

Input study on policies that can create attractive  
market conditions for private sector investments



**PANNON NOVUM**

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## 1 Introduction

The “Industrial Symbiosis for Regional Sustainable Growth and a Resource Efficient Circular Economy – SYMBI” project aims to improve the provisions and support 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.

This document is the first deliverable of SYMBI Activity A3.1, which foresees the organisation of two Interregional workshops on how to plan and unlock public and private investments in circular economy and industrial symbiosis.

The main purpose of this report is to serve as the primary source of knowledge for the interregional learning and capacity building processes of the first thematic workshop on how to create attractive market conditions for private sector investments.

The input study will introduce the most relevant issues to be discussed & addressed by regional authorities; provide directions for the workshop topics & focal points; and present workshop delegates with the most relevant needs & challenges to be addressed through policies. The study will also specify the organisational details of the workshop to be hosted by PANOV NOVUM and provide guidelines on how to draft the workshop summary report in order to make the integration of its findings to the SYMBI action plans.

The report is structured as follows: section 2 outlines the key activities of the SYMBI project; section 3 demonstrates the added value and strategic orientation of interregional workshops; and section 4 defines the scope and objectives of the workshop, providing basic details on organisational issues such as date, duration, participants, format, evaluation and agenda. Section 5 presents desk research conducted on the topic of selected regional, national and EU wide effective policies. Section 6 provides recommendations in the form of topics to be presented and discussed in the workshop. Finally, section 7 elaborates on how to build upon the conclusions of the workshop.

## 2 The SYMBI project

The “Industrial Symbiosis for Regional Sustainable Growth and a Resource Efficient Circular Economy – SYMBI” project aims to improve the provisions and support 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. The overall improvement is anticipated to positively contribute in regional sustainable development and job creation.

Circular economy is an emerging model that keeps resources in the economy as long as possible. Resources can be reused, creating further value while relieving environmental pressures. Resource efficiency, as outlined in the circular economy model, is primarily based on: a) the "cradle to cradle" principle, focusing on eco-design and regenerative modes of consumption, and b) industrial symbiosis, which involves territorial synergies to manage waste and share services, utilities, and by-product resources. The territorial aspect of industrial symbiosis brings regions to the forefront of the transition towards circular economy.

Industrial symbiosis requires policy reforms measures at different levels. EU regions show very different levels of performance on each area relevant to industrial symbiosis, and advance at a different pace towards green growth models. There is thus a need to share and exchange practices, experiences, and knowledge within this fragmented context to: a) lift barriers by following successful examples, b) foster balanced territorial development and reduce disparities, and c) reverse the backwardness of least-favoured regions.

### 2.1 SYMBI activities

The SYMBI project brings together 9 partners from 7 countries to diffuse industrial symbiosis and align regional policies with the circular economy package of the European Commission (EC). To support the transition towards a resource efficient economy, the project includes a wide range of activities, focusing on promoting the interregional learning process and the exchange of experience among regional authorities. Project activities include:

- Evaluation and analysis of existing regional and national policies on industrial symbiosis and circular economy.
- Mapping the investment potential of participating regions in industrial symbiosis.
- Identification of good practices and benchmarking of eco-systems of by-product and energy exchanges.
- Prescribing green public procurement as an enabler of industrial symbiosis.
- Promoting public dialogue and consultation process to build consensus and ensure the successful implementation of regional action plans, through the support and participation of key regional stakeholders.
- Fostering interregional learning and capacity building through workshops, study visits, and policy learning events.
- Joint development of action plans to promote the improvement of the policy instruments addressed by the project.
- Increasing awareness, promoting and disseminating the project results and knowledge beyond the partnership.

## 2.2 SYMBI expected results

SYMBI will improve 8 policy instruments, relevant to the abovementioned policy areas; 6 of the managing authorities participate in the consortium, so as to secure the impact of the project. SYMBI activities will:

- 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 ecosystems of industrial innovation
- Build consensus between regional stakeholders

## 2.3 Outline of Activity A3.1

The SYMBI Activity A3.1 includes the organisation of two interregional thematic workshops for regional authorities' officials on how to unlock public and private investments in circular economy and industrial symbiosis. All partners will participate, with members of their stakeholder groups and external experts to discuss regional strategies for circular economy, fostering interregional learning and capacity building.

Through the dialogue, the most relevant needs and challenges hindering the adoption of circular economy business models will be analysed and the potential financial, funding and legal incentives will be identified. Furthermore, participants will have the opportunity to co-shape a common approach for creating attractive market conditions to stimulate investments in circular economy and industrial symbiosis; while the key conclusions drawn from workshop activities will be taken into consideration in the policy measures to be designed in each region.

The mission of interregional thematic workshops (under activity A3.1) is to facilitate the exchange of ideas and experiences, and acquisition of operational and technical knowledge on how to steer policy implementation on attracting investments in industrial symbiosis. The following diagram presents the structure of workshops.



### 3 Rationale and strategic orientation of SYMBI workshops

Exchange of experience through workshops is an interregional learning process, which is considered the main catalyst for generating the expected policy change in the participating regions. The production of new knowledge at the regional level relies on multi-actor innovation networks/communities, in which key stakeholders and policy makers come together to find solutions and answers to various social, economic and environmental problems, associated with policy development.

The European Commission has highlighted the importance of knowledge sharing on policy making, indicating that knowledge and expertise sharing should be an indispensable component of the efforts of regional authorities to build capacity and drive sustainable policy development. The rationale is that the co-production of knowledge and mutual understanding constitutes a co-created and sustained process; where various partners bring different knowledge, information and ideas to the table, and the consultation process ends up yielding added value for all parties involved; preventing inter alias the duplication of efforts and waste of resources.

During interregional workshops, partners share the opportunity to gain insight and understanding of the political priorities and initiatives in the field, identify challenges and needs to be addressed at the action plans implementation phase (project phase 2) as well as to ensure the involvement of key stakeholders in the facilitation of action plans.

The interactions and discussion to take place during interregional workshops will enable project partners to a) comment on the advantages and drawbacks of the regional industrial symbiosis policy measures presented, b) examine the scalability and transferability of measures into other industrial and geographical contexts, and c) contribute to policy development, taking into account regional specificities.

The SYMBI project includes the organisation of 4 interregional workshops to promote interregional learning and capacity building, addressing all the levels of policy learning required to bring substantial policy improvements in the field of circular economy and industrial symbiosis.

1. Interregional workshop on how to create attractive market conditions for private sector investments.
2. Interregional workshop on how regional authorities can develop public-private partnerships to foster industrial symbiosis.
3. Interregional workshop on the stimulation of secondary raw materials markets.
4. Interregional workshop on industrial symbiosis demonstration projects.

## 4 Guidelines for the organisation of the workshop

### 4.1 Scope and objectives

The first SYMBI interregional workshop, to be organised by PANON NOVUM during the second semester of the project, will focus on how regional authorities will create attractive market conditions for private sector investments in the field of circular economy. The purpose of the workshop is to discuss regional strategies to foster sustainable growth through circular economy, facilitating the exchange of ideas and experiences, and acquisition of operational and technical knowledge on how to steer policy implementation on attracting investments in industrial symbiosis.

Regional administrations will benefit from the experience acquired (lessons learned) during the implementation of relevant policy measures and initiatives (at both national and regional level), targeting to raise business and financial institutions' awareness about the benefits of circular economy, encourage the adoption of circular economy models, and stimulate SMEs' involvement in industrial symbiosis schemes.

