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Emilia-Romagna Regional Action Plan update

Emilia-Romagna Region, ART-ER

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TRIS Special partnership meeting & Steering Committee

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Background: the policy framework

European Union strategies

- Resource Efficient Europe Flagship Initiative – EU 2020 strategy (2010)
- A stronger EU industry for growth and economic recovery (2012)
- EU Circular Economy Action Plan (2015)
- EU Circular Economy package

Italian national policies

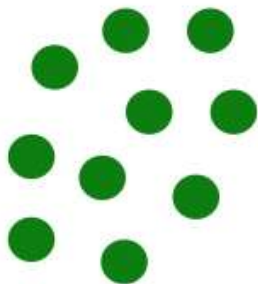
- Environmental aspects included in the Stability Law (2015)
- Decree “Criteria on the Identification of byproducts” (2016) ENV
- MISE&MATTM Decree “Circular economy indicators” (2017)
- MISE&MATTM “Towards an Italian Circular Economy model” (2017)

Emilia-Romagna regional policies

- Regional Law 5/10/2015 on Circular Economy and Waste management (2015)
- Regional Waste Management plan (2016)
- Regional Smart Specialization Strategy (2014-2018)

The process towards the Action Plan

Key Stakeholders
on Industrial Symbiosis
and Circular Economy
in Emilia-Romagna



Engagement in
5 IS Lab Workshops
and Study Visits



Collection of good practices,
insights and ideas on new
actions to develop IS and CE

