

10/31/2022

JOINT REPORT ON STAKEHOLDERS' MEETINGS

SYMBI

Industrial Symbiosis

for Regional Sustainable Growth and
a Resource Efficient Circular Economy

Additional activities approved under the 5th Interreg
Europe call

Activity A3.2

**Pannon Novum West-
1
Transdanubian Regional Innovation
Non Profit LTD**

Contents

1	Introduction	3
2	The SYMBI project	3
3	Aims and added value of regional stakeholders' meetings	6
4	General information from all regional meetings of stakeholders.....	8
5	Thematic content of individual stakeholders' meetings.....	11
6	Key conclusions of partners	18
7	Joint Summary.....	22
7.1	Common issues.....	22
7.2	Common policy recommendations	23
8	Appendix 1	24

1 Introduction

A coordinated response is necessary for promoting and implementing the circular economy agenda globally. Concrete commitments from governments, businesses, international organizations, civil society and other stakeholders will be key to building the sustainable, resilient and low-carbon economy that the world needs, and the COVID-19 pandemic has only underscored the urgency for action.

The pandemic has caused major disruptions in SYMBI partners' efforts to transition towards a circular economy model, since governments and industries are most concerned with responding to immediate emergencies. Considering that industrial waste, energy demand, and CO₂ emissions skyrocket after major crises, there is a pressing need to resume and further advance the circular transformation in the 7 participating SYMBI territories, in light of policy gaps uncovered by COVID-19 in line with Interreg Europe's 5th call.

The main objective of the Interreg Europe's 5th call was to encourage additional activities in order to help projects to deal with the crisis, offered the possibility to further exchange experiences on the way the crisis impacts the issue they addressed and on possible measures to face and recover from crisis, to further improve regional development policies to better face and recover from the unprecedented situation.

Accordingly, the activities of extension of SYMBI project focused on survey the impact of Covid-19 on territorial supply chains and on exchanging experiences and good practices through workshops. Furthermore, partners conducted stakeholder meetings to receive feedback and document proposals, diffusing also the new knowledge to territorial businesses through newsletter campaigns & info-days.

Pannon Novum elaborated a joint conclusion report that analyses and codifies the most common and widely endorsed stakeholder recommendations from each region to present the results of SYMBI partners' engagement with stakeholders.

Structurally, this report includes an overview of the SYMBI project and the context of activity 3b Stakeholder dialogues. Then, descriptive information from all stakeholders' regional meetings is presented. The thematic content of individual stakeholders' meetings, including the stakeholders' feedback, is analysed and their main findings are presented in Chapter 5-6. Finally, the last section contains a summary of the common points and the recommendations shared between the meetings' participants.

2 The SYMBI project

During the original duration (April 1st 2016 until March 31st 2021) of SYMBI project (Industrial Symbiosis for Regional Sustainable Growth and a Resource Efficient Circular Economy) 9 partners from 7 countries contributed to improve the implementation of regional development policies and programmes related to the promotion and dissemination of Industrial Symbiosis and Circular Economy in line with the European Commission's circular economy strategy.

Industrial symbiosis is the process by which wastes or by-products of an industry or industrial process become the raw materials for another. Application of this concept allows materials to be used in a more sustainable way and contributes to the creation of a circular economy.

SYMBI aim was to empower regions to build sustainable economies, resilient to environmental pressures and climate change. The project supported the implementation of policy instruments and measures for the diffusion of industrial symbiosis, to add value, reduce production costs and relieve environmental pressures through increased resource efficiency and greenhouse gas emissions. Furthermore, the SYMBI project had been designed to support the exchange of experiences and increase the capacities of partners and stakeholders involved, taking into consideration their profiles and regional interests. Accordingly, number of workshops and information days provided an opportunity for stakeholders to discuss the situation and opportunities related to the topic.

SYMBI improved 8 policy instruments, relevant to the abovementioned policy areas; 6 of the managing authorities participate in the consortium, to secure the impact of the project.

Further activities carried out in SYMBI:

- Incentivise regional waste transformation systems and cross-sectoral synergies
- Promote the use of secondary raw materials - Prioritise green procurement
- Unlock investments by regional and local financial actors
- Explore, assess, expand, and enhance current practices in eco-systems of industrial innovation
- Build consensus between regional stakeholders

Project extension (SYMBI 5th call)

Due to the Covid-19 impact the transition towards a circular economy model in the territory of SYMBI partners has been interrupted. Coordinated response is necessary for promoting and implementing the circular economy agenda globally. Concrete commitments from governments, businesses, international organizations, civil society, and other stakeholders will be key to building the sustainable, resilient, and low-carbon economy that the world needs, and the COVID-19 pandemic has only underscored the urgency for action.

Activities:

- Survey the impact of COVID-19 on territorial supply chains and the challenges faced in applying circular economy & IS approaches.
- Enhance their crisis management capacities and identify 14 good practices as solutions for the gaps documented, through three interrelated workshops on
 - i. digital solutions to promote increased adoption of IS in SYMBI territories,
 - ii. financial opportunities for IS deployment through CEAP & EU Green Deal, and
 - iii. how to foster the application of reporting & certification systems.
- Conduct stakeholder meetings to receive feedback and document proposals.

- Diffuse the new knowledge to territorial businesses through newsletter campaigns & info-days.
- Peer-review in a joint working group to integrate lessons learnt in territorial planning, expecting improvement in the governance of 5 policy instruments addressed (4 new; 1 current) and structural change in another 2 (new).

