

**Open Innovation Test Bed (BIOMAT-TB)** 

Innovative technologies and supporting services to develop advanced and bio-based polyurethane (PUR) foams and composites.

www.biomat-testbed.eu

## Major Markets

BIOMAT is a highly innovative 4-year European Project aiming to enable, accelarate and facilitate the uptake of innovative nano-enabled bio-based cellular materials. This will be acheived by the establishment of an Open Innovation Test Bed (BIOMAT-TB) to provide Tecnologies Transfer and accompanied services to a wide range of European SMEs and industries.

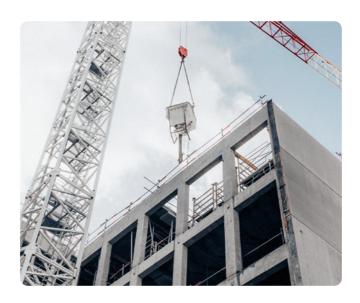
BIOMAT consortium has identified a large demand for nano-enabled bio-polyurethane (bio-PUR) foams with very large markets.

Thus, BIOMAT project selected three of these targeted markets for proof of concept: Building, Construction, Automotive, Furniture & Bedding.

Automotive



Building &
Construction



Furniture
& Bedding



## Technical **Services**

**12 Pilot Lines** for process optimization and up-scale production

- Production and functionalization of bio-based silica nanoparticles
- Functionalization of lignocellulosic materials
- Nanoformulation of adhesion promoters
- Production of Modified Cellulose
  NanoCrystals (MCNC)

Functionalization of Crystalline Nano-Cellulose (CNC) and silica nanoparticles with biobased polyol for polyurethane foam composites

Production of polyurethane foam panels

- Production of thermoset resin prepregs
- Bio-based, nano reinforced soft PUR-foam formulations
- Microwave-assisted chemical and chemo-enzymatic recycling of bio-PUR-based composites
- Formulation of bio-based polyols
- Production of bio-PUR aerogel materials
  - Preparation of (nano) filled polyol/resin formulations

## Support Services

- Products Characterization
- Development of sensors for in-line analysis of products based on NIR or UV spectroscopy in bioprocess & chemical process
- Evaluation of nanosafety and toxicity
- Digital Twin Pilot (DTP)
- Business Plan development
- Life Cycle Assessment (LCA) and Life Cycle Costing (LCC)
- Legal and Intellectual Property Support
- Mentoring for fundraising

# The **BIOMAT-TB**will be operated via a **Single Entry Point (SEP)**

#### SEP WEB PLATFORM

SEP – The Single-Entry Point to the TB



#### Proof of Concept through the OPEN TENDER

Open access to a wide range of physical facilities (pilot tests towards technology transfer) and to technical / horizontal services at <u>fair conditions</u> and <u>competitive prices</u>!

More information can be found in BIOMAT website. Stay tuned!

CUSTOMERS 《 》 BIOMAT SEP 《 》 SERVICES

## Meet our **Partners**





















































