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THE EXPERIENCE OF THE FIRST INDUSTRIAL SYMBIOSIS PLATFORM IN ITALY

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Abstract

This paper reports the activity, promoted by the Italian agency for new technologies, energy and sustainable economic development (ENEA), in the framework of the project for the development and implementation of the first Italian Platform for Industrial Symbiosis implemented in Sicily (2011-2015). The goals of the project were: to provide a methodology and an instrument for industrial symbiosis implementation at regional scale, to implement a IS Platform as a support to SMEs to individuate symbiosis opportunities in the region.

The whole approach includes: network activation, platform architecture design and implementation, analysis of the productive sector in Sicily, data collection and companies involvement. In particular the paper focuses on the activities developed for companies' network creation through a preliminary analysis of the predominant productive sectors followed by the organization of operative meetings in Sicily for companies' involvement, analysis of potential synergies and resources sharing, and finally platform population. During the first two meetings more than 80 SME were linked giving rise to almost 400 output resources and almost 180 input resources. More than 690 potential matches were found between the participating enterprises showing interesting opportunities both for substituting resources with waste products in real and virtual cases and for sharing waste management services and infrastructures. The discussion occurred during the meeting has remarked the significance and the consequences of the regulatory and control system on IS application, underlining the necessary participation of local stakeholders and control authorities. It has also emerged the need to identify predominant productive activities in well-defined territorial contexts where to investigate the specific/local tangles taking into account legislative and technical-economic feasibility. Technical dossiers on three main resource streams (wastes from processing stone materials; plastics and agro-industrial wastes), which may generate the more interesting potential synergies, are being processed. These dossiers include European, Italian and regional regulations, guidelines, technical standards, logistic and economical aspects useful for supporting companies in synergies implementation. Results of this activity will also be used to improve the algorithm in the platform to find synergies.

Key words: industrial symbiosis, platform, resources, synergies, waste

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