SusChem 2017 Brokerage Event

Bio Base Europe Pilot Plant
Project Proposal
Bio Base Europe Pilot Plant

- Multi-purpose pilot facility for bio-based products and processes in Ghent (Belgium)

- Role in projects:
  - scale-up from TRL4-TRL7 of fermentation & biocat (incl. gas), purification, green chemistry
  - Provide sufficient test material; Piloting/demonstration

- Non profit SME with 67 employees

- Currently active in 14 Horizon2020 and 3 Interreg projects, next to B2B projects
Running Horizon2020 projects:

- NANO3BIO (Fermentative chitosan)
- 2G-BIOPIC (2nd generation ethanol)
- MARISURF (Marine biosurfactants)
- ERIFORE (Circular Forest Bioeconomy)
- SUPERBIO (Voucher for service)
- REHAP (wheat straw and wood to chemicals)
- DAFIA (MSW and marine waste to chemicals)
- FALCON (Lignin for fuels and chemicals)
- NanoPack (Antimicrobial Packaging)
- PULP2VALUE (Sugarbeet pulp to chemicals)
- CARBOSURF (Biosurfactants & specialty carbohydrates)
- DEMETER (Enzyme production for AD)
- AFTERLIFE (PHA from olive industry wastewater)
- RESOLVE (Biobased solvents)
- Pilots4U (Biobased pilot & demo network)
- KET4CleanProduction (Vouchers within KET network)
- BioCONCO2 (CO2 fermentation and biocatalysis)
Fermentative production of complex molecules

**Offer:**
- Process design and optimization
- Flexible Reactor design
- Integrate DSP in the production process
- (In Situ Product Recovery)

**Expected impact:**
- Industrially / techno-economically relevant process
Remediation using micro-organisms

**Offer:**
- Produce the micro-organisms that remediate, and improve the production process
- Biosafety Level 1 (SL) compatible
- Conditioning of the inoculum (transport cost, easy handling when applied)

**Expected impact:**
- Scale-up for field tests (in impact section)
SPIRE-03: Energy and resource efficiency in highly intensive industries (IA)

Process optimization of bio-based productions and by-product re-use (bio-based or flue-gas fermentation)

**Offer:**
- Flue gas fermentation
- Bio-based solid and liquid sidestream valorization: extraction of valuable compounds, ABE fermentation, PHA fermentation from waste water, …
- Process modification of biobased processes

**Expected impact:**
- Demo-site OR trouble-shooting of individual processes
Biobased plastics

Offer:
• Fermentative production of monomers and downstream processing
• PHA production

Expected impact:
• Demo-site OR trouble-shooting of individual processes
C1 fermentation

Offer:
• Fermentative and biocatalytic modifications
  • To benchmark
  • To combine fermentative and chemical approach

Expected impact:
• Industrially / techno-economically relevant process
Contact details for project idea(s):

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