Building Synergies:

The Industrial Symbiosis Networking Handbook







INSET INDUSTRIAL SYMBIOSIS FOR ENTERPRISES AND TRAINING has been funded with support from the European Commission (2023-1-FR01-KA220-VET-000158456).

The views expressed in this handbook are those of the authors only, the Commission cannot be held responsible for any use which may be made of the information contained therein.

02

Table of content

1. Introduction	2
1.1. Context and importance of Industrial Symbiosis (IS)	3
1.2. Purpose of the Industrial Symbiosis Networking Handbook	5
2. Analysis of Industrial Symbiosis networking sessions	6
2.1. Selection Criteria	6
 2.2. Highlights from Industrial Symbiosis Networking Session Interviews Símbiosy Congrès RESSOURCES RedEco Fondazione Progetto Valtiberina Smart Street PCT Materially 	7 8 12 19 24 31 36
3. Conclusions	36
4. Annexes	42
Annex I. Industrial Symbiosis Networking Sessions selection Annex II. Detailed Information about Industrial Symbiosis Networking	42
Sessions Events • Símbiosy • Congrès RESSOURCES • RedEco • Fondazione Progetto Valtiberina • Smart Street PCT • Materially	46 46 51 57 61 67 73

Connecting the Dots: How Networking Drives Industrial Symbiosis

This Industrial Symbiosis Networking Handbook was developed within the framework of the INSET Industrial Symbiosis for Enterprises and Training project, co-funded by the Erasmus+ programme of the European Union. It has been coordinated by the Université de Strasbourg, with the contribution of all project partners.

The Handbook provides a practical guide to designing, facilitating and sustaining Industrial Symbiosis (IS) networking sessions, drawing on real experiences and field interviews across Europe.

It aims to help public institutions, clusters, SMEs, facilitators and educators foster collaboration between industries and communities to accelerate the transition towards a Circular Economy.

Based on comparative analysis of networking sessions conducted in France, Spain, Italy, and Slovenia, the Handbook identifies key elements of success and transferable practices that can inspire and support new IS initiatives.

Key Objectives

- 1. Explain the role of networking in scaling up Industrial Symbiosis.
- 2. Provide methodological guidance to plan and facilitate IS sessions.
- 3. Present real-life examples of successful initiatives at different territorial levels.
- 4.Identify critical success factors (CSFs) and common challenges in implementation.
- 5. Support replication of proven models in other regions and sectors.



How to Use this Handbook

This document can serve as:

- A training resource for educators and facilitators.
- A reference guide for local authorities and clusters wishing to organise IS events.
- A tool for project developers to design participatory processes in circular economy initiatives.

By combining analysis, good practices, and methodological guidance, this Handbook contributes to building a shared culture of collaboration, innovation, and sustainability across European territories.

Building Synergies: The Industrial Symbiosis Networking Handbook

Introduction



1.1. Context and importance of Industrial Symbiosis (IS)

Industrial Symbiosis is a collaborative approach that enables companies to establish a mutually beneficial exchange of resources, transforming waste, by-products or surplus materials from one industry into valuable inputs for another. This closed-loop system is at the heart of sustainable development, promoting the Circular Economy by minimising waste and optimising resource efficiency.

The role of IS in promoting sustainability is crucial. By fostering collaboration between industry and local communities, IS helps to reduce environmental impacts – reducing energy consumption, minimising landfill waste and cutting greenhouse gas emissions. It is an essential practice for industries seeking to reduce their carbon footprint, meet sustainability goals and comply with increasingly stringent environmental regulations.

In addition to its environmental benefits, IS offers significant economic advantages. By sharing resources, companies can reduce operating costs through reduced use of raw materials, lower disposal fees and lower energy consumption. This efficiency also drives innovation by encouraging companies to rethink traditional business models and explore new resource optimisation strategies.



Networking events and multi-stakeholder communication channels play a key role in scaling initiatives. Industrial **Symbiosis** Held international, national, regional or local level, these events foster dialogue between public institutions, companies, clusters and civil society. By enabling the exchange of best practices, tools, funding mechanisms and legal frameworks, they promote cooperation and the co-construction of shared governance models. These synergies lead to smarter territorial planning, better alignment between industrial needs and public policies, and increased resilience in the face of environmental and economic challenges.



Key benefits of Industrial Symbiosis networking sessions:

- **Cross-sector collaboration**: These events gather diverse public and private stakeholders to co-design solutions based on local challenges, fostering innovation and resource efficiency.
- **Territorial integration**: Networking sessions help embed IS into broader regional strategies and urban planning, increasing coherence and sustainability.
- Capacity building and policy alignment: By encouraging dialogue between institutions and industry, these sessions enhance public actors' ability to integrate IS into multi-sector policies.
- Access to support and networks: SMEs and micro-enterprises gain visibility, support and tools to overcome technical or regulatory barriers.
- Opportunity mapping and innovation: Participants identify synergies, anticipate future market trends and initiate impactful, forward-looking projects.
- Shared governance and transparency: Neutral facilitation ensures balanced dialogue, inclusion of diverse voices and long-term commitment.



• **Increased visibility and credibility**: Participation enhances the reputation of both public and private actors as key contributors to sustainable development and the Circular Economy.

Through these network-driven benefits, IS becomes more than a technical model, it acts as a collective movement for sustainable territorial transformation and systemic innovation.



1.2. Purpose of the Industrial Symbiosis Networking Handbook

This handbook aims to highlight the central role of networking events in promoting Industrial Symbiosis across territories. Through a collection of detailed real-life examples, it demonstrates how well-designed networking initiatives can successfully bring together public and private actors to build synergies, co-create solutions and promote sustainable development.

Drawing on stakeholder interviews and public data, the handbook examines a wide range of networking initiatives at different scales - international, national, regional and local. It provides a structured view of each initiative by presenting:

- **Basic information:** An overview of the organising entity (company, project or institution), including its mission and role in promoting IS.
- An overview of the networking sessions: An analysis of each session's objectives, frequency, format and target audience (e.g. SMEs, large companies, public authorities, NGOs).
- Process details: Insight into how sessions are designed and facilitated, including recruitment methods, digital or physical tools used, and the overall organisational process.
- **Partnerships and stakeholders:** A mapping of key collaborators, such as local authorities, universities, clusters or companies, identified through public communications and reports.
- **Impact assessment:** An evaluation of the results of the sessions based on available data, number of participants, types of collaborations initiated, sectoral diversity and testimonials.
- **Timeline and milestones:** A reconstruction of the development of each initiative, including launch dates, key achievements and new initiatives that emerged from the networking efforts.
- **Engagement strategies:** An exploration of techniques used to maintain momentum over time, such as newsletters, online communities and follow-up events.
- **Replication potential:** Identifying transferable practices and formats that can be adapted and implemented in other contexts to support the growth of IS networks.

2. Analysis of IS networking sessions





2.1. Selection criteria

To identify and analyse the most impactful examples of Industrial Symbiosis networking, we conducted interviews based on clear and concise criteria to guide the research and ensure its relevance to the objectives. These criteria supported the selection initiatives that were innovative, effective and scalable, and provided valuable insights for improving IS networking practices.

The following criteria were applied:

- Objectives: We clearly defined the objectives of the networking sessions, including their intended outcomes, strategic focus, and the duration/frequency of these events.
- Target audience: We identified the specific groups or stakeholders targeted by the networking sessions.
 This helped assess how well the sessions addressed the needs of their intended participants.



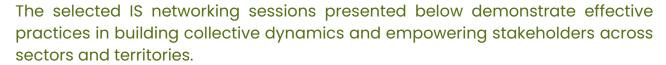
- Impact/results: We documented the tangible outcomes or added value resulting from these IS networking sessions, such as improved collaboration, increased synergies, or measurable sustainability impacts. This aimed to showcase the effectiveness of the initiatives.
- **Key success factors:** We highlighted the critical elements that contributed to the success of the networking sessions. This included aspects like effective facilitation techniques, stakeholder engagement strategies, or innovative approaches to fostering collaboration.

2.2. Highlights from Industrial Symbiosis Networking Session Interviews



The selected networking sessions were chosen based on defined criteria and promote:

- Cross-sector cooperation
- Territorial integration of Industrial Symbiosis
- Public-private dialogue
- Improved access to resources for SMEs
- Visibility for committed stakeholders
- Mapping opportunities and launching impactful collaborations
- Open and inclusive governance models.



- **1.** <u>Símbiosy</u> (*Spain*) Kick-off networking sessions in an IS project aim to introduce the concept to relevant stakeholders, build interest, and lay the groundwork for future collaboration.
- **2.** <u>Congrès RESSOURCES</u> (France) Biennial event bringing together stakeholders to explore IS strategies, share best practice and develop partnerships through workshops and networking.
- **3.** <u>RedEco</u> (Spain) Supporting the transition to a Circular Economy for secondary sector companies through resource mapping, environmental impact assessment and collaborative workshops to improve efficiency.
- **4.** <u>Fondazione Progetto Valtiberina</u> (Italy) Promotes inter-regional cooperation, sustainable supply chains and B Corporations through IS networking events that connect business and civil society.
- **5. Smart Street PCT (Slovenia)** Organises networking events in the Tezno Business Zone to connect companies, implement energy-efficient solutions and promote IS, reducing costs and environmental impact.
- **6.** <u>Materially</u> (Italy) Organises "Innovation Days" networking events to bring together materials producers and users, fostering collaboration and IS. Each event promotes innovative solutions and creates synergies between industries.

To better understand what makes networking sessions successful, interviews were conducted with key stakeholders involved in their design and delivery. Each interview is structured in three parts: **before**, **during** and **after**, to analyse the full process, from initial planning to implementation and post-event evaluation. More detailed information on these sessions with each of the stakeholders can be found in the annexes.

Símbiosy, Spain



<u>Simbiosy</u> is a Barcelona-based consultancy driving public-private solutions for the energy transition and circular economy through resource reuse and industrial decarbonisation.

Before

What are the main objectives or purposes of your IS networking sessions?

"The primary objective of these sessions is to introduce the benefits of Industrial Symbiosis to companies within the ecosystem where the project is taking place. The goal is to encourage these companies to get on board and become active participants in the initiative. There are two types of first sessions, one as a first approach without having any specific project in mind, and a second one where a preliminary analysis of the business landscape has already been done to get the baselines of the ecosystem."



At what geographic scale do you organize these sessions?

"The scale always depends on the project and the extent of its ecosystem. It can range from an industrial estate to an entire region. If the scope is very large, decentralisation is key. Networking sessions should always be held close to the location where the project is being implemented."

Who is the target audience for your sessions?

"The primary audience for these initial sessions is companies, and it is crucial that decision-makers from these organisations attend to ensure meaningful engagement. Additionally, it is beneficial to invite other stakeholders within the ecosystem, as their involvement can contribute to the project's development and success."



How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"The initiative's scope is broad from the beginning as the sessions are open to all the companies within the ecosystem, and if we have identified important ones, we make sure they come. Long-term impact is ensured through continuous follow-up, targeted outreach, and sharing insights from sessions. Showcasing successful case studies also helps attract new participants and sustain interest over time."

. _ _ _ _ _



Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"These sessions are usually held in person, as this format is far more effective. However, there is always the option to conduct them online, though this tends to be less impactful. I typically use PowerPoint presentations to structure and deliver the sessions."

What strategies do you implement to prepare for these sessions?

"To prepare the sessions, we first conduct a preliminary analysis of the business landscape, in that way we already come with the idea of how the project can develop. It is essential to know in advance who will be attending. This allows for better preparation and ensures that potential questions or concerns can be addressed effectively.

Additionally, we send out a pre-session questionnaire, prompting the participants to reflect on their needs, surplus resources, and potential synergies. In some cases, they can even be encouraged to bring physical samples of materials or by-products they generate."

How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"I am not personally responsible for contacting attendees. This task is handled by the promoters of the project, who reach out to participants through their own networks and communication channels."



During

What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

"The most important aspect is the ability to establish a dialogue and encourage participants to speak. To achieve this, it is useful to ensure that attendees come prepared, such as having completed the pre-session questionnaire that makes them reflect on their needs, surplus resources and potential synergies. Completing the questions helps them visualise the opportunities that industrial symbiosis can offer and identify possible concerns, increasing their willingness and preparation to engage in discussions during the session."



Which tools or platforms do you use to enhance interaction during the session? How do they contribute to the overall experience?



"I typically use Mentimeter or similar interactive platforms, which allow for smooth engagement with the entire audience, especially when there are many participants. These tools facilitate live polls, Q&A sessions, and word clouds, helping to gather input in real time. This not only makes the session more dynamic but also ensures that all voices are heard, even those who might not feel comfortable speaking up. The data collected through this platform supports the redesign of the project later on."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"I never force anyone to speak, as participation should feel natural and voluntary. However, I create an open and welcoming atmosphere where all contributions are valued. Interactive tools help to include those who might be hesitant to speak publicly, as they can share their input anonymously."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

After



What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"This initial session is just one part of a broader project, which includes multiple sessions with different objectives, such as identifying synergies and fostering collaborations. Therefore, it is the project itself that ensures long-term engagement and continued interaction with participants. The structured progression of sessions maintains the momentum and keeps stakeholders involved over time."