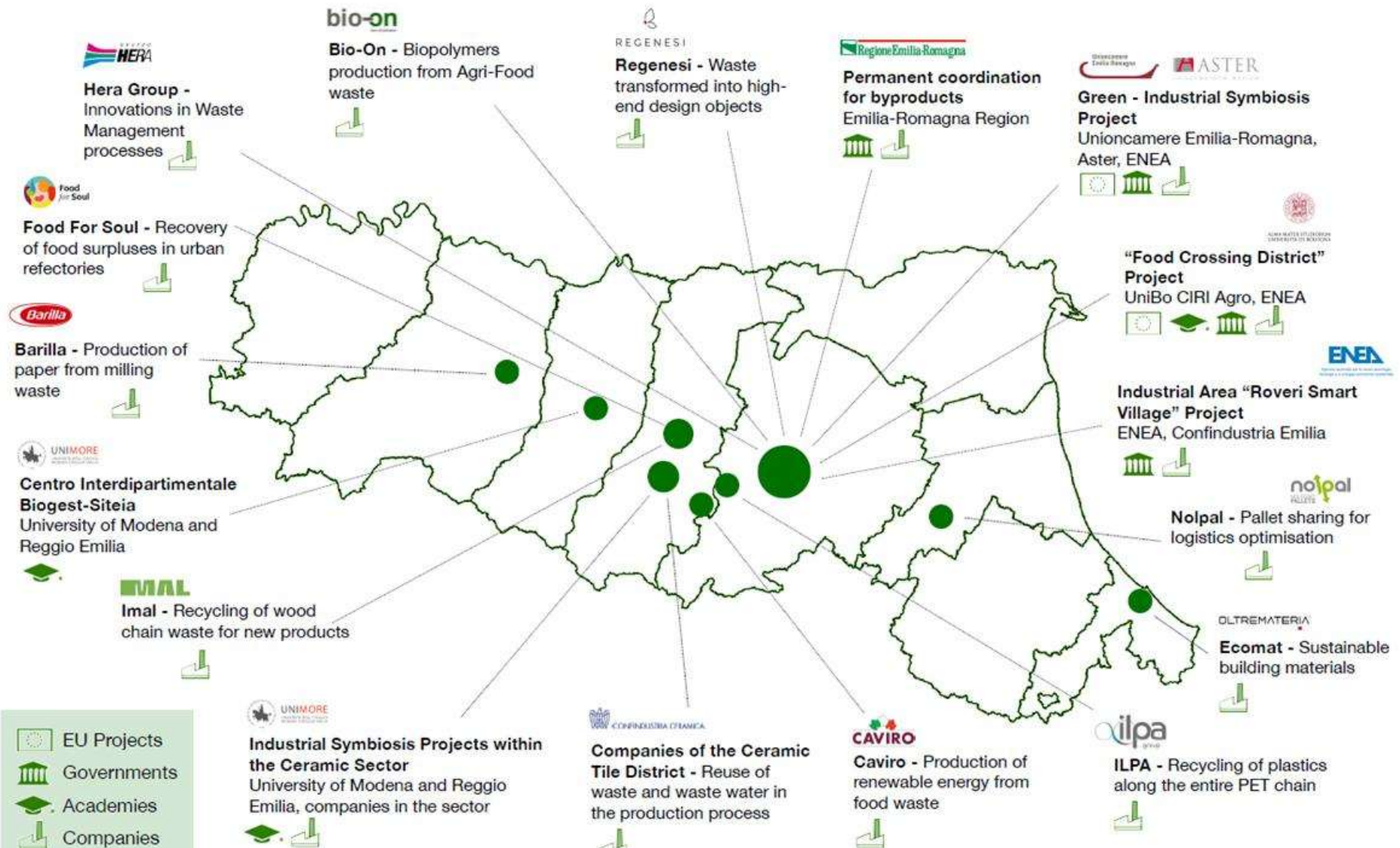


Creation of an
Action Plan
on Industrial Symbiosis



Validated by:
•TRIS IS Lab stakeholders
in Emilia-Romagna
•TRIS partners

Good practices on Circular Economy and Industrial Symbiosis in Emilia-Romagna



Action Plan: 4 Actions

1. Improving market opportunities for **plastic secondary raw materials** in Emilia-Romagna, including both the contributions from industrial residues and post consume materials.
2. Implementation of **regional industrial symbiosis (IS) / circular economy (CE) projects** involving the 5 productive sectors identified in the Emilia-Romagna Smart Specialization Strategy
3. **Awareness raising** amongst regional stakeholders
 - Promoting tools of the regional Circular Economy Law: two meetings will be organized in cooperation with Regional Business Associations to support the activities of the permanent coordination table on byproducts
 - One event will be organized to promote IS within Research 2Business 2019
4. **Influencing National policies** on Industrial Symbiosis: contributing to National Platforms on Industrial Symbiosis and Circular Economy (ICESP) and SUN (Symbiosis Users Network, national platform on IS) activities.

1. Improving secondary raw materials uptake in the plastic sector

- **Abstract:**

As preparatory activity for this action, an analysis was carried out on the plastic material flows in Emilia-Romagna including both the contributions from industrial byproducts and post consume materials.

Based on this analysis, the qualitative and quantitative availability of secondary raw materials and industrial waste will be quantified to improve the secondary market for raw materials and by-products at regional level.

Collected information will therefore be shared with business association so as to show the market opportunities for new business initiatives.

- **Players involved:** Emilia-Romagna Region (coordination), ARPAE (data provider), University of Bologna (performing the analysis)
- **Timeframe:** 2019-2021
- **Budget:** 6 k€

Update on Action 1 progress (1)

- Between April-October 2019, several meetings were held, including meetings organized by the Emilia-Romagna Region with the main trade associations at regional level, to discuss the **"Regional Strategy for the reduction of the effects of plastics on the environment"**, definitively **approved by the Region on 2019, November 11.**
- Meetings were organised with "Coripet" (PET Recycling Consortium) and other important regional organisations representing the retail trade and large retailers, in order to adopt innovative PET collection systems to subject PET to recycling for use in the food sector and facilitate the achievement of the new European objectives on the subject. The action was strengthened by an **agreement approved by the Region on 22 November 2019***.

* Protocollo di intesa per favorire la raccolta selettiva delle bottiglie in Pet post-consumo al fine di intercettarle e di riciclarle in un'ottica di economia circolare da realizzare attraverso un progetto sperimentale" fra Regione Emilia-Romagna, ATERSIR, ANCI-ER, CORIPET e CONFSERVIZI EMILIA-ROMAGNA

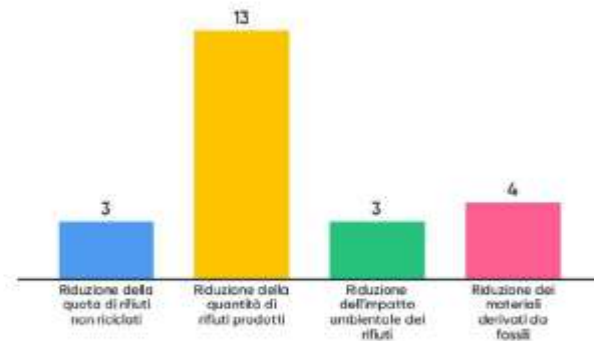
Update on Action 1 progress (2)

- RER participated to the **workshop organized by ART-ER** in collaboration with eCircular project “Prevention of plastic waste production in the Region of Emilia-Romagna“, on 09 September 2019.

Workshop eCircular - Parte interattiva e risultati

Come definiresti la prevenzione (dello spreco) della plastica?

Mentimeter



23

- On the plastic topic, the Region held meetings with several stakeholders.

2. Regional Industrial Symbiosis/Circular Economy projects

- **Abstract:**

This action aims at influencing the Strategic Objectives of the revised Smart Specialization Strategy of the Emilia-Romagna Region by including IS/CE as topics. This strategy shapes the remaining ERDF funding opportunities for research and innovation (Axis 1) within the 2014-2020 programming period.

