
ECORES*

16.00-16.20

PEFC, A SUSTAINABILITY TOOL  
*MAJA DRČA - PEFC EU REPRESENTATIVE*

16.20- 17.00

CIRCULARITY IN THE FURNITURE SECTOR :  
COMPANIES TESTIMONIALS AND Q&A

*SME REPRESENTATIVES*

17.00

CLOSING WORDS AND NETWORKING



# Sustainability in the furniture industry

## Recent developments in Belgium

Filip de Jaeger – COO FEDUSTRIA



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# Intrust ERASMUS+ project Elearning solution for the wood- furniture value chain

Erwan Mouazan, Ecores



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# CONTEXT



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TRAINING SOLUTIONS FOR  
WOOD CERTIFICATION

# THE BIG PICTURE

Over the recent years, public opinion awareness on the issues of **sustainable forest management** in light of climate change has increased.

Forests are indeed an important factor in mitigating climate change. They provide **a wide range of ecosystem services**, such as carbon sequestration, protection of soil from erosion and, beyond creating economic value, offer opportunities for recreation.

Currently however, **30% of the wood used in the EU comes from countries where illegal logging and partial deforestation is usual.**

In this context, **certified forests**, wood and products, combined with **eco-design** and framed within a **circular economy** can be considered as the most appropriate approach to deal with this issue.



# MANAGING THE SUSTAINABILITY OF FOREST BASED PRODUCTS...

In today's market, **environmentally-friendly products can bring clear competitive advantage** due to the rapid increase of consumers concerned about the environmental impact of their activities and goods they purchase. This in turn, results in a **market trend to buy certified products** instead of non-certified products.

In this context, **different certifications have been created to manage forest-based products (ie: PEFC, FSC).**

Such schemes are normally integrated into environmental management systems, based on standards like **ISO 14001** or **EMAS**, that, along with other tools and schemes **like life cycle assessment** and Ecolabels, help companies in the processes and procedures related to the use of certified wood in construction or furniture manufacturing.

**It can be however challenging to know which tool/approach to use!**





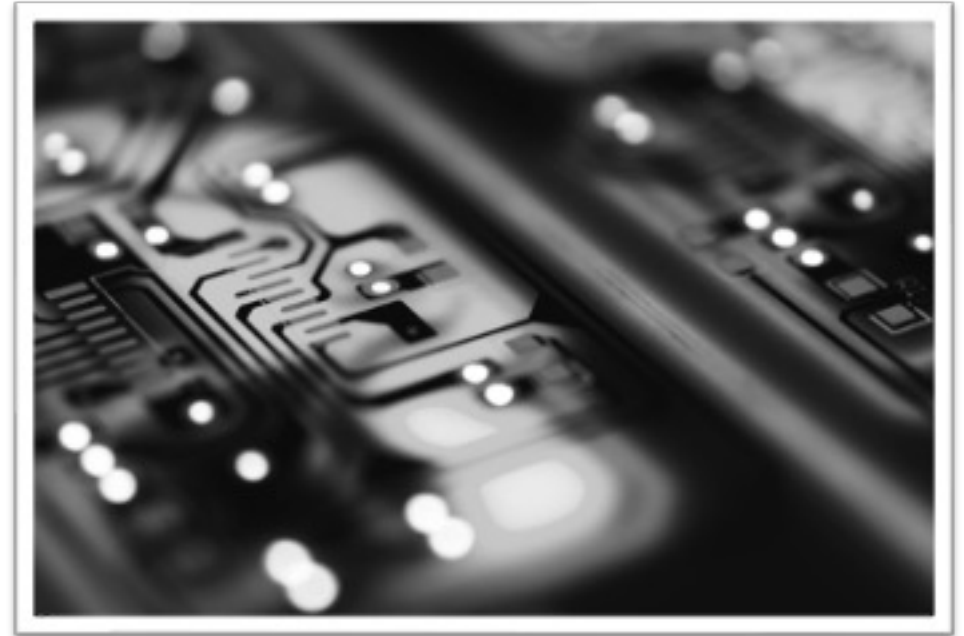
# ...WITHIN THE TWIN TRANSITION

The ***rise of Industry 4.0*** (I4.0) leads to the discussion of how forestry and the wood sector in general can benefit from this development.

