#### Interreg Europe Peer Review: Overview of peers and stakeholders

On 28 and 29 May, there was a Peer Review in Zeeland about biobased construction materials for construction. Yhe results of this peer review have been compiled in a 'FINAL report' 'Bio-based Construction Materials, A Policy Learning Platform peer review 29-30 May 2024'.

Previous results of this meeting have been already published on the Interreg Europe platform: Biobased building materials in the Province of Zeeland | Interreg Europe - Sharing solutions for better policy.

This two-day event has yielded a wealth of information and insights when it comes to the entire chain approach to circular-biobased construction. Both the supply (cultivation and processing) and the demand (from municipalities and housing corporations, among others) were discussed.

The overview below compiles the most relevant information from the Peers and Stakeholders. These data (background information and specialisms) come from the individual contributions (PowerPoints) that the Peers and the Stakeholders have given.

The total amount of information, the FINAL report and the data below, offer starting points for further research and (European) project development.

Richard of Bremen Middelburg October 2024

Who?	Where	e do they stand for?	Attention to?
	I.	Agreena - growing a sustainable future through	Mykor Insulation (mycelium insulation – fungi
		healthy soil (carbon credits for farmers) "CO2 in	Hempflax mentioned
		the soil and plants instead of in the air"	
	II.	Agricultural Studies   Nuffield Farming	"Change to new materials and processes starts with
		Scholarships (nuffieldscholar.org) (connection	education and awareness. There needs to be consumer
Camilla Hayselden-Ashby, Nuffield		between farmers with industry)	understanding of the benefits of biobased material and
Scholar, United Kingdom			architects who feel sufficiently familiar to integrate it in
			their practice"
Knowledge about		edge about agriculture/cultivation (hemp) and its	
agriculture/cultivation (hemp)	proces	ssing in combination with revenue models	Home   BioYorkshire
			The health benefits of natural materials such as
			breathability (creating a more comfortable living space)
			and the absence of inhaling harmful particles.
			Role in society (simple construction; role in CSR)

Co-operative



Farmer-led, starting small



Private funding, top spec



Sustenuto | Home - Sustenuto (advice en 'branding'; Brussel)

Sustenuto - Certified B Corporation - B Lab Global

Also C2C expert; Below are suggestions from her presentation

Ana Quintas, Circular Economy Expert, the Netherlands

- Awareness Campaigns (similar to consumer campaigns, to increase market acceptance storytelling)
- Pilot Project & Consultation (increase stakeholders' perception)
- **Subsidies and Grants**
- **Capacity Building and Training Programmes**
- **Regulatory Support**
- **Flexible Business Models**
- **ESG framework** (commitments from Investors)

#### Policy:

- Public Procurement (Provence + influence national level)
- Subsidies and Tax Incentives (to drive innovation and scale)
- **Certification & Labelling**

#### Bad practices:

- **Exploitation stages are underestimated** 
  - Scalability of pilot projects
- Lack of support (after the end of projects)
- Tailored features (it needs to be adjusted to Zeeland building sector)
- Absence of standards and certifications to benchmark

### Ana Quintas, experiences from the Netherlands and others



- · Funding for Research and Development
- · Creating Knowledge Hubs
- · Workshops and Training Programmes
- · Partnerships with Academia
- · Exchange Programmes
- · Demonstration Projects
- · Thought Leadership















## · Public-Private Partnerships

· Collaborative Platforms

Improving Stakeholder Collaboration

- Regular Meetings
- Communication Plan
- Influencers
- Factory Tours

#### **Identifying Primary Challenges**

- Cost
- · Regulatory Barriers
- · Limited Availability and Supply Chain constraints
- · Lack of Awareness and Expertise

