



## Projet FP7 - SYNPOL

Nom du projet	Biopolymers from syngas fermentation – SYNPOL
Call	KBBE-2012-3.4
Type de projet	Collaborative project targeted to a special group
Rôle de la HES-SO	Participant
Chercheur impliqué	Manfred Zinn (HES-SO//Valais)
Participants	Agencia Estatal Consejo superior de investigaciones científicas (Spain) – Coordinateur; University of Manchester (United Kingdom); Bionet Servicio tecnicos SL (Spain); Infors AG (Switzerland); Haute école spécialisée de Suisse occidentale (Switzerland); Organic Waste Systems Nv (Belgium); Westfälische Wilhems-Universität Münster (Germany); Befesa Gestion de residuos industriales (Spain); Universität Ulm (Germany); Kungliga Tekniska Hoegskolan (Sweden); University College Dublin (Ireland); Bioplastech Ltd (Ireland); Université de Strasbourg (France); Biopolis SL (Spain).
Budget global	9.938 millions euro / financement UE : 7.344 millions euro
Durée	48 mois, début le 1.10.2012
Résumé	<p>SYNPOL aims to propel the sustainable production of new biopolymers from feedstock. SYNPOL will thereto establish a platform that integrates biopolymer production through modern processing technologies, with bacterial fermentation of syngas, and the pyrolysis of highly complex biowaste (e.g., municipal, commercial, sludge, agricultural). The R&amp;D activities will focus on the integration of innovative physico-chemical, biochemical, downstream and synthetic technologies to produce a wide range of new biopolymers. The integration will engage novel and mutually synergistic production methods as well as the assessment of the environmental benefits and drawbacks. This integrative platform will be revolutionary in its implementation of novel microwave pyrolytic treatments together with systems-biology defined highly efficient and physiologically balanced recombinant bacteria. The latter will produce biopolymer building-blocks and polyhydroxyalkanoates that will serve to synthesize novel bio-based plastic prototypes by chemical and enzymatic catalysis. Thus, the SYNPOL platform will empower the treatment and recycling of complex biological and chemical wastes and raw materials in a single integrated process. The knowledge generated through this innovative biotechnological approach will not only benefit the environmental management of terrestrial wastes, but also reduce the harmful environmental impact of petrochemical plastics. This project offers a timely strategic action that will enable the EU to lead worldwide the syngas fermentation technology for waste revalorisation and sustainable biopolymer production.</p>
Lien	<a href="http://synpol.org/">http://synpol.org/</a>