The economic potential of Industry 4.0 in forestry could lead to an increased 15% value. Smart wood supply chains are slowly reshaping the industry with several new applications in use or in research and development.

This revolution can lead to ***significant changes and new value creation.***

The combined ***green and digital transition*** thus offer a promising avenue for manufacturing enterprises of the sector.





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# PROJECT OBJECTIVES

# INTRUST OBJECTIVES

**INTRUST** project targets professionals from the wood value chain (forest operators, managers and employees from furniture-related companies) to **increase their professional skills and competences in relation to the twin transition of the sector.**

On one hand, the project aims to **support the sector in recognizing, choosing and implementing the right sustainable certifications.**

On the other hand, Intrust aims to support the sector in developing a **relevant body of knowledge associated with the digital transition.**



# OUTCOMES



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# RESULTS



## STATE OF THE ARTS REPORT

on the situation of forest, wood and furniture certifications and I4.0 solutions



## COLLABORATIVE PLATFORM

to access relevant knowledge on the twin transition in the forest-wood-furniture value chain



## COACHING TOOL

to get started on your certification process



## ELEARNING COURSE

to increase your expertise through a set of eLearning modules on sustainable certifications and industry 4.0



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**CONSORTIUM**

# A EUROPEAN PARTNERSHIP



University of Forestry



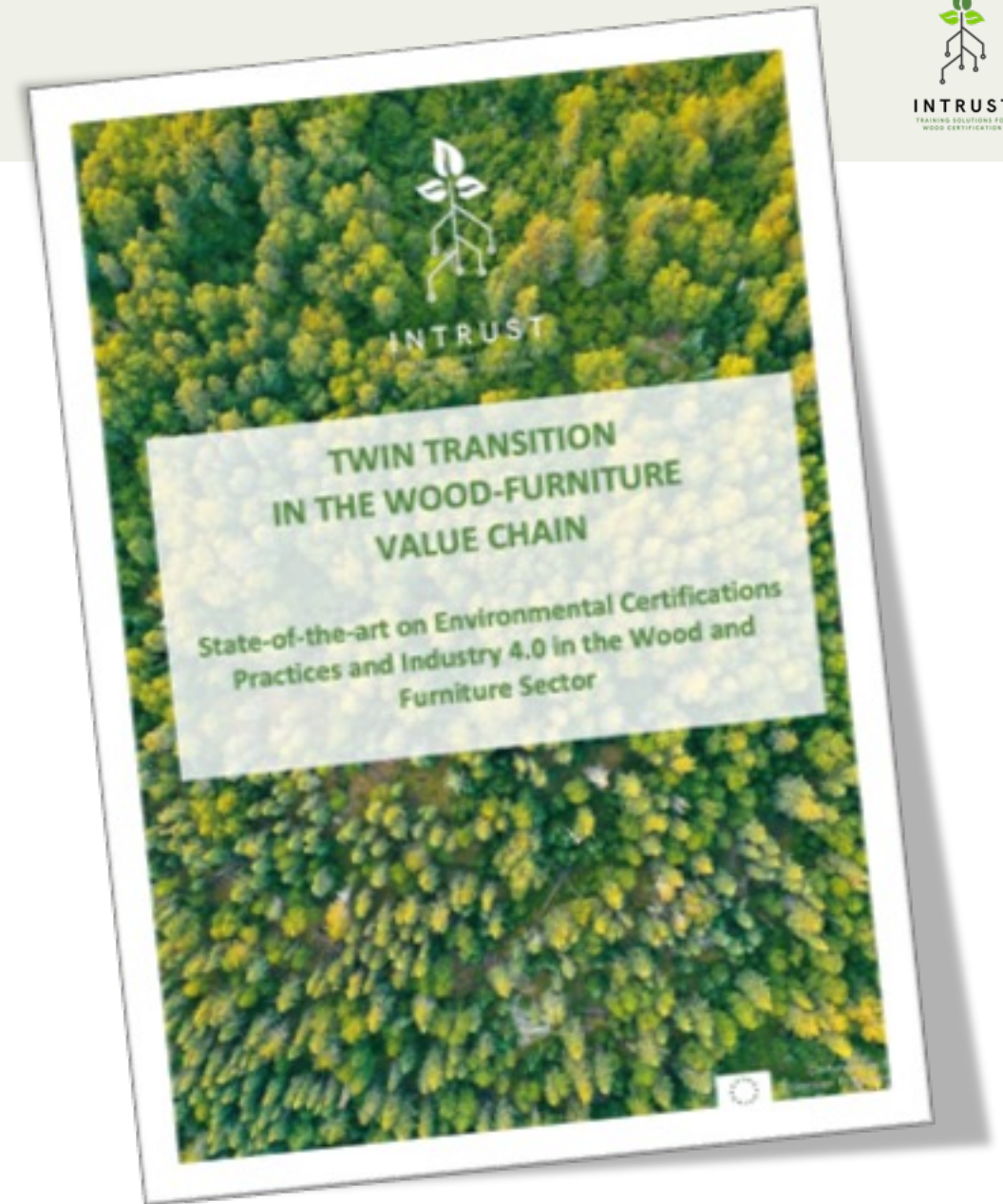
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# STATE OF THE ARTS REPORT