Healthy living / economic benefits (self sustainable Instituut Homepage - ICECHIM (Chemical and business model) Petrochemical Industry) is supervised by: Ministry of Local/regional value chains Research, Innovation and Digitization: Contract crops www.mcid.gov.ro - MCID - www.mcid.gov.ro Which policy instruments can be deployed to foster We are interested in: construction with bio-based materials? · Cooperation in EU/ international projects Set carbon targets for buildings Networking Set targets for reducing emissions from Twinning/ training construction activities (biobased materials are Sharing experience/ good practices lighter, less weight to transport) Mihaela Frincu, INCDCP ICECHIM % of bio-based materials in new constructions/ Calarasi Branch, Romania renovations Mihaela is 'part of' a large knowledge institute from Energy performance standards in buildings Romania, especially in the field of chemistry and circular bioeconomy/ valorisation of residues/ side streams from Evidence based data biomass processing. Monitoring and data from governance based buildings ➢ Biobased boulevard TU Delft Assistance with regional plans? See Regions I VCG (With white paper on regional circular development)

Potential projects (28-6-2024)

HORIZON-MISS-2024-NEB-01-01 <a href="https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2024-neb-01-01?order=DESC&pageNumber=1&pageSize=50&sortBy=relevance&keywords=construction&isExactMatch=true&status=31094501,31094502</a>

Circular and SSbD bio-based construction & building materials with functional properties

See also CBEJU-AWP-2024 amended.pdf (europa.eu)

	IVE   Valenciaans Instituut voor Bouw (five.es) (instituut) Green procurement Green Guide - Generalitat	Examples are data driven 'scientific based'
	Valenciana (gva.es)  Database on Construction Costs: CONSTRUCTION COSTS   IVE (five.es)	Practical and sometimes in English  A lot of kwowledge and very interesting institute
Joan Romero Clausell, Valencia Institute of Building, Spain	Database for procurement green guide Green Guide - Generalitat Valenciana (gva.es)	
	RE10 IVE-product (five.es) (tool for dismantling, adaptability in construction projects)	
	Office Design Guide IVE-product (five.es)	

Dominique Girolami, <u>Ovam</u> (Public Waste Agency of Flanders) , Belgium Service Welcome (vlaanderen.be)

"Today still many traditional materials are not recyclable. It should not be more difficult for Renewable Building Materials to go on the market, since their basis is already renewable"

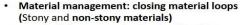
#### Contacts:

- VIBE: Designing and building with a positive impact // Woonder (building with positieve impact on nature
- Who we are | earthplantfiber.be (chain coalition focussing on natural materials). If possible, both biological and technical cycle should be kept seperately

TOTEM (vlaanderen.be) Tool to optimise the Total Environmental impact of Materials, used in the design phase of a building. Instrument is comparable to environmental performance of buildings (MPG)

#### Policy program 2022-2030

The road to circular building construction (Flanders)



- Standard documents for circular demolition
- Legislation about seperation of Construction and demolition waste in favor of higher quality of recyclates
- Resource Declaration ~ End of waste declaration
- Transport of waste materials
- Environmental permits
- Reuse of materials
- Future-oriented construction
- · Tools as TOTEM, Building passport
- Supervising studies, such as VISUM (recycling trajects in building and demolition waste)

• ..







Commenté [DG1]: Public Waste Agency of Flanders



# Myron Koster MNEXT MATERIALEN & ENERGIE X TRANSITIE

Centre of Expertise for Materials and Energy Transition

- Biobased resources and energy
- Biobased transitions
- Biobased building blocks and products
- Biobased construction
- · Marine biobased chemistry

#### Mission:

- Helping SMEs and governments to exploit the full potential
  of bio-based building materials in achieving a healthy and
  sustainable built environment (in permanent balance with
  nature).
- Approach:
- Create stimulating learning/working environment for potential markets, users and future professionals; Gain knowledge and experience of (the added value and impact of) biobased building materials; Involve in the realisation and operation of demonstration projects as part of educational innovation.

