



CIRC-01-2016-2017

PAPERCHAIN

Full Title: New market niches for the Pulp and Paper Industry waste based on circular economy approaches

Aim:

Concept: Europe is the second world producer of pulp and paper, manufacturing 130 million tonnes in 2014 and representing 23% of world production. The EU pulp and paper manufacturing and converting industries generate an annual turnover of €180 billion, representing 1,26% of the European GDP. In particular, the Pulp and Paper industry (PPI) has a turnover of €75 billion, comprises 920 plants and provides 180,000 jobs in Europe directly, and 1.5 million in the value chain. This sector is resource intensive and produces 11 million tonnes of waste yearly. It has been found that 25-40% of municipal solid waste generated each year worldwide is paper-related. Furthermore, Europe is nowadays facing the challenge of resource scarcity and more efficient use. If managed in a sustainable manner, PPI waste can become a valuable raw material for other resource intensive industries such as the construction (i.e 5,4 billion tonnes of raw material consumption) or the chemical industry (1 billion tonnes). Mining industry waste generation is estimated at up to 20.000 million tons of solid waste yearly, and relevant part of this waste needs to be kept in environmental safety conditions, which in turn implies additional use of resources (e.g borrow materials). New widespread markets are needed to extend the valorisation operations, reduce the landfilling rates and increase the competitiveness of the PPIs creating new added value markets for their inorganic waste. The overall objective of PAPERCHAIN is to deploy five novel circular economy models centred in the valorisation of the waste streams generated by the PPI as secondary raw material for a number of resource intensive sectors: construction sector, mining sector and chemical industry. PAPERCHAIN aims to unlock the potential of a resource efficient model based on industrial symbiosis which will demonstrate the potential of the major non-hazardous waste streams generated by the PPI as valuable secondary raw

material.

Start date: 01/06/2017

End date: 31/05/2021