How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"Similarly, the sense of belonging and ongoing engagement are naturally reinforced through the project's structure. Since this initial session serves as a starting point, the follow-up activities and collaborative sessions provide participants with continuous opportunities to interact, exchange ideas, and develop connections."

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"The primary objective of this first session is not to establish synergies but to lay the groundwork for their identification in future sessions. It is a more informative and introductory event, designed to familiarise participants with the concept of industrial symbiosis and the benefits it can bring to their businesses. Once this foundation is established, subsequent sessions will focus on actively identifying and developing synergies."

How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"The key indicator of success relies on how effective the project call was. We specifically focus on how many of the invited participants attended versus the initial expectation. A session with a small number of attendees can still be considered successful if that was the intended outcome."



Congrès RESSOURCES, France



The <u>Congrès RESSOURCES</u> is a biennial event in Troyes (France) bringing together public and private stakeholders to advance Industrial and Territorial Ecology, co-organised by the <u>Club d'Écologie Industrielle de l'Aube</u> and <u>Réseau SYNAPSE</u> since 2012.

Before ---- 0 ---

What are the main objectives or purposes of your IS networking sessions?

"The main objectives of our Industrial Symbiosis networking sessions are:

- To create a meeting place for all players involved in industrial and territorial ecology.
- To disseminate best practice, share feedback and encourage regional cooperation.
- Providing a professional and friendly environment to inspire project leaders.

These objectives aim to stimulate innovative ideas, encourage collaboration and guide discussions to implement concrete, sustainable projects."

At what geographic scale do you organize these sessions?

"The sessions are being organised in Troyes, in the Aube department in France, in line with the headquarters of the Club d'écologie industrielle de l'Aube. The event has strong local roots, and cannot be relocated, as it reflects a clear desire to promote the region and its ecosystems. On a national scale, although the event is designed to be transferable and its model replicable, it remains unique in France. It is essential to preserve the identity of this specific community to avoid blurring the existing network with other similar events in France."

Who is the target audience for your sessions?

"The target audience for our sessions includes a wide variety of players, such as public bodies (local authorities, agencies, prefectures), businesses, clusters and institutions, as well as students and researchers. Each event attracts an average of 200 participants, with active participation from students, notably from the IMEDD Master's programme at UTT (Université de technologie Troyes), who are integrated into the event to encourage inter-generational and interdisciplinary exchanges."

How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"To ensure the long-term impact and visibility of the initiative, a structured preparation schedule is followed, starting in February/March with a review of the previous event. A call for papers is launched in the spring, focusing on concrete cases and classified by theme (round tables, workshops, pitches). A wide audience is mobilised thanks to the database of former participants, partner networks and communication via the website, LinkedIn and mailings. The format of the event, which has been tested and consolidated over the years, remains stable, ensuring a high-quality experience and a growing reach each year."

Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"The sessions will continue to take the form of in-person events, to encourage direct exchanges, collaboration and the development of lasting relationships between participants. The event also serves as a lever to stimulate a wider network, beyond club members, by creating a dynamic of sharing and inspiration between public, industrial and academic players"

What strategies do you implement to prepare for these sessions?

"The preparation of these sessions is based on a structured strategy, with an experienced team and a diversified steering committee (local authorities, industry, private and academic partners). The content selection process is rigorous, giving priority to real-life cases (customers, regions) for operational exchanges. Preparations begin in February/March, with a review of the previous event and a call for papers in the spring, when proposals are selected and classified by theme (round tables, workshops, pitches). To mobilise participants, the conference uses the database of former participants, the networks of partners, as well as communications via the website, LinkedIn and regular mailings. The format, consolidated over the years, remains stable and adapted to the expectations of participants, while ensuring active follow-up after the event to guarantee the continuity of exchanges and projects."

How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"To communicate and promote our sessions, we use a multi-channel approach to effectively reach our target audience. We capitalise on a database of past participants from our seven previous editions, enabling us to maintain an ongoing relationship with committed participants. In addition, we mobilise the networks of our partners, who help us to disseminate information to their own communities and extend the reach of the event.

Communication also takes place via our website, which serves as a central point for all information relating to the event, and via LinkedIn, where we post news and regular updates. Finally, we send out targeted mailings to inform and encourage registration, ensuring regular and personalised distribution of information to our contacts.

These combined tools and channels enable us to reach our audience effectively and maximise the visibility of our sessions."

-During----o



What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

"To encourage meaningful exchanges, the 2-day event includes plenary sessions, themed workshops, pitches, visits to industrial sites and informal moments. The badge numbering technique is used to mix participants (experts and novices) at lunches, encouraging diverse encounters. Lunch and breaks are provided to encourage informal exchanges. A professional moderator will ensure that the presentations flow smoothly."



Which tools or platforms do you use to enhance interaction during the session? How do they contribute to the overall experience?

"Interaction is further enhanced by the use of on-the-spot video pitches and short clips for post-event broadcast. These tools enable continuous interaction and enrich the experience of participants, by offering content that can be accessed after the event for prolonged engagement."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"Inclusiveness is encouraged through informal moments, such as lunches and breaks, which allow everyone to participate without pressure. The mix of profiles at meals encourages exchanges between participants from different backgrounds, giving less committed participants more opportunities to express themselves."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

"Feedback tools and live surveys are used to gather data on participants' expectations and experience. This information is used to adjust and improve future editions, taking into account feedback to make the event even more relevant."

What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"To maintain the momentum of the ecosystem after the event, the proceedings of the event, although not scientific, are published in order to capitalise on the exchanges and thoughts shared. Videos of the sessions are progressively broadcast on LinkedIn and the website, enabling participants to revisit the content and maintain the link with the event. The content is also re-used between editions, every two years, to reinforce the continuity of the discussions."

How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"The sense of belonging is reinforced by partnerships with universities, such as UTT, for the co-construction of the event and the involvement of students in various tasks (reception, cloakroom, support). These collaborations actively involve participants in the organisation, creating a lasting link with the event. The continuous broadcasting of videos and the publication of proceedings also help to maintain interest and commitment beyond the session."

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"The Congrès RESSOURCES is the expression of the Club d'Écologie Industrielle de l'Aube's networking mission. We know that exchanges are taking place and contacts are being made. Participants are free to set up collaborations after the conference and to draw inspiration from actions carried out elsewhere by others. At the next congress or at other professional meetings, we learn about it with satisfaction and it feeds into our contents. We know which meetings the CEIA will be able to turn into new missions, new services, new partners or requests for workshops. Participants insist on the need for this kind of event. Face-to-face exchanges are fundamental, especially at a time when everything is happening online.

In addition to the Congrès RESSOURCES, the CEIA is called on by public or private bodies (local authorities, economic development agencies, etc.) to help the local economic fabric. The synergy detection workshops are organised in two stages: the workshops themselves, where needs and ressources are discussed, followed by the business meetings, which are short one-to-one meetings between companies. The general statistics show that this second part is essential for the practical implementation of the synergies identified in the first stage. For more information on the synergy detection workshops: https://www.ceiaube.fr/les-ateliers."

--0-



How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"The success of the sessions is measured by the quality of the content shared and the impact of the resulting collaborations. The published proceedings and the distribution of videos enable the relevance of discussions and synergies to be analysed. Feedback is also collected via surveys and evaluations to measure participant satisfaction. Ongoing collaboration and the re-use of content between editions are key indicators of the event's success."



Before

What are the main objectives or purposes of your IS networking sessions?

"The main objectives are:

- to map underused local resources
- to foster collaboration in an environment of trust
- to demonstrate the possibilities of circular business
- to raise awareness of the magnitude of worn out or underused resources
- to promote synergies between companies from different sectors and with different needs
- to give our support through a programme dedicated to SI
- to identify areas for improvement in resource management at the level of territorial planning
- encourage the sharing of knowledge
- open a debate among participating local companies."

At what geographic scale do you organize these sessions?

"These initiatives are organised at a local level (with the local council, focusing on one or several industrial estates in the municipality) or regional level (for several industrial estates in different municipalities), working with the Provincial Council of Alicante, for example."

Who is the target audience for your sessions?

"These sessions are aimed at companies of all sizes, from SMEs to large corporations, that are looking to identify business opportunities and optimise the management of their resources, whether material or immaterial (knowledge, space or energy, etc.).

Although the main focus is on sectors with high resource flows (industry, construction, energy, crafts, waste management, etc.), any company interested in collaborating and exploring new business models is welcome to participate.

The attendance of a representative with a strategic vision of the company is recommended, such as a CEO, manager or head of innovation, who can identify and take advantage of the opportunities generated in these sessions."

How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"It is essential to work closely with the municipality and the local business association to develop long-term sustainable industrial symbiosis programmes. These entities can not only provide funds to finance the initiative but also maintain the necessary dynamics through the designation of a point of contact—usually the person in charge of the local business association—who is available to attend to any questions, doubts or requirements before, during or after the initiative."

Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"For the planning stage, we work closely with the local business association or the Management and Modernisation Entity (EGM) of the industrial estate. We apply the NISP® methodology in the development of the sessions, which consist of face-to-face workshops with the companies in the estate. We do not hold online or hybrid sessions, as face-to-face interaction is key to maintaining the interest of the participants, building trust and enhancing networking between companies."

What strategies do you implement to prepare for these sessions?

"We direct our call to key participants, including corporations with a presence in the territory, manufacturing companies and solution providers (companies that can provide solutions to underutilised resources, such as waste managers, recyclers, chemical laboratories, energy supply companies, etc.). This allows us to guarantee a sufficient volume of material flows during the workshop, as these are the ones that offer the greatest potential for reducing environmental impact, as well as potential synergies to common material flows. On the other hand, corporations contribute a high volume of resources, generate traction for small companies to join in and can even offer their facilities for the session.

Before the workshop, we send an email to the participating companies asking them to prepare a list of underutilised resources that they would be willing to share."





How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"To publicise the event, we used local news, LinkedIn, emails and the support of the local business association, which mobilised its network of contacts to invite more companies. In addition, we contacted key participants directly to confirm their attendance on the day of the event."

What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

"The table facilitator plays a key role in the business opportunity workshops. Their function is to lead the conversation between the participating companies, guiding the debate on the current management of their resources and allowing them to interact with each other to identify possible synergies. It is the companies themselves that detect opportunities to develop new business models. The facilitator, with knowledge of solutions available in the territory and technical options, asks questions and delves into key issues to stimulate reflection on what is really possible.

Throughout the session, cards are used to record each resource identified and the ideas that arise, which are shared with all the tables to enrich the process."

Which tools or platforms do you use to enhance interaction during the session? How do they contribute to the overall experience?

"At the end of the session, a form is shared by QR and the companies access a satisfaction survey with the interactive tool mentimeter. It helps us to improve certain aspects of the workshop."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"The table facilitator not only guides the conversation between the participants but also manages the time for each phase of the workshop, ensuring that all attendees can participate. They oversee moderating the discussion so that nobody monopolises the conversation and of redirecting the debate when necessary to maintain the focus of the session. Furthermore, each participant has their moment to share ideas, so even those who do not usually actively participate will have to present their proposals at some point during the workshop."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

"At the end of the session, each facilitator's notes are collected, and a quick count is made of the number of resources identified and the potential synergies highlighted. This provides an immediate overview of the achievements made during the workshop.

Subsequently, all this information is uploaded to the SYNERGIE® platform, which is enriched with each session, mapping the resources at a territorial level. This continuous updating facilitates the identification of new opportunities for synergy in future sessions, maximising the impact of the process."

Building Synergies: The Industrial Symbiosis Networking Handbook

- After



What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"Each participant receives a personalised report with the resources and ideas that emerged during the session. As a technical consultant, we then contact them to review the most relevant results and explore how they can develop the synergies identified. We accompany companies in this process according to their needs, whether it be facilitating contact with the right collaborators, analysing how to overcome possible administrative barriers or seeking funding for a potential investment."



How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"As a technical consultant and part of the project, we provide participating companies with a free advisory and support service to help them develop synergies and transform opportunities into concrete actions."

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"We are currently in the research phase to develop several of the synergies identified during the sessions. These include initiatives such as joint energy generation through local energy communities, joint waste management, energy recovery from waste with no outlet in the cement industry and the reuse of purified water in gardens, among others."

How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"We use the Hubs4Circularity indicators and those provided by the NISP® methodology, including: the number of resources identified, the number of potential synergies developed, the amount of waste diverted from landfill (in tonnes), the equivalent in CO₂ emissions avoided, the economic savings generated and the associated jobs."



