SHAREBOX - Secure Management Platform for Shared Process Resources

Project:
Secure Management Platform for Shared Process Resources

Resource efficiency offers a major economic opportunities for the European Process Industry, both in terms of cost savings as well as opportunities to offer greener products and services. Industrial Symbiosis (IS) is the use by one company or sector of by-products, including energy, water, logistics and materials, from another. The approach that underpins SHAREBOX centres on logical work flow that covers from the identification of new symbiotic synergies right through optimised connections among companies and organisations in established symbiotic relationships. SHAREBOX provides plant operations and production managers with the robust and reliable information that they need in real-time in order to effectively and confidently share resources (plant, energy, water, residues and recycled materials) with other companies in an optimum symbiotic ecosystem. The objetive of SHAREBOX project is to develop and bring to market a secure platform for the flexible management of shared process resources with intelligent decision support tools. To provide plant operations and production managers with the robust and reliable real-time needed to optimise symbiotic connections (plant, energy, water, residues and recycled materials) with other companies in a symbiotic ecosystem. In order to overcome the limitations in current Industrial Symbiosis delivery and ICT tools for IS facilitation, a number of key innovations are being brought to the SHAREBOX development that yield a world first ICT platform technology that holds the potential to be a major catalyst for increased Industrial Symbiosis (IS) among process industries and for enabling cross-sectoral interactions.

Project website: http://sharebox-project.eu/ This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No **680843**

Image not found or type unknown

Sector:

Cement

found or type unknown

Ceramics

Image not found or type unknown

Chemicals

found or type unknown

Engineering

found or type unknown

Minerals

found or type unknown

Non-ferrous metails

found or type unknown

Steel

Summary:

SHAREBOX - Secure Management Platform for Shared Process Resources

SHAREBOX brings to market a secure platform for the flexible management of shared process resources with intelligent decision support tools and supports the creation and maintenance of Industrial Symbiosis across sectors. SHAREBOX platform covers the entire lifecycle of Industrial Symbiosis, from identification of new symbiotic synergies right through the establishment, maintenance and optimization of these relations between companies and organizations.

Theme:
Energy and resource management systems - SPIRE-06-2015
Keywords:
Industrial Symbiosis, Resource efficiency, Management, ICT, Mathematical tools, Intelligent tools, Platform, User interface, Data entry, Security, Anonymity, Tracking, Material Flow, Industry, Software, Optimization, Relationships, Network, Connection, Sustainability, Environment, Compatibility
Type:
Software
Rights:

Restricted Access

Resources

Link:
SHAREBOX website
SHAREBOX video

SHAREBOX platform consists of a module for facilitating the identification and realisation of new cross-sectorial synergies. The outputs from the SHAREBOX controller provides plant and operations managers decision support for actions to be taken. The historical data that is generated by the SHAREBOX platform is processed by data mining tools that provide the production/process big data for symbiotic shared resources optimisation. Once the potential synergies have been identified, the companies have to establish contractual deals in terms of shared resources, costs and benefits. Once the deals have been signed and translated into mathematical constraints/conditions to the operational variables, SHAREBOX can be used to track, update, and help users to continuously optimize the technical and financial details of the deals according to changing circumstances and conditions.

Contact Name:
Georgios Chalkias
Email:
gchalkias@iris.cat