



European Union
European Regional
Development Fund

SYMBI project

María Gracia Benítez – FUNDECYT PCTEX

lida Holck - HAMK

18 October 2017 | Sevilla

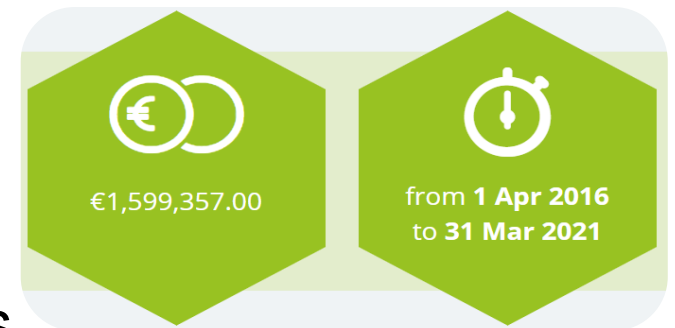
The project

**“Industrial Symbiosis for Regional Sustainable Growth
and a Resource Efficient Circular Economy”**

Improve policies and measures for industrial symbiosis

Increase resource efficiency:

- add value,
- reduce production costs,
- relieve environmental pressures



Lead to regional sustainable development, and job creation

The partnership

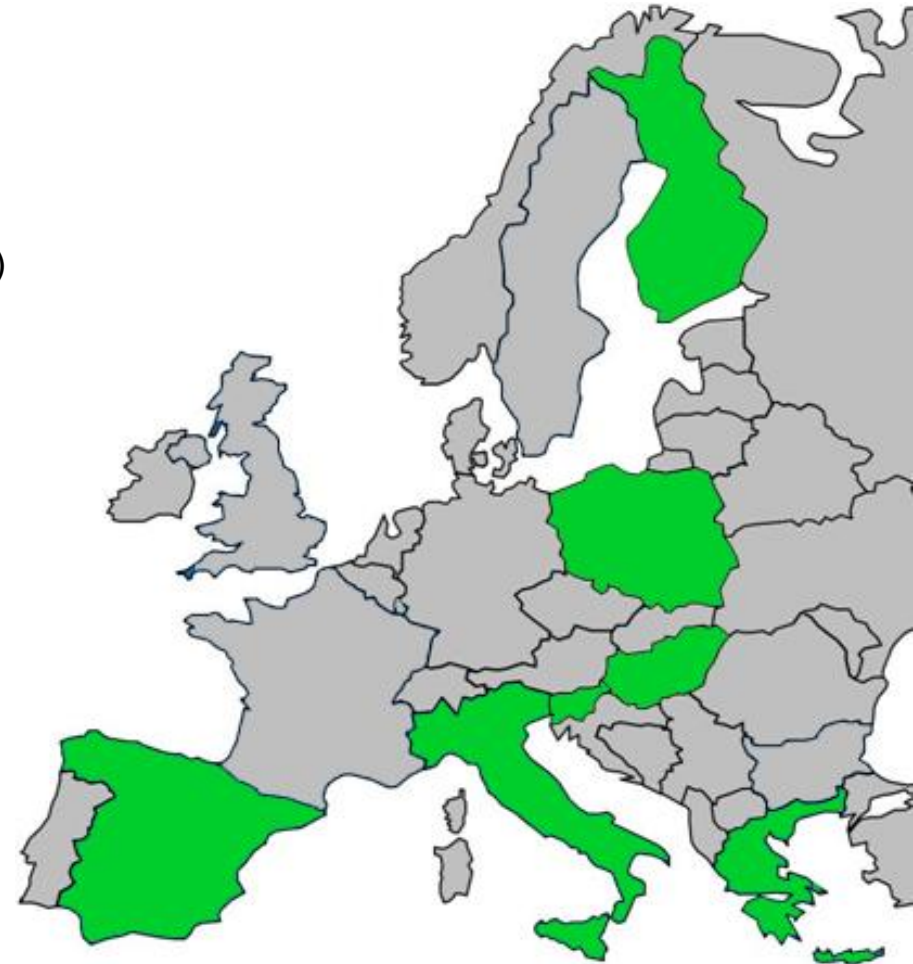
•9 partners from 7 countries

- FUNDECYT -PCTEX (ES)
- Malopolska Region (PL)
- Environment Regional Ministry of Andalusia (ES)
- Chamber of Commerce of Molise Region (IT)
- Slovenian Government (SI)
- Municipality of Kozani – (GR)
- Pannon Novum West-Transdanubia (HU)
- Hämeen liitto (FI)
- Hämeen ammattikorkeakoulu (FI)

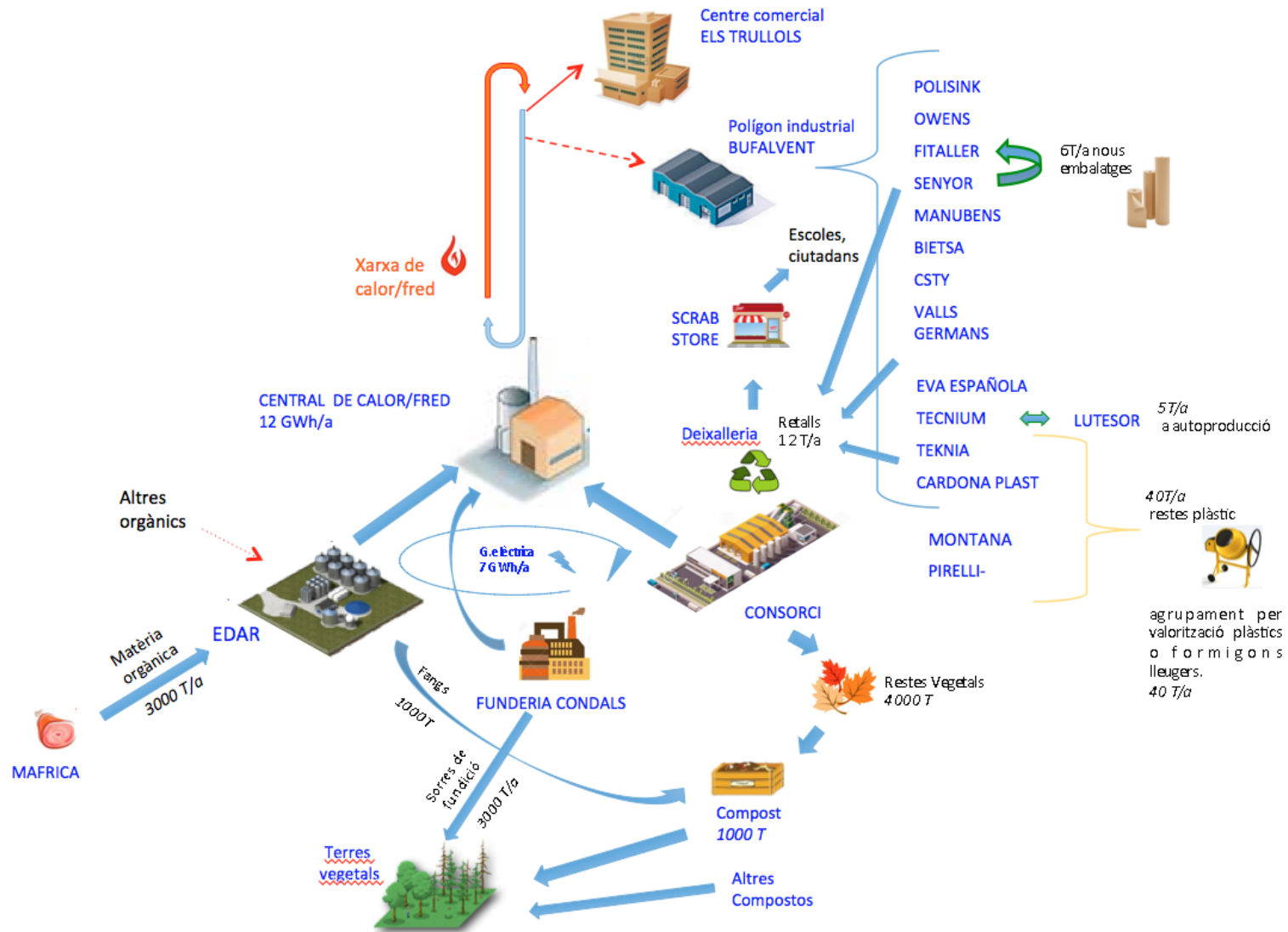
•4 Managing Authorities directly involved