Fondazione Progetto Valtiberina,



Italy

<u>Progetto Fondazione Valtiberina</u>, founded in 2022 in central Italy, promotes sustainable regional development and cross-border cooperation through a civil economy model.

Before -

What are the main objectives or purposes of your IS networking sessions?

"Born out of collaboration between entrepreneurs and representatives of civil society, the IS networking sessions fundamentally aim to promote sustainability, territorial development and multi-stakeholder collaboration that transcends regional boundaries, with the civil economy model as a reference framework. A primary objective is to increase understanding of the network's content while exploring possibilities for expanding the network and involving new stakeholders. The networking sessions also serve as orientation discussions to establish a unified territorial vision, create sustainable supply chains, foster collaboration between businesses, promote the benefit corporation model, and overcome administrative barriers that have historically limited the region's economic potential."

At what geographic scale do you organize these sessions?

"The foundation Progetto Valtiberina operates at a local and interregional level thanks to its geographical location, which encompasses several Italian regional administrations. The municipalities engaged are from the Upper Tiber Valley – Italy:

- 1. Anghiari
- 2. Caprese Michelangelo
- 3. Monterchi
- 4. Pieve Santo Stefano
- 5. Sansepolcro
- 6. Badia Tedalda
- 7. Sestino
- 8. Citerna
- 9. San Giustino

- 10. Città di Castello
- 11. Monte Santa Maria Tiberina
- 12. Montone
- 13. Pietralunga
- 14. Umbertide
- 15. Lisciano Niccone.

Who is the target audience for your sessions?

"IS sessions target a diverse group of stakeholders, including small businesses, artisans, larger structured companies, local government officials (including mayors from different regions), policymakers, civil society organisations, trade associations, and educational/research institutions. The foundation serves as a neutral platform where stakeholders from different administrative regions can collaborate outside traditional institutional constraints."

How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"The Foundation takes a thoughtful and structured approach to make sure its initiatives have a lasting impact. Its main goal is to provide a neutral space where local leaders from different regions can openly discuss the challenges of sustainable development in their areas. This neutral ground is key to promoting collaboration across administrative boundaries.

Regular publications through blogs and newsletters, together with online communities on platforms such as LinkedIn, maintain constant contact with participants."

Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"The IS session frequency and format vary by project, with regular meetings established for specific initiatives. All meeting sessions are published on the Foundation's website. Many initiatives involve both in-person and virtual meetings, with a notable shift to digital platforms for wider regional projects."

What strategies do you implement to prepare for these sessions?

"The Foundation regularly organises coordination meetings focused on specific project groups. Training initiatives, such as benefit corporation skills programmes, help to strengthen stakeholder capacities."

How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"Communication is considered fundamental, with significant investments in this area. Tevere TV, a former commercial television station, has been transformed into a community platform under the leadership of the Foundation, significantly expanding its reach to millions of online users. The Foundation maintains engagement through:

- Regular coordination meetings for specific project groups
- Tevere TV as a digital platform for sharing stories, disseminating results, and highlighting successful initiatives
- Training courses (such as the benefit corporation expertise programme)
- Production of engaging video content featuring local youth showcasing businesses (Job-Hunting project)
- Periodic meetings of the benefit corporation coordination table
- Cross-regional events and collaborative activities
- Active social media presence and website updates
- Collaboration with local media outlets, including Corriere newspaper
- Organizing themed events, such as the upcoming conference on "Franciscan economy" for the 800th anniversary of Saint Francis's death in 2026 (IS is strongly evocative of the Franciscan economy)."

What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

"The methodology is chosen based on the targets and objectives to be achieved during the IS networking session.

To enhance participation, we employ several additional techniques:

- Small group breakout discussions that give quieter participants a less intimidating forum to share ideas
- Facilitated roundtable formats where each person is explicitly invited to contribute
- Pre-session outreach to understand specific barriers that might prevent full participation
- Follow-up opportunities that extend beyond the session, allowing for reflection and delayed input

Moreover, we apply specific methodologies for achieving different targets as young people in learning about the local area. Ad hoc initiatives have been set up, such as 'Job Hunters', interviews conducted by local high school students with local entrepreneurs, filmed in their companies. This content, aimed primarily at young people, allows for the sharing of local skills needs, knowledge of the level of innovation and sustainability of local businesses, and the vision of the Fondazione Valtiberina as a sustainable development project for the area.

https://www.ttv.it/job-hunters/job-hunters-alla-scoperta-di-erm-group/."

Which tools or platforms do you use to enhance interaction during the session? How do they contribute to the overall experience?

"The foundation employs both in-person and virtual meetings, combining direct contact with digital platforms. For local initiatives in their immediate territory, face-to-face meetings are preferred due to geographic proximity ("everything is within 5 minutes"). For projects spanning wider areas (such as the artisan-industry collaboration project involving Florence and Perugia), they rely heavily on virtual platforms. The media outlet, Tevere TV, transformed from a commercial television station into a community digital platform, serves as their primary communication and dissemination tool, reaching millions of users beyond their immediate territory."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"As a recognized point of reference for diverse stakeholders (including public administrations, consumers, companies, associations, young students, and emerging entrepreneurs) we've developed specific methods to engage all participants.

Our selected speakers and moderators bring extensive experience in sustainable development initiatives, which helps us create a neutral, welcoming environment where diverse interests can be expressed. This neutrality is particularly important for encouraging less confident or typically underrepresented voices to contribute.

We deliberately structure our sessions to bring together different interests around common development factors. This approach helps less vocal attendees find connection points where their perspectives become relevant to the broader discussion."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

"Our approach to gathering information during IS networking sessions is both thoughtful and flexible. While we do not follow predefined data collection models, we maintain a constant focus on assessing the alignment between each meeting's specific objectives and the data we need to capture. This drives us to implement several practical strategies to gather valuable information during our sessions:

First, all meetings are recorded, creating a comprehensive archive of discussions, decisions, and interactions. This practice ensures that no valuable contributions are overlooked, including those from less vocal participants or moments of spontaneous insight.

After each session, we prepare detailed reports summarising the key points, decisions and actions to be taken. These reports are made available to all members of the Foundation, creating institutional memory and continuity between sessions.

We use the information gathered to improve future sessions by identifying which discussion formats have produced the most productive exchanges, which recurring themes or challenges may require special attention, which stakeholder groups are most involved or underrepresented, and how effective different dialogue facilitation approaches are."

What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"With a view to possible replicability, the organisation analyses best practices identified online, develops easily replicable session models and focuses on collaborative approaches that demonstrate strong potential for adaptation, ensuring that its methods can be adopted in other contexts."

How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"We maintain engagement through regular coordination meetings focused on specific project groups. The transformation of Tevere TV into a community platform significantly expanded our reach, connecting millions of online users to our initiatives. This digital presence, combined with regular publications through blogs and newsletters, keep participants connected between physical gatherings"

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"The "Laboratory for Sustainability" event has yielded tangible results and impact in terms of:

- Establishment of the first interregional civil economy district involving municipalities from two regions
- Formation of "ecoVprint," a consortium of six previously unconnected companies that have created a joint business entity
- Development of a sustainable supply chain connecting construction companies with agricultural businesses to create eco-friendly cement additives using agricultural waste (Biochar)
- Higher-than-average adoption of benefit corporation status among local businesses
- Connection of small artisanal businesses with larger industrial companies through the "Botteghe Artigiane" project
- Transformation of Tevere TV from a local commercial television station with limited reach to a digital community platform with millions of users
- Creation of the Job-Hunting project connecting youth with local businesses through engaging media content
- Enabling cross-regional governance discussions outside traditional institutional constraints."

How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"The most successful factor in our networking sessions has been participants' interest in establishing regular, organized connections for periodic exchanges of experiences and ideas. This organic enthusiasm has created sustainable engagement that extends beyond individual events.

Fondazione Progetto Valtiberina systematically monitors results by tracking contributions to territorial growth through various initiatives across environmental, economic, cultural, and social domains. This measurement approach involves gathering input from diverse personalities, institutions, and professionals across sectors.

Our metrics demonstrate significant positive impact in recent years. The Foundation's projects have measurably contributed to promoting well-being and sustainable development throughout the local community. To date, this impact is reflected in our growing network of:

- 23 supporting participants
- 14 municipalities
- 38 supporters
- 5 areas of intervention
- 20 cultural partners
- 8 active projects
- Over 100 organized events

These quantitative indicators, combined with qualitative assessments of stakeholder engagement, provide concrete evidence that our networking approach is creating meaningful and far-reaching benefits for the Valtiberina territory."



Smart Street PCT, Slovenia



Tezno is a Slovenian industrial zone with more than 200 companies focused on metal processing, IT and R&D. It promotes green transition and Industrial Symbiosis through collaborative projects bringing companies together such as the Smart Street pilot, which reduces costs and environmental impact.

Before

What are the main objectives or purposes of your IS networking sessions?

"As the Institute Cona Tezno, we are the manager of the Industrial Zone. As such, we don't directly implement IS networking but are heavily involved with networking among the companies within the zone itself. This networking, however, is the basis for setting up collaboration among companies, which does result in symbiosis. One such case, which is not directly industrial symbiosis is the joint educational centre set up in the zone: Technical School Centre Maribor, which provides both secondary education as higher vocational education and is strictly oriented in collaboration with companies in the zone, such as Starkom, Durabus, Metalworks Imenšek, SMM and others. Another such case, which is directly linked with industrial symbiosis is the project for Smart Street, where various waste created in the zone is commonly collected and validated for reuse in local industry. All in all, we can say, that the main objective of our networking activities is optimising the industrial zone, achieve collaboration between companies (both in human resource sharing and material flows), joint representation and resource management (such as electricity, heat and water), as well as logistics."

At what geographic scale do you organize these sessions?

"Our activities are oriented towards the industrial zone, so we are connecting companies within the zone, however, we are also actively cooperating with other important industrial players on the local and regional level and also research and knowledge providers. Also, we are connecting with neighbouring industrial zones (such as Kidričevo or Slovenska Bistrica) within the Podravje region, and furthermore, due to the geographical factors with industrial pools of Graz (AT) and Zagreb (HR) across the national border."

Who is the target audience for your sessions?

"This depends on the topics we are following at a certain point, but we function as a link between the academic and production fields. This has been a long tradition within the business zone since 1950, when the technological and machine secondary school started connecting the then large industrial site of TAM (where the industrial zone is now located) with the local educational and academic sector.

Currently, the UM:CPMS - Centre for smart cities and communities of the University of Maribor - is one such example, where our smart street in the business zone is a demo site for implementation of UM:CPMS platform for connecting academia, industry and local community for technological solutions for better management of the city."

How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"Before implementation of each of the innovations we have presentations and consultations with key industrial players within the zone, who are recognised either as beneficiaries, investors, knowledge providers... for the specific innovation. Our institute does not implement innovations for our own sake, but for the benefit of the industry within the zone, so we coordinate every such innovation with them. The approach differs depending on the number of involved actors, but it is either individual presentation or joint presentation of the vision for implementing innovation. Also, if companies themselves would want to implement innovations, we support them by linking companies among themselves or help them find outside resources for the innovation."

Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"We are lucky enough that we can hold this session in person at the location of the zone. This is very important for establishing trust and negotiation of details."

What strategies do you implement to prepare for these sessions?

"Most commonly we are the ones who prepare the benefits we want to achieve for the zone through implementation of innovations or see the potential for collaboration between companies (based on the identified challenges they face). Through our individual communication with each of the company within the zone we have this overview. And then we present the benefits – again, either individually, or jointly, depending on the initiative, to the relevant companied within the zone."

How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"We have direct contacts with companies, personal relationships with company representatives, mailing lists, and also a periodical magazine of the zone (both as an online and printed magazine): https://kontakt-conatezno.si

During

What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

"Connecting participants is part of our ongoing relationship with the companies within our zone, so there are no special exchanges necessary. We are already managing the industrial zone and have an overview of their activities, potentials and challenges. Based on our knowledge of industrial actors within the zone we can set up individual or group sessions with relevant actors for specific initiatives, such as the smart street, where eventually, all companies within the zone benefit from."



Which tools or platforms do you use to enhance interaction during the session? How do they contribute to the overall experience?

"We implement live meetings, either individual or joint meetings, along with other networking events within the zone (social events for the staff of companies)."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"Through our formalized role within the zone, we can ensure communication with each company in the zone, however, we don't want to use our position as leverage. Instead, we use our knowledge of the challenges companies face to present them with potential innovations. If they are sceptical, we are not forcing them into accepting innovations, however, most often they are willing to test the proposed solutions. Most of these solutions address issues of several companies and thus build synergies between them, and once the implementation is presented, even those less interested see the benefits for them and join the initiative."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

"During such sessions we make commitments and each of participants follows up on them. There are no special feedback tools, but we do keep minutes and adopt decisions to which participants agree, which map out the following steps."