#### **Key Focus areas:**

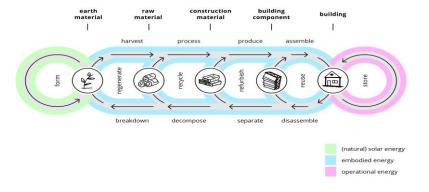
- Health (Building Physics / Renovation)
- Sustainability (end-of-life scenarios / lifespan / contribution to ecosystem services)
- New construction applications (proof-of-concept)

#### Specific interest in:

- Mycelium
- Biocomposites
- Fibre crops (e.g. from agricultural and horticultural residues)

#### Important role Knowledge institutions:

- training next generation of professionals in the construction industry
- also as a pioneer for technical change ('innovation agent')
- training of the current generation of professionals in the construction sector
- creating awareness for biobased construction





- Triple helix
  Sharing Klnowledge
  Innovative projects
  Education, entrepreneurs and governments

#### Inzet

- Measurement methodology
- Material flows
- Biobased materials
- Infra

## Knowledge sessions















Fred van der Burgh

- Project development: pilot projects and living labs
- Active at national and European level.
- Licensed LCA expert
- They collaborate with education and research institutes
- Partner of the <u>CBCI-project</u> < <u>Circular Bio-based</u>
   <u>Construction Industry | 2 Mers Seas Zeeën</u>
   <u>(interreg2seas.eu)</u> >

#### Europa

- Eco-design + waste + costs
- Construction Product Rules
- + environmental impact EN 15804 +A2
- Preventing Greenwashing

Nationaal:

Attention for LCA's (+ Frankrijk) national approach biobased construction

Flax: Faay / Isovlas Hemp: Dunagro / Hempflex

#### 18-7-2024 overleg (Wageningen)

At the Venlo municipal office (start CBCI) the link was made with health at the time. That's still relevant today Too few building physicists are called in. How does a building work? - In relation to the heating of material - Are houses 'affordable'?

a 12 year old child died of mold - Can that be solved with attention to materials-? The healthy home? Can long-term health function als the a keyfactor? And: shouldn't we become more aware of energy costs? (Kind of income policy?)

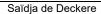
Are houses simply not built too big?

What is the story of healthy building? See e.g. relationship with nature What is biophilic design - ININTERIEURS

Zeeland: naturally healthy and pleasant!

How do you make it interesting for project developers?

What is the Zeeland story? Exploring through a design assignment (Rotterdam, Public Administration Sept. 2024-Jan. 2025):





- Dashboard 2021-2024 Sustainable Procurement Platform
- Procura + Zeeland

SUSTAINABLE PROCUREMENT
PLATFORM | Sustainable Public Procurement
(sustainable-procurement.org)

- Calculation module/impact measurement
- Partner of the (former) <u>CBCI-project</u> < <u>Circular Bio-based Construction Industry | 2 Mers Seas Zeeën (interreg2seas.eu)</u> >

#### Principles

- Realizing Impact
- Contribute to the realisation of the Sustainable Development Goals (SDG's)
   by Sustainable Development Goals – dialogues –
- Transparent about considerations and impact for each project
- Cooperation with the market and authorities, stimulate local economy by sourcing local suppliers and the SME's

### Projects

Field Station Groot-Saeftinge Smart Shared Cars and charging station



## Circular economy policy plan for the Zeeland region

OZO KEM: Consultation Zeeland Governments Climate, Energy and Environment

- 13 municipalities
- Province of Zeeland
- Practical and execution-oriented
- Connected to RES
- Coordinated with O.L.A.Z

O.L.A.Z: Public Entity Waste Disposal Zeeland

Long-term goal is the same as the National Circular Economy Program

 Collaboration and guidance by Circularities

#### Specific objectives about Biobased Materials on 4 different subjects \*\*:

- 1. Construction & Built Environment;
- 2. Infrastructure & Public Space;
- 3. Purchasing and consumption;
- 4. Waste and Raw Materials.

\*\* Reminder! Policy and objectives are still in the draft phase. Therefore it has been decided to present them in broad terms.

