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Collaboration between the EIT Community Circular Economy and the ECESP #EUCircularTalks – Industrial Symbiosis
Concept Note

- Introduction

Moving to more circular economic models promises a much brighter future for the European economy. It is one of the main objectives of the European Circular Economy community today. It would allow Europe to meet current and future challenges of global pressure on resources and the rising insecurity of supply. Pumping resources back into productive use repeatedly, cutting waste, using properly byproducts and reducing dependence on uncertain supplies is a direct route to improving resilience and competitiveness. By helping to decouple economic growth from resource use and its impacts, the circular economy offers the prospect of sustainable growth that is durable.

Industrial Symbiosis (IS) is a system approach to a more sustainable and integrated industrial system, which identifies business opportunities that leverage underutilised resources (such as materials, energy, water, capacity, expertise, assets etc.). IS involves organisations operating in different sectors of activity that engage in mutually beneficial transactions to reuse residues and to use properly by-products, finding innovative ways to source inputs and optimising the value of the residues of their processes [1].

Valoring waste is gaining momentum with interesting opportunities. Both industry and academia invest in R&D for valorising this important material stream which can be considered as a promising source of secondary raw materials.

Valorisation of industrial wastes can clearly reduce the primary resource consumption. The demonstration of new technological and products solutions will support further implementation of this relevant aspect also including reuse of water and extraction of valuable products from wastewaters.

From a system perspective, IS contributes to closing the loop of industrial processes by[2]:

- Increasing the time the material/substance remains in the anthroposphere, before it becomes waste or is discharged to ecosystems

[1] Cooperation fostering industrial symbiosis market potential, good practice and policy actions. Domenech T.; Doranova A.; Roman L., Smith M.; Artola I. 2018

[2] Cooperation fostering industrial symbiosis market potential, good practice and policy actions. Domenech T.; Doranova A.; Roman L., Smith M.; Artola I. 2018

- Reducing the volume of waste sent to landfill or discharged into the natural environment, including also Green House Gases (GHGs) emissions Increasing energy and material efficiency through further reuse and recycling of materials/substances/energy
- Creating jobs and business opportunities linked to alternative uses of existing waste streams
- Enabling demand-led innovation in support of the transition to a circular economy, by connecting businesses with the research community to address current technology/innovation needs.

- Objective

The aim is to define the current main challenges and possible actions to overcome them. The main challenges and possible solution actions will be focused in three main areas:

1. Innovation: how to further support development, demonstration and implementation of technological solutions to facilitate IS, including knowledge base for IS.
2. Policy options: how policy could further support IS implementation through for example incorporating IS concept in the IED, supporting use of secondary materials, increasing costs for landfill use, to clarify procedure for "end of waste" criteria, etc.
3. Market: right knowledge of potential market including right reporting procedures and market barriers are essential aspects.

This collaboration will be implemented through a three-stage process:

- Phase 1: Online workshop.
- Phase 2: Online open discussion group on the European Circular Economy Stakeholders Platform (ECESP) and Linkedin.
- Phase 3: Final public document including main conclusions from both the workshop and the discussion group.

Industrial Symbiosis – Draft agenda

Online Workshop – 16th June; Moderator: Ignacio Calleja, EIT Community Circular Economy Coordinator

9.30-9.40
Welcome
Ignacio Calleja, EIT Community CE
Mira-Maria Kontkanen, ECESP Representative

9.40-9.50
POZLEVIC Olga DG Grow representative (to talk about initiatives from DG Grow including CircLean)

9.50-10.05 DG
Env representative (to talk about initiatives from DG Env including IED and IS approach)

10.05-10.15
PLANCHON Dominique, DG RTD representative (Hubs4Circularity Initiative),

10.15-10.30
Industrial Symbiosis: main challenges
Rachel Lombardi, International Synergies

10.30-10.45
Open discussion

10.45-11.00
Innovation for Industrial Symbiosis for IS
Klaus Sommer, KHS Consulting

11.00-11.15 Open discussion

11.15-11.30
Policies for Industrial Symbiosis
Climate KIC (Cliona or Natalia??)

11.30-11.45 Open discussion

11.45-12.00
Market barriers and Opportunities
Teresa Domenech, UCL

12.00-12.15 Open discussion

12.15-12.30
Summary and Closing
(MEP to be decided)

Phase 2: Online open discussion group on the ECESP:

The outcome document of the workshop will be available online for discussion through the ECESP's dialogue forum on the ECESP website and Linkedin. The ECESP responsible contacts will create a discussion group focused in IS both at the ECESP site and Linkedin.

The workshop outcome document will be used as a guidance document to initiate the online discussion.

This discussion will be open to all interested participants through the usual ECESP participation mechanism. The coordinators will use their usual communication channels to promote the discussion. The EIT Community Circular Economy will moderate the online discussion for a period of 2 months.

The Coordination group will also evaluate the possibility to organise short webinars focused in specific relevant areas to further promote the discussion process.

Phase 3: Final document:

The EIT Community Circular Economy will finally compile the inputs resulting from the two different phases to develop a final document to be shared with the ECESP, European Commission and all participants. This document could be used as reference material for any possible action/initiative developed to improve Industrial Symbiosis implementation.

Organisers

- **ECESP:** The European Circular Economy Stakeholder Platform (ECESP) is a joint initiative by the European Commission (EC) and the European Economic and Social Committee (EESC). The Platform is a European one-stop shop for the circular economy community. It is a place for dialogue and a bridge between existing circular economy initiatives.
- ECESP is a dynamic hub for the circular economy community to (i) advance the circular economy concept and keep the conversation at the top of the agenda in Europe, in the Member States and their cities and

regions, (ii) strengthen cooperation among stakeholders' networks, (iii) contribute to identifying social, economic and cultural barriers to the transition towards a circular economy.

- **EIT Community Circular Economy:** This is an initiative by EIT RawMaterials (Coordinator) , EIT Digital, EIT Climate-KIC KIC, EIT Food, EIT Manufacturing and EIT UrbanMobility to strengthen the collaboration and coordination of internal and external activities related to the circular economy.

- **CircLean - European Network of Businesses and SMEs for Industrial Symbiosis:** CircLean is a project led by Technopolis Group with a consortium of partners composed of Trinomics, International Synergies and Arctik on the behalf of the European Commission's DG GROW. EIT Raw Materials, Spire and ACR+ also support the project as tier2 partners. The purpose of CircLean is to mobilise industries and relevant stakeholders, including public authorities, and academia to overcome the barriers of industrial symbiosis' uptake in Europe, and to seize the necessary business opportunities to meet these challenges. The CircLean Network will provide a unique environment for its members to exchange and jointly co-design ways to develop a common methodology, an online tool for reliable monitoring and reporting of industrial symbiosis transactions and an EU-wide industrial symbiosis label.