The report *Twin Transition In The Wood-Furniture Value Chain* (2022) provides an overview on the **current environmental and digital trends and practices** affecting the wood value chain in its entirety. Taking a value chain perspective, the report outlines **regulatory trends, new digital and technological development**, as well as emerging practices that are to affect the sector as a whole.

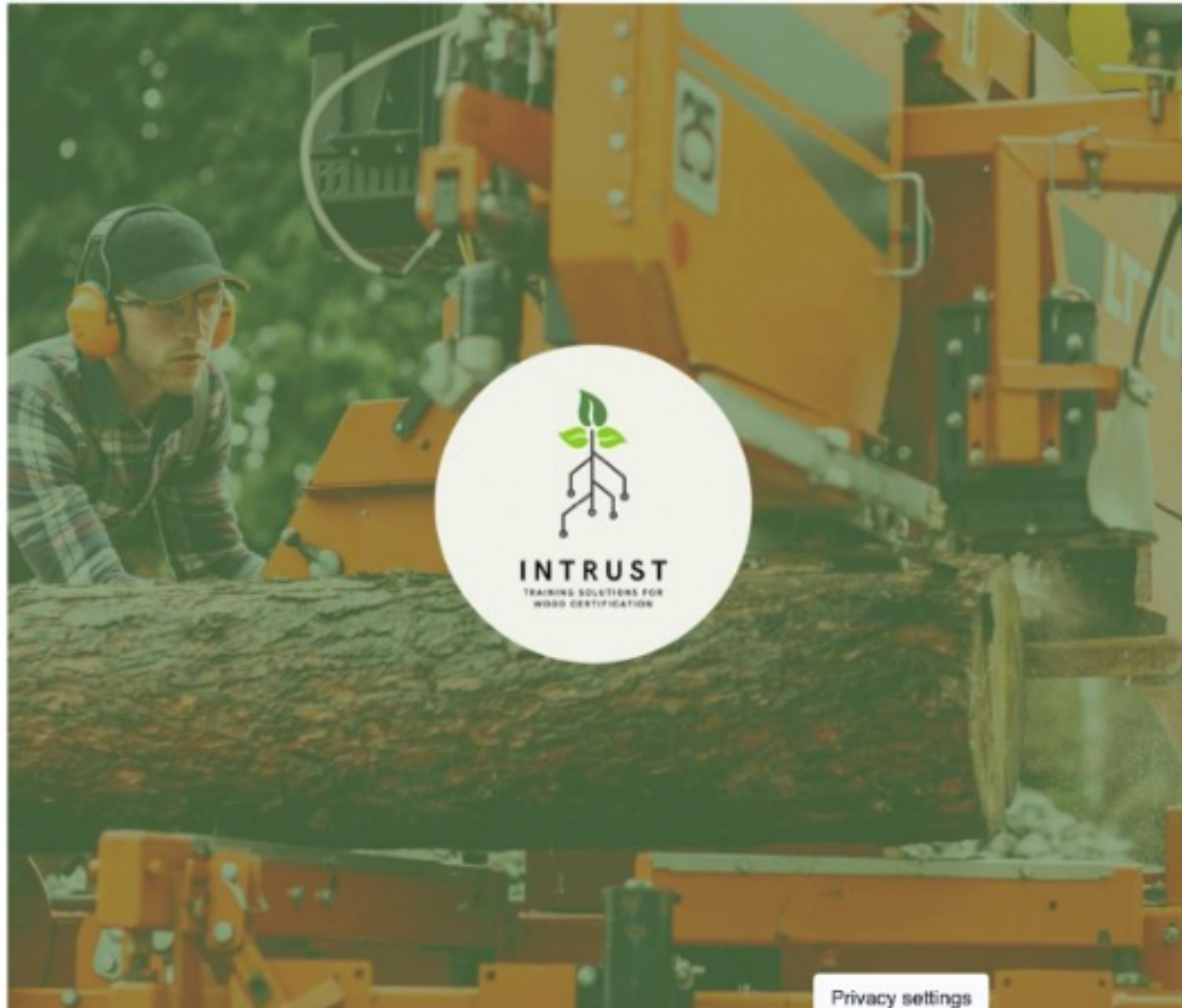
*“By implementing intelligent systems and new production processes, European SMEs can optimize usage of raw materials, improve their waste management and contribute to the development of a circular economy. This digital and green transition however will not be implemented if the staff among the value chain does not acquire the right knowledge and skills on the value offered by industry 4.0 in developing more sustainable management practices.”*





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# ELEARNING PLATFORM



# LOGIN

Login with your  
username or email

LOG IN

[Request new password](#)  
[Create new account](#)

Switch Language

English ▾



European  
Commission



Co-funded by the  
Erasmus+ Programme  
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Erasmus+ KA220-VET - Cooperation partnerships in vocational

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<https://intrust.learning-platform.eu>





Home



Training



Achievements

## User Guide



Whether you are a learner or a trainer, here you can find simple multilingual guidelines on how to use the e-learning platform and make the most of the content.

## Training Presentation



The INTRU Privacy settings / transnational cooperation platform that connects partners within

<https://intrust.learning-platform.eu>

# CONTENT

## **Module 1- Sustainability in the Forest-Wood Value Chain**

Introduction to the sector  
Key environmental impacts  
Challenges to overcome

## **Module 2- Introduction to Industry 4.0**

History and Development  
Benefits, Opportunities and Challenges  
Key applications in factory, woodworking and furniture

## **Module 3- EU Regulatory Landscape on Digital and Green Transition**

Framework, directives, regulations with green and digital transition

## **Module 4- Sustainable certifications for the forest-wood value chain: Woodworking**

Overview of labels and certifications

## **Module 5- Key enabling Technologies in the Woodworking Sector**

KETs Overview

## **Module 6- Closing the Loop in the Forest-Wood-Furniture Sector**

Circular Economy as an enabling transition energy  
Circular Business Models in the Forest Wood Furniture Value Chain Unit  
Marketing for the Circular Economy  
Bridging Digitalisation and Circular Economy  
Circular Economy Cases in the Forest-Wood-Furniture Value Chain


