

Underpinning the vital role of the forest-CIRCUS based sector in the Circular Bio-Economy

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The role of the forest-based sector within the circular bioeconomy **October 2nd, 2020**

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MINISTRY OF THE ENVIRONMENT, ENERGY AND MARINE AFFAIRS, IN CHARGE OF INTERNATIONAL RELATIONS ON CLIMATE CHANGE





Overall role of value chains of wood-based products and side streams in construction sector in Europe

The construction sector uses half of extracted materials and energy, and one third of water in Europe. The sector with demolition, packaging and bulky waste generates one third of all waste in Europe.

European construction sector provides 18 million direct jobs contributing about 9% of the EU's GDP. Wood construction holds shares of 19% of the labour and 15% of turnover in all construction business. About 70% woodworking products are used in construction and furnishing. Woodworking sector manufacturing to a larger extent recyclable products and provides substantial side streams for raw materials and bioenergy throughout the value chain.

In EU28, roughly 1/3 of wood wastes are recycled as materials, incinerated and landfilled (each).

Big differences between the EU member states: wood cascading and recycling performance, value chains and technology readiness end-uses and market demand, legal, policy and socioeconomic framework.

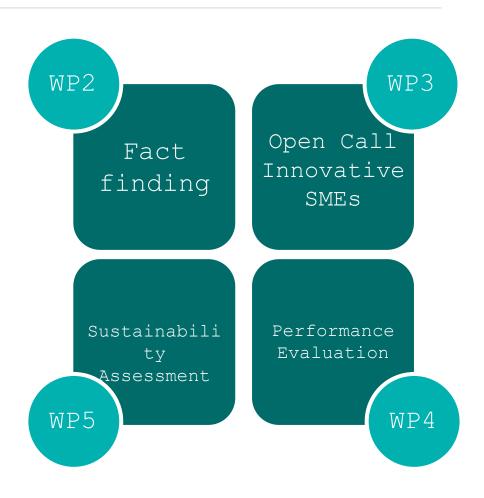
Construction, demolition and new bio-based products represent two of the five priority areas in the EU Action Plan for the Circular Economy.

. . .



How do we identify best practices?

- Collection and assessment of case studies
 - Interviews, Fact Finding & State of the Art WP2
 - Open Call for SMEs WP3
 - Process Performance evaluation WP4
 - Sustainability & Impact Assessment WP5
- Criteria development
 - Internal workshops
 - Feedback from expert interviews
 - Trial criteria with available cases





Good practices collection – WP2 & 3

 Study of a wide range of company cases in reuse, recycling and circular economy approaches



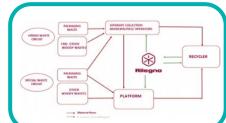










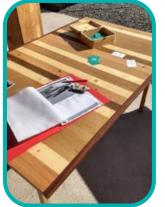












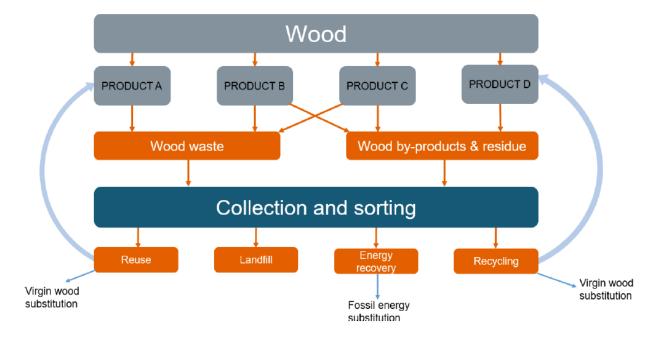




Life Cycle Assessment – WP5

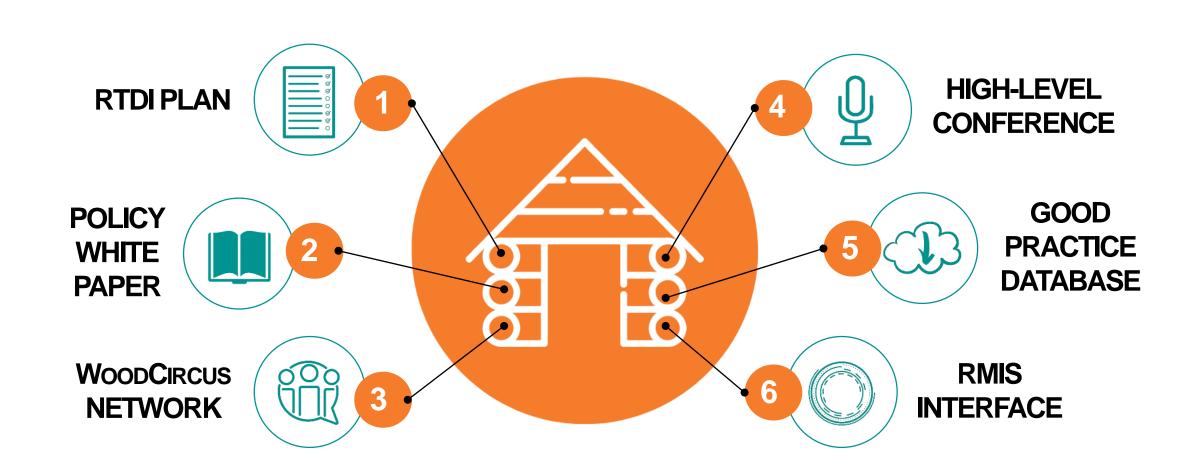
- Assess environmental sustainability of selected good practices of wood processing and waste recycling scenarios
- Reflect relevant EU strategies
- According to standards ISO 14040-44 (LCA) and EN 15804