Partnership

Country	Partner
	Foundation FUNDECYT Scientific and Technological Park of Extremadura
	The Malopolska Region
	Chamber of Commerce of Molise
	Government Office for Development and European Cohesion Policy
	Municipality of Kozani, Development and Planning Bureau
	Pannon Novum West-Transdanubian Regional Innovation Non-profit Ltd.
	Regional Council of Häme
	Häme University of Applied Sciences Ltd

3 Aims and added value of regional stakeholders' meetings

SYMBI project extension's activity A3 prescribes the organisation of regional stakeholders meetings between partners and key stakeholders, focusing on how the partners in 7 SYMBI regions can improve and urge the circular transformation in the situation created by the pandemic. The specific aim of the activity is the collection of input from the stakeholders on the most pressing territorial needs, not only for recovery but for future resilience and to collect and review the good practices and change experiences.

In order to do so, partners surveyed the impact of covid-19 on territorial supply chain and identify good practices and solutions which will be discussed by stakeholders.

In general, to implement successfully all SYMBI activities, partners consulted with stakeholders during the stakeholder meetings regarding good practices the latter identified and followed during the pandemic. Discussions could revolve around how they tackled pandemic challenges and what they believe should be done, on a territorial level for become more resilient.

Partners conducted one online meeting in each semester for consulting with wide range of decision-makers and stakeholders on pressing territorial needs and complementing A1 result and informing ensuing workshop. During the meetings, partners had the opportunity to locate issues to be addressed at the action plans implementation phase (project phase 2), as well as to ensure the involvement of specific stakeholders' organisations in the preparation of the action plans.

At the beginning of the extended project, the partners identified/updated their key stakeholders, the range of which expanded steadily as the project progressed. Stakeholders involved from different areas like public authorities responsible for environmental protection, resource efficiency and sustainable development, businesses and SMEs, regional development and / or innovation agencies, regional chambers of commerce, universities, research centres and institutes related to circular economy, business support centres and cluster organisations for industrial synergies.

The conclusions of regional stakeholder's meetings complemented the conclusions of activities A1, to provide more comprehensive policy recommendations for the action plans and to establish stakeholders' consensus for their subsequent implementation. Compared to public consultation meetings, the regional stakeholder meetings not only foster wide cooperation but will also serve as a more detailed and in-depth procedure that is repeated every semester, in order to gather richer feedback from key 'players' in the region.

The regional stakeholders meetings are a compulsory activity of Interreg Europe projects, and one of SYMBI's crucial actions for delivering equitable, integrated and transparent regulation capable of supporting industrial symbiosis and circular economy projects and initiatives. In addition, since the essence of these meetings was to apply a participatory approach to regulation development, regional stakeholders meetings could offer policy makers the opportunity to achieve broad acceptance, cooperation and support for the implementation of their actions among key organisations. Consultations that took place during regional stakeholders meetings constituted an opportunity for stakeholders to either comment on the advantages and disadvantages of proposed industrial symbiosis policy measures, or to contribute to policy development.

More precisely, through regional stakeholders meetings, stakeholders: a) receive necessary information that leads to the development of a better understanding of various aspects of industrial symbiosis and circular economy, and b) provide their own perspectives and opinions on these issues. This means that through the meetings stakeholders, as well as policy makers, develop social learning. The development of industrial symbiosis and circular economy is a complex procedure and, as a result, regional administrations cannot develop policies in isolation for such issues. Hence, delivering social/stakeholder learning should be a key objective for projects that aim to achieve changes in the production and consumption processes through a collaborative procedure.

Whilst COVID-19 has impacted stakeholder engagement practices, with partners having to adapt their processes in a pandemic context, it has also spurred new partnerships and innovations in implementation, follow up and review.

Through stakeholders dialogues, project partners had the opportunity to gather valuable input from partners' territories and ensure the involvement of stakeholders and their organisations in the extended SYMBI activities.

4 General information from all regional meetings of stakeholders

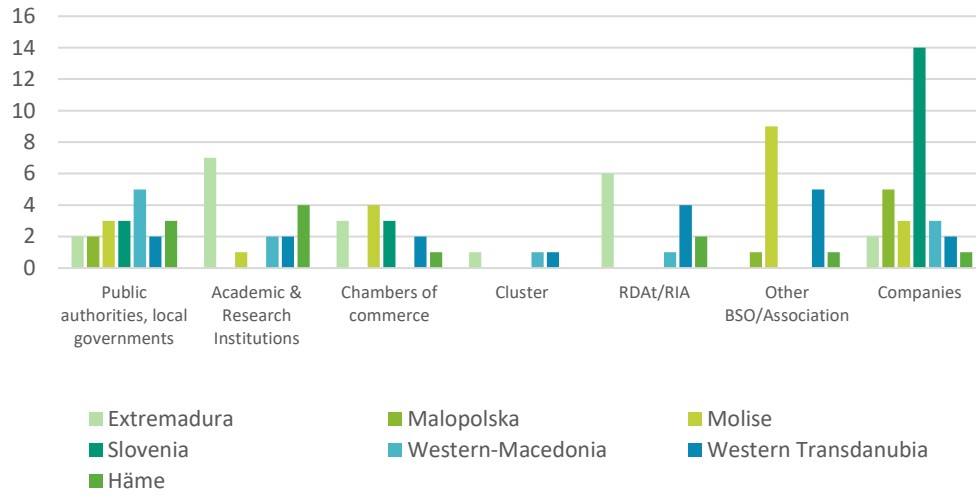
In the following table, the organisational details of the stakeholder group meetings are shown:

Date of meeting and partner details	Meeting	FUNDECYT	The Malopolska Region	CCI Molise	SVRK, RDA Ljubljana	Municipality of Kozani	Pannon Novum	Regional Council of Häme, Häme University of Applied Sciences
Date and type of the meeting	1 st	26 April 2022 online	series of bilateral meetings (16.02, 14.03, 15.03) online	12 May 2022 online	14 June 2022 on-site	3 June 2022 online	22 April 2022 online	4 May 2022 online
	2 nd	23 Sept 2022 online	30 May 2022 online	29 Sept 2022 on-site	14-15 Sept 2022 on-site	26 Sept 2022 hybrid	14 Sept 2022 online	12 Sept 2022 online
Partner responsible for organizing the meeting	Both	FUNDECYT - PCTEX	The Malopolska Region	CCI Molise	SVRK, RDA Ljubljana	Municipality of Kozani	Pannon Novum	Regional Council of Häme, Häme University of Applied Sciences Ltd
Partner members responsible for organizing the meeting	Both	Ángel Huertas Cobos, Maika Diaz	Dorota Leśniak	Francesca Cuna	Marjana Dermelj, Tina Pezdirc	Trikoilidou Eleni	Roland Dancsecs, Gabor Heves	Iida Holck, Arto Saarinen

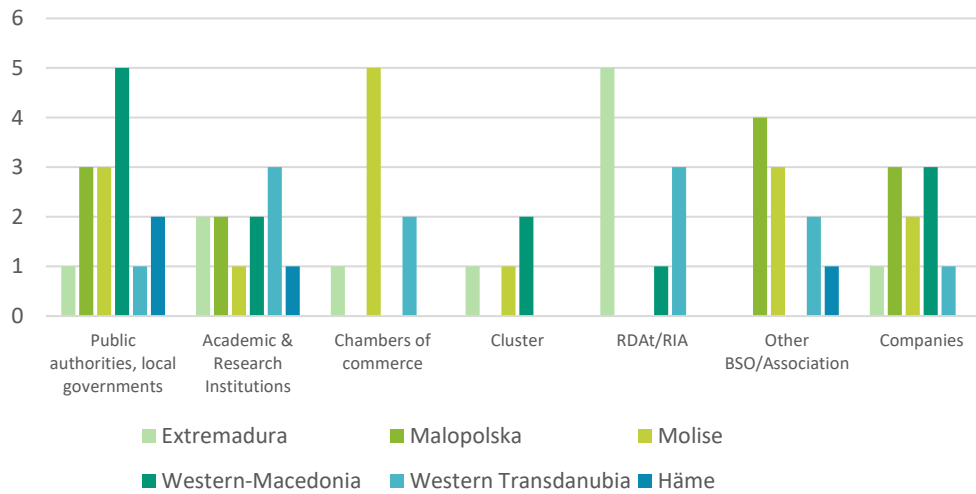
Date of meeting and partner details	Meeting	FUNDECYT	The Malopolska Region	CCI Molise	SVRK, RDA Ljubljana	Municipality of Kozani	Pannon Novum	Regional Council of Häme, Häme University of Applied Sciences
Registered attendees	1 st	Information not available	8	15	20	12	18	14
	2 nd	Information not available	12	18	17	15	15	4
Number of attendees participating in the meeting	1 st	21	8	15	20	12	18	12
	2 nd	11	12	15	17	13	12	4
Completed evaluation forms received	1 st	9	0 (oral evaluation)	13	0 (oral evaluation)	8	9	7
	2 nd	Information not available	0 (oral evaluation)	12	0 (oral evaluation)	13	7	0 (oral evaluation)

The number of participants ranged from 8 to 21 at each regional event. Majority of the partners gave preference to the online meeting. All types of representatives from the socio-economic, educational, scientific and public administration sectors attended the meetings across all seven partner regions. The most companies from Slovakia, the largest number of research institutes from Spain and public authorities from Greece were involved during stakeholder dialogues.

Number of attendees from each set of stakeholders in the 1st meeting



Number of attendees from each set of stakeholders in the 2nd meeting



5 Thematic content of individual stakeholders' meetings

This section highlights the main issues raised by participants in each meeting conducted, as documented in individual reports by partners.

Foundation FUNDECYT Scientific and Technological Park of Extremadura

First meeting

This round table discussed with all stakeholders and representatives of the socio-economic, educational, scientific and public administration sectors of Extremadura, how to strengthen the transition to the Circular Economy through digital tools that promote Industrial Symbiosis in the productive and business fabric of the region.

Among other topics, they talked about the problems that companies are currently facing, after Covid, related to transport logistics and inflation. Other issues that were raised were related to: the culture of rehabilitation in construction and materials in general, the current difficulty of matching in the service sector. Finally, several participants expressed the importance of the practice of industrial symbiosis thanks to the multitude of possibilities that by-products can have and how they can be given added value to find new uses.

Second meeting

This round table discussed with all the actors and representatives of the socio-economic, educational, scientific and public administration sectors of Extremadura, the application and adequacy of the results obtained throughout the extension of the Symbi project in the region. First of all, Patricia Bermejo, the foundation's activity manager, took the floor to explain the relationship between the region's innovation policies and the project and its influence on them. From the smart specialisation strategy, to the Regional Innovation Programme (PRI), to the Operational Programme of our territory. Opportunities that can be achieved through industrial symbiosis and the circular economy. Secondly, Maika Díaz, presented the results of the project in its first semester, focusing on the report "Joint study to assess the impact of COVID-19 on the practices of industrial symbiosis (IS) in the territories of the consortium, challenges and new opportunities". The last presentation, given by Ángel Huertas, focused on a selection of good practices selected by all project partners in the two previous workshops. Firstly, the one held to identify cases related to digital tools and secondly, the initiatives with private funding.

