



Cellulose-based electrical insulation components

Description

Compact and feasible pilot line based on new manufacturing technologies for rapid, design driven production of advanced cellulose-based electrical insulation components.



Objectives

- To quantify possible adverse or positive effects to environment and deploy the best alternatives for cost-efficient production of cellulose-based 3D structures with increased resource efficiency and positive socio-economic impact and benefits,
- To perform market analysis to carry out exploitation plans of the 3D printing technology supporting their market uptake and minimizing risks, to outline the main results and implement a dissemination plan towards potentially interested parties across stake-holders.

Activities

- Sustainability assessment:
 - Life-Cycle Assessment LCA,
 - Life-Cycle Costing LCC,
 - Social-economic repercussions study,
 - Health and safety study,
- Market & communication:
 - Market analysis
 - Business plan,
 - Communication & dissemination plan.

Challenges

- Input data complex to collect 
- Technical knowledge required 
- Legal & legislation barriers 
- Technology readiness level 

Expected outcomes

- 40% reduction in labour time, 60% reduction in waste generation,
- 20% lower energy consumption, 40% decrease in operating costs,
- Comprehensive analysis of potential market niches, competitive advantages, internal and external levers,
- Commercial and communication strategy to assure market uptake.