After



What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"Again, as the manager of the industrial zone we stay in touch with our companies after the implementation of innovations. We are also actively promoting the implemented innovations that represent industrial symbiosis or other forms of collaboration."

How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"Each successfully implement case strengthens the trust and cooperation between companies and highlights our role as the manager and facilitator of symbiosis. We use this for future references and also showcase the good practices, such as joint maintenance of infrastructure, joint provision and management of energy and water, waste validation for secondary use thought the Smart Street demonstration site of UM:CPMS project, etc."

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"The following cases are the examples of successful synergies:

- the installation of a system to monitor and control energy consumption and energy use (Energy Management System -EMS),
- Battery Energy Storage System (BESS),
- a platform for active management of energy infrastructure
- Construction and Connection of Solar Power Plants
- Acquisition and Installation of Smart Meters
- Smart Street Initiative."

How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"No direct networking sessions were conducted to set up industrial symbiosis. With the top—down approach of the Institute Business Production Zone Tezno they have purposed solutions which were identified to answer the challenges of the companies in the zone. Trough the regular communication and networking events these innovative solutions were promoted, and relevant stakeholders were directly contacted in order to collaborate in the implementation of projects. The feedback was positive, and the companies joined the initiative as first users which demonstrated the benefits to other less relevant companies who also later on joined the initiative."

Materially, Italy



<u>Materially</u> is an Italian consultancy agency based in Milan that supports companies (materials manufacturers and materials users) in the development and dissemination of innovation and sustainability starting from materials.

Before ---- 0 ---

What are the main objectives or purposes of your IS networking sessions?

"Innovation Days are onsite events targeted at creating connections between materials manufacturers and materials users. The main objectives are: provide updates on the latest advancements in materials and technologies, foster knowledge sharing, and create connections across the value chain—from material suppliers to product designers, developers and manufacturers."



At what geographic scale do you organize these sessions?

"The onsite events are organized at our showroom and guests are typically coming from Northern Italy, therefore at a macro-regional scale. Online events instead are designed for a global audience, although these are new and we have not tested them yet."

Who is the target audience for your sessions?

"The events are targeted at two main types of participants: material manufactures, selected as speakers and typically encompassing SMEs, large companies, start-ups; and materials users and/or specifiers, who typically are R&Ds from medium large companies, designers, architects."

How do you develop and highlight your initiative to ensure its long-term impact and visibility? What opportunities or strategies have you explored to extend the initiative's reach?

"We communicate the events to our well-established and large mailing list of materials manufacturers and users; besides, we take the opportunity of these events to contact new companies via cold calls or Linkedin and therefore increase our contacts base. In general, we exploit our fame as "connectors" among industries in the world of materials and are constantly contacted by new companies."

Do you plan these sessions as online, in-person, or hybrid events? What tools or platforms do you rely on for planning and execution?

"We use both formats. During Covid of course we used online platforms only, but the spirit of these initiatives is to create real connections between real people. We use standard tools such as newsletter and social media for communication, promotion and recruiting; Google forms or Eventbrite for registration; video-projector onsite; Zoom for online events. Phone calls are also very important to ensure participation. Since the events are free for the audience, they may tend to register and then not to attend."

What strategies do you implement to prepare for these sessions?

"The first step is defining the topic based on the interest we have gathered among manufacturers. Once we have drafted the topic (e.g.: Sustainable building), we select possible speaker companies using a specific database that we have implemented throughout the years. Brainstorming sessions within our team are also important to collect ideas."

How do you communicate and promote your sessions? Which channels and tools do you use to reach your audience?

"When it comes to participants (audience) we use not only standard communication tools, but also one-to-one, direct contacts, very important to select the right people and to ensure their participation."

What animation techniques do you use to facilitate meaningful exchanges and build strong connections between participants?

- "1. Making the event attractive: we have it opened by a speech by our researchers team, focussing on innovation and trends. We also select speakers having something interesting and new to share.
- 2. Curating the speakers' presentations, which must be attractive and rich in case studies, to make the innovation clear and understandable in its application.
- 3. Allowing time and space for Q&A: the audience is limited to max 40 people, to facilitate exchanges.
- 4. Light lunch / coffee breaks are also important to create an informal environment and facilitate connections and exchange of information."

Which tools or platforms do you use to enhance interaction during the session? (e.g., live polls, breakout rooms, collaborative software) How do they contribute to the overall experience?

"The events are usually onsite."

How do you ensure inclusivity and active participation, especially from less vocal or less engaged attendees?

"We never encountered this need, however we always have a microphone in case of necessity."

Do you employ any strategies to gather data or insights during the session? How do you use this data to improve future sessions?

"At the end of each session, we distribute feedback questionnaires to participants. These surveys are designed to collect input on several aspects, including the level of interest the session generated and any suggestions for improvement.

Additionally, we track participants' interest in attending similar future events, which helps us to understand what topics resonate most with our audience. Afterwards we carefully analyze these surveys to identify strengths and areas for improvement. The insights we gather play a key role in shaping and refining our future sessions to ensure they are increasingly engaging and valuable for our audience."

What strategies do you implement to maintain the ecosystem dynamic and stay in touch with participants after the session?

"We collect information AFTER the sessions asking participants feedback on what went wrong - if any - in order to improve the next time."

How do you foster a sense of belonging within the group and encourage continued engagement beyond the event?

"We share presentations contents and participants' contact details in order to allow them to continue the conversations even if they forgot to exchange business cards."

Can you provide examples of successful synergies or collaborations that emerged from your IS networking sessions and how they were sustained post-event?

"After the events, companies often stay in touch with each other independently. Since they are free to manage collaborations on their own, we are not always able to follow what happens next or how these collaborations develop over time. So, we know that successful synergies or collaborations emerged from IS networking sessions, but we do not have details about their development."



-0---->



How do you evaluate the success of your networking sessions? What metrics, feedback methods, or impact assessments do you use to measure success?

"To evaluate the success of our networking sessions, we rely on a combination of quantitative metrics and qualitative feedback.

Key indicators include:

- Number of speakers: A higher number or diversity of speakers often correlates with increased interest and engagement.
- Number of registered participants: This gives us a first sense of the event's reach and appeal.
- Number of actual participants: We closely monitor attendance rates.
 Typically, we observe a 50% confirmation rate post-registration, and among those who confirm, there's usually a 10% no-show rate. Deviations from these benchmarks—whether positive or negative—serve as important indicators of success or areas for improvement.

In addition to these metrics, we distribute a post-event questionnaire to gather participant feedback. This helps us assess the perceived quality, relevance, and impact of the session, and informs adjustments for future events."





Conclusions

Industrial Symbiosis networking events, though varied in context and scale, share the goal of fostering innovation, cross-sector collaboration, and promoting sustainable practices. Beyond improving resource management and knowledge sharing, they serve as key platforms for exchanging ideas, exploring new business models and creating synergies.

The use of hybrid formats (online and in-person) enhances reach while preserving valuable human interpersonal interaction, which is a key good practice to building strong connections. Interactive methods— structured discussions, hands-on workshops and focused brainstorming sessions— promote active participation and maximise exchange between participants, with facilitators playing a crucial role in guiding dialogue and reflection.

Best practices include thorough preparation of meetings, strategic participant selection, and personalised pre-event contact to improve relevance and engagement, to ensure high quality participation and to better tailor sessions to participants' expectations. Post-event follow-up—through detailed reports, resource sharing, and synergy tracking—helps sustain momentum. Continuous evaluation via feedback and data analysis ensures ongoing improvement and long-term effectiveness, which helps to measure the impact of the event, identify areas for improvement, adjust strategies for future sessions and assess effectiveness.

Local partners (e.g., public bodies and associations) are essential for visibility, financial and logistical support, and for the viability of these initiatives by establishing follow-up actions and facilitating ongoing cooperation between stakeholders. Ultimately, these networks serve as powerful drivers for the transition to a Circular Economy. By enabling fruitful collaboration between different actors and applying practices appropriate to each context, they promote the emergence of innovative solutions and the implementation of sustainable projects that have a tangible impact on resource management and waste reduction.

Annexes



Annex I. Industrial Symbiosis Networking Sessions selection

1. Analysis of IS networking sessions Practices

1.1. Selection criteria

To identify and analyse the most impactful examples of Industrial Symbiosis networking sessions, it is essential to establish clear and concise criteria to guide the research and ensure relevance to the objectives. These criteria will support the selection of initiatives that are innovative, effective, and scalable, offering valuable insights for improving IS networking practices. The following criteria will be applied:

- **Objectives**. Clearly define the objectives of the networking sessions, including their intended outcomes, strategic focus, and the duration/frequency of these events (e.g., one-time, recurring, or annual).
- **Target audience**. Identify the specific groups or stakeholders targeted by the networking sessions (e.g., industries, clusters, associations, local authorities, ...). This helps assess how well the sessions address the needs of their intended participants.
- **Impact/results**. Document the tangible outcomes or added value resulting from these IS networking sessions, such as improved collaboration, increased synergies, or measurable sustainability impacts. This column aims to showcase the effectiveness of the initiatives.
- Key success factors. Highlight the critical elements that contribute to the success of the networking sessions. This could include aspects like effective facilitation techniques, stakeholder engagement strategies, or innovative approaches to fostering collaboration.



Table 1. IS networking sessions practices selected

IS networking sessions practice	Location of the practice	Partner in charge	Objectives of the IS networking sessions	Target audience	Impact / Results	Key success factors
Initial high-level IS networking session organised by Símbiosy	Regional level, within territorial projects	SYM	 Official presentation of IS projects to potential participating companies and industries. Introduce IS benefits and opportunities. Assessing companies' interest in participating 	High-level decision- makers from the companies and industries within the territory	Identification of key companies interested in IS, initial engagement and alignment with project objectives	Engagement of key decision- makers and industry leaders. Ability to convince decision- makers. Effective facilitation for networking and partnership building. Follow-up mechanisms
2. Congrès RESSOURCES IS networking sessions events organised by the Club d'Écologie Industrielle de l'Aube and co-organised by the Réseau SYNAPSE	National level	UNISTRA	 Explore and advance sustainable strategies in industrial and territorial ecology. Exchange with experts and professionals to share experiences and best practices. Stay informed on regulations, financial mechanisms, and key success factors. Discover real-world applications by visiting an industrial site engaged in this approach. Showcase and 	Businesses, industries, associations, research institutions, universities, policymakers, local authorities, and territorial stakeholders.	- Enhanced skills and raised awareness on sustainability Fostered networking and cooperation between key stakeholders - Developed new projects and initiatives through collaboration Influenced public policies and supported sustainable regulations Increased visibility of sustainable initiatives and	 Biennial national event held over two days. Round tables and conferences with industry experts. Pitch sessions to present innovative projects. Practical workshops to dive into specific topics. Networking sessions to foster exchanges and partnerships. Site visits to industrial sites implementing sustainable practices.
			promote projects, territories, and sustainable initiatives. Develop partnerships by connecting with key stakeholders and identifying new opportunities Enhance visibility by presenting products, services, and organisational missions.		projects.	
3. IS networking session organised by RedEco, a consultancy that seeks to gain a	Mainly regional level (Valencian Community)	СЕТЕМ	Facilitating knowledge sharing Encourage partnership and collaboration	Industry professionals (specially business leaders, manager or decision-	Enhance collaboration and partnership Increase resource efficiency	 Clear objectives and focus Strong stakeholder representation Expert facilitation and leadership



competitive advantage through the Circular Economy			Promote Resource Efficiency Address barriers and challenges of IS Raise awareness about IS Showcase Success stories Identify synergies and potential symbiosis	makers), policymakers and regulators, investors, community representatives, technology providers	Knowledge and skills development Successful implementation of pilot projects Policy and regulatory advancements	 Success stories Opportunities for collaboration Addressing barriers and challenges Follow up and continuity
4. Fondazione Progetto Valtiberina	National level	SFC	Analyze the processes of promotion, dissemination, information that preceded the organization first of the aggregation and then of the foundation of the Valtiberina project What actions were	Representative of Fondazione Progetto Val Tiberina and representative of other similar expirience in other	To share good practices in the field of territorial symbiosis projects and road maps for the development of national and international networks to create the	The most successful factor will be the interest on the part of the participants to establish an ordinary, organized connection to periodically share exchanges of experiences and ideas. Another success factor will be the dissemination to other
			taken, who were the actors, what was the vision, what were the main obstacles for the set up. To share good practices in the field of territorial symbiosis project. To define road maps for the development of national and international networks to share experiences and create the conditions for possible future collaborations between the actors of the network	Italian Region.	conditions for possible future collaborations between the actors of the network Sharing of the paths used for the development of the Symbiosis project, Identification of areas of collaboration.	organizations of the network created thanks to the project in order to encourage a broader development of the possibilities of knowledge
5. Smart Street PCT	Local	RDAPM	Preparing joint strategy for enhancement of collaboration between companies Fostering collaboration among companies of Industrial zone	High-level decision- makers from the companies and industries within the zone and local stakeholders of circular economy	Fostered networking and cooperation between key stakeholders Developed new projects and	 Shared responsibility and ownership of the pilot results Platform for future implementation of symbiosis Raised awareness in the local community and among policy makers



		- Facilitating knowledge sharing -Promotion of Resource Efficiency - Demonstration of overcoming barriers in collaboration among companies - IS awareness raising		initiatives through collaboration Increase resource efficiency Knowledge and skills development Successful implementation of pilot projects	
6. Materially	local SYX	The Innovation Days are a series of networking events designed to provide updates on the latest advancements in materials and technologies, foster knowledge sharing, and create connections across the value chainfrom material suppliers to product designers, developers and manufacturers.	The events are targeted at two main types of participants: material manufactures, selected as speakers and typically encompassing SMEs, large companies, startups; and materials users and/or specifiers, who typically are R&Ds from medium large companies, designers, architects.	Each event serves as a platform for material manufacturers and technology providers to showcase their solutions and expertise to a tailored audience of professionals in the industries of interest.	Innovation Days include the participation of diverse material manufacturers disseminating knowledge about innovative solutions for the industry.