•Experience from past relevant projects

•1 advisory partner



GP: Manresa en Simbiosi



GP: Manresa en Simbiosi

- **“Manresa en Simbiosi” is the first industrial symbiosis initiative of the Council of Manresa (Catalonia) with the participation of Simbiosy with the purpose of creating the basis for promoting synergies between companies / entities, thereby maximising the efficient use of available resources.**
- **The key characteristic of “Manresa en Simbiosi” is that it is an open industrial eco-system that aims to encourage exchanges of all types of by-products.**
- **“Manresa en Simbiosi” has managed to help companies develop synergies by making available the following tools:**
 - The "INEX" Platform is a data management tool that allows identifying synergies and helps managing the networks of companies to implement them (www.inex-circular.com)
 - Work sessions with other entrepreneurs to bring forth the synergies detected
 - Advice to participating companies about how to increase the efficiency in the use of their resources

Advantages

- Promote the use of sustainable bio-energy resources**
- Improve resource efficiency**
- Access new markets**
- Open new markets for secondary raw materials**
- Reduce CO2 emissions**
- Increase profitability, revenue**
- Reduce production costs**
- Strengthen the industrial base, industrial cohesion**

Limitations

- ❑ **Funding, lack of financial resources**
- ❑ **Lack of expertise / skills of existing employees within firms**
- ❑ **Economically unsound or risky exchanges**

“The wastes quantities do not determine the success of the Industrial Symbiosis, but the will of people to change and get involved in circular economy projects”

More information



<https://www.simbiosy.com/>

<https://manresa.cat/web/article/5977-projete-simbiosi-industrial>



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Thank you!

Questions welcome



Project media

Transition Regions towards Industrial Symbiosis (TRIS) Best Practice - Hungary

Boglárka POMUCZ

Herman Ottó Institute Nonprofit Ltd. (HOI)

Transition Regions towards Industrial Symbiosis (TRIS)

TRIS objectives:

- The objectives will be pursued through the improvement of the regional policies addressing:
- Production and management of industrial waste,
- Efficient production processes,
- Access to innovative technologies and production techniques,
- Launch of new business strands and penetration of new markets.

TRIS activities:

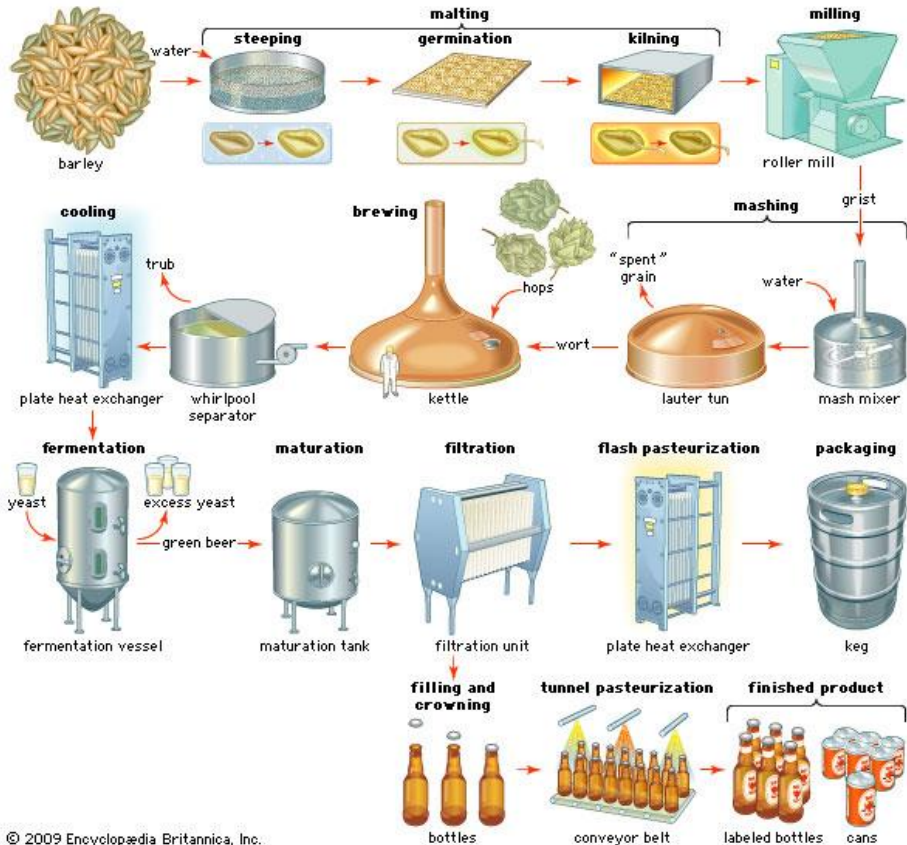
- The establishment of local stakeholder groups
- Organization of interregional thematic workshops
- Study visits
- Staff exchanges for junior staff

Partners:

- Industrial Symbiosis
- Birmingham City Council
- ASTER
- Emilia Romagna
- Energy Agency SE Sweden
- IVACE
- Herman Otto Institute
- AIDIMME
- IFKA

Start: 1st April 2016

By-product management in Heineken breweries



Spent grains

For both breweries all spent grains go to farmers who use it as cattle feed

Yeast

For both breweries all yeast go to farmers who use it as animal feed

Kieselguhr

Used kieselguhr is dewatered and sold as raw material for production of mineral fertilizer and soil mixture

Advantages of the good practice

Spent grains -> cattle feed

- Makes feeding cheaper
- It is available all the year
- Concentrated energy and protein source
- Has a good effect on lactation (+2-3liters/day)
- Easy to store and fodder, it enhances the appetite
- It subserve the absorption of nutriments



Yeast -> animal feed

- Makes feeding cheaper
- Optimizes the digestion process
- Excellent amino acid content
- Concentrated energy and protein source
- Reduces the pH of the feed
- Easy to store and fodder
- The cell wall of the yeast has better quality, with a larger surface, so it can bind several pathogens (mycotoxin and bacteria)



Kieselguhr -> mineral fertilizer and soil mixture

- arable farming (8t/ha)
- recultivation

Limitations of the good practice

Spent Grains

- High water content, conservation is necessary -> fermentation
- Transportation



Yeast

- All animals can be feed with it, but it is economic for poultry and swine
- Transportation



Kieselguhr

- Dewatering technique
- Transportation



Utility and adaptability

- Spent grain and yeast are by-products in all breweries
- Kieselguhr: its use depends on the filtration technology
- Also small breweries can adapt this best practice



Thank you for your attention!