The members of regional authorities will be given the opportunity to exchange views and ideas with their peers and familiarise themselves with policy measures and strategies implemented in other regions, to speed up the transition to a circular economy model. This process of knowledge sharing and interaction is expected to have useful results for the participants, especially in the case where EU regions show very different levels of performance on each area relevant to industrial symbiosis, and advance at a different pace towards green growth models.

In particular, the interregional workshop will pursue the following objectives:

1. Inform regional authorities about selected local, regional, national and EU-wide effective policies to create attractive market conditions for private sector investments.
2. Highlight the most relevant needs and challenges to be addressed through regional policies.
3. Facilitate the exploitation of good practices identified at regional level to overcome barriers, hindering private sector investments in circular economy.

4. Gather experience from different regions and countries towards coordinated strategies in support of circular economy and industrial symbiosis.
5. Bring together elected representatives of regional public administrations and members of stakeholders' groups, to enable them benefit from a structured interaction, revolving around a specific thematic area.

## 4.2 Event details (date, duration, venue)

The interregional workshop on how to create attractive market conditions for private sector investments will be hosted by Novum West Transdanubian Regional Innovation Agency (PANOV NOVUM) in the city of Györ, Hungary.

The interregional thematic workshop will last two days (15-16 November 2016) and all project partners will participate, with members of their stakeholder groups and external experts. The working language of the workshop will be English, which means that participants must have a sufficient knowledge of the language to be able to fully participate in the hands-on activities.

**Table 1: Event details**

SYMBI - Interregional workshop on how to create attractive market conditions for private sector investments	
<b>Thematic focus</b>	Private sector investments in circular economy and industrial symbiosis
<b>Host organisation</b>	Pannon Novum West Transdanubian Regional Innovation Agency
<b>Date</b>	15-16 November 2016
<b>Venue</b>	Hotel Famulus, "Budapest" (Conference room) Budai út 4-6, 9027 Győr, Hungary
<b>Language</b>	English
<b>Number of participants</b>	20 – 35 participants
<b>Type of participants</b>	Regional authorities' officials, stakeholders, external experts

SYMBI - Interregional workshop on how to create attractive market conditions for private sector investments	
<b>Format</b>	Oral presentations, roundtable discussions, interactive exercises
<b>Contact details</b>	Zoltán Kalcsú E-mail: zoltan.kalcsu@pannonnovum.hu Telephone: +36 30 9693 477

### 4.3 Participation

The SYMBI Application Form (AF) foresees that 2 representatives from partners' organisations, accompanied by 1 regional stakeholder / external expert can participate in the first interregional thematic workshop in Hungary.

ANNEX A provides a list of key regional stakeholders per project partner as they appear in the Application Form. This is only an indicative pool of regional stakeholders identified at an initial stage. Project partners are advised to send invitations to any other organisation or body, involved in the decision making process and/or interested in triggering policy and behavioural changes towards resource efficiency and circular economy.

### 4.4 Format

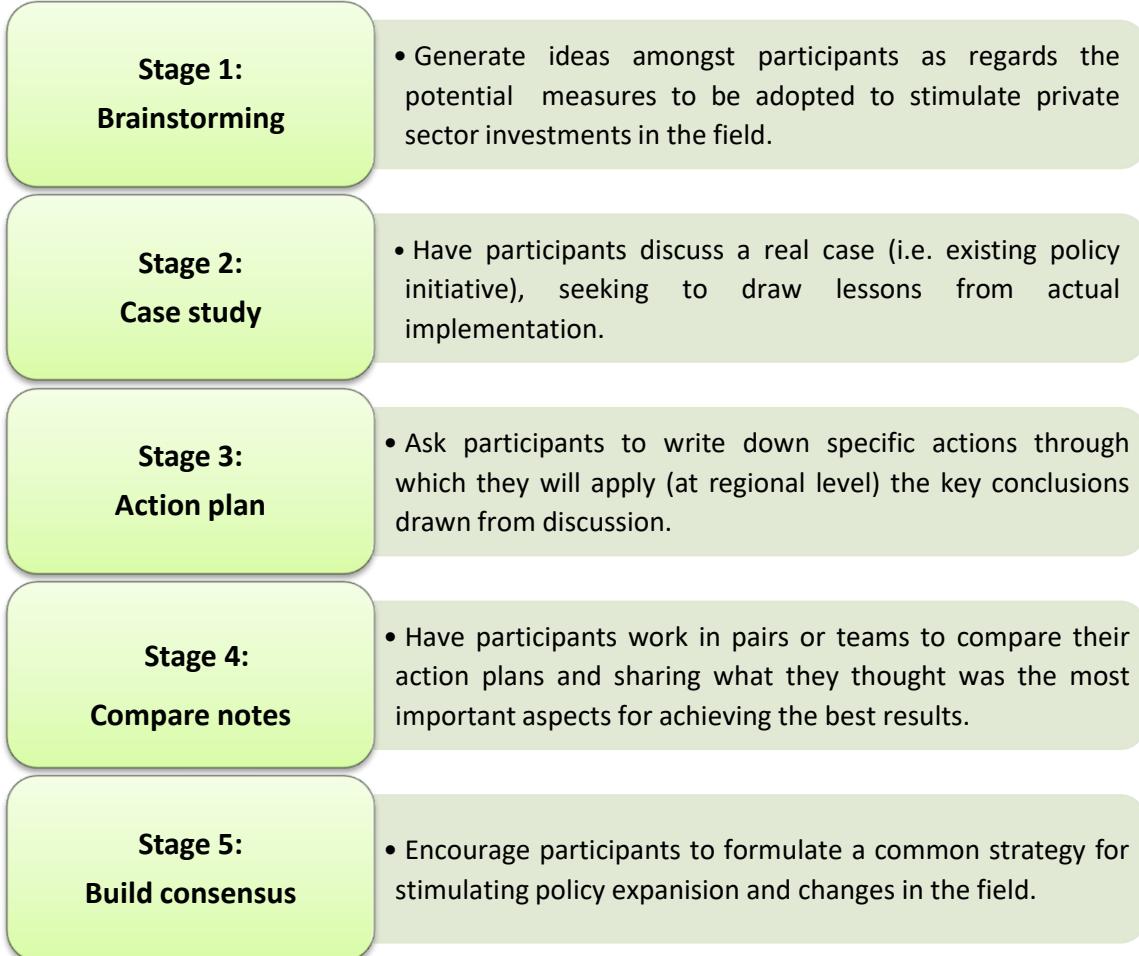
There are a number of techniques from which the organisers of the interregional thematic workshops can choose to support the practical process of participants' participation in workshop activities. It is highly recommended that the format of the first policy workshop should include a) oral presentations, b) round table discussions (panels), and c) interactive exercises, in order to facilitate knowledge sharing and capacity building.

**Oral presentations** are brief discussions of a defined topic delivered to a group of listeners in order to impart knowledge and stimulate debate. There are four different types of oral presentations: a) the informative presentations, seeking to convey information and promote understanding of an idea, b) the demonstrative presentations, showing the process of how to accomplish a task or activity (e.g. how to conduct a SWOT analysis), c) the persuasive presentations, which aim to influence a change in the belief,

attitude, or behaviour, stimulating the uptake of actions, and d) the motivational or inspirational presentations that are designed to create an emotional connection between the topic and listeners; while encouraging the latter to go after their personal objectives. Oral presentations will provide an opportunity for gaining an overview of the existing policy measures towards circular economy and industrial symbiosis.