The Malopolska Region

First meeting

The purpose of these meeting was to collect an input and discuss information on COVID-19 disruptions in industrial production, manufacturing, and waste management in Małopolska region as well as to identify the examples in the area on circular economy/industrial symbioses in pandemic time. The another purpose was to identify good practices on digitalization in pandemic period related to the circular economy/industrial symbioses and find out more about the problems associated with functioning this kind of tools.

Business and ngo: with regard to the digital tools the problem with sustainability the platform/map and also building the trust among the users. Also there was also underlined about not sufficient promotion and encourage other to use these tools.

Business with regard to IS/industrial symbioses: the pandemic had the positive impact on the organisation and management of the companies and use more flexible forms of work, adopted to the profile of the company. The pandemic forced to search for shorter supply chains and improved local cooperation in this aspect.

Second meeting

The 2nd meeting with the SYMBI stakeholders took on the first day (conference) of the event "Circular economy - from theory to practice" on 30.05.2022 in Cracow.

The purpose of this event was educate, promote different circular economy solutions in the region as well as to exchange good practices and the development of tools supporting the transition to a circular economy, including taking measures for a more effective use of products, raw materials and waste by implementing industrial symbiosis.

Marshall Office of Małopolska Region, partner of this event, invited SYMBI stakeholders to present some experience and good practices. In the plenary part, some introduction speeches made by the experts from European Commission and then an interesting presentation was made by one of our stakeholder (the Mineral and Energy Economy Research Institute of the Polish Academy of Sciences) on circular economy and challenges faced by our region in this area. In the next part - pitch session there were two presentations of good practices on digitalization of IS/CE made (CYRKL platform and Polish Zero Waste Map).

During the whole event (conference and workshop) there were many opportunities in official and backstage talks to discuss different aspects of circular economy in Małopolska regions among the participants (administration, business, NGO'S).

The participants of this event, including SIMBI stakeholders, underlined the need for a further education in the area of CE using simple and understood by all interested partners language. Another important aspect, mentioned in discussions, is a need to undertake horizontal actions - across different sectors and actors, not limited only to one sector or institution/company. The event presented many interesting initiatives that are happening in different places and are worth promoting. Participants suggested that creating a portal, platform or map of CE

initiatives in the region could be a tool to collect some knowledge, good practices and other initiatives helping in transformation to circular economy model in Małopolska region.

Chamber of Commerce of Molise

First meeting

Regional authorities and associations agreed on the importance of promoting Industrial Symbiosis and Circular Economy among local companies, since they can be considered useful tools in planning the recovery and resilience of businesses.

Indeed, it has been shown that even in crisis this practice would guarantee a reduction in costs and certainty of supply of raw materials. Moreover, it was highlighted how the creation of a network between companies can lead to beneficial economic development for the entire regional territory.

The reuse of waste and by-products would not only represent a valid help in safeguarding our planet, but also an economic advantage.

According to them, it's important to support companies in applying good practices and to create legislative proposals and regulatory measures. Furthermore, it's important improving citizens' awareness too.

During the workshop have been presented the final reports regarding activities A2 and A4 to highlight how Industrial Symbiosis can be considered a useful tool in planning the recovery and resilience of businesses.

Furthermore, has been presented the draft of a Memorandum of Understanding on the Circular Economy between the regional actors and policy makers interested.

The Memorandum of Understanding's primary purpose is to foster synergies that can support, promote, strengthen the principles of the Circular Economy in order to facilitate the definition of policies aimed at achieving the objectives established at European, National and Regional level in the field of Circular Economy and sustainable development. Furthermore, it aims to promote a dialogue between the business world and local administrations and bodies.

The attendees expressed their enthusiasm for the Memorandum of Understanding presented, as well as reiterating their willingness to contribute to a greater diffusion of good practices among businesses.

Second meeting

Symbi's second Stakeholder Meeting was held on 29 September 2022 alongside the Workshop on "Industrial Symbiosis Reporting and Certification Systems", in the Sala Raucchi of Palazzo

San Francesco, at 4:00 p.m. At the end of the workshop, in fact, the stakeholders, around 4:00 pm, met together with the Symbi team and representatives of the Molise Chamber of Commerce to share the results of the activities carried out during the course of the V Call of the project and provide feedback and proposals for the territory. In particular, the workshop provided various points of discussion and comparison on the issues of reporting and certification, since, according to the Stakeholders present, having codified behaviours can be a guarantee of success in the practice of Industrial Symbiosis and this can stimulate more and more companies to apply it as well as promote the good practices of Industrial Symbiosis applied by Molise companies. In this regard, the research work done with the A2 survey to identify good practices such as the CDL Centrale del Latte- Sirio Srl Network, the RES Network was considered very important. Furthermore, it was considered very important, especially following the various health and climatic events that have characterized the last two years of the planet, to consider the circular economy an automatic process of daily life and industrial symbiosis a useful tool for recovery and planning. of resilience. Participants included companies and representatives of associations, companies, experts.