TRIS: <https://www.interregeurope.eu/tris/>



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European Union
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Development Fund

Policy Learning Event on Energy and Resource Efficiency

**Role of Business in Resource Efficiency
(ENHANCE)**

Seville, 18th October 2017



JUNTA DE ANDALUCÍA
CONSEJERÍA DE MEDIO AMBIENTE Y ORDENACIÓN DEL TERRITORIO



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Consortium

PARTICIPATING COUNTRIES:

Spain, Italy, Austria, Estonia and Czech Republic

DURATION:

Phase I: 01/01/2017 to 31/12/2018

Phase II: from 01/01/2019 to 31/12/2020

PROJECT PARTNERS:

Ministry of Territory and Sustainability, Government of Catalonia (MTS, **lead partner**)

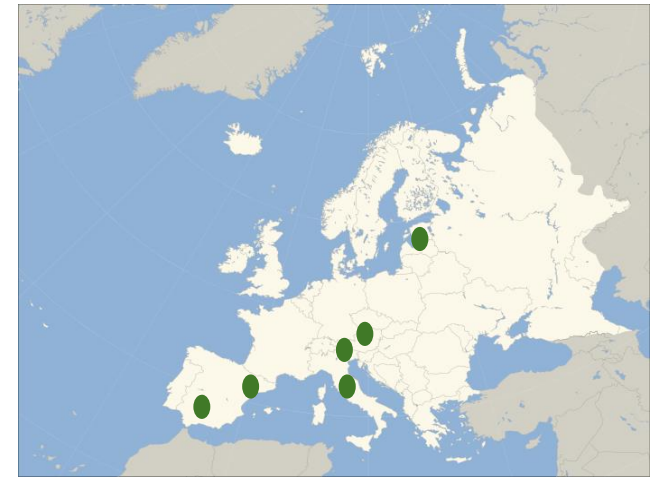
Ministry of Environment and Spatial Planning of Andalusia. Regional Government (RGA-CMAOT)

Sant' Ana School of Advanced Studies (SSSUP)

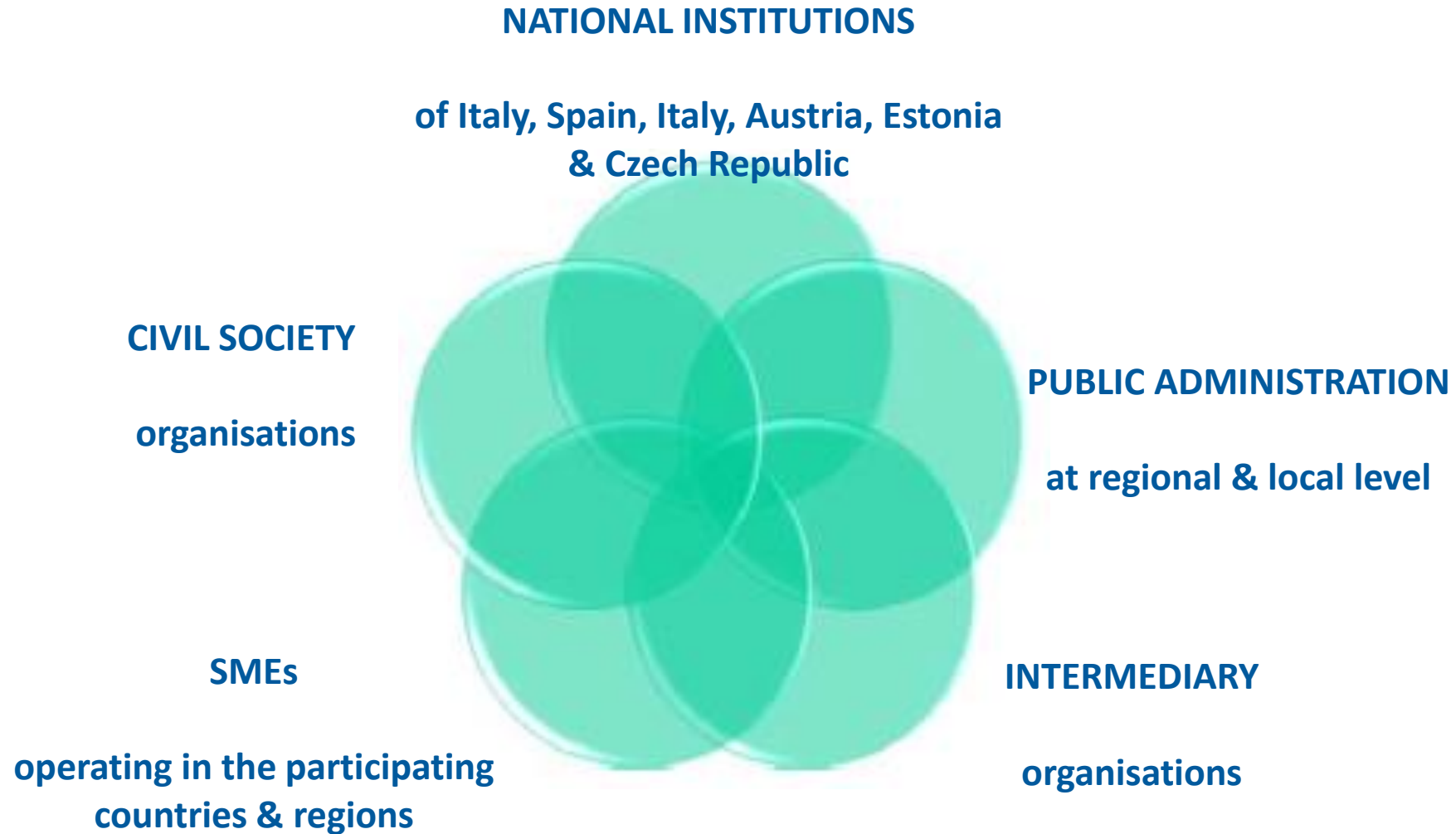
Environment Agency Austria (EAA)

