The basic idea of the SYNPOL project is the establishment of an integrated processing technology for the efficient synthesis of cost-effective commercial new biopolymers using the products derived from fermentation of syngas generated from very complex waste feedstocks.

R&D activities will be focused on the integration of innovative physico-chemical, biochemical, downstream and synthetic technologies to produce a wide range of new biopolymers, based on a number of novel and mutually synergistic production methods, and including an assessment on the environmental benefits and drawbacks related to the concept.

The SYNPOL platform allows the treatment and recycling of biological- and chemical-derived wastes and raw materials in a single integrated process.
The strategy

of the SYNPOL project aims at the establishment of a platform that will integrate syngas production and fermentation technologies for the cost-effective commercial production of high-added value biopolymers. The project will also demonstrate the efficient and techno-economic feasible production of “green” fine chemicals using an overall sustainability assessment perspective.

The proposed work plan (see Figure) comprises three main goals:

1. Strain design.
3. Exploitation.

(WP1) Production of syngas.
(WP2) Improvement of microorganisms.
(WP3) Fermentation design.
(WP4) Biopolymers design.
(WP5) Biopolymer degradation and life cycle.
(WP6) Exploitation, dissemination and training activities.
(WP7) Management.
(WP8) Demonstration.

SYNPOL cooperates with the BioConSepT project on dissemination issues! Learn more at www.bioconsept.eu!