System boundaries





Main deliverables





Policy analysis & RDTI strategies – WP6

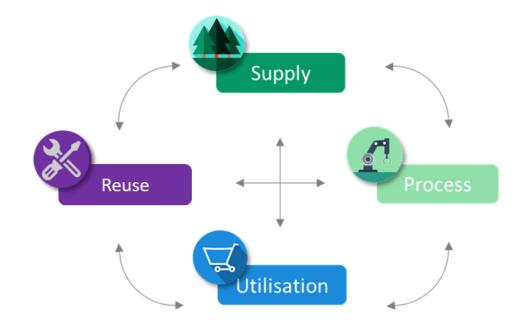
- Mapping of relevant policy documents
- Distil relevant key messages & recommendations
- Wood Circus Policy briefs & White paper
- Wood Sector in the Green Deal





The concept of the circular bioeconomy

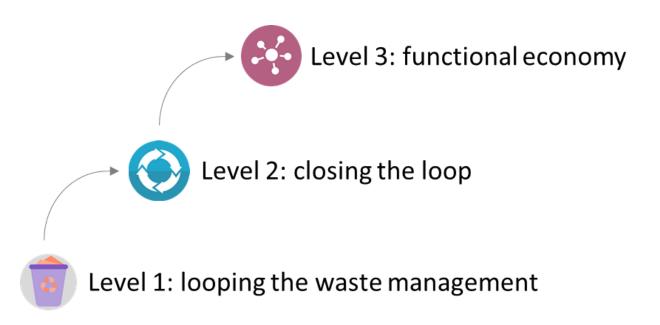
Circular bioeconomy: based on the circular economy but using purely bioresources, it is the concept of producing and using biological resources and limiting the generation of waste while reuse or recycling when possible.





Up-scaling the circular economy with the creation of new business models

Circular economy: a sustainable and sober consumption model from natural resources and raw materials, as well as, by priority, the prevention of waste production through the reuse of products/materials and according to the hierarchy of waste collecting, sorting and treatment methods, to recycling or energy recovery.

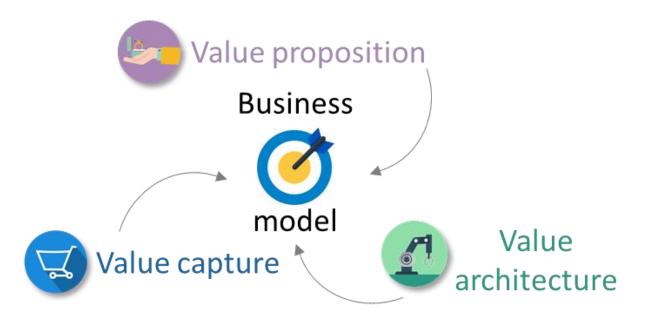




New business models, to create and add new values

Business model: how to create greater value for customers and capture a greater part of the market than its competitors based upon three components:

- the value proposition: what the customer pays for (functionalities of goods or services).
- the value architecture: choices concerning level of value chain outsourcing and control.
- the value capture: the way the organisation recovers profit.

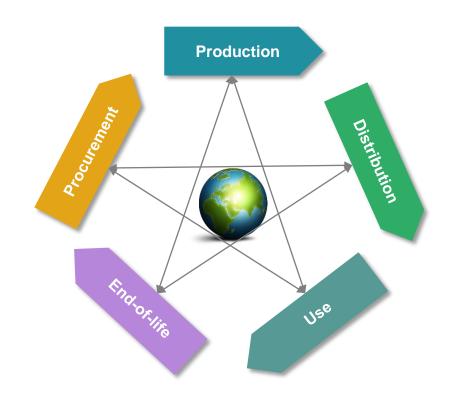




Circular economy with CLOSED LOOP

Paradigm shift of business model

→ High environmental performance of products



Functional economy

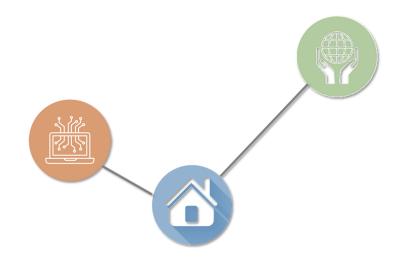


Functional economy changes business approach

The functional economy is to sell the function or the performance and not the product:

Producer keeps the property of raw materials: solution of prices' instability and scarcity

- Ecodesign opportunities
- Better adapted to digital revolution with datacentered business models
- Global performance with positive economical, social and ecological impacts
- New insurances as well as banking products and services are needed to help the transition





WoodCircus Conference

15th - 16th July 2021

Paris, France Grand Palais Ephémère & Hôtel des Invalides

In cooperation with Forum Bois Construction (FBC)





10° Forum International Bois Construction (FBC) Grand Palais Ephémère, Le Champs-de-Mars, Paris 15-17 juillet 2021



Acknowledgements



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WoodCircus Project

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