**Roundtable discussions** constitute a flexible form of discussion employed at workshops and conferences to facilitate participants' interaction and exchange of ideas. A small number of participants is seated around a table to discuss in-depth a particular topic of interest (e.g. key barriers and enablers to adopting circular economy business practices), seeking to resolve issues of disagreement; extract useful conclusions and decide upon future actions. Roundtables are considered an excellent format for providing and receiving targeted feedback, engaging in in-depth discussions, and meeting colleagues with similar interests. The roundtable discussion format allows participants to interact with each other, promoting networking and equal participation/contribution, triggering spontaneous conversations and allowing for faster decisions. Roundtable discussions typically contain 15 minutes of presentation, followed by 30 minutes of discussion and feedback.

**Interactive exercises** can be defined as a structured set of facilitated activities for groups of participants to stimulate creativity and knowledge sharing through collaborative working. The purpose of interactive exercises is to facilitate the demonstration and application of skills and techniques, which will enable participants to find new ideas regarding potential policy measures in support of circular economy and industrial symbiosis. Interactive exercises are an ideal way to realise the cooperating stage of the consultation process, and to a lesser extent the empowering stage. Participants will have the opportunity to work together on the development of action plans, identifying the barriers to achieving the best results for all participants, deciding priorities, strategy and vision, and working towards common solutions. Project partners and key regional stakeholders will explore procedures that encourage involvement and cooperation, promoting knowledge sharing and capacity building, leading to useful outcomes for participants with common needs in the field of circular economy. The structure of interactive exercises will be as follows:



## 4.5 Evaluation procedure

Participants will be asked to complete a purpose made questionnaire to evaluate the effectiveness and quality of the 1<sup>st</sup> SYMBI interregional thematic workshop. By answering the questions therein, participants will provide a short assessment of the workshop, noting any ideas they have came up with as regards policy improvements in relevant areas (e.g. social dimension of circular economy) that have not been adequately covered during thematic sessions. In particular, a small number of assessment questions will focus on organisational and technical issues that determine the quality of workshop activities (e.g. oral presentation, interactive exercises) and evaluate the nature of interactions among participants. Other questions will provide participants with the opportunity to describe any ideas that could contribute to the improvement of regional policies in the field under examination (i.e. attractive market conditions for private sector investments). The questionnaire will be distributed by facilitators before the official end of the event (as described in the agenda). A template of the evaluation questionnaire is provided in Annex A. The host organisation should feel free to adapt the questionnaire to its needs and objectives.

## 4.7 Agenda

"Interregional workshop on how to create attractive market conditions for private sector investments"

Hotel Famulus, Győr city (HU)

15-16 November 2016

**DAY 1: TUESDAY, 15 NOVEMBER 2016**

<u>Time/ Duration</u>	<u>Description</u>
09:30 – 10:00	<i>Arrivals and registration</i>
10:00 – 10:15	<b>Opening speech</b>
10:15 – 10:30	<b>Objectives of the workshop / Overview of the agenda</b>
10:30 – 12:30	<b>Topic 1*:</b> <ul style="list-style-type: none"> <li>– <i>Oral presentation of topic 1 (30 minutes)</i></li> <li>– <i>Questions of attendees on speaker's speech (10 minutes)</i></li> <li>– <i>Answering the attendees' questions (10 minutes)</i></li> <li>– <i>Interactive session (roundtable discussion or interactive exercises): Participants will be split into small groups to discuss specific topics or issues raised during the presentation (45 minutes)</i></li> <li>– <i>Wrap up: The main conclusions and findings for the interactive session will be presented (25 minutes)</i></li> </ul>
12:30 – 14:00	<i>Networking launch</i>
14:00 – 16:00	<b>Topic 2*:</b> <ul style="list-style-type: none"> <li>– <i>Oral presentation of topic 1 (30 minutes)</i></li> <li>– <i>Questions of attendees on speaker's speech (10 minutes)</i></li> <li>– <i>Answering the attendees' questions (10 minutes)</i></li> <li>– <i>Interactive session (roundtable discussion or interactive exercises): Participants will be split into small groups to discuss specific topics or issues raised during the presentation (45 minutes)</i></li> <li>– <i>Wrap up: The main conclusions and findings for the interactive session will be presented (25 minutes)</i></li> </ul>
16:00 – 16:30	<i>Coffee break</i>
16:30 – 17:30	<b>Discussion on project activities / Wrap - up</b>

**DAY 2: WEDNESDAY, 16 NOVEMBER 2016**

<b>Time/ Duration</b>	<b>Description</b>
09:30 – 11:30	<b>Topic 3*:</b> <ul style="list-style-type: none"> <li>– Oral presentation of topic 1 (30 minutes)</li> <li>– Questions of attendees on speaker's speech (10 minutes)</li> <li>– Answering the attendees' questions (10 minutes)</li> <li>– Interactive session (roundtable discussion or interactive exercises): Participants will be split into small groups to discuss specific topics or issues raised during the presentation (45 minutes)</li> <li>– Wrap up: The main conclusions and findings for the interactive session will be presented (25 minutes)</li> </ul>
11:30 – 12:00	Coffee Break
12:00 – 14:00	<b>Topic 4*:</b> <ul style="list-style-type: none"> <li>– Oral presentation of topic 1 (30 minutes)</li> <li>– Questions of attendees on speaker's speech (10 minutes)</li> <li>– Answering the attendees' questions (10 minutes)</li> <li>– Interactive session (roundtable discussion or interactive exercises): Participants will be split into small groups to discuss specific topics or issues raised during the presentation (45 minutes)</li> <li>– Wrap up: The main conclusions and findings for the interactive session will be presented (25 minutes)</li> </ul>
14:00 – 14:30	<b>Evaluation</b>
14:30 – 15:00	<i>Networking launch</i>

**\* The topics to be discussed during the workshop, are presented (in the form of recommendations) in section 6.3**

## 5 Thematic focus and background research

This section reviews the background research conducted on the topic of selected regional, national and EU wide effective policies to create attractive market conditions for private sector investments. This section will provide an overview of policy measures and initiatives related to circular economy and industrial symbiosis across the EU, presenting the most relevant needs and challenges addressed and discussing on the potential financial, funding and legal incentives to be provided (at regional level) for creating a favourable policy/legislative framework for private sector investments.

More precisely, this section will present the tools (with regard to policy measures), which are used by regional authorities to encourage sustainable, green growth through circular economy/industrial symbiosis thinking. Such tools can be roughly categorised into laws and regulations, information (communication), education and research, and funding instruments.

The purpose of research is to highlight the importance of circular economy and take a stock of the implementation of relevant policy instruments at the EU, national and regional levels. We seek to identify patterns of similarities amongst policy measures and actions (across the EU) and to draw conclusions and lessons from actual implementation, ***leading eventually to the selection of the topics to be presented in the workshop.***

### 5.1 The EU strategy for circular economy

#### 5.1.1 Current EU policies

The European Union (EU) considers the circular economy as part of a strategy to develop a sustainable, low carbon, resource efficient and competitive economy that will boost global competitiveness, foster sustainable economic growth and generate new jobs. To this end, the European Union has introduced a range of policy initiatives and measures to stimulate the transition to a circular economy model. The most relevant EU policies are: i) the circular economy strategy; ii) the roadmap to a resource efficient Europe; and iii) the bio-economy strategy.