Annex II. Detailed Information about Industrial Symbiosis Networking Sessions Events

Símbiosy, Barcelona Chihuahua Green (Mexico) Initial Networking Session

Basic information:

<u>Simbiosy</u> is a Barcelona-based strategic consulting firm specialized in exploring public-private business opportunities for energy transition and circular economy, through surplus resources and industrial decarbonization, specializing in Industrial Symbiosis and Circular Economy solutions. With a mission to drive sustainable and resource-efficient industries, Simbiosy connects businesses to foster collaboration and implement IS strategies. The company offers the execution of IS projects, mapping resource flows through its digital platform, and providing expert consulting to minimize waste and optimize resource use.

IS networking sessions overview:

This report focuses specifically on initial or kick-off networking sessions within an IS project. Kick-off networking sessions in an IS project aim to introduce the concept to relevant stakeholders, build interest, and lay the groundwork for future collaboration. These sessions serve as an entry point for companies to explore the benefits of IS and identify potential synergies.

In May 2022, a kick-off networking session took place in Chihuahua, Mexico, bringing together local businesses, institutions, and industry leaders. This session was part of the Chihuahua Green initiative, a project designed to promote and implement IS initiatives across the state.

The initial networking session within the Chihuahua Green project was designed as an initial gathering where companies and stakeholders were invited to engage with IS principles for the first time. The event focused on providing a clear understanding of IS, ensuring that participants could see its relevance to their operations. One of the first activities involved an interactive exercise to assess participants' familiarity with IS concepts and to establish a common understanding of key terminology. This was crucial to align expectations and ensure that discussions throughout the session remained constructive and accessible to all attendees.

Following this, facilitators guided participants through a process of identifying potential synergies. Companies were encouraged to share information about their available resources, waste materials, and operational needs. This step allowed for an initial exploration of possible resource exchanges between participants, setting the stage for future collaborations. Real-life case studies were also presented to illustrate how IS has successfully been implemented in other regions. These practical examples helped to contextualize the session's discussions, demonstrating the tangible benefits of IS in reducing waste and improving resource efficiency.

Another key aspect of the session was outlining the next steps for those interested in continuing their involvement. The kick-off session was intended to serve as a starting point for ongoing IS initiatives. Participants who showed interest in further collaboration were identified.

By the end of the session, attendees had not only gained a clearer understanding of IS but also begun forming connections with potential partners. The event laid the groundwork for deeper engagement, with facilitators ensuring that the most promising synergies would be explored further in subsequent phases of the project.

Process details:

The organisation of kick-off sessions follows a process:

- A preliminary analysis of the local business landscape is conducted before recruitment begins. This analysis helps identify key companies with potential resource exchanges and synergies, ensuring the right mix of participants. The recruitment process is managed by the project promoters, not the facilitator's company, as they have the established relationships and credibility needed to bring relevant stakeholders on board.
- Once potential participants are identified, outreach efforts include direct invitations, announcements through industrial networks, and engagement via business forums. As the session date approaches, an RSVP list is compiled, and targeted follow-ups are conducted to maximize attendance. To ensure participants are prepared, a pre-session questionnaire is sent out, encouraging them to assess their resource needs and available byproducts. This step helps focus discussions and increases the likelihood of meaningful exchanges during the session.
- The session itself is structured to maximize interaction and practical engagement. In-person participation is preferred, as face-to-face discussions enhance networking and trust-building. However, when necessary, digital platforms such as Zoom or MS Teams are used. Tools like Mentimeter and Miro facilitate interactive engagement, enabling participants to contribute ideas in real time.

 After the session, companies expressing interest in IS collaborations are documented for follow-up actions. The project promoters, often in coordination with facilitators, support these companies in exploring potential partnerships, facilitating further resource exchanges, and integrating them into the broader IS project framework. Follow-up meetings or additional networking opportunities are arranged to maintain engagement and ensure long-term success.

Partnerships and stakeholders:

The initial networking session of the project was held as part of the Circular Economy Forum Mexico-European Union (May 2022). The success of engaging local businesses and institutions in the Chihuahua Green initiative was driven by the efforts of project promoters. These promoters played an important role in bringing together key stakeholders.

In addition to the project promoters' efforts, a series of targeted invitations and outreach campaigns linked to the Forum itself helped ensure a high level of participation from key industry representatives. Among the attendees were prominent private sector companies such as American Industries, Autocluster Chihuahua, GCC Cemento, Grupo Bafar, INNOVAK GLOBAL, IT Chihuahua, Mgs Plastics, RECILOGIC, Superior Ind., The Earth Lab, and Yazaki. This broad mix of participants from diverse sectors reinforced the initiative's credibility and highlighted its potential for cross-sector collaboration. The event not only attracted private sector players but also saw strong involvement from public institutions and research organisations.

This strong participation from private sector players, alongside public institutions and research organisations, reinforced the credibility and potential impact of the initiative. By convening stakeholders from various sectors—private, public, and academic—the session in Chihuahua successfully laid the groundwork for future partnerships. It demonstrated how such events, when strategically organized, can catalyse collaboration and pave the way for the successful implementation of IS initiatives in regions.

Impact of the IS networking sessions:

The session successfully attracted 33 participants, excluding presenters, with a strong presence from general managers, coordinators and executives. The attendance included representatives from key industries, as well as some students and researchers, ensuring that both decision-makers and future professionals were involved.



One of the session's achievements was that all the key companies invited participated actively. These companies came prepared, having brought samples of their waste and pre-worked their "need-offer" details, as requested in the questionnaire sent before the event. This proactive engagement demonstrated a genuine interest in the potential for IS in the region.

Beyond the numbers, the session was a success in terms of the initiatives and synergies that emerged. The event helped to spread awareness of IS across the state of Chihuahua and beyond, contributing to a broader understanding of its potential benefits for businesses and the environment.

The <u>press coverage</u> indicated that the event had captured attention and sparked further curiosity about IS practices, which in turn led to increased interest in similar initiatives across the country.

The sectoral diversity of participants also played a key role in the session's success. Attendees represented a variety of industries, from manufacturing to research, providing a wide range of perspectives on how IS could be implemented across different sectors.

Timeline and milestones:

The networking session held in Chihuahua in May 2022 was an independent event, serving as the first in a series of meetings within the Chihuahua Green project. It was intended as a stand-alone event to gauge interest and lay the groundwork for future collaborations.

Companies who were engaged in this first session expressed a desire to continue exploring IS initiatives and to attend follow-up sessions. These follow-up sessions, led by the event facilitators, were designed to further develop the synergies that emerged from the initial networking session. In these subsequent sessions, participants would work to solidify the collaborations identified, transforming the initial enthusiasm into actionable projects.

Methods used to keep engagement:

The involvement of authorities greatly contributes to attracting interest. In the case of Chihuahua, the participation of the European Union and the ambassador, made a significant difference. Engagement continued naturally, with press coverage in local newspapers such as "El Heraldo de Chihuahua" and online publications on platforms like LinkedIn. The follow-up of the sessions involved the realization of Chihuahua Green project, which involved the whole state of Chihuahua.



Replication potential:

The structure of these sessions remains consistent across all first sessions in territorial projects within an ecosystem, making them highly replicable. The overall outline follows the same framework, with adaptations made to fit the specific characteristics of each ecosystem. This is why the prior preliminary analysis of the business landscape, and the pre-session questionnaire are highly important steps in the process. The initial session can be repeated as many times as necessary in the same project, depending on the interest of the companies.

Additionally, when an IS project succeeds at a local level, it often inspires surrounding areas, leading to more projects and the potential for large-scale implementation. Real-life examples are normally what encourages participation and drives the development of these initiatives.





Congrès RESSOURCES, Troyes, France

Basic information:

The <u>Congrès RESSOURCES</u> is a biennial event dedicated to industrial and territorial ecology (= écologie industrielle et territoriale (EIT) in French), coorganised by the Club d'Écologie Industrielle de l'Aube and the Réseau SYNAPSE in Troyes in the Grand Est region in France.

The <u>Club d'Écologie Industrielle de l'Aube</u> brings together more than forty organisations – companies, associations, institutions and research centres – with the aim of encouraging collaboration, pooling and synergies between the department's economic players.

The <u>Réseau SYNAPSE</u> brings together the leaders of local industrial and territorial ecology initiatives. It facilitates exchanges, supports the structuring of initiatives and provides tools and feedback to enhance the skills of its members. It also organises working groups and annual meetings to energise the community.

Every two years since 2012, the Congrès RESSOURCES has brought together public and private decision-makers and economic development players to discuss the progress and prospects of industrial and territorial ecology.

IS networking sessions overview:

The Congrès RESSOURCES aims to:

- Explore and advance sustainable strategies in industrial and territorial ecology.
- Exchange with experts and professionals to share experiences and best practices.
- Keep abreast of regulations, funding mechanisms and key success factors.
- Discover practical applications through a visit to an industrial site committed to this approach.
- Highlight and promote sustainable projects, regions and initiatives.
- Develop partnerships by connecting key players and identifying new opportunities.
- Increase visibility by presenting products, services and organisational missions.

Frequency and format of sessions:

- Biennial two-day national event.
- Round tables and conferences led by industry experts.
- Pitch sessions to present innovative projects.
- Practical workshops to explore specific themes in greater depth.
- Networking sessions to encourage exchanges and collaborations.
- Visits to industrial sites committed to sustainable practices.



The Congrès RESSOURCES is aimed at a wide range of players, including:

- Business and industry
- Associations and research institutions
- Universities and academic centres
- Political decision-makers and local authority representatives
- Local and regional players involved in industrial and territorial ecology.

Process details:

The Congrès RESSOURCES is a key event in the drive to share experience and innovation between players in the public and private sectors. To register, use the Google Form on the official event website. There is a charge for the event (€150 for one day, €300 for two days), and it will be publicised via a number of channels: the Congress LinkedIn page, the social networks of the organisers and partners, and other institutional media.

Before the event preparations begin in February/March, with a review of the previous event and identification of any necessary adjustments. The call for papers is launched in the spring, with a rigorous selection of contributions: preference is given to concrete cases (customers, territories) rather than to service providers alone. Contributions are classified by theme and divided into round tables, workshops or pitches.

Partnerships and stakeholders:

The Congrès RESSOURCES is an independent, not-for-profit event, with a budget of around 85,000 to 90,000 euros per event. It is mainly funded by public premium partners, supplemented by contributions from private partners and ticket sales, as the event is ticketed.

Premium partners[1]:

- ADEME
- BANQUE des TERRITOIRES
- Aube en Champagne LE DÉPARTEMENT
- PRÉFET DE LA RÉGION GRAND EST
- <u>La Région Grand Est</u>
- TROYES CHAMPAGNE MÉTROPOLE
- SDDEA ET SA RÉGIE
- DERICHEBOURG
- aei
- CONSULTÉNERGIE
- ENEDIS
- EDF
- MICHELIN

Associated partners[1]:

- Institut National de l'Économie Circulaire
- APESA
- <u>utt Université de technologie Troyes</u>
- Orée
- <u>Initiaves Durables</u>
- ColleCtif.

Impact of the IS networking sessions:

At the last Congrès RESSOURCES, held on 16 and 17 October 2024, 197 delegates from the public and private sectors took part in the event. This figure testifies to the growing interest in industrial and territorial ecology and the commitment of economic and institutional players[2].