At the end of the meeting some general considerations were made on the results achieved in 7 years of work of the SYMBI project. In particular, the important awareness-raising role played by the Molise Chamber of Commerce on the issues of Circular Economy and Industrial Symbiosis was highlighted. The involvement of the main territorial actors, with particular reference to the regional authority, made it possible to turn the lights on the gaps in our territory on the issues in question by involving the political and the associative-entrepreneurial part. Results: the creation of a Memorandum of Understanding on the circular economy signed by the most important territorial actors including the Region, University of Molise, Arpa, Legambiente, Provincia di Isernia and Campobasso and the main trade associations together, of course, at the Chamber of Commerce of Molise

Government Office for Development and European Cohesion Policy

First meeting

The objective of the meeting was to present the results of the Symbi project activities in the extended period of its implementation. The presentation was organized in the framework of the event where the members of Competence centre for Circular Economy shared their experiences.

The discussion among stakeholders was quite lively. It mainly focused on the competences required for the transition to circularity and application of the industrial symbiosis principles. Also the stakeholders debated about the importance of the commitment of the senior management to circularity. Additionally, the emphasis should be that the circularity principles should not be considered as an extra thing but rather need to be integrated in the everyday activities.

Various tools, including the digital ones could be helpful in advancing the circularity principles in companies. Also the debate was going on about how the digital tools could be used (and streamlined) to improve the mapping of the existing resource/waste flows.

Second meeting

As indicated the info day of Symbi event was organized back to back with the TBMCE 2022 conference that was organized 5th time in the row and has international participation.

During the conference we were actively presenting the content of the Symbi poster, prepared specially for the event. The main interest from the participants was devoted to the study on the Digital tools. One of the visitors of the poster from Steklarna Hrastnik communicated with us that they developed their platform that aims exactly to provide an exchange system for connecting providers and consumers of secondary raw materials.

It was agreed that we will follow up on this to see how the RSM platform could potentially be upscaled or could be linked to the existing systems.

Municipality of Kozani

First meeting

The stakeholders discussed the results of the Joint Study and the comments are summarized to the following:

- Situation in the Municipality of Kozani, and generally to the Kozani Region was different regarding Circular Economy and Industrial Symbiosis opportunities during the pandemic.
- This period has been favorable to circular economy and IS regarding policy making and funding due to de-lignitization.
- Covid-19 had a medium impact on the Industrial Symbiosis in the Municipality of Kozani, facing occasional difficulties same reported by SYMBI partners in most cases.
- From the good practices reported those found more interesting from the stakeholders were:
 - Circularity Assessment Scoring 2.0 (CAS2.0). The tool was found very interesting not only for the evaluation of the green transition of a company but also for setting priorities and recognizing the interventions that should be made
 - Digital softwares for match-making (SYNERGie® software, SYNER platform, Cyrkl.com, etc) were found really helpful and interesting but there were concerns regarding how easy will be for companies to use it without help and of course the cost of having and maintaining such a software was their second concern.

- Regarding the next activities to be held, the stakeholders were interested in participating in the workshop (most of them by web) and to the next stakeholder meeting.

Second meeting

Initially the input paper of the workshop “Green Deal and Circular Economy Action Plan related funding mechanisms for promoting industrial symbiosis and circular economy” was briefly presented to the stakeholders so as to understand the scope of the workshop and the criteria according to which the practices will be evaluated. Afterwards, the good practices were presented in brief and the final practices identified as best were presented with more detail.

From the good practices reported those found more interesting from the stakeholders were:

- P2P- Packaging to polymers.
- Expand Fibre

All stakeholders agreed that these two practices are interesting examples of innovative industrial activities that can add value to by-products and at the same time create new jobs and new opportunities for additional activities. Both practices have high initial investment cost and funding mechanisms should be available in order to start such activities. The stakeholders were concerned on what actions should be made so as to attract such investments in our area, regarding basic infrastructure. Also considerations regarding the measures for the protection of environment that should be taken were expressed.

The input paper of the workshop regarding “IS Reporting and Certification Systems” was presented to the stakeholders. The stakeholders had many questions regarding the availability of standards for reporting and certification and if there are audit organizations certified for these activities. The stakeholders were informed that in Greece there are neither standards nor guidelines for this issue and no audit organization for this kind of certification.

The stakeholders were informed that all these issues will be discussed during the workshop in Isernia, at which they will be able to participate on-line. In anyway, if they will not be able to participate to the meeting, we will inform them and share with them all the aspects addressed during the meeting.

A summing up of all the deliverables of the project was presented and the impact of the project was estimated. Most of the stakeholders agreed that it was a helpful project, which made circular economy and industrial symbiosis known to the local policy makers, public and industries and helped, additionally with other regional projects, to make the first steps towards the transition to circular economy.

Finally, all stakeholders agreed on continuing the co-operation and combined efforts on moving forward to circular economy and industrial symbiosis transition.

Pannon Novum Nonprofit Ltd.

First meeting

The purpose of the event was to present and discuss the new activities and results so far of INNOGROW – rural economy, SYMBI – industrial symbiosis and SKILLS+ - digitiation of rural SMEs projects funded by Interreg Europe 5th call, and to explore opportunities for cooperation.

This round table discussed with all stakeholders and representatives of the socio-economic, educational, scientific and public administration sectors of Extremadura, how to strengthen the transition to the Circular Economy through digital tools that promote Industrial Symbiosis in the productive and business fabric of the region.

Moderator of the joint stakeholder meeting was Roland Dancsecs, one of the colleagues of Pannon Novum. After greetings, objective and agenda of the meeting was introduced. Second presentation by Mr. Gabor Heves was about SYMBI extended project. Planned new additional interregional activities (3 workshops) aiming capacity buildings and the main results and findings of joint study were presented and discussed in the active involvement of the participants. Some of the detected good practices so far were part of the presentation.