# PEDAGOGICAL APPROACH

**INTRODUCTION TO INDUSTRY 4.0**

**INTRODUCTION TO INDUSTRY 4.0**  
Description  
Welcome to Module 2 - Introduction to Industry 4.0

This Module has 6 Learning Units:

1. History and Development
2. Benefits, Opportunities and Challenges
3. The Opportunities
4. The Impacts
5. Addressing the Major Challenge - Need for a Skilled Workforce in the Context of Global Competitiveness
6. Key Applications in Factory, Woodworking and Furniture

| SCORE | STATE   |
|-------|---|
| 0%    |  Pending |

for each module:

- Short video lectures
- Animation videos detailing specific concepts
- interactive exercises

Intrust - module 6 - learning unit 1 - Circular economy as an enabling transition strategy

À regarder plus tard Partager



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**6.1.3 Norms and certifications for a circular economy**

PLUS DE VIDÉOS

18:06 / 22:57

YouTube

# TO GO FURTHER

A set of 6 textbooks for each module to access full content, references, additional resources...

These textbooks will also be made available separately on the project website



Module 6

2  
6

of personalized  
of production  
more than 80% of  
uses potentially  
and machinery  
the network and  
transfer.  
and predictive

blue chain, under  
efficiency, flexibility

logistics models  
tools that integrate  
(and B2C)  
availability of  
information for  
suppliers  
traceability  
supply chain.

ner relations:  
channels  
igital information  
client and the

of market needs  
exploitation of

inals with direct  
the web/extranet  
ive Platforms.

sustainability of  
products and  
high continuous  
of energy  
optimisation of  
consumption,  
waste generation  
environmental  
aspects.

• Products and services:

- Continuous product (and service) innovation
- Collaborative systems with external agents
- Reduction of development times and costs
- Disruptive innovations.

**3. Progress towards an optimal state**

The level of digital maturity of a company can be categorized according to 6 standard levels, which exemplify the degree of implementation of 4.0 tools (and, therefore, the point at which it is in its digital transition process).

| Digital maturity level |               |             |         |               |        |
|------------------------|---------------|-------------|---------|---------------|--------|
| Introduction           |               | Development |         | Consolidation |        |
| Static                 | Consolidation | Competent   | Dynamic | Reform        | Leader |

Figure 4: digital maturity level

| Level     | Characteristics  |
|-----------|--|
| Static    | <ul style="list-style-type: none"><li>A company that does not meet any of the industry 4.0 requirements.</li><li>Level 0 is also automatically assigned to those companies that do not know what Industry 4.0 is or is irrelevant.</li></ul> |
| Conscious | <ul style="list-style-type: none"><li>Company involved in Industry 4.0 through pilot initiatives and investments in some area.</li><li>Some automation, limited systems integration and information sharing.</li></ul>                       |
| Competent | <ul style="list-style-type: none"><li>Company that incorporates some I4.0 initiatives into its strategy.</li><li>Investments in several areas.</li></ul>   |

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# EVALUATION

Multiple choice questions, and other exercises after each module to validate learnings

Learners completing the 6 modules (+/- 30 hours of self studying) and successfully completing the evaluations receive a certification.

Drag the words into the correct boxes

- a new organisation with a circular business model is created;
- the current business model is changed, resulting in a circular business model;
- without major changes in existing non-circular business models of an organisation, an additional circular business model is established; and
- an additional circular business model is identified, acquired and integrated into the organisation

Start-ups

Business model diversification

Circular business model acquisition

Business model transformation

Which British norm is focusing on the circular economy?

ISO26000:2017

BS8001: 2017

ISO14001:2017

✓ Check







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# COACHING TOOL

# Coaching tool

The INTRuST digital guidance and coaching tool assess **15 different green certificates and standards**.