## 1. Circular economy strategy

The European Commission (EC) has adopted an ambitious Circular Economy Package, which includes revised legislative proposals on waste to stimulate Europe's transition towards a circular economy. The Circular Economy Package consists of an EU Action Plan for the Circular Economy that establishes a concrete and ambitious programme of action, with measures covering the whole cycle: from production and consumption to waste management and the market for secondary raw materials. The annex to the action plan sets out the timeline when the actions will be completed.

The proposed actions will contribute to "closing the loop" of product lifecycles through greater recycling and re-use, and bring benefits for both the environment and the economy. The revised legislative proposals on waste set clear targets for reduction of waste and establish an ambitious and credible long-term path for waste management and recycling. Key elements of the revised waste proposal include:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments to discourage landfilling;
- Simplified and improved definitions and harmonised calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis - turning one industry's by-product into another industry's raw material;
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipments, vehicles).

## 2. Roadmap to a resource efficient Europe

The Roadmap to a Resource Efficient Europe (COM(2011) 571) outlines how we can transform Europe's economy into a sustainable one by 2050. It proposes ways to increase resource productivity and

decouple economic growth from resource use and its environmental impact. It illustrates how policies interrelate and build on each other.

Areas where policy action can make a real difference are a particular focus, and specific bottlenecks like inconsistencies in policy and market failures are tackled to ensure that policies are all going in the same direction. Cross-cutting themes such as addressing prices that do not reflect the real costs of resource use and the need for more long-term innovative thinking are also in the spotlight.

Key resources are analysed from a life-cycle and value-chain perspective. Nutrition, housing and mobility are the sectors responsible for most environmental impacts; actions in these areas are being proposed to complement existing measures.

The Resource Efficiency Roadmap provides a framework in which future actions can be designed and implemented coherently. It sets out a vision for the structural and technological change needed up to 2050, with milestones to be reached by 2020. These milestones illustrate what will be needed to put Europe on a path to resource efficient and sustainable growth.

### 3. Bio-economy strategy

Launched and adopted on 13 February 2012, Europe's Bioeconomy Strategy addresses the production of renewable biological resources and their conversion into vital products and bio-energy. Under the lead of DG Research and Innovation, the Strategy was co-signed by several other Commission departments namely DG Agriculture and Rural Development, DG Environment, DG Maritime Affairs, and DG Industry and Entrepreneurship.

The bio-economy strategy aims to focus Europe's common efforts in the right direction in this diverse and fast-changing part of the economy. Its main purpose is to streamline existing policy approaches in this area. It is structured around three pillars: a) investments in research, innovation and skills; b) reinforced policy interaction and stakeholder engagement; and c) enhancement of markets and competitiveness.

The Strategy is also needed to ensure that fossil fuels are replaced with sustainable natural alternatives as part of the shift to a post-petroleum society. It calls for new approaches to come from research and innovation and supports science and technological leadership to drive tangible improvements in Europe's social, economic and environmental welfare.

### **5.1.2 Challenges to be addressed by EU policies**

The main EU policy objective is to create conditions for the development of a resource efficient economy by removing the constraints, hindering private sector investments in the field of circular economy and industrial symbiosis. The abovementioned policy initiatives address a number of needs and challenges that range from legislation, infrastructure, business models and funding to consumer awareness, and are related to the establishment of a favourable environment for businesses' involvement in industrial symbiosis schemes. An indicative list of issues to be tackled by EU policies includes:

1. Simplifying the legal framework on by-products and waste materials reuse, aiming to help SMEs comply with their environmental obligations.
2. Diminishing administrative burdens stemming from EU waste legislation (e.g. reporting obligations) to improve the business environment for small establishments and undertakings in the field of industrial symbiosis.
3. Providing financial incentives for resource efficiency projects through the use of market-based instruments and the establishment of public–private partnerships.
4. Strengthening the single market for waste and recycling to maximize the reuse of materials, and the development of new business models.
5. Promoting cross-sectoral initiatives to improve resource-efficient business interaction across value chains.
6. Raising awareness among SMEs about the concept of circular economy and the benefits of industrial symbiosis schemes.

### 5.1.3 Funding instruments for industrial symbiosis and circular economy projects

The European Commission has stressed the need to create attractive market conditions for private sector investments in eco-innovations and resource efficiency to promote circular economy and industrial symbiosis. This objective is being mostly facilitated by three financial instruments: i) Investment Plan for Europe, ii) Horizon 2020, and iii) Cohesion Policy 2014-2020.

The *Investment Plan* focuses on removing obstacles to investment, providing visibility and technical assistance to investment projects and making smarter use of new and existing financial resources. To achieve these goals, the plan will undertake actions in three areas: a) mobilising investments of at least €315 billion in three years across the EU, b) supporting investment in the real economy, and c) creating an investment friendly environment. The plan has a strategic focus to support industrial symbiosis and circular economy projects, by encouraging the establishment of public-private partnerships and guaranteeing the provision of high-risk loans by the European Investment Bank.

*Horizon 2020* is the biggest EU Research and Innovation programme with nearly €80 billion of funding available over the period 2014 – 2020. Circular economy is at the heart of the programme, striving to sustainably boost economic growth and renewing Europe's industrial capacities. The third pillar of the programme (Axis 5) is fully dedicated to resource efficiency and industrial renaissance, supporting actions that aim to stimulate the transition towards a green economy through eco-innovation. It calls for projects that will demonstrate the economic and environmental feasibility of the circular economy approach and will contribute to the enhancement of European industrial competitiveness, through the deployment of new approaches and technologies.

*Cohesion policy*, comprising the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF), is the EU's main investment policy providing more than €350 billion (over the 2014-2020 period) to support job creation, business competitiveness, economic growth and sustainable development. Cohesion Policy will contribute to the circular economy agenda by allocating more than €150 billion to support investments in the field of recycling, waste management, resource and energy efficiency, bio-economy, and to stimulate the adoption of new production processes and innovative technologies in SMEs. What is more, Cohesion Policy aims to create a policy framework for

integrated regional development, focusing on the particular strengths of each region to deliver the circular economy.

## 5.2 National policies

Transition to a more circular economy requires changes throughout value chains, from product design to new business and market models, from new ways of turning waste into a resource to new modes of consumer behaviour. This implies full systemic change, and innovation not only in technologies, but also in organisation, society, finance methods and policies. To this end, national authorities have started to design and implement policy measures that aim to speed up the transition from the intensive "take-make-use-dispose" economic paradigm to circular economy, promoting resource efficiency and eco-innovation.

### 5.2.1 Examples of current activities related to circular economy at national level

There are several examples of legislative and non-legislative measures (at the national level), which provide support for SMEs, wishing to develop innovative products and adopt circular economy business models.

The Finnish Industrial Symbiosis System (FISS) presents a systematic approach to promote circular economy in Finland. FISS model, based on the collection of resource information and active facilitation of symbioses and co-development, assists companies in setting up synergies and creating business opportunities through more efficient use of raw materials, technology, services and energy. FISS main objectives include: a) increasing cost savings for participating entities, b) promoting the sustainable development of companies, boosting employment and productivity, c) stimulating resource efficiency investments through the establishment of public-private partnerships, d) increasing the use of recycled materials, and e) diminishing environmental pressures by reducing hazardous waste, CO<sub>2</sub> emissions and land-filling of waste.