Regional authorities and associations agreed on the importance of promoting Industrial Symbiosis and Circular Economy among local companies, since they can be considered useful tools in planning the recovery and resilience of businesses.

The participants offered their help in finding private and public good practices for the A5 and A6 activities. Some national and international events on CE and IS were promoted.

Second meeting

Roland Dancsecs provided an overview on the project progress. Main findings and conclusions of the workshop dealing with funding mechanisms for promoting industrial symbiosis and circular economy were summarized for the national and regional stakeholders.

Agenda of the final workshop was presented and all participants were invited to join the event online form. Logistical issues were discussed with Noémi Döbrössy from the Ministry of Innovation and Technology who will travel and attend the meeting with Gabor Heves in Molise.

Hungarian good practices were identified by the participants:

- Awareness and Reuse Centres (ARCs) - FKF (there are two such centres in Budapest, which aim to provide modern selective collection of waste, ensure the reuse of used products, and provide awareness-raising lectures, sessions and interactive lessons).

- Circular Economy Technology Platform (a platform of several national organisations whose main objective is to share knowledge and train experts on the circular economy). – was presented for the project partners earlier.

After the stakeholder meeting, info day took place where colleagues of Pannon Novum transferred the knowledge and inspirations gained from the extended SYMBI project to the stakeholders and target audience. Gabor Heves introduced the most interesting best practices selected by the partnership as main outcomes of the project. Most questions received related to the Italian industrial symbiosis Unilever + Seri Plast.

Regional Council of Häme & Häme University of Applied Sciences Ltd

First meeting

The key findings and results of activities A2 and A4 were presented. The plans and methodology for the A5 activity were presented. Häme Regional Organization of the Federation of Finnish Enterprises offered their help in finding the private good practices for the A5 activity. Some national and international events on CE and IS were promoted.

Second meeting

The key findings and results of the A5 activity were presented and discussed. Utilization of good practice databases were discussed. New project ideas were also discussed, especially the one GP from Slovenia related to the utilization of waste heat. The meeting was successful. The participants were informed about the results of the SYMBI extension activities so far. Some very useful discussions related to the regional development projects and good practices were held during the meeting.

6 Key conclusions of partners

This section summarises the key conclusions and recommendations for policy improvement targeting promotion of industrial symbioses and circular economy. Multiple participants showed their interest in the issues discussed in the meetings and a number of useful insights were produced. The main conclusions from the speakers and the participants per partner were:

Foundation FUNDECYT Scientific and Technological Park of Extremadura

Some of the mitigation techniques being used are:

- Workflow adaptation

- New markets
- Reducing cuts and exploring new resources
- New trade channels and exchange of materials/products.

The 2nd stakeholder meetings' session had the space for the participation of stakeholders, who proposed and presented their point of view, reaching the following conclusions:

- Generate new profiles with specific training related to industrial symbiosis and circular economy
- Increasing infrastructures for waste management
- To incentivise the identified good practices with public policies.

The Malopolska Region

There a big need to educate and promote the advantages of CE/IS, to disseminate among entrepreneurs and the local community examples of good practices. And also it is very important to initiate the cooperation between business and the science, to introduce activities supporting the development of circular economy, e.g. competitions rewarding companies, certification of circular economy products and companies.

Some conclusions from this event, especially results of the workshop will provide some recommendations, ideas for regional authorities in designing of strategic documents related to circular economy in the region.

The event proved the importance of the circular economy, willingness many partners to involve in common initiatives and openness to join the projects that create an positive ... for future although many barriers and problems face every day.

Chamber of Commerce of Molise

Policy recommendations based on 4 elements: knowledge, economic financing, regional regulatory provisions, enhancement of by-products and creation of by-product chains.

The attendees discussed about the need to create regional laws that promote the adoption of the Circular Economy, together with the creation of funds and incentives that support and reward companies that already apply good practices.

The reuse of waste and by-products would not only represent a valid help in safeguarding our planet, but also an economic advantage.

The importance of communication and coordination between companies and authorities was also underlined, in order to reduce the distances that lead to delays in the approval of legislative acts and in economic activity.

Finally, the fundamental role of communication and awareness raising activities was highlighted. Information campaigns on the importance of recycling and the dangers of exploiting the Earth's resources would provide citizens with a more aware education on environmental matters, especially for the youngest who represent the future of the Planet.

After the 2nd stakeholder meeting the policy recommendations based on 1 element: to implement the agreements established in the aforementioned Memorandum of Understanding with which the signing parties intend to foster synergies that can support, promote, strengthen the principles of the circular economy in order to facilitate the definition of policies aimed at achieving the objectives established at European, national and regional in the field of E.C. and sustainable development and encourage a dialogue between the business world and local administrations and bodies. In particular, the parties envisage: promoting coordinated awareness-raising actions (with particular attention to industrial symbiosis), also in order to develop operational proposals, legislative proposals and guidelines; implement information, training, orientation and possibly economic support initiatives; collect best-practices in the field of circular economy, also through the activation of a technical coordination and discussion table between the parties which encourages, among other things, the adoption of a regional law on the circular economy with the aim of directing towards sustainable waste management (in accordance with the Regional Waste Plan) and the identification and enhancement of by-products.

Government Office for Development and European Cohesion Policy

The main conclusion was that the competences for the circular economy are horizontal ones and need to be build up in all various vertical areas. It is therefore recommended that in the next funding period the circular competences should be supported in various domains as prerequisite for advancing circular economy. Also it could be beneficial that some of the existing digital tools could be used in advancing the actual implementation of the industrial symbiosis as an important element of circularity transition. For this to be successful some of the legal barriers need to be removed.

