BioRobur

Biogas Robust Processing With Combined Catalytic Reformer And Trap

Duration:

30 Months: June 2013 – November 2015

Application Area:

Hydrogen Production, Storage and Distribution

Budget:

Total budget: 3.909.726€

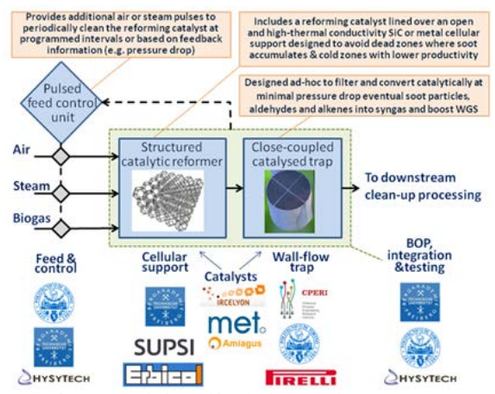
FCH contribution: 2.486.180€

Partnership / consortium list:

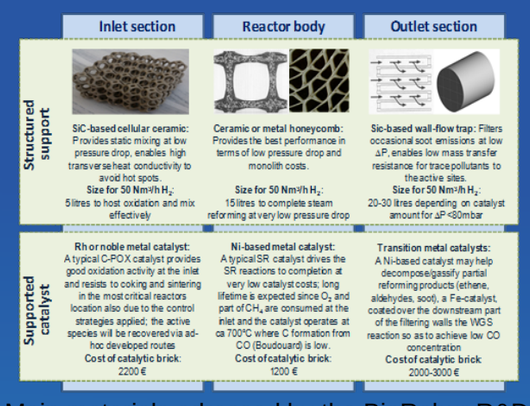
- Politecnico di Torino – Coordinator
- POLITO, Italy
- Technische Universität Bergakademie Freiberg - TUBAF, Germany
- Scuola universitaria professionale della Svizzera italiana – SUPSI, Switzerland
- Institut de recherches sur la catalyse et l'environnement de Lyon – IRCE, France
- Chemical Process Engineering Research Institute / Centre for Research and Technology Hellas - CPERI, Greece
- Erbicol SA – ERBICOL, Switzerland
- HySyTech srl – HST, Italy
- UAB Modernios E-Technologijos - MET, Lithuania
- Pirelli Eco Technology SpA – PET, Romania

Technical accomplishments / progress / results:

The project started last May. At the moment some preliminary possible Si-SiC structures designs have been selected for the Biorobur reformer.



Scheme of the BioRobur reformer core innovations and partners' roles



Main materials adressed by the BioRobur R&D in the various reformers sections

Summary / main objectives of the project:

BioRobur project will develop a robust and efficient biogas reformer aimed at covering a wide span of potential applications, from fuel cells feed (both high temperature SOFC or MCFC fuel cells and low temperature PEM ones, requiring a significantly lower inlet CO concentration) up to the production of pure, PEM-grade hydrogen.

Contribution to the Programme Objectives:

OBJECTIVES OF THE CALL	OBJECTIVES OF THE PROJECT	CURRENT STATUS
50-250	100	N/A (test not started)
<10	<10	N/A (test not finalized)
<250,000	150,000	N/A (test not finalized)

Conclusions, major findings and perspectives:

The consortium have been started to work together few months ago. We expected to reach some important milestones during the next year in terms of the major constrains to build the future test rig.

Future Steps:

1 – Definition of BioRobur specifications to properly design all the components

2 - Setup for steady-state screening and transient regeneration experiments optimized

3 – Definition of optimal design for the reformer and the trap.

4 - Dissemination plan issued

New Energy World JU
fuel cells & hydrogen for sustainability

BioRobur