Lithuania has introduced a number of policies and strategies to stimulate the transition towards a circular economy model. These policies fully aligned with EU policy targets for eco-innovation, aim at creating an enabling framework for fostering resource efficiency, promoting the adoption of innovative

technologies and increasing the usage of renewable resources and recycled materials. To begin with, the Green Industry Innovation Programme (2012) provide funding for activities that are related to i) the development, installation or introduction of new environmental technologies, ii) improvement of existing technological processes in order to reduce their environmental impact and iii) the acquisition and installation of new innovative environmental technologies, software and production equipment. Programme's objective was to increase the competitiveness of environmentally friendly companies, by including green solutions into existing traditional manufacturing enterprises. In the same direction, "Eco-innovation LT" is a non-legislative policy measure, seeking to promote the implementation of eco-innovation patterns within SMEs' production processes. This policy foresees the introduction of environmental management, in accordance with the requirements of international protection standards, and/or the performance of production technology and environmental audits.

The Irish government established a free online re-use service ("Free Trade Ireland") to facilitate the exchange of unwanted products such as furniture, appliances, house equipment and electronic goods, promoting waste prevention, recycling and materials reuse. The initiative aims to: a) diminish waste disposal costs by avoiding skip and bulky waste charges, b) encourage the better use of household and business resources by extending the lifespan and value of items, and c) change attitudes towards waste prevention and recycling, leading to a more sustainable and resource efficient life style. Another similar national policy measure in support of circular economy is "SMILE Resource Exchange". This is a free service for businesses that encourages the exchanging of resources between members in order to save money, reduce waste going to landfill and to develop new business opportunities. Businesses can request or offer reusable materials, by-products or surplus stock that could potentially be a raw material in another business; while all resources offered are either free of charge or below market value.

Denmark established a cross-ministerial task force to examine which regulations and taxes have constraining effects on improvements to companies' resource efficiency through industrial symbiosis, and to assess whether there are regulations and administrative practices that need to be revised in order to create attractive market conditions for private sector investments in the field. A similar task force (under the National Industrial Symbiosis Programme) is engaged in promoting circular economy between companies, by a) conducting industrial symbiosis feasibility checks within

organisations/sectors, b) providing technical, legal and financial counselling and c) awarding grants to companies adopting new green business models.

### **5.2.2 Main conclusions drawn from the analysis of national policy measures**

What we can conclude from the above-mentioned examples is that member states face a number of similar difficulties in creating an enabling and coherent policy environment for attracting private sector investments. The following aspects can be identified as key challenges, requiring further actions and initiatives at national level to promote circular economy and resource efficiency in businesses.

1. Inadequate government/regulatory support in the form of funding opportunities, effective taxation policy, and training.
2. Lack of knowledge about the benefits of the circular economy at business level.
3. Administrative burdens stemming from environmental legislation, which are also associated with the lack of SMEs' capacity to comply with the necessary requirements.
4. Lack of internal technical skills that prevents SMEs from participating in industrial symbiosis schemes and taking advantage of green economy opportunities.
5. Limited suppliers' and customers' environmental awareness to support resource-efficient processes.

### **5.3 Regional measures and initiatives**

The transition towards a zero-waste, sustainable development model requires regional authorities to implement a comprehensive approach, with coordinated actions/interventions in different policy areas such as legislation, taxation, administrative procedures and entrepreneurship. Regional authorities have a great range of tools and instruments to support the transition to circular economy, providing incentives for companies to consider the benefits of industrial symbiosis practices, stimulating private sector investments in the field. These incentives may range from direct financial support to SMEs, green public procurement, and tax reductions, to the organisation of communication and awareness raising activities.

Public procurement can play an integral role in promoting sustainable production through the incorporation of criteria in favour of contractors delivering sustainable, energy efficient and low carbon products and services. Taxation can be used to encourage the utilisation of clean technologies in industrial processes, energy efficiency of buildings, the manufacturing of eco-design products, as well as to discourage land filling of valuable materials that could be easily reused or recycled. Finally, structural funds can be used to support circular economy and industrial symbiosis projects through the establishment of public-private partnerships.

### 5.3.1 Examples of regional actions

Several EU regions have launched policy measures to create attractive market conditions for private sector investments in the field of circular economy and industrial symbiosis, seeking to improve regional eco-innovation performance.

The city of Amsterdam (NL) has adopted a circular economy strategy for the construction sector, including interventions in four areas (legislation, market structure, technology development and collaborative arrangements) to pave the way for establishing a circular economy model, where the construction materials from demolished buildings may be used again in new construction projects and renovation projects.

The region of Auvergne (FR) put in place an eco-innovation support programme, to assist SMEs in identifying the part of their business processes that could benefit from eco-design practices (reuse of materials, recycling, waste minimisation and sustainable design). The region also provides direct funding to a) companies wishing to design new products on the basis of an integrated eco-design concept and b) synergies/networks of companies across the supply chain, creating a collaborative industrial symbiosis approach.

The Kemi–Tornio region (FI) provides a platform for the piloting of industrial symbiosis products and services and for creating an industrial ecosystem in Arctic conditions. The Kemi–Tornio industrial symbiosis involves companies exchanging industrial by-products (i.e. waste) that can be used as a substitute for raw materials. The collaboration includes actors from forestry, mining and steel industry companies, industrial service companies, research and educational organisations and intermediaries.

The Lombardy Region (IT) introduced green public procurement as a means to drive resource efficient regional growth. Lombardy seeks to promote circular economy by integrating environmental requirements in the purchasing process of goods and services, favouring the solutions with lower environmental impact, taking as reference the full life cycle of the good or service, from planning and production to disposal.

Finally, the Basque Country (ES) has adopted a multi-instrumental policy approach to circular economy, including inter alias the establishment of a public-private eco-design centre to stimulate product eco-innovation. Centre's mission is to enhance the competitiveness/productivity of the participating companies by means of acquiring and applying the most advanced eco-design know-how, foster product eco-innovation through triple-helix cooperation (companies, knowledge institutes and regional authorities), and activate the eco-design demand in the supply chain companies. To promote further circular economy, the Basque Country offers 30% tax reduction to companies for the procurement of clean technologies and discount vouchers for sustainable and recycled products.

### 5.3.2 Patterns of similarities

The above-mentioned regional policy examples demonstrate patterns of similarities with regard to the challenges and barriers that hamper the implementation of circular and industrial symbiosis practices, the variety of policy instruments in place to stimulate circular economy, and the type of incentives provided by regional authorities to create attractive market conditions for private investors. Patterns of similarities.

The common challenges addressed through regional circular economy policies include: a) the harmonisation of legislation on waste and material resources, including the definition of targets for prevention, reuse and recycling, b) the encouragement of entrepreneurship through the provision of financial incentives (e.g. grant, tax reduction) for SMEs' involvement in resource efficiency and circular economy projects, c) raising awareness about the benefits of circular economy and industrial symbiosis as well as creating a sense of co-responsibility towards resource efficiency and material re-use, d) enhancing cooperation between public authorities, companies, and knowledge institutes to stimulate

the deployment of industrial symbiosis schemes, and e) establishing regional contact points for supporting management and communication within intercompany networks.

### 5.3.3 Territorial financial, funding and legal incentives

Regional policy instruments in support of circular economy and industrial symbiosis include the provision of financial and legal incentives, as well as measures related to research, communication and education. Desk research has indicated four categories of incentives (funding, financial, legal and other) to be provided for creating attractive market conditions for private sector investments in the field. The following table presents a number of funding options and incentives for industrial symbiosis and circular economy identified at regional level across the EU.