The key conclusion was that there are quite a lot of ongoing activities in the area of circular economy and that these initiatives need also to be streamlined. Also, the stakeholders in debate that was part of the conference also highlighted some of the barriers that prevent faster uptake of the industrial symbiosis principles in practice. These issues will need to be also addressed in a systemic manner.

Municipality of Kozani

Defined key conclusions during the stakeholder meetings of Western-Macedonia:

- Policy makers seeking to booster the resilience of the regional economies to external events should explore ways to promote the adoption of industrial symbiosis practices
- Regional authorities could facilitate a collaboration between businesses, research/education institution and potentially public organizations
- The co-operation among stakeholders should continue so as to make the necessary steps towards circular economy,
- Efforts should be made in order to attract investments on circular economy and industrial symbiosis, like those mentioned in the stakeholder meeting,
- The existing financial tools should be used so as to prepare the region in order to become an attractive area for circular economy investements.

Pannon Novum Nonprofit Ltd.

The idea of a short video summarizing the main results: best pracrices and policy recommendations.

The importance of communication and coordination between companies and authorities was highlighted, in order to reduce the distances that lead to delays in the approval of legislative acts and in economic activity.

No additional policy recommendation was identified, agreement on the policy recommendations identified in the joint study, mostly:

- Ensuring operational security by adapting workflow,
- Finding new markets to mitigate the losses,
- Reducing costs and exploring new resources.

Thanks to the online meeting (time saving without travelling) we could reach a relatively high number of attendees.

The last workshop in Molise would represent a high added value for the Ministry of Innovation and Technology (Managing Authority of addressed policy instrument in Hungary) if they could gain some new inspirations and inputs to the project development of implementing a circular economy and addressing the challenges of waste management.

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The key question is how to modify the good practices into business within circular economy
How to spread and disseminate the information regarding the good practices found in SYMBI project (and in other regional development projects in general) to the regional actors, especially to the enterprises?

Business development organizations could help by offering the threshold for the project managers and enterprises.

Local examples from companies are the most effective way to reach the other companies and SMES. Utilization of waste heat is promising new project idea to be adopted in Häme region.

7 Joint Summary

This section summarises, firstly, the common issues that stakeholders raised during the meetings. Then a synthesis of recommendations as the main outcomes of the meetings is presented.

7.1 Common issues

The main common issues identified during the individual regionally held stakeholders' meetings were the following:

- The pandemic had the positive impact on the organisation and management of the companies and use more flexible forms of work, adopted to the profile of the company. The pandemic forced to search for shorter supply chains and improved local cooperation in this aspect.
- Regional authorities and associations agreed on the importance of promoting Industrial Symbiosis and Circular Economy among local companies, since they can be considered useful tools in planning the recovery and resilience of businesses.
- Stakeholders meetings provided opportunity to identify (domestic) promising practices, get some inspirations through foreign best practices, exchange of experiences, develop new project ideas and initiatives
- Focused on the competences required for the transition to circularity and application of the industrial symbiosis principles.
- Creating a portal, platform or map of CE initiatives in the region could be a tool to collect some knowledge, good practices and other initiatives helping in transformation to circular economy model indifferent regions.
- Digital tools could be used (and streamlined) to improve the mapping of the existing resource/waste flows

- Underlined the need for a further education in the area of CE using simple and understood by all interested partners language.
- A need to undertake horizontal actions - across different sectors and actors, not limited only to one sector or institution/company. Creation of a network between companies can lead to beneficial economic development for the entire regional territory.
- The stakeholders had many questions regarding the availability of standards for reporting and certification and if there are audit organizations certified for these activities.

7.2 Common policy recommendations

Lastly, the recommendations that seemed to be in common among the discussions in the different stakeholders' regional meetings were:

- Maintain dialogue between stakeholders and experts at interregional/national/regional levels to make the necessary steps towards circular economy
- Regional authorities could facilitate a collaboration between businesses, research/education institution and potentially public organizations
- The importance of communication and coordination between companies and authorities in order to reduce the distances that lead to delays in the approval of legislative acts and in economic activity
- Dissemination of the selected best practices and facilitate their introduction into practice
- Efforts should be made in order to attract investments on circular economy and industrial symbiosis
- Generate new profiles with specific training related to industrial symbiosis and circular economy
- The existing financial tools should be used to make the region an attractive area for circular economy investments
- Create regional laws that promote the adoption of the Circular Economy, together with the creation of funds and incentives that support and reward companies that already apply good practices
- Fundamental role of communication and awareness raising activities especially for the youngest (citizen) but also for industrial actors showing local examples of other companies

8 Appendix 1

Some proof of meetings, photos and participants

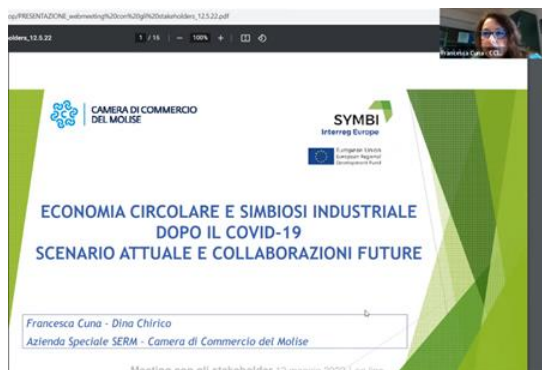
Foundation FUNDECYT Scientific and Technological Park of Extremadura



