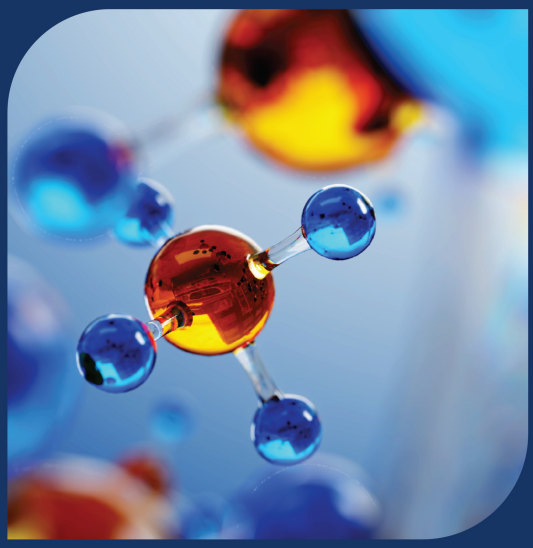
European Sustainable BIO-based nanoMAterials Community

BIOMAC is a Horizon2020 project that will establish an Open Innovation Test Bed (OITB), a true collaborative ecosystem where technologies and solutions utilizing nano-enabled bio-based materials (NBMs) will be upscaled and prepared for market applications.



THE Pilot Plant Supreme Hub OF BIOMAC

BIOMAC provides open access to 17 Pilot Lines that cover the whole value chain, starting from biomass pre-treatment, followed by the production of nanomaterials and intermediate platform chemicals, towards the development of bio-based products.

Biomass Fractionation & Pre-treatment

PL1: Semi-continuous organosolv-steam explosion pre-treatment (LTU)

PL5: Hydrothermal pre-treatment (BBEPP)

Final Products & Formulation

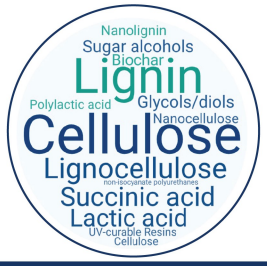
PL9: Continuous Reactive Extrusion for thermoplastic polyurethanes (LIST)
PL11: Reactive extrusion (REX) for PLA and PLA copolymer-based nanocomposites (AIMPLAS)
PL12: Resins PL (FH-WKI)
PL14: Coatings formulation (ITENE)
PL15: Additive manufacturing (AIMEN)
PL16: Printed Electronics (DTI)
PL17: Roll-to-Roll Nanopatterning & thermoforming (NANOTYPOS)

Intermediate Materials & Nanomaterials

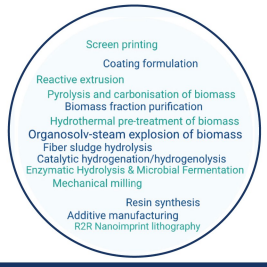
PL2: Hydrolysis of fibre sludge and bacterial nanocellulose production (RISE)
PL3: Sugar derived polyols and diols by catalytic hydrogenation/hydrogenolysis (AUTH)
PL4: Ultrasonic assisted nanolignin production (CNANO)
PL6: Purification of liquid fractions (BBEPP)
PL7: Enzymatic Hydrolysis & Microbial Fermentation for succinic acid and lactic acid (ATB)
PL8: Pyrolysis and carbonisation of biomass (UEDIN)
PL10: Mechanical milling and Production of different grades of NFC (LIST)
PL13: Mechanical treatment to produce NFC of NCC (ITENE)

Services

Materials



Technologies



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