**Table 2: Potential incentives for industrial symbiosis and circular economy at territorial level**

INCENTIVES FOR INDUSTRIAL SYMBIOSIS AND CIRCULAR ECONOMY	
<b>A. FINANCIAL INCENTIVES</b>	<ul style="list-style-type: none"> <li>○ Inclusion of environmental criteria and circular economy clauses for products and services in the public procurement process. This will help stimulate a critical mass of demand for sustainable and recycled materials which otherwise would be difficult to get onto the market.</li> <li>○ Provision of discount vouchers for environmentally friendly purchases.</li> <li>○ Tax reduction for companies manufacturing eco-design products.</li> <li>○ Introduction of tax measures to stimulate energy transition from fossil fuels to renewable sources of energy (e.g. reduced taxation for bio-fuels or remove fossil fuel subsidies).</li> <li>○ Promote recycling and other waste disposal methods by setting lower fees per tonne of waste to discourage land-filling.</li> </ul>
<b>B. FUNDING INCENTIVES</b>	<ul style="list-style-type: none"> <li>○ Funding of new business models in the field of circular economy and green growth.</li> <li>○ Funding of pilot circular economy and industrial symbiosis projects.</li> <li>○ Grants for stimulating the interaction between agriculture and bio-fuel production.</li> <li>○ Funding for enterprises, to strengthen R&amp;D activity and improve the competitiveness of innovation.</li> </ul>

## INCENTIVES FOR INDUSTRIAL SYMBIOSIS AND CIRCULAR ECONOMY

### C. LEGAL INCENTIVES

- Set up a green labelling system for food and products.
- Set restrictions on the production and distribution of one-off consumption goods.
- Increase the length of time that materials and products remain viable (product life cycle) before becoming wastes.
- Establish pricing policies that encourage conservation and the "reasonable" use of resources.
- Set up separation and collection systems that minimise the costs of recycling and re-use (e.g. deposit-refund schemes).

### C. OTHER INCENTIVES

- Encourage waste reduction and high-quality separation by consumers (e.g. variable waste charging, or Pay-As-You-Throw).
- Establish business incubators to help businesses create synergies and industrial symbiosis schemes.
- Delivery of training in new business models for circular economy.
- Organisation of communication activities to raise consumers' awareness about circular economy practices and products.
- Provision of technical, financial and legal counselling to businesses wishing to engage with the development of innovative products and circular economy business models.

## 6 Indicative topics to be discussed in the workshop

### 6.1 Criteria for the selection of topics

The following criteria will be considered for the selection of the most appropriate, up-to-date and relevant topics for the 1<sup>st</sup> interregional thematic workshop on how to plan and unlock private sector investments.

1. Consistency with the SYMBI strategic objectives and general scope.
2. Compliance with EU, national and regional policy priorities in the field of circular economy and industrial symbiosis.
3. Responsiveness to the needs and challenges of regional authorities.
4. Practical utility of topics so that consultation process will mobilise regional authorities' representatives to support the integration of key conclusion into regional policies.
5. Avoidance of overlap with relevant past events and activities about circular economy and industrial symbiosis, as well as with subsequent project interregional activities (study visits, workshops, policy learning event, conference, etc.).

## 6.2 Relevant past events (workshops, conferences, forums)

This section examines a number of previous events to identify what kind of topics has already been discussed in workshops and conferences concerning circular economy and industrial symbiosis across the EU. This will support the definition of the strategic focus of the 1<sup>st</sup> SYMBI interregional workshop, avoiding the repetition of information/data (presented in other events).

### Event 1: The Sustainable Circular Economy - new opportunities for raw materials, chemicals and water?

Type of event: Workshop

Date: 15 March 2016

Place: Brussels (BE)

Thematic focus: The workshop seeks to explore new circular economy opportunities in chemicals, water and raw materials with a focus on regional engagement and interregional collaboration.

Participants: Not specified

Format: Oral presentations, key-notes lectures

Link: <http://wsstp.eu/events/workshop-the-sustainable-circular-economy/>

### Event 2: Standards for circular economy: waste management and secondary raw materials

Type of event: Workshop

Date: 8 September 2016

Place: Brussels (BE)

Thematic focus: i) State of play and challenges for industry to act on managing waste and use of secondary raw materials; ii) Clustering of potential solutions and priorities; and iii) Standards and standardization solutions missing to enable the circular economy to function

Participants: Industry, innovators, environmental representatives, consumers, standardisers and policy makers

Format: Key-notes, workshop break-outs, audience engagement, and panel discussions

Link: <http://www.cencenelec.eu/News/Events/Pages/EV-2016-027.aspx>

### Event 3: Pathways to a circular economy in cities and regions

Type of event: Workshop

Date: 12 October 2016

Place: Brussels (BE)

Thematic focus: i) The European diversity of challenges and potential for moving to a circular economy; ii) The practical meaning of circular economy for cities and regions; iii) Good practices in circular economy approaches.

Participants: Regional authorities, field experts, policy makers

Format: Oral presentations, key-notes lectures

Link: [https://www.espon.eu/main/Menu\\_Events/Menu\\_ESPONatEvents/](https://www.espon.eu/main/Menu_Events/Menu_ESPONatEvents/)

### Event 4: The 2016 European Circular Economy Conference – Is the new package the right fit for Europe?

Type of event: Conference

Date: 16 February 2016

Place: Brussels (BE)

Thematic focus: Sessions focused on: i) bringing eco-design into the mainstream; ii) creating a viable European market for secondary raw materials; and iii) preventing food waste across the supply chain.

Participants: Industry and SMEs representatives, national authorities, policy makers, media

Format: Keynote speeches, oral presentations, panel discussions.

Link: [https://eu-ems.com/summary.asp?event\\_id=281&page\\_id=2583](https://eu-ems.com/summary.asp?event_id=281&page_id=2583)

### Event 5: 12th Industrial Symbiosis Research Symposium (ISRS)

Type of event: Workshop

Date: 5-6 July 2015

Place: Lausanne (CH)

Thematic focus: The symposium aimed at bringing together researchers to exchange on current research activities and trends, identify future research needs and share recent information on field projects development in relation with research activities worldwide.

Participants: Field experts, researchers

Format: Field trip, group discussions, keynote speeches

Link: [http://www.surrey.ac.uk/ces/news/key\\_events/isie\\_conference/isrs/](http://www.surrey.ac.uk/ces/news/key_events/isie_conference/isrs/)

### Event 6: G7 Workshop on Industrial Symbiosis

Type of event: Workshop

Date: 29-30 October 2015

Place: Birmingham (UK)

Thematic focus: A forum to exchange and promote best practices and foster innovation together with business and other stakeholders, including from the public sector, research institutions, academia, consumers and civil society, on a voluntary, non-binding basis.

Participants: Senior officials from the G7, G20, major global institutions and industry

Format: Keynote speeches, oral presentations, panel discussions

Link: <http://www.international-synergies.com/projects/g7-workshop-on-industrial-symbiosis/>

### Event 7: Symbiosis 2014 International Conference

Type of event: Conference

Date: 19-21 June 2014

Place: Athens (GR)

Thematic focus: The Conference focused on the utilisation of the generated industrial waste through the promotion of effective technologies and safe practices.

Participants: Representatives from industries, industrial associations, government departments, municipalities, private institutions, research & education institutions.

Format: Keynote speeches, discussions

Link: <http://conference2014.esymbiosis.eu/>

### Event 8: Towards a Circular Economy with Zero Waste - From theory to practice - Sharing best practices

Type of event: Workshop

Date: 8 April 2016

Place: Syracuse (IT)

Thematic focus: The main purpose of the workshop was to highlight concrete proposals and best practices from Sicily which are in line with the European Commission Communication "EU action Plan for the circular economy" (COM (2015) 614).

