MateriNex

Nexus of research in Flanders for the materials of the future

Break-out session ‘Materials For Building and Construction’

José Spinnewyn – Innovation manager

vito MATERINEX

VLAIO

DEPARTEMENT ECONOMIE WETENSCHAP & INNOVATIE

Program (15h45-17h00)

Materials for Building and Construction

- Welcome: José Spinnewyn – MateriNex
- Keynote: Wouter Crijns - ResourceFull
- MateriNex Roadmap + Common Interest Groups (CIGs): José Spinnewyn – MateriNex
- Pitches:
  - Aart Willem van Vuure – KU Leuven
  - Adriaan Debruyne – Material Mastery
  - Bernard Vanderheyden – CRM Group
  - Kurt Scheers – Indaver
  - Niels Hulsbosch – Buildwise
  - Pascal Lava – MatchID
  - Ruben Snellings – KU Leuven
  - Sven Van Caimere – Owens Corning Foamglas
  - Wim Van den bergh – University of Antwerp
- Closing remarks: José Spinnewyn – MateriNex

Roadmap ‘Materials for Building and Construction’

LOW CARBON CONSTRUCTION Horizon 2024-2030	
Resources & Materials	**Products & Processes**
Development of low-carbon resources and materials (e.g. carbon negative binders based on mineral carbonation, low-carbon binders and alternative cements, calcined clays, alkali-activated materials, low-carbon bricks green steel, bio-based materials) that are key for a more sustainable construction industry.	*Focus on the decarbonization of production processes (e.g. electrification) of building materials and products, and on the development of novel materials and products related to heating and cooling (e.g. insulation, light-weight, energy storage).*

RESOURCE EFFICIENCY Horizon 2024-2030	
Resources & Materials	**Products & Processes**
Upgrading of alternative resources and waste streams into clean, high- quality resources and materials for the building and construction sector, preferably with beneficial properties such as low-carbon, low-maintenance, high durability, self-healing, long lifespan, and easy recyclable or reusable.	*Development of products and processes allowing for an increased rate of industrialization (e.g. prefabrication, modularity, standardization) allowing for an efficient construction, deconstruction or demolition process. Newly developed products preferably have an improved durability (e.g. longer service life, high strength, low maintenance) or contribute to combat the effects of climate change (e.g. heat and moisture buffering, rain absorbing).*

ENABLERS (sustainable construction)	
Tools	*Development and refinement of tools and models evaluating the technical properties/quality/durability of materials and/or products or the sustainability/circularity of building applications.*
Digitalization	*Several digital solutions (e.g. BIM, material passports, robotization, IoT, AI applications, Industry 5.0 and digital twins) will also make their way into the building and construction sector and should be further developed, improved, validated and implemented to support the overall sustainability goals.*
Regulation, standardization and technical specifications	*Focus on performance- based standardization and workable End-of-Waste criteria is crucial to support the transition towards a more sustainable construction sector adopting European and International legislation and frameworks such as the Construction Product Regulation (CPR), the European Green Deal and the ETS Regulation.*

vito MATERINEX

Full roaldmap (Nl and En) on https://materinex.be

VLAIO

DEPARTEMENT ECONOMIE WETENSCHAP & INNOVATIE

Common Interest Groups (CIGs)

- For each of the innovation themes/roadmaps
- Aim:
  - **Sharing information and insights**
  - **Presenting project results**
  - **Discussing and updating innovation roadmap**
- Participants:
  - Entitled to vote: companies and research groups of knowledge institutions
  - Advising: sector organisations, spearhead clusters, …
  - Observing: VLAIO and EWI
- 2x per year + possibly focus group(s) for deepening certain aspects
- CIG Charter
- Letters of Commitment

Common Interest Groups

- Pitches:
  - *Aart Willem van Vuure – KU Leuven*
  - *Adriaan Debruyne – Material Mastery*
  - *Bernard Vanderheyden – CRM Group*
  - *Kurt Scheers – Indaver*
  - *Niels Hulsbosch – Buildwise*
  - *Pascal Lava – MatchID*
  - *Ruben Snellings – KU Leuven*
  - *Sven Van Caimere – Owens Corning Foamglas*
  - *Wim Van den bergh – University of Antwerp*

Join the club…
… and our network drink & market place!

Bezoekadres/Visiting address:
Roderveldlaan 5
2600 Berchem, 1st verdieping/floor
https://materinex.be
info@materinex.be

vito MATERINEX

VLAIO

DEPARTEMENT ECONOMIE WETENSCHAP & INNOVATIE