The 2024 edition offered a rich and interactive programme to encourage the sharing of experience and the creation of new collaborative dynamics. Highlights included:

- A conference and two round tables to explore the strategies and prospects for industrial and territorial ecology.
- Four themed workshops dedicated to tools, methods, funding and innovations in the field.
- Twenty pitch sessions highlighting inspiring and innovative projects led by committed players.
- Three discovery visits enabling delegates to observe concrete, successful initiatives in the field.
- Networking opportunities to facilitate exchanges between professionals, experts and project leaders[3].

The Congrès RESSOURCES brings together a wide range of players, reflecting the cross-disciplinary nature of the issues involved in industrial and territorial ecology. Participants include:

- Industrial companies from various sectors (agri-food, chemicals, metallurgy, construction and public works, energy, etc.).
- Local authorities and public institutions involved in sustainable development and regional planning.
- Associations and organisations specialising in the ecological transition and the circular economy.
- Research establishments and universities, providing scientific and academic expertise to the discussions.

[1] Source: https://www.congres-ressources.fr/partenaires

[2] Source: See source [1]

[3] Source: https://www.congres-ressources.fr/2024

Timeline and milestones:

The Congrès RESSOURCES is a key event in the drive to share experience and innovation between players in the public and private sectors. To register, use the Google Form on the official event website. There is a charge for the event (€150 for one day, €300 for two days), and it will be publicised via a number of channels: the Congress LinkedIn page, the social networks of the organisers and partners, and other institutional media.

Before the event preparations begin in February/March, with a review of the previous event and identification of any necessary adjustments. The call for papers is launched in the spring, with a rigorous selection of contributions: preference is given to concrete cases (customers, territories) rather than to service providers alone. The contributions were classified thematically and divided into round tables, workshops and pitches.

Mobilisation is based on several levers:

- The database of former participants, capitalising on seven editions.
- Partner networks.
- Structured communication via the website, LinkedIn and dedicated mailings.

The format, tried and tested over the years, is undergoing few structural changes because of its effectiveness.

During the event The conference takes place over two days and features plenary sessions, themed workshops, pitch sessions, visits to industrial sites and plenty of informal time. A number of moderation techniques are used to enhance the discussions:

- Numbering of badges to diversify meetings during lunches (experts/novices).
- Organisation of moments conducive to discussion: lunches, breaks, sitdown lunches.
- Use of a professional moderator to ensure smooth and consistent presentations.

Multimodality is at the heart of the event, with video pitches recorded on site and short clips produced for post-event broadcast.

Post-event capitalisation and dissemination work is being undertaken:

- Publication of the non-scientific but qualitative proceedings of the conference, to share and promote the content.
- Gradual dissemination of videos on LinkedIn and the official website.
- Reuse of content between editions (every two years).
- Partnership with universities (e.g. UTT) for co-construction and student involvement (welcome, cloakroom, support).

The last event, held on 16 and 17 October 2024, attracted 197 participants. The communication campaign generally starts at the beginning of the year to maximise commitment and participation. Thanks to its growing reputation, the Congrès RESSOURCES enjoys a high profile, attracting professionals from a wide range of backgrounds for two days of rich, constructive discussions.



Here are a few examples of communication activities: History of previous editions and highlights:

- 2024 edition: https://www.congres-ressources.fr/2024
- All the other editions since 2012 can be accessed in the 'previous editions' section of the website: https://www.congres-ressources.fr/

LinkedIn publications at various stages:

- Before the event: announcements and detailed programme. Example post: https://www.linkedin.com/posts/congres-europeen-ressources_eit-daezveloppementdurable-collaborationlocale-activity-7219241932944797696-HGDQ?
 - <u>utm_source=share&utm_medium=member_desktop&rcm=ACoAAClbhNcBx9tLAE091O-h70SatMptcAW9qcM</u>
- During the event: key moments, speeches and testimonials. Example post: https://www.linkedin.com/posts/congres-europeen-
 - <u>ressources congraeysressources-ressources2024-eit-activity-7252236352635777024-Sloq?</u>
 - <u>utm_source=share&utm_medium=member_desktop&rcm=ACoAAClbhNcBx9tLAE091O-h70SatMptcAW9qcM</u>
- After the event: assessment, feedback and outlook. Sample post: https://www.linkedin.com/posts/congres-europeen-
 ressources_congr%C3%A8s-ressources-2024-les-pitchs-l%C5%93uf-activity-7298278172914036737-CLr0?

<u>utm_source=share&utm_medium=member_desktop&rcm=ACoAAClbhNcBx9tLAE091O-h70SatMptcAW9qcM</u>

Organisers can use tools such as Zoom to enable certain speakers who are unable to attend in person to take part, thereby offering remote participation and guaranteeing greater accessibility to the discussions.

Methods used to keep engagement:

The Congrès RESSOURCES's website[1] is regularly updated and carefully maintained. It offers a wide range of documents and presentation materials, as well as photos and videos of speeches, including those from the pitch sessions, enabling participants and interested parties to relive the highlights of each edition.

The Congrès RESSOURCES's LinkedIn page[2] is also very active, frequently publishing content relating to past editions. These publications aim to keep the community engaged, reach new targets and prepare the ground for the announcement of the next edition. This digital strategy helps to raise the profile of the event and maintain a constant link with industry players.

^[1] Source: https://www.congres-ressources.fr/

^[2] Source: https://www.linkedin.com/showcase/congres-europeen-ressources/posts/?feedView=all



Replication potential:

The networking sessions organised at the Congrès RESSOURCES are designed to be replicable, relying primarily on the facilitation and grouping of public and private players, whether they are already experts or keen to become part of a collective dynamic around industrial and territorial ecology. This approach is particularly viable in areas committed to ecological transition, where economic players are leading initiatives aimed at optimising and reusing resources to reduce their environmental impact.

The event is designed to be transferable, even if it remains unique in France. Although its model is replicable, it is important to preserve the identity of this specific community to avoid blurring the existing network with other similar events in France. On the other hand, its replicability is entirely conceivable in other European countries, provided it brings together several essential elements: a committed community, local roots, solid partners and recognised expertise.

By encouraging these interactions, the events help to create local synergies conducive to sustainable innovation. The themes of the workshops, conferences and round tables are adapted to the local issues and initiatives underway in each region.



RedEco, Alicante, Spain



Basic information:

<u>RedEco</u>'s vision is to eliminate the concept of waste in our society through industrial symbiosis. We facilitate the transition to the circular economy for companies in the secondary sector (construction, waste management, crafts, manufacturing and energy) so that they can anticipate the law by saving costs through cooperation and technology transfer. Our activities include:

- Resource mapping with personalised consultancy services and collective workshops
- Measurement of environmental impacts
- Identification of opportunities for improvement
- Implementation of collaborative and/or technological solutions to improve the individual operational efficiency of a company, as well as the systemic efficiency of the local business fabric.

IS networking sessions overview:

Business opportunity workshop: Objectives:

- Map underused local resources
- Encourage collaboration in an atmosphere of trust
- Demonstrate circular business possibilities
- Raise awareness of the magnitude of worn out or underused resources
- Promote synergies between companies from different sectors and needs
- Provide our support through a programme dedicated to SI
- Identify areas for improvement in resource management at the level of regional planning
- Encourage the sharing of knowledge
- Open up debate among participating local companies.

We are developing an Industrial Symbiosis project for the Provincial Council of Alicante and 12 of its industrial estates, as well as in other municipalities in the Valencian Community, applying the NISP® methodology. The dates of the next workshops are available on LinkedIn and in local news media. These workshops are designed for companies of any size looking to optimise their resource management at the local level. They are organised in collaboration with the municipality and the corresponding business association.



Process details:

Methods for recruiting participants:

- Collaborate with the local business association, as it has the trust and knowledge of the key players in the industrial estate. Use its contacts to encourage the participation of large, well-known companies, which will attract smaller ones.
- Hold the workshop on the premises of one of the largest companies in the industrial estate to increase interest and attendance.
- Name the workshop 'Business Opportunities in the Circular Economy', highlighting it as a networking opportunity rather than focusing directly on industrial symbiosis. In this way, participants will perceive the benefits for their businesses more clearly.
- Publish advertisements in local newspapers and online platforms to broaden the reach.
- Prioritise invitations to companies with greater material flows, starting with emails and then direct calls from both us and the business association.

Digital and collaborative tools:

The NISP® methodology does not use digital tools during the event, as it has been proven that the participating companies do not connect adequately through these means, which makes it difficult to identify synergies. Digital tools have only been used at two points: at the beginning, to introduce the workshop, explain the industrial symbiosis programme and detail the event's programme; and at the end, using the Mentimeter tool to conduct a satisfaction survey to improve the sessions based on the feedback received.

Partnerships and stakeholders:

We carry out a preliminary search for key players in the development of industrial symbiosis at the local level. This includes universities, technology centres, business associations, large corporations, manufacturing industries and solution providers (waste managers, recyclers, laboratories, financing entities, etc.), as well as relevant infrastructure in the territory. This analysis allows us to identify local opportunities before the sessions and to better guide the conversation.

The key partners for the event are the local business associations, which facilitate the participation of large corporations and the most relevant manufacturing industries, incentivising them to participate.



The facilitator acts as a representative of the solution providers and contributes their knowledge of the territory to enrich the debate and guide the identification of opportunities. Subsequently, with our network of contacts, we can involve other strategic actors to promote the effective development of synergies.

Impact of the IS networking sessions:

In the sessions carried out within the framework of the Industrial Symbiosis project of the Provincial Council of Alicante, 88 companies participated, 495 resources were mapped, and 459 potential synergies were identified. 52% of the companies belong to the service sector and 48% to the manufacturing sector. The participation of the professional activities sector stands out (20%), followed by wholesale and retail trade (18%); in addition, there were construction and textile companies (7% each) and companies from the rubber and plastics, waste management and metallurgy sectors (5% of the participants respectively).

Synergies have been proposed for a total of 311,674 tonnes of resources, with packaging in paper, cardboard, plastic and metal materials being the most prominent, accounting for 15.6% of available resources. These resources represent a cost saving of €7,777,691.92 if they can be diverted from landfill, which is equivalent to the creation of 370 jobs for a year.

Timeline and milestones:

The business development workshops were held between June and October 2024. They were carried out in 5 stages:

- 1. Connection with the Management and Modernisation Entity
- 2.Dissemination and awareness-raising actions
- 3.Industrial Symbiosis Workshop
- 4. Data integration
- 5.Impact report

Now in 2025, the first pilots are going to be implemented in the Provincial Council of Alicante, in the same months.

Methods used to keep engaement:

To maintain the commitment of the companies, we have sent personalised reports with the results of the workshop, highlighting the synergies identified, the shared resources and those companies that have expressed interest in participating. Subsequently, we resumed contact by telephone to check if they have developed any synergies and if they require free assistance as it is included in the programme. In addition, we encourage a dynamic of shared resource management through surveys, with the aim of identifying and implementing new systems of collaboration.



Replication potential:

The NISP® methodology is highly replicable, provided that facilitators are trained to manage both the workshop and the subsequent development of synergies. The involvement of the business association is fundamental in these sessions, especially in the recruitment of participants and in the prior organisation. It is essential that the companies themselves share their resources and identify synergies in a precise manner.

To achieve this, a balance between different types of companies is necessary. A greater participation of manufacturing companies is preferable to services, as they manage multiple flows and offer greater opportunities for collaboration. Otherwise, there will be fewer synergies, and it will be more difficult to foster dialogue, innovation and the discovery of new opportunities. It is also important for the facilitator to have a deep understanding of both industrial symbiosis and the territory, so that they can properly address existing infrastructures, opportunities and solutions, effectively driving the generation of synergies.



Progetto Fondazione Valtiberina, Sansepolcro, Italy

Basic information:

<u>Progetto Fondazione Valtiberina</u> is a foundation established in 2022, evolving from an association founded in 2015. Located in the Apennine region at the border of four Italian regions (Umbria, Tuscany, and two others implied), the organisation focuses on overcoming administrative barriers that have historically hindered regional development. Created through collaboration between entrepreneurs (notably Massimo Mercati of Aboca) and civil society representatives, the foundation promotes sustainability, territorial development, and multi-stakeholder collaboration across regional boundaries, with a strong focus on the civil economy model.

IS Networking Sessions Overview:

The foundation's networking sessions aim to establish a unified territorial vision, create sustainable supply chains, foster collaboration between businesses, promote benefit corporations, and overcome administrative barriers that have historically limited regional economic potential. More in details, the stated objectives are:

- 1) Disseminate, share the unitary vision of the territory: The belonging of the territory to several distinct administrations represents potentially a difficulty in closing agreements for the sustainable development of the territory understood as a unitary area. The IS Networking meetings were successful in creating strong synergies between local entrepreneurship, represented above all by young entrepreneurs, and representation of civil society.
- 2) Fostering collaboration between civil society and the local economy: thanks to the IS networking meetings, the Foundation has successfully fostered the creation of the first interregional district of civil economy involving the municipalities of Umbria and Tuscany. The initiative, the result of nine years of awareness-raising activities, aims to create a unitary entity that brings together the economic world, businesses, business networks, civil society and institutions with a shared vision. In the district, companies can form networks, opt to become B Corporations, generate value starting from the exchange of collaboration opportunities. Example: sustainable supply chain in the construction sector that connects agricultural and construction companies, using agricultural waste such as biochar. A symbiotic supply chain has been activated between Agriculture and Construction, which includes 1 asphalt manufacturer, I cement company, I construction company, and several SMEs in the agricultural sector that produce ecological additives from food waste, used in the amalgamation of asphalt and cement to replace aggregates, and which have CO2 absorbing characteristics. The project is carried out in collaboration with the University.

