



Domestic Wood Industries & Sustainable Finance
**NEEDS FROM THE PERSPECTIVE OF REAL
USER CASES IN LUXEMBOURG**

April 2025

Innovation support and sustainable finance (products)?

Insights into the role of Luxembourg in the international climate finance sector efforts and corporate investments towards biodiversity and sustainability

- Principles of “carbon dioxide removals” → Intensify the mobilisation of private investments with the aim of accelerating (A) net zero targets and (B) sustainability criteria in corporate business activities (*Best practice guidelines, World Economic Forum 2024*)
- Key question – “How to integrate green economy into investment decisions”
 - ✓ Gap of capital and growing effort of private finance in support innovative and baselined “nature-based solutions” and net zero activities
 - ✓ Special focus on the interface between companies, finance and governance
 - ✓ Appeal to the need to combine operational innovation and technology transfer with sustainable investments (ESG) to a greater extent (especially for business areas with a high dependency on nature-based criteria (e.g. construction = wood construction / biobased materials from regional sources))

Innovations generated in Luxembourg?

How companies do establish new businesses in forest / wood-based markets and which role plays Sustainable Finance?

Forestry sector (LULUCF) has a need for expertise in the implementation and long-term monitoring of nature-based assets from the financial sector

Financial sector (funds, insurance, industry) offers investment capital for bio-based building materials and decarbonisation solutions

FORESTRY /
LANDUSE

- ✓ **Participating in private and public tenders** from EU development banks, industrial decarbonisation, **climate consulting projects**
- ✓ **Technical services** like MRV, GIS, remote sensing, development for carbon project investors
- ✓ **Sale of carbon offsets** (offer and demand) to companies
- ✓ **Climate strategy services** to corporate clients

BIOBASED
MATERIALS

- ✓ **Sustainable construction** by using bio-based building materials
- ✓ **Expansion of carbon sequestration** through long-term cascade utilisation of timber components
- ✓ **Cost efficiency** through digital planning and standardised production
- ✓ **Competitive advantages** through **logistics and import handling**

→ **Examples of [anonymised] innovation showcases in Luxembourg with a need for private capital**

Low carbon construction

towards bio-based building materials and hybrid wood technologies

Focus on domestic biobased-material supply chains

Decarbonisation of the building sector (net zero emissions by 2050)



Biobased materials for insulation



Birch logs for low-tech building structures



Modular and circular construction, Nei Schmelz, Dudelange



Functional design, Skypark Business Center



Structural framework in wood-concrete composites (e.g. CREE elements)

Sources: CDCL; Lux Airport; FAT Architectes; OAI Luxembourg (2023); LXI (2022)

Need for private capital:

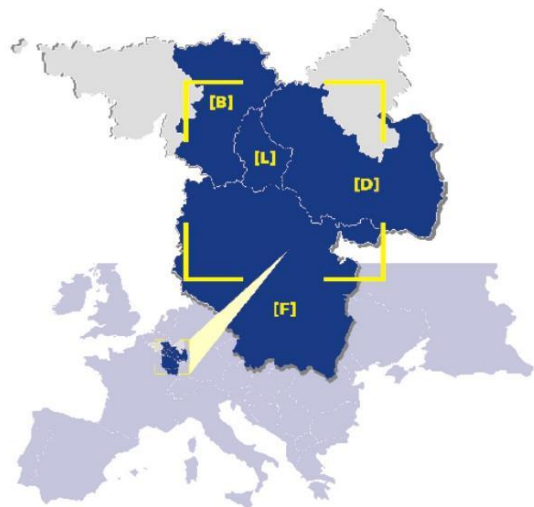
- ✓ Project financing for large-volume timber construction projects
- ✓ Investments in production capacities for prefabricated timber elements
- ✓ Venture capital for start-ups & innovations in wood technologies
- ✓ Green bonds & sustainable funds for long-term infrastructure projects
- ✓ Public-private partnerships (PPP) to minimise risk

Extracts from business solutions

- ✓ Demand for new building materials and system elements (insulation)
- ✓ Integration of bio-based materials (wood, straw, hemp, ...) in circular buildings
- ✓ Reuse of components
- ✓ Product developments → Wooden straw walls, hybrid panels and other composite materials
- ✓ Developments (patents) in the field of wood-steel and wood-concrete composites
- ✓ Prefabrication and standardised solutions

Interregional Wood value chain - W.A.V.E.

Initiation of a funding framework for innovative timber construction & feasibility of an interregional funding structure for wood from the Greater Region



W.A.V.E.

Wood Added Value Enablers
Interreg VI Grande-Région

Interreg 
Grande Région | Großregion

- Focus: Support for innovation and digitalisation in wood construction + stabilise regional timber markets + promote the circular economy in wood-based industry
- 13 operational partners from Belgium / Luxembourg / Germany / France
- Budget: 5,6 Mio EUR, 3 yrs (2024 – 2026)

Objectives:

- Activation of the value chain
- Local provision of resources
- Allocation of financial flows

Key figures for the timber industry in the 'Grande-Région'

- ✓ Covered forest area → 3.5 million ha (65 % hardwood)
- ✓ Enterprises → 28.000
 > 70% SME
 > 80% materials & construction
- ✓ Employees → 110.000 people
- ✓ Annual turnover → 18,7 billion EUR

Interregional Wood value chain - W.A.V.E.

Initiation of a funding framework for innovative timber construction & feasibility of an interregional funding structure for wood from the Greater Region



Requirements for regional products and markets



Cooperation in engineering and manufacturing



Digitalised and rational production processes for new hybrid elements



Sustainable building industry with the highest level of climate-based construction



Substitution effects for additional costs when using local products as part of the market incentive?

→ **EU-wide research on wood-related funding instruments, premiums, and other models** practiced in other EU countries and Switzerland, with a focus on the following aspects:

- Funding instruments for the use of regional wood and wood products
- Premium and levy systems for regional wood, wood products, and wood-based construction
- Innovation support for wood-based construction (preferably using regional resources)
- Financing models, grants, and subsidies that promote innovation projects in timber construction

Contact us to make
innovation happen!



LUXINNOVATION[®]

#MakingInnovationHappen



Ralf KOEHLER

Business Relationship Management

WOOD Cluster Manager

ralf.koehler@luxinnovation.lu



www.luxinnovation.lu