Stockholm Environment Institute Tallinn Centre (SEI)

CENIA-Czech Environmental Information Agency



Main Stakeholders



Overall Objective

To improve the implementation of Regional Policy Instruments oriented to improve resource efficiency through EMAS (in particular SMEs) by the **exchange of experiences and practices on supporting EMAS registration.**

Policy instrument addressed (Andalusia):

ERDF Operational Programme (OP) 2014-2020

Thematic Objective (TO) 3: Enhancing the competitiveness of SMEs

Objectives (1/2)

- To identify, collect, analyse and assess the most innovative policy **experiences and practices** of the participating regions to support EMAS;
- To organize **Thematic Workshops** to optimize, share and transfer the policy experiences and practices identification;
- To include the good practices identified in a **EMAS Joint Database** to increase the effectiveness of the exchange process;

Objectives (2/2)

- To identify and involve relevant stakeholders through **Stakeholder Group Meetings** in order to strength the policy experiences analysis and exchange process through the interregional learning process;
- To draw up **Action Plans** in each participating region including two types of measures: regulatory relief and promotional incentives, with the aim to improve the way in which EMAS is supported by Public Authorities and adopted by organisations (especially SMEs).



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Timetable

2017

2018

2019

2020

1st YEAR

2nd YEAR

3rd YEAR

4th YEAR

LEARNING PROCESS

**MONITORING ACTION PLAN
IMPLEMENTATION**

PROJECT MANAGEMENT

COMMUNICATION

Activities

1st phase: LEARNING PROCESS

1

Analysis & identification of best practices

2

Capacity Building

3

Transfer of knowledge

Outputs

1

Analysis & Identification of BPs

- **Definition of baseline situation**
- **Identification of Good Practices**
- **Selection of Good Practices**



- 2 Stakeholder Meetings per region
- 1 Interregional Meeting (IM)



- Methodology and templates

Outputs

2

Capacity Building

- In-depth analysis
- Exchange of experiences
- Assessment of feasibility of Good Practices



- 5 Thematic Workshops



- EMAS Joint Database (draft version)
- Methodology to assess feasibility of GP

Outputs

3 Transfer of Knowledge

- Definition of “Towards EMAS Action Plan”
- Regional Studies with SHs



2 Stakeholder Meetings per region



1 Regional Study per region
“Towards EMAS Action Plan”



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WHAT are Good Practices ???