IS sessions target a diverse group of stakeholders, including small businesses, artisans, larger structured companies, local government officials (including mayors from different regions), policymakers, civil society organisations, trade associations, and educational/research institutions. The foundation serves as a neutral platform where stakeholders from different administrative regions can collaborate outside traditional institutional constraints.. More in details, during the development of the Valtiberina project:

- Private sector: despite initial resistance, the private sector then understood the Foundation's approach and became a driving force for the implementation of the activities, and this then also attracted public institutions.
- Companies, especially those in the area. Young Entrepreneurs, bearers of a new vision of entrepreneurship linked to the common good, to continuous innovation.
- Municipal administrations: A generational change in local administrations, with a greater presence of figures from the business world, has been a further facilitating element. They find in the Foundation's meetings a "politically neutral" environment where they can put forward project proposals for sustainable development to be presented directly to civil society actors.

Civil society: the meetings are open to all. Individual projects call for specific targets from time to time. For example, the project that connects small local craft businesses with industries for the creation of an entrepreneurial network to relaunch historic villages. This type of initiative has, in addition to the value of the sustainable economy, a value for developing the territory so that it can innovate to concretely respond to the expectations of young people. The Foundation works to raise awareness of opportunities and promote a sense of local potential.

The IS session **frequency and format** vary by project, with regular meetings established for specific initiatives. All meeting sessions are published on the Foundation's website.

The foundation has recently purchased a television channel (Tevere TV), an important source for sharing information and launching projects in the area. They are very present on social media and the communication team is well articulated (videomakers, authors, journalists, etc.).

They manage the local "benefit corporation coordination table", which meets periodically to provide ongoing training and facilitate collaboration between participating companies. Many initiatives involve both in-person and virtual meetings, with a notable shift to digital platforms for wider regional projects.

Process details:

Recruitment methods: The foundation leverages its established network of 23 supporting companies, collaborations with 14 municipalities, and relationships with 38 support organisations and 20 cultural partners to recruit participants. Founder Massimo Mercati's influence (Aboca's CEO) provided initial credibility and attracted private sector engagement, which subsequently encouraged public sector participation.

Tools and facilitation methods: The foundation employs both in-person and virtual meetings, combining direct contact with digital platforms. For local initiatives in their immediate territory, face-to-face meetings are preferred due to geographic proximity ("everything is within 5 minutes"). For projects spanning wider areas (such as the artisan-industry collaboration project involving Florence and Perugia), they rely heavily on virtual platforms. Their media outlet, Tevere TV, transformed from a commercial television station into a community digital platform, serves as their primary communication and dissemination tool, reaching millions of users beyond their immediate territory. Special approaches: The foundation acts as a neutral facilitator, creating spaces where even municipal leaders can discuss visions and collaborate in ways impossible within their formal institutional settings. As one mayor noted, the foundation table allows discussions that "cannot even be talked about within individual city councils."

Partnerships and stakeholders:

The poster/type of an event is shown on the canvas of the "sustainability workshop" organized by the Foundation, from which the logo of the Valtiberina Foundation Project, the municipalities of Perugia and the Umbria Region (administrations), Assobenefit National Association for Benefit Corporations, Sistema B corporation, and #Unlock the change, a campaign of B corporations, can be seen.

The Valtiberina Foundation Project operates mainly on 5 priorities of intervention:

- Enterprise and civil economy
- Waste and circular economy
- Sustainable agriculture and supply chains
- Rethinking urban places and spaces
- Community welfare.

This organisation of activities by intervention priority makes it possible to manage the involvement of actors with care for specific projects. Meetings and invitations to participants always arise from a specific project (or project idea); therefore, the invitations are quite targeted (emails, personal meetings for invitations, etc). In this, the territorial proximity between the Foundation's headquarters, the mission of operating in the area, and the possibility of physically meeting people to invite them to participate in events plays a determining factor

Key stakeholders include:

- Municipalities from Umbria and Tuscany (14 total)
- 23 companies in the territory as supporters
- Aboca and the Mercati family as founding members and sustainability champions
- Universities and research institutions (e.g., Polytechnic of Turin for the agricultural waste/cement project)
- Fondazione Montesca (training partner)
- Local media, including Corriere newspaper and Tevere TV
- Trade associations representing artisans.

Impact of the IS networking sessions:

There are no predefined numbers of participant for the IS networking sessions curated by the Valtiberina Foundation. Communications and invitations ensure an average attendance ranging from a few people to 20 for training events, 40 or more participants for information and awareness events.

An example of IS networking, linked to the poster, includes these interventions and diversity of invited profiles:

- Andrea Romizi, mayor of the Municipality of Perugia
- Massimo Mercati, CEO of Aboca, Vice President of the Valtiberina Foundation Project
- Donatella Tesei, President of the Regional Administration of Umbria
- Pedro Terek, co-founder Sistema B
- Matt Sykes, Fondatore del Regeneration Project
- Mauro Del Barba, President of AssoBenefit
- Paolo Di Cesare, co-founder of Nativa
- The second session focused on dialogue between companies. Those who intervened are:
- Luca Margaritelli, Margaritelli SPA
- Zefferino Morini, Morini SPA
- Alessandra Barocci, Acciaieria Gruppo Arvedi SPA
- Alessandro Meozzi, PAC 2000 Cooperative
- Alessandro Luzzi, ecoVprint Consortium.



The networking sessions have yielded tangible results and impact:

- Establishment of the first interregional civil economy district involving municipalities from two regions
- Formation of "ecoVprint," a consortium of six previously unconnected companies that have created a joint business entity
- Development of a sustainable supply chain connecting construction companies with agricultural businesses to create eco-friendly cement additives using agricultural waste (Biochar)
- Higher-than-average adoption of benefit corporation status among local businesses
- Connection of small artisanal businesses with larger industrial companies through the "Botteghe Artigiane" project
- Transformation of Tevere TV from a local commercial television station with limited reach to a digital community platform with millions of users
- Creation of the Job-Hunting project connecting youth with local businesses through engaging media content
- Enabling cross-regional governance discussions outside traditional institutional constraints.

Timeline and milestones:

- Implementation of awareness-raising activities: identification of priorities for intervention in the area. Identification of stakeholders and targets to be involved. Elaboration of the communication campaign.
- Definition of the strategic actors selected from among entrepreneurs, public administration and local actors. One-to-one meetings: detection of the interests of individual stakeholders, mapping of possible interests related to the previously identified priority of intervention.
- Aggregation of interests: meetings in the area, with diversified actors and adhering to the vision of the project. Identification of opportunities for the aggregation of companies, supply chains.
- Definition of the supply chain: identification of business networks, development of supply chain contracts, development of participations by research centres and universities.



Method used to keep engagement:

Method: the Foundation provides a neutral space for local administrators from different regions to openly discuss visions and challenges they may not be able to address within their municipal councils, highlighting the Foundation's crucial role in fostering regional collaboration across administrative boundaries.

Communication is considered fundamental, with significant investments in this area. Tevere TV, a former commercial television station, has been transformed into a community platform under the leadership of the Foundation, significantly expanding its reach to millions of online users.

The Foundation maintains engagement through:

- Regular coordination meetings for specific project groups
- Tevere TV as a digital platform for sharing stories, disseminating results, and highlighting successful initiatives
- Training courses (such as the benefit corporation expertise programme)
- Production of engaging video content featuring local youth showcasing businesses (Job-Hunting project)
- Periodic meetings of the benefit corporation coordination table
- Cross-regional events and collaborative activities
- Active social media presence and website updates
- Collaboration with local media outlets, including Corriere newspaper
- Organizing themed events, such as the upcoming conference on "Franciscan economy" for the 800th anniversary of Saint Francis's death in 2026 (IS is strongly evocative of the Franciscan economy).

Replication potential:

In our opinion, the experience of the Valtiberina Foundation Project presents these crucial aspects:

- Multi-stakeholder neutral platform model: creating a forum outside institutional boundaries where public officials, businesses, and civil society can collaborate freely.
- Bottom-up approach with influential champions: starting with committed business leaders (like Aboca) who model sustainability practices and inspire others.
- Cross-administrative boundary focus: identifying areas where artificial borders (regional, municipal) hinder natural collaboration and creating mechanisms to transcend them.
- Digital community platform approach: converting traditional media (Tevere TV) into interactive platforms for community engagement and message amplification.
- Youth engagement through media production: Using young people as connectors and storytellers to bridge generational gaps and highlight local opportunities.
- Business network facilitation: creating coordination tables (like the benefit corporation group) that bring together companies from different sectors to explore collaboration opportunities.



Smart Street PCT, Industrial Zone Tezno, Maribor, Slovenia

Basic information:

Industrial zone Tezno is a business and industrial zone with more than 200 companies and just under 4.000 employees, engaged in industries ranging from metal processing to information technology, research, and development. The Business Production Zone Tezno strives to ensure that the zone and its entities operate in the spirit of social responsibility. By managing the zone, the institute is a sort of a platform within the zone, which brings together the stakeholders within the zone to participate in modern energy solutions that emphasize the green transition and Industrial Symbiosis. The pilot project Smart Street, led by the university, was the first such pilot project and the most important milestone, as it brought companies together and demonstrated the positive impact on the environment and reduction of costs following the implementation of the innovative technologies.

IS networking sessions overview:

The Institute Business Zone Tezno was established in order to manage the area of the industrial zone, connecting and fostering its development, supporting companies with implementation of innovations, ensuring the supply and management of energy and water, maintenance and optimization of infrastructure within the zone. Therefore, it is already our primary mission to look for possible collaboration and synergy among the companies stationed within the zone and networking among various industrial actors stationed in the zone.

Therefore, we already have individual and joint events for ensuring cooperation among industry and other representatives within the zone, who have jointly established a vocational education centre for developing their human resources.

Furthermore, we also publish the zone magazine Kontakt, where we present innovations, companies, initiatives and results of implemented projects. This is a tool which allows us also communication with actors outside the zone.

Through identification of challenges and potential for optimization of individual companies or of the zone as a whole, we already have an overview of the needs and barriers the industry is facing. Our formal role of the manager allows us direct communication with each of the company located within the zone, and as a facilitator and representative of the zone we also communicate with outside actors, such as other industrials zones (in the region, or even internationally), policy makers (on local and national level) and research organisations (mostly the University of Maribor).



As our companies range from micro to medium in size and from services to production in the field of operation, we are flexible in adapting to their needs, however, industrial symbiosis is usually aimed at medium sized companies employing between 50 and 499 people. Most such companies are dealing with metal processing and have similar needs for human resources, energy, materials, and waste management. So, we can connect them based on the issue or challenge that a proposed innovation or initiative proposes.

Process details:

By representing the business zone as a whole, we can take part in projects supporting industrial symbiosis, such as UM:CPMS, where the industrial zone has become a demonstration lab for smart waste collection and validation. This at the same time reduces the costs for companies as well as validated waste to be reused as a secondary raw material. Additionally, through smart lighting the smart street reduces energy consumption.

The end beneficiary of such projects are the companies stationed within the business zone, however, the companies themselves were not included directly in the project, as the institute, as a manager and representative of the entire zone, was the project partner together with other partners such as the University of Maribor. This was the individual companies, who are the end beneficiaries of the project activities, do not need to dedicate their resources in implementation of the project, but still receive the benefits.

The companies, who joined in the demonstration lab were all the companies, who started using the innovative waste collection and disposal solutions, which have become a regular feature improving the waste management of the entire business zone, even those, who initially were not interested in support the initiative. Once they realize the benefits, they stop doubting.

And we can present the initiative to them live on the site, or through individual meetings and presentations, but the most important dissemination and awareness raising tool are networking events, where first users share their experience. As these are basically peer-to-peer experience sharing sessions, they have a great multiplication effect, demonstrating to other companies in practical examples how to implement the innovation and what the practical benefits are.

Another such example was the establishment of the educational facilities at the zone, where companies offer practical learning experience for the enrolled students, thus grooming their potential workforce for the future.



Partnerships and stakeholders:

Our institute represents the entire business zone, presenting it as one entity, which represents 238 companies with over 3700 employed workforces in the zone. Therefore, it's the business zone that is the partner in projects, which introduces innovations and initiatives to foster industrial symbiosis. Depending on the innovation or initiative the institute communicates with the relevant companies in the zone to conduct the activities.