Participants: Field experts

Format: 2 parallel sessions of sharing labs

Link: [http://www.svimed.eu/cense/wp-content/uploads/2016/05/CENSE-WG-Meeting-Italy\\_April-2016.pdf](http://www.svimed.eu/cense/wp-content/uploads/2016/05/CENSE-WG-Meeting-Italy_April-2016.pdf)

Evidence shows that there is a great interest in promoting the discussion about the adoption of circular economy and industrial symbiosis approaches at regional level. The workshops and conferences identified have focused on a great range of topics related to the challenges of circular economy and industrial symbiosis for regional authorities: from creating a viable European market for secondary raw materials to the establishment of a dedicated forum for promoting good practices in circular economy approaches.

The majority of these events addressed issues related to the preservation of natural resources, the management/utilisation of the generated waste, and materials reuse. The topics were mostly focused on the establishment of a viable market for secondary raw materials and the uptake of resource efficient circular economy business models for companies.

An interesting finding (drawn from past relevant workshops) is that European regional authorities present their needs, requirements, difficulties and achievements in a dispersed way, and that there is insufficient effort to establish common approaches and profit from each other's experiences. Furthermore, a major challenge identified is the need for cultivation/enhancement of interregional collaborations and synergies within and between industries (which seems to lag behind) to foster research and eco-innovation in support of circular economy.

To conclude, none of the workshops listed above focused on the establishment of a coherent policy/legislative framework that will create favourable market conditions for private sector investments in circular economy, including the provision of incentives for SMEs. This creates the opportunity/need for the organisation of an interregional workshop that will deal with: a) the barriers and enablers of industrial symbiosis and circular economy projects, b) the benefits for the private sector derived from green growth and circular economy models, and c) the provision of financial, funding and legal incentives for stimulating private sector investments in the field.

## 6.3 Thematic areas and suggested topics

This section provides a very first suggestion on the topics to be presented and discussed during the 1<sup>st</sup> SYMBI interregional thematic workshop, based on the background research conducted on selected regional, national EU-wide policies (section 5).. This list is not final and is subject to changes or updates (if necessary), following the review and feedback to be provided by the host organisation (PANOV).

The term ‘thematic areas’ refers to a broad theme and the term ‘topics’ refers to the sub-themes in which the core theme is divided. Three distinct thematic areas have been identified for the 1<sup>st</sup> workshop. Each is divided into a number of topics, around which the presentations and discussions of the workshops will revolve.

### **Thematic area 1: Challenges and barriers, hindering the adoption of circular economy business practices**

This session will provide valuable insights about the hindering and enabling factors, concerning the adoption of circular economy business models by SMEs. This session will present the opportunities and challenges encountered by private bodies, wishing to engage with the development of innovative and resource efficient products. Representatives from SMEs (members of stakeholder groups) are encouraged to participate in the discussion, presenting their experience from the implementation of circular economy and industrial symbiosis business practices. The key objective of this session is to highlight the determinants for private sector investment in circular economy, demonstrating the most relevant needs and challenges to be addressed through regional policies.

#### Indicative topics to be discussed:

1. Barriers to adopting circular economy business practices
2. Enablers for circular economy and industrial symbiosis development
3. Business case studies (focus on hindering and enabling factors)

## **Thematic area 2: The European strategy (action plan) for circular economy**

This session will host a panel of regional authorities' representatives and external experts (with policy background) to discuss about the EU strategy on how to foster sustainable growth through circular economy. The current EU policy instruments (in place) in support of circular economy will be presented (e.g. Circular Economy Package), enabling participants to evaluate the effectiveness of the different legislative and regulatory measures in terms of overcoming the barriers hindering the adoption of circular economy business practices (e.g. lack of financing and technical capabilities). The presentation of the existing financial instruments to support circular economy will update participants about the funding opportunities for industrial symbiosis related projects as well as the framework for further interregional collaborations in the field. This thematic session may also include a comparative analysis of relevant national policies/strategies (current trends and policy measures), for the identification of similarities and differences at the national level.

### Indicative topics to be discussed:

1. EU policy instruments in support of private sector investments in circular economy
2. The Circular Economy Package
3. Funding opportunities for circular economy and industrial symbiosis projects
4. Current trends and policy (regulatory measures) in member states

## **Thematic area 3: Removing barriers and building incentives to stimulate private sector investments**

This theme is foreseen to provide practical insights into how regional authorities can create an enabling and coherent policy environment for private sector investments. A cross-sectoral approach (at the administrative level) is considered necessary to address the social, environmental and economical issues associated with circular economy. Participants will have the opportunity to discuss about the potential financial, funding and legal incentives for industrial symbiosis and circular economy as well as measures related to communication and education. The exchange of views among the representatives of regional authorities, who have adopted different policy frameworks, will lead to useful conclusions about the optimal approaches.

Indicative topics to be discussed:

1. Planning a circular economy strategy at regional level: A cross-sectoral approach
2. Financial, funding, and legal incentives for industrial symbiosis and circular economy
3. The Basque Country: An example of multi-instrumental approach
4. A common approach on how to create attractive market conditions for private sector investments

## 7 Guidelines for the summary report

The final stage of the conduction of the 1<sup>st</sup> interregional thematic workshop includes the preparation of a summary report by the hosting partner. The summary report is considered the key output of activity A3.1(a). The summary report will present the final outcomes of the workshop and will be used by project partners as the main input for diffusing the lessons learned within their organisations.

- Summary reports are short written communication documents, which aim to convey information related to the discussions and activities carried out during workshop activities. The summary report should include the following aspects: Document the interventions of participants and the overall discussion within each session of the interregional thematic workshop.
- Draw conclusions from debate and interactive exercises in each session of the workshop.
- Briefly present policy recommendations for the development of action plans based on the interventions of the participants and the conclusions drawn from the discussion.
- Present an evaluation of the workshop based on the comments and feedback from participants (evaluation questionnaire).
- Present the metrics of the workshop (number of registered participants, number of completed evaluation questionnaires, and number of participants from each category of the target groups).

The following guidelines have been developed to provide assistance and guidance to the host organisation (PANOV) on how to summarise and present the main conclusions drawn from the workshop (in the format of a summary paper), in order to facilitate the integration of key policy recommendations into regional action plans. In particular, the summary report should be drafted as follows:

**Step 1:** Develop short summaries for each session of the workshop. The summaries should include a) the context and objectives of the session, b) the main points from oral presentations/keynote speeches, c) key argumentation from the interventions of participants, and d) conclusions and findings extracted from the overall discussion and interactive exercises.

**Step 2:** Review the evaluation forms. The author should summarise the key itches and ideas (as drawn from the forms completed by workshop participants), with regards to the themes / topics of the workshop. It is highly recommended that any idea (i.e. policy advice) that could contribute to the improvement of regional policies in the field (i.e. attractive market conditions for private sector investments) should be integrated into regional action plans.

**Step 3:** Present the main conclusions with regards to the following themes:

- Recognising the challenges/barriers hindering the adoption of circular economy business practices.
- Providing funding opportunities for circular economy and industrial symbiosis projects.
- Removing barriers and building incentives to stimulate private sector investments in circular economy and industrial symbiosis.
- Planning a circular economy strategy to create an enabling and coherent policy environment for attracting private sector investments.