Measures of **regulatory relief** and **promotional incentives** to support EMAS adoption in participating countries and regions

REGULATORY RELIEF

Legal instruments are modified so that burdens on EMAS organizations are removed, reduced or implied with a view to encouraging the científico operation of markets and raising the level of competitiveness.

PROMOTIONAL INCENTIVES

An EMAS-registered organization is “rewarded” with fiscal and/or economic incentives (tax relief, easier access to GPP, funding support, reduction of financial guarantees when these are required, etc.)

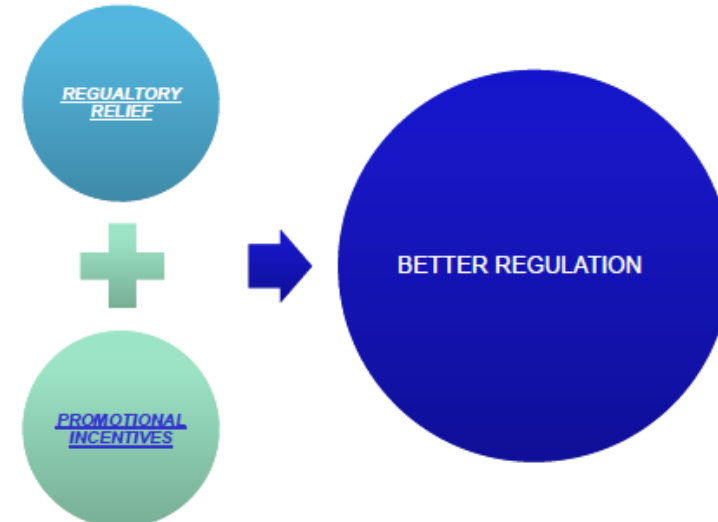
CATEGORIES of Good Practices

REGULATORY RELIEF

- ❑ Fast-track permits
- ❑ Extension of validity of permits
- ❑ Reduced reporting and monitoring requirements
- ❑ Reduced inspections frequencies
- ❑ Self-declaration for the extension of a permit
- ❑ Self-declaration for achieving a new permit
- ❑ Modification in the scope of a permit
- ❑ Green Public Procurement
- ❑ Credit access and Funding support
- ❑ Tax breaks
- ❑ Reduction of administrative fees
- ❑ Reduction of financial guarantees

PROMOTIONAL INCENTIVES

- ❑ Tax break
- ❑ Reduction of administrative fees
- ❑ Easier access to Green Public Procurement
- ❑ Funding support
- ❑ Reduction of financial guarantees



EXAMPLES of Good Practices

FAST-TRACK PERMITS

Much of the environmental information and documentation required for permit applications is already produced as part of the Environmental Management Systems, such as EMAS.

This environmental data and information is continuously monitored, update and third party verified. This category is referred to the possible use of EMAS documents in the request of a permit or a reduction of the ordinary time needed to issue a permit.

EXAMPLES of Good Practices

FAST-TRACK PERMITS / SIMPLIFICATION IN THE APPLICATION

1

Review of Environmental Authorization

for activities EMAS registered activities, the periodic review may coincide with the renewal of the EMAS Register, with the document for environmental control exemption.

2

Self-declaration in the procedure of extension of permission

Firms operating waste plants can provide autocertification for authorization renewal or for renewal of inscription in the Register for waste management. The autocertification must be provided to competent authorities and is considered de facto a substitute for the authorization.



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Main BARRIERS

- ❑ Different level of application of EMAS in participating regions
- ❑ Lack of EMAS trust and awareness among policy makers;
- ❑ Lack of knowledge of EMAS Scheme;
- ❑ Lack of awareness of benefits originating from regulatory relief;



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To get more info about the project and BP...



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Let's do it!