The Malopolska Region



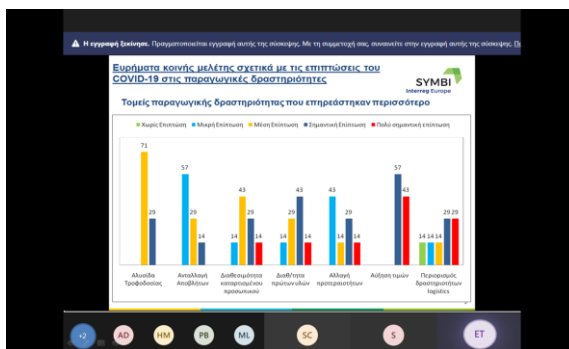
Chamber of Commerce of Molise



Government Office for Development and European Cohesion Policy



Municipality of Kozani



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The screenshot shows a Zoom meeting interface. On the left, a presentation slide titled "Tanulmány a járvány hatásáról és ipari szimbiózis lehetőségekről" (Study on the impact of the pandemic and opportunities for industrial symbiosis) is displayed. The slide lists key points:

- Módszertan a SYMBI partnereknek a 2-es tevékenység végrehajtásához
- A téma áttekintése: értékláncok, közbeszerzés, környezet, hulladékok, jó gyakorlatok.
- Adatgyűjtés: kérdőív és folyamat lementése, kiértékelési kritériumok
- Összegyűjtött jó gyakorlatok részletes kiértékelése

 The slide also features a graphic of a circular flow diagram and a quote: "ACTIVITY 2: 'COVID-19 IMPACT, CHALLENGES AND NEW INDUSTRIAL SYMBIOSIS OPPORTUNITIES' JOINT STUDY".

On the right, a market data dashboard from "RYKL" is shown, titled "Europe's largest platform for industrial waste management and green sourcing". It displays the following statistics:

- 16 458 companies registered on the platform
- 4 208 offers in the last 6 months
- 203 350 tons of CO₂ saved in the last 12 months

 Below these statistics, there are three performance indicators:

- Iron and steel: 228.95 eur / -12.83%
- Paper: 10.00 eur / +0.00%
- Ceramics: 207.33 eur / +2.56%

 The dashboard also shows a "LIFE for" section with values: 397.00 eur / +2.20% and 782.74 eur / -5.67%.

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Kokousken yhteenveto				
Osallistujien kokonaismäärä		12		
Kokouksen otsikko	SYMBI Häme Stakeholder Group			
Kokouksen alkamisaika	4.5.2022 klo 9.57.30			
Kokouksen päättymisaika	4.5.2022 klo 11.43.47			
Kokouksen tunnus	a14f48af-ee92-496c-803b-c289c76bd6bb			
Koko nimi	Liittymisaika	Poistumisaika	Kesto	Sähköpostiosoite
Saarinen Arto	4.5.2022 klo 9.57.30	4.5.2022 klo 11.43.44	1 h 46 min	arto.saarinen@hame.fi
Jussi Eerikäinen	4.5.2022 klo 9.57.35	4.5.2022 klo 11.31.25	1 h 33 min	jussi.eerikainen@hamechamber.fi
Mälly Marko	4.5.2022 klo 9.58.41	4.5.2022 klo 11.43.44	1 h 45 min	marko.mally@hame.fi
Ilkka Hippinen	4.5.2022 klo 9.59.14	4.5.2022 klo 11.43.45	1 h 44 min	ilkka.hippinen@motiva.fi
Iida Holck	4.5.2022 klo 9.59.29	4.5.2022 klo 11.43.46	1 h 44 min	iida.holck@hamk.fi
Saarinen Hannu-Heikki	4.5.2022 klo 10.00.29	4.5.2022 klo 11.43.43	1 h 43 min	Hannu-Heikki.Saarinen@fyk.fi
Juha Haukka	4.5.2022 klo 10.00.36	4.5.2022 klo 11.43.45	1 h 43 min	juha.haukka@yrittajat.fi
Jukka Pulkkinen	4.5.2022 klo 10.01.52	4.5.2022 klo 11.43.43	1 h 41 min	jukka.pulkkinen@hamk.fi
Harri Mattila	4.5.2022 klo 10.02.29	4.5.2022 klo 11.43.41	1 h 41 min	harri.mattila@hamk.fi
Tapiola Titta (LUKE)	4.5.2022 klo 10.04.14	4.5.2022 klo 11.43.42	1 h 39 min	titta.tapiola@luke.fi
Sartamo Kari (ELY)	4.5.2022 klo 10.04.33	4.5.2022 klo 11.05.32	1 h	kari.sartamo@ely-keskus.fi
Mika Laine	4.5.2022 klo 10.27.59	4.5.2022 klo 11.43.47	1 h 15 min	Mika.Laine@envor.fi

Summary report of the SYMBI regional stakeholders meeting held in Häme region	
Partner details	
Partner-Organiser of the meeting:	Regional Council of Häme & Häme University of Applied Sciences HAMK
Date of the event	12/8/2022 klo 12:30 - 13:15
Location of the event	Teams meeting (online)
Meeting details	
Number of registered attendees (total): 4	
Number of attendees from each set of stakeholders:	
- Public authorities and local governments: 2	
- Academic & Research Institutions: 1	
- Chambers of commerce	
- Cluster organizations	
- Regional development/Innovation agencies	
- Other business support organizations/Association: 1	
- Companies	
- Others (please specify):	