**Step 4:** Juxtapose the key arguments / conclusions drawn from the workshop with any relevant results and findings from SYMBI thematic studies and guides on similar policy aspects. Identify convergences and divergences between findings.

**Step 5:** Provide guidelines (in the form of policy recommendations) on how to utilise the key conclusions drawn to design policy measures and action plans to promote private sector investments in circular economy and industrial symbiosis. The guidelines on how to integrate the lessons learnt in the SYMBI action plans, as well as any policy advice that may be derived from the analysis of evaluation forms, should be described in a way that is simple, brief, and easy to follow.

**Step 6:** Draft the summary report. The workshop summary report should be drafted in a clear and concise way, focusing on the conclusions drawn from knowledge sharing and consultation processes that took place during the workshop sessions.

Indicatively, the workshop summary report can have the following structure:

1. Introduction
2. Background and objectives of the workshop
3. Summary of sessions
4. Key discussion points
5. Main conclusions
6. Juxtaposition with key findings from project activities
7. Policy recommendations
8. ANNEX A: Agenda
9. ANNEX B: Participants list

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## 9 ANNEX A: Key regional stakeholders per project partner

PARTNER	KEY STAKEHOLDERS
<b>FUNDECYT</b>	<ul style="list-style-type: none"> <li>- Regional Ministry on Agriculture, Rural Development, Environment and Energy (GOBEX)</li> <li>- GOBEXDG de Agricultura y Ganadería</li> <li>- GOBEXDG de Desarrollo Rural</li> <li>- GOBEXDG de Medio Ambiente</li> <li>- GOBEXDG de Industria y Energía</li> <li>- GOBEXDG de Empresa y Actividad Emprendedora</li> <li>- Diputación Badajoz</li> <li>- Diputación Cáceres</li> <li>- GESPESA (Gestión de Ecoparques)</li> <li>- University of Extremadura</li> <li>- Centro Tecnológico FEVAL</li> <li>- CICYTEX</li> <li>- INTROMAC</li> <li>- CTAEX</li> <li>- Extremadura AVANTE</li> <li>- AGENEX</li> <li>- AGEDREX (Asociación de Gestores de la Dehesa)</li> <li>- REDEX</li> <li>- Cámara de Comercio de Badajoz</li> <li>- Cámara de Comercio de Cáceres</li> <li>- PEPSICO</li> <li>- ENCE (ENergy &amp; CEllulose)</li> <li>- DEUTZ</li> <li>- RESILUX</li> </ul>
<b>ANDALUSIA</b>	<ul style="list-style-type: none"> <li>- Regional Government of Seville</li> <li>- Regional Government of Malaga</li> <li>- Regional Government of Cadiz</li> <li>- Regional Government of Granada</li> <li>- Regional Government of Cordoba</li> <li>- Agro-industrial Park of Jerez;</li> <li>- Andalusia Technology Park (PTA)</li> <li>- Alestis Aerospace</li> <li>- Cruzcampo</li> </ul>
<b>MALOPOLSKA</b>	<ul style="list-style-type: none"> <li>- The City of Kraków</li> <li>- Krakowski Holding Komunalny (Kraków Municipal Holding)</li> <li>- The Commune of Zabierzów</li> <li>- The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences</li> <li>- Zakład Przetwórstwa Tworzyw Sztucznych (Plastics Processing Plant) in Kłaj</li> <li>- AGH University of Science and Technology in Krakow</li> <li>- Representatives from Malopolska's largest heavy industries (Polska Grupa Energetyczna, Fiat Auto Poland, Fablok, Polskie Zakłady Lotnicze Mielec).</li> <li>- Representatives from Malopolska's SMEs that collaborate with the regional industrial sector.</li> </ul>
<b>MOLISE</b>	<ul style="list-style-type: none"> <li>- Regional Government of Molise</li> </ul>

PARTNER	KEY STAKEHOLDERS
	<ul style="list-style-type: none"> <li>- Unioncamere (Association of Italian Chambers of Commerce)</li> <li>- University of Molise</li> <li>- Sviluppo Italia Molise (regional development agency)</li> <li>- Associazione Industriali del Molise (Industrial Association of Molise)</li> <li>- Biocompost Cluster</li> <li>- Smaltimenti Sud (company)</li> <li>- Green Eco (company)</li> <li>- Energonunt Hera (company)</li> <li>- Finmolise (regional Financial Institution)</li> </ul>
SVRK	<ul style="list-style-type: none"> <li>- The regional and local Intermediary Bodies (IBs) responsible for the implementation of the OP below the national level</li> <li>- The three public universities</li> <li>- The national innovation agency SPIRIT</li> <li>- The Chamber of Commerce and Industry of Slovenia</li> <li>- The Chamber of Craft and Small Business of Slovenia</li> <li>- SID bank (Slovenska izvozna in razvojna banka)</li> <li>- Eco Fund</li> <li>- Slovene Enterprise Fund</li> </ul>
KOZANI	<ul style="list-style-type: none"> <li>- Technical Chamber of Greece – Western Macedonia Region</li> <li>- PEDDM - Regional Association of Local Governments of Western Macedonia</li> <li>- Centre for Research &amp; Technology Hellas</li> <li>- Chamber of Commerce of Kozani</li> <li>- Public Power Corporation S.A. Hellas</li> </ul>
PANOV	<ul style="list-style-type: none"> <li>- Managing Authority for Environmental Programmes, Deputy State Secretariat of Environmental and Energy Efficiency</li> <li>- Operational Programmes, Ministry of National Development</li> <li>- The National Research, Development and Innovation Office (NRDI Office)</li> <li>- Széchenyi István University / Environmental Engineering Faculty</li> <li>- Chamber of Commerce and Industry of County GyőrMosonSopron</li> <li>- Chamber of Commerce and Industry of County Vas</li> <li>- INNONET- Innovation and Technology Centre</li> <li>- Zala County Foundation for Enterprise Promotion</li> <li>- PANENERG cluster</li> <li>- REKOTECH cluster</li> <li>- West Pannon Regional Development Plc</li> </ul>
HAME	<ul style="list-style-type: none"> <li>- City of Forssa</li> <li>- City of Hämeenlinna</li> <li>- Häme Centre for Economic Development, Transport and the Environment</li> <li>- Natural Resources Institute Finland</li> <li>- Forssa Region Development Centre Ltd</li> <li>- HämePro</li> <li>- Mane</li> </ul>

## 10 ANNEX B: Evaluation form

Name:					
Organisation:					
Country:					
Region:					
<b>1. What were your expectations from the workshop?</b>					
<b>2. Considering your experience, how much do you agree/disagree with the following statements?</b>					
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The workshop was properly structured and organised					
The agenda was comprehensive and conclusive					
The topics were relevant to the thematic focus of the workshop					
The allocated time to each session (topic) was sufficient.					
The presentations were useful and informative					
The participants were well prepared and informed about the themes of the workshop					
There was enough time for discussions and exchange of ideas.					
Participation in interactive activities enhanced capacity building & mutual learning					
The workshop as a whole has been appropriate and productive					

**3. Do you agree that the workshop will lead to improvements in relevant policy measures?**

Strongly disagree       Disagree       Neither agree  
nor disagree       Agree       Strongly agree

**4. Will you support the integration of key conclusions drawn from the workshop into regional policy measures?**

Not at all       Marginally       At some extent       Considerably       Extensively

**5. Are there any issues related to the topics of the workshop that have not been covered in the meeting?**

Please describe:

**6. Other comments**

Thank you for your contribution!