Among these are well known international FSC, PEFC, the EU Ecolabel and Environmental Product Declaration (EPD), along with some regional ecolabels like the Nordic Swan, the Blue Angel and the Austrian Ecolabel, and some labels and standards for organizations like ISO14001 and the EU eco-management and audit scheme (EMAS).

These are rated through a set of preferences given by the company, like sector, export region and business model on the one hand and the environmental aspects covered by the label and standard on the other hand like climate change, water resources or plastic pollution.

## Which sector does your enterprise belong to?

### Forestry and logging

- Silviculture and other forestry activities
- Logging
- Gathering of wild growing non-wood products
- Support services to forestry

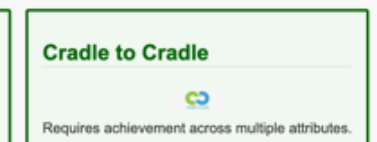
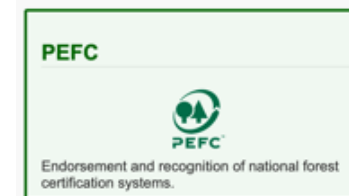
### Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials

- Sawmilling and planing of wood
- Manufacture of products of wood, cork, straw and plaiting materials
- Manufacture of veneer sheets and wood-based panels
- Manufacture of assembled parquet floors
- Manufacture of other builders' carpentry and joinery
- Manufacture of wooden containers
- Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials

### Manufacture of furniture

- Manufacture of office and shop furniture
- Manufacture of kitchen furniture
- Manufacture of mattresses
- Manufacture of other furniture

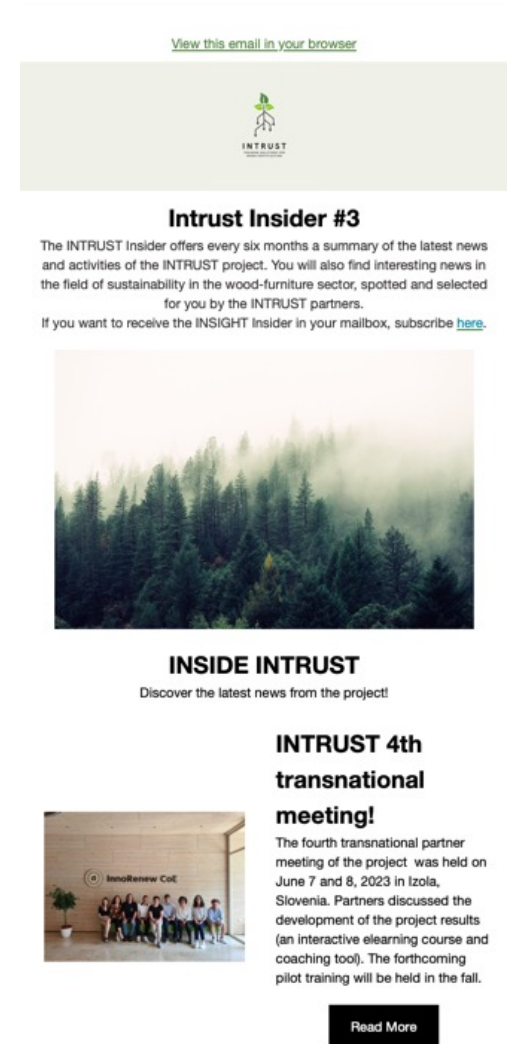
Other



# Final project steps

- ✓ Finetuning of training content following pilot. (50 first users have tested the course this fall)
- ✓ Translation of platform into partner's languages (English and French, German Spanish, Bulgarian and slovene).
- ✓ Finalisation of coaching tool.

To be updated on results:  
Register to the [newsletter](#)  
join the [linkedin](#) group  
or visit  
[www.intrust-project.eu](http://www.intrust-project.eu)





# PEFC a sustainability instrument

Maja Drča - PEFC Europe



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# Sonian wood coop

Nicolas Spineux



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# Mobitec

Marie Claeys - Sustainability manager



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# Q & A



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# Networking



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