A successful example used as a case study is the implementation of the UM:CPMS project in collaboration with the University of Maribor and other local actors, where the industrial zone became a demonstration testing site.

Identified "smart street" in the zone is a pilot environment with intelligent solutions being set up. As the first in a series of solutions, the installation of a collection system that communicates using IoT technologies was implemented. The intelligent systems, which include waste level monitoring, enable logistical optimisation of waste collection. There were five sensors installed along the street, measuring temperature, humidity and air pressure and 15 smart lights that enables optimization using LED technology, automatic light control, basic environmental data capture (light, temperature, particulates, radar sensor, humidity, gases), fault detection, energy monitoring and automatic energy billing.

The partners of the pilot project of the Smart Street are:

- Business Production Zone Tezno Institute
- University of Maribor Faculty for Logistics
- University of Maribor Faculty for Electrical Engineering and Computer Sciences
- University of Maribor Faculty for Criminal Justice and Security
- Public utility company for Waste Management SNAGA.

Impact of the IS networking sessions:

All companies in the zone are welcome to join the Smart Solutions initiative to create a greater impact across the area. While the zone encompasses various industries, manufacturing and construction companies show the most interest, as they are constantly seeking process optimizations. The new project, DUEISVEzaCT, proposes expanding solar panel installations to meet the growing demand from companies eager to connect to the renewable energy network.



Timeline and milestones:

In early 2000, the Business Production Zone Tezno (Poslovna proizvodna cona – PPC) came to life. The PPC Tezno Institute was established, tasked with managing shared infrastructure, liaising with the city administration, and supplying energy to companies. Over a few years, the institute became a key driver of the zone's further development. During these years, Cona Tezno has seen the growth of the metalworking industry, large-scale production of parts for the automotive industry, toolmaking, and the manufacture of specific Around industries, subcontractors production systems. these complementary activities gradually gathered. The number of service activities also grew rapidly, including those with a high level of expertise and significant added value.

With the arrival of new companies, the external appearance of the zone also began to change. Alongside the old factory halls used by TAM, new model buildings emerged. However, there is still ample space for new challenges in Cona Tezno. Approximately 43 hectares of building land need to be equipped with transport and utility infrastructure to make the area more attractive to investors.

Today, Cona Tezno is a place where many companies operate successfully. The Business Production Zone Tezno lives with the zone and the companies in it. With its team, it manages and maintains the common infrastructure and facilities, supplies companies with all types of energy, and takes care of traffic and green spaces. It brings together and represents the interests of businesses before the city authorities and beyond. It always and everywhere strives to act in a socially responsible way: in transport in the zone, in the conservation of all types of resources, in waste management and in its relations with zone companies, employees, customers and other partners.

At its meeting on 26 March 2019, the Senate of the University of Maribor, on the initiative of three members, gave its consent to the establishment of the Centre for Smart Cities and Communities at the University of Maribor (UM:CPMS). The founding members are the Faculty of Logistics, the Faculty of Electrical Engineering, Computer Science and Informatics and the Faculty of Security Sciences. This was the implementation of the demo site where Industrial zone Tezno developed deploying technologies to optimise stakeholders' business models, as well as to improve the quality of life of citizens and the sustainable development of communities.



For example, for Snaga Maribor, as a stakeholder of the UM:CPMS platform, the system is calculated to optimise routes, which means up to 168 fewer journeys per year, up to 4,370 litres less fuel per year, up to 14 tonnes less CO₂ emissions per year, up to 7.5 times less empty containers per day. The containers will also have an aesthetic appearance that is user-friendly, there will be less noise pollution, and they will be monitored for fullness, temperature and PAYT.

Methods used to keep engagement:

Before implementation of each of the innovations we have presentations and consultations with key industrial players within the zone, who are recognised either as beneficiaries, investors, knowledge providers... for the specific innovation. Our institute does not implement innovations for our own sake, but for the benefit of the industry within the zone, so we coordinate every such innovation with them.

Through our formalized role within the zone we can ensure communication with each company in the zone, however, we don't want to use our position as leverage. Instead, we use our knowledge of the challenges companies face to present them with potential innovations. If they are sceptical, we are not forcing them into accepting innovations, however, most often they are willing to test the proposed solutions. Most of these solutions address issues of several companies and thus build synergies between them, and once the implementation is presented, even those less interested see the benefits for them and join the initiative.

Each successfully implement case strengthens the trust and cooperation between companies and highlights our role as the manager and facilitator of symbiosis. We use this for future references and also showcase the good practices, such as joint maintenance of infrastructure, joint provision and management of energy and water, waste validation for secondary use thought the Smart Street demonstration site of UM:CPMS project, etc.

Most commonly we are the ones who prepare the benefits we want to achieve for the zone through implementation of innovations or see the potential for collaboration between companies (based on the identified challenges they face). Through our individual communication with each of the company within the zone we have this overview. And then we present the benefits – again, either individually, or jointly, depending on the initiative, to the relevant companied within the zone.

During such sessions we make commitments and each of participants follows up on them. There are no special feedback tools, but we do keep minutes and adopt decisions to which participants agree, which map out the following steps.

We have direct contacts with companies, personal relationships with company representatives, mailing lists, and also a periodical magazine of the zone (both as an online and printed magazine): https://kontakt-conatezno.si/

Replication potential:

Our case is based on our formal role as the industrial zone manager, so it represents a top-down approach to industrial symbiosis initiation and management, as it is a part of our mission statement.

Also, as the zone manager, we have contacts and collaboration with each company within the zone, providing services for them.

This allows us to have a clear overview of individual challenges and needs that companies (both producers and service providers) face, as well as an overview of general needs common to all companies within the industrial zone. As par of our mission, we are responsible for networking among the companies in the zone and facilitating cooperation between them and representing the interests of the zone towards other business, academic or political actors. By doing this, we have the formal tools and platform which we can implement for fostering industrial symbiosis in individual cases, such as implementation of the UM:CPMS or other similar projects, which are beneficial for the zone as a whole, as well as for individual companies positioned in the zone.

Therefore, we can suggest that structures set up for management of coordination within the business zones are ideal initiators of Industrial Symbiosis, and can best foster industrial symbiosis in practice.



Basic information:

<u>Materially</u> is an Italian consultancy agency based in Milan that supports companies (materials manufacturers and materials users) in the development and dissemination of innovation and sustainability starting from materials.

For more than two decades Materially has been the reference point in Italy in the search for innovative and sustainable materials for the manufacturing industry and for every design-driven application. Materially starts from the idea that the material is the element around which a product must be built together with sustainable strategies involving design, R&D, production, marketing and CSR. Materially puts into place a series of networking activities to create connections and activate industrial symbiosis between companies.

The main project in this area is called "Innovation Days", which are networking sessions between material manufacturers and material users targeted at opening exchanges and industrial relationships.

IS networking sessions overview:

The Innovation Days are a series of networking events designed to provide updates on the latest advancements in materials and technologies, foster knowledge sharing, and create connections across the value chain—from material suppliers to product designers, developers and manufacturers.

Each event serves as a platform for material manufacturers and technology providers to showcase their solutions and expertise to a tailored audience of professionals in the industries of interest.

The events take place onsite, at Materially's premises, or online, as a webinar. Innovation Days include the participation of diverse material manufacturers, who explain their material innovations to an audience of selected people potentially interested in those solutions. An opening speech by Materially frames the topic of the day by introducing trends and solutions related to the featured industries. A light lunch completes the day, offering an informal networking context.

- The IDs objectives are disseminating knowledge about innovative solutions for the industry; fostering collaboration between industries; promoting synergies through personal meetings.
- Materially aims at having 6 ID sessions per year, around the most diverse topics, such as for instance: Packaging challenges (materials and processes to meet the challenges of the packaging sector); Leather alternatives (ongoing innovation and state-of-the-art commercial solutions); Advanced surfaces & finishings (advanced technological processes that allow functionality, aesthetics and sustainability); Sustainable interiors (solutions to promote the environmental sustainability of interior spaces and furnishings); Biobased comfort (natural materials for

padding, wadding and cushioning); Circular buildings (materials and processes for circularity in the construction sector). In 2024, 5 IDs were organized.

• The events are targeted at two main types of participants: material manufactures, selected as speakers and typically encompassing SMEs, large companies, start-ups; and materials users and/or specifiers, who typically are R&Ds from medium large companies, designers, architects.

Process details:

- 1. Preparation: Materially defines the topic and curates a panel of speaker companies that complement one another rather than compete. Materially also initiates an invitation campaign targeted at a carefully selected, highly relevant audience for the speakers.
- 2.Event: Onsite events take place at Materially's showroom, a captivating venue known to be attractive to professionals with an interest in material innovation. Online events are hosted on Zoom, a widely used and accessible digital platform.
- 3. Follow up: Materially provides a post-event follow-up, including the contact details of all professionals who registered, whether or not they attended. Pictures or the event will also be provided to be used by the Speakers for their communication. Presentations from the materials manufacturers are also shared with the audience.

Partnerships and stakeholders:

Materially promotes the event with direct invites to professionals in the industries of interest, in the following areas:

- R&D (engineers & technicians)
- Design (architects & designers)
- Procurement (supply & product managers)
- Marketing
- ESG

Impact of the IS networking sessions:

On average, each event is attended by 30-40 participants, and we organize around five events per year.

The events bring together both material producers and material users representing a wide variety of industrial sectors.

The speakers typically have expertise in either technical or marketing fields, providing knowledge relevant to both areas. On the other hand, the participants are professionals specialized in fields such as design, research and development (R&D), or procurement. Both speakers and participants contribute to discussions that are directly relevant to their roles and responsibilities.

Timeline and milestones:

Each year 4-5 events (Innovation Days) are organized as part of the programme. These sessions are scheduled throughout the year and focus on key themes related to industrial synergies.

The two most recent events took place on November 14th, 2024, and on December 12th, 2024. The session on November 14th focused on processing techniques and technologies that enable the creation of high-performance, three-dimensional materials and textured surfaces. The session on December 12th was dedicated to technologies, processes, and materials for the development of new sensory and sustainable surfaces.

These dates and themes reflect the continuous evolution of the sessions and their alignment with current trends in material innovation.

The organisation of each event follows a structured timeline that can be divided into three main development phases: Launch, Session, and Expansion. Launch: This initial phase involves promoting the event to the target audience and confirming participation through the registration process and payment of the participation fee. These steps are essential to generate interest and build a relevant network of attendees.

Session: During this phase, the event is carefully prepared. All practical and content-related details are finalized, and the agenda is structured to meet the interests and needs of the participants. The event is then held as planned, bringing together all stakeholders for an in-depth session on the selected topic.

Expansion: Following the event, a communication and follow-up phase takes place. This includes sharing key takeaways, helping participants stay connected, and encouraging potential future collaborations. This phase helps to extend the value of the event and supports the continued growth of the network over time.

Methods used to keep engagement:

• Regular publications (blogs, newsletters).

We share updates and content through social media both before and after each event. Additionally, we send newsletters to keep our network informed about upcoming sessions. Blogs and newsletters help us to maintain interest and involvement over time.

• Creation of online communities on LinkedIn or other platforms.

At the meantime we do not use dedicated online communities on platforms like LinkedIn. Engagement is maintained mainly through direct communication, social media updates, and newsletters.

• Organization of follow-up sessions or webinars.

To keep the community engaged after the event, we share the materials presented during the session. This includes slides, summaries, and any additional informative content provided by the speakers.

We make these materials available to a broader audience, which includes not only participants but also those who were interested in the event but couldn't attend.

This approach helps us extend the value of the session, allowing more people to benefit from the information shared, even after the event has concluded. By making the content accessible to a wider group, we promote continuous learning, sustain interest in future sessions, and support the creation of new connections and opportunities within the community.

Replication Potential:

• Session models or innovative formats that can be easily replicated.

The session format is designed to be easily replicated multiple times, with the goal of reaching as many interested users as possible. Each session follows a flexible structure that can be adapted to different audiences or industries, while maintaining the focus on materials innovation and industrial collaboration. This replicability allows organizers to scale the initiative and involve a broader network over time.

• Collaborative or organisational approaches showing strong adaptation potential.

The topic of each session can be revisited and repeated easily because it is related to industries and technologies that are constantly evolving. Continuous evolution allows the same subject to be explored multiple times with a new perspective or updated content.







Building Synergies: The Industrial Symbiosis Networking Handbook https://inset-symbiosis.eu/





INSET INDUSTRIAL SYMBIOSIS FOR ENTERPRISES AND TRAINING has been funded with support from the European Commission (2023-1-FR01-KA220-VET-000158456).

The views expressed in this handbook are those of the authors only, the Commission cannot be held responsible for any use which may be made of the information contained therein.