



SPIRE-03-2016

REHAP

Full Title: Systemic approach to Reduce Energy demand and CO₂ emissions of processes that transform agroforestry waste into High Added value Products

Aim:

REHAP aims at revalorizing agricultural (wheat straw) and forestry (bark) waste through its recovery, and primary (sugars, lignin, tannins) and secondary (sugar acids, carboxylic acids, aromatics and resins) processing to turn them into novel materials, and considering Green Building as business case.

Concept: The project will provide reductions in utilization of fossil resources of 80-100%, and energy utilization and CO₂ emissions above 30%. Building blocks (1,4 and 2,3-Butanediol, estherpolyols), materials (PUs, phenolic resins, modified hydrolysis lignin) and products (wooden boards, insulation foams, cement, adhesive) will be obtained. Developed processing technologies (chemo/thermo/enzymatic and fermentation) will be optimized at pilot scale (TRL6-7) for further exploitation and replication of results. All products will be integrated in a prototype to demonstrate industrial applicability into the Green Construction sector.

Start date: 01/10/2016

End date: 30/09/2020
