

The EPOS toolbox: offering management support for industrial symbiosis in and across process sectors

A decision support tool for rapid screening of symbiosis potential in industry clusters based on overall economic and sustainability gains. It provides energy-intensive industries with transferable, robust, sustainable and realistic cost-saving solutions.

With the EPOS objective in view, the first prototype of a **simple and single management tool for cross-sectorial industrial symbiosis** is developed. It provides companies with a wide range of cluster engineering as well as management solutions for making industry more efficient, more cost-effective, more competitive and more sustainable, across process sectors.



The EPOS platform is an assessment and optimisation toolbox for the integration of material flows and flexible energy use. It uses a generic approach to provide the user with a series of technological and organisational options for the cost-effective reduction of energy and resource use. The elastic definition of processes allows usage over all scales of process industry, from small and simple plants to large and complex systems. Likewise it searches for symbiosis with nearby communities.

A user-friendly, web-based interface enables industry to select own or new technologies for optimisation. E.g. to minimise costs, for a better energy performance, more efficient use of waste or resources, less environmental impact, through joint activities or services, etc.



The user defines objectives and the tool generates solutions that can be refined based on specific plant or regional settings. The user can easily visualise the wins resulting from each solution, in terms of costs or sustainability gains based on a variety of performance indicators. Thus the EPOS tool allows for rapid screening, evaluating and selecting new business potential.

The toolbox utilises a technology database and virtual sector profiles to present options for process integration and industrial symbiosis. The methodology incorporates technical and non-technical assessments, which include legal, economic, environmental, social and spatial issues. It presents a business case to create added value for industry as well as for society, including services to local communities.

Contact

Prof.dr. Greet Van Eetvelde
Ghent University (Belgium)

info@project-epos.eu
www.spire2030.eu/epos