- **Players involved:** ART-ER, regional Clust-ERs, HTN Network
- **Timeframe:** 2018-2021
- **Budget:** 30 k€ (staff costs) + 10 k€ (direct costs)

Update on Action 2 progress

- In 2018: as preparatory activity for the action, ART-ER brought Industrial Symbiosis and Circular Economy using the examples of TRIS partners at the discussion table of the Smart Specialization Strategy of Emilia-Romagna region. As a result, **Industrial Symbiosis and Circular Economy were included amongst the topics of the new call (Axis 1, Action 1.2.2)** for strategic research projects.
- In 2019: communication of the official approval of strategic research projects (march 14th) and implementation by regional research laboratories and companies. Projects will last 24 months.
- By the deadline of May 3, the partnership agreements were defined.
- The research projects were then launched. In the period 2019-2020 the projects are implemented and their implementation and results is monitored by ART-ER.
- **Number of projects: 5**
- **Total projects value: 5,37 M€**
- **Total ERDF funding: 3,71 M€**

Update on Action 2: financed projects (1)

RIS3 Forum	Strategic objective	Submitted projects	Financed projects	Total investment	Public support
Agrifood	8. Direct and indirect valorisation of agricultural waste, by-products and co-products breeding and aquaculture towards food and feed chains.	4	not funded	0 euros	
	9. Valorisation of by-products and co-products of agriculture, livestock and aquaculture by developing biorefineries or innovative extractive processes for the production of compounds chemicals and materials of interest for non-food and non-feed industrial sectors.	1	BIOWAFER	790,266 euros	570,944 euros
	10. Valorisation of by-products and waste from the agriculture, livestock and aquaculture sector energy products and biomethane	2	FLIES4VALUE	1,111,422 euros	795,981 euros

Update on Action 2: financed projects (2)

RIS3 Forum	Strategic objective	Submitted projects	Financed projects	Total investment	Public support
Build	4. New materials and low impact building components for sustainable buildings.	3	IMPReSA	756,923 euros	547,546 euros
Mechatronics	8. Innovative materials for structural and functional components from advanced manufacturing, to strengthen the competitiveness and sustainability of the regional "advanced materials and manufacturing" supply chain.	2	FIREMAT	1,121,429 euros	800,000 euros
Energy and Sustainable Development	6. Circular economy and sustainable development.	1	VALUE CE-IN	1,118,393 euros	797,875 euros

Update on Action 2: financed projects (3)

- BIOWAFER - Biorefining Waste of the Agro Food Chain in Emilia Romagna
- FLIES4VALUE - Insects for the bioconversion of agrofood byproducts into feed and high added value substances
- VALUE CE IN - Valorization of waste water and sludge with a circular economy and industrial symbiosis perspective
- **IMPRESA** - Using recycled plastics for construction industry applications (light mortar and concrete)
- FIREMAT - FIRE resistant MATerials & composites

3. Awareness raising amongst regional stakeholders

▪ **Abstract:**

The activity is composed by two different actions:

- 3.1 - Promoting the tools of the regional Circular Economy Law (L.R.16/2015) supporting the activities of the “Permanent Coordination table on Byproducts” at two yearly meetings in 2019 and 2020
- 3.2 - Event organized within “R2B - Research to Business 2019” Fair
- **Players involved:** RER, ART-ER, Regional Business Associations, Regional Sustainability Observatory
- **Timeframe:** 2019 – 2020
- **Budget:** 5 k€ (ART-ER); 2 k€ (RER)

Update on Action 3.1 progress

- To date, there are **15 companies** that generate by-products and are **registered in the regional By-products List** (4 of these were registered during the six months April-October 2019).
- The meeting with the main regional Trade Associations, ARPAE, and the representatives of the other regional DGs, scheduled for 2019, was held on December 17, 2019.
- During the meeting, two further by-product chains were analyzed: "**poultry manure**" to be used for the production of fertilizers and the "**residues and scraps of plastic materials**", subsequently approved by the Region. The identification of a chain of plastic by-products is also very relevant for Action 1 purposes.
- RER discussed with representatives of associations about **additional supply chains to be examined**, which will be presented in a short time to the regional coordination.

Update on Action 3.2 progress

R2B 2019 Event (07/06/2019) - Workshop “Circular Economy: how to promote it with innovative tools?”

Organized by ART-ER and RER, in collaboration with ENEA and the Regional Observatory on Sustainability.

33 participants from research institutes, companies, local authorities.

Online pool about future challenges for transitioning to CE.



Quali challenge ritenete prioritarie per favorire la transizione verso l'economia circolare?

021

Aree urbane



Sistemi industriali



Territorio e mare



Catena del valore



4. Influencing National policies on Industrial Symbiosis

- **Abstract:**
 - 4.1 - Participation to working groups of ICESP (mirror platform of ECESP):
 - Research and ecoinnovation, awareness raising and education
 - Policy and governance tools
 - Cities and regions
 - 4.2 - Coordination of “Regional actions and policies for industrial symbiosis” working group of SUN (Italian Symbiosis Users Network)
- **Players involved:** ENEA (coordinator of ICESP and SUN), RER (funding member of ICESP), ART-ER (member of ICESP and SUN)
- **Timeframe:** 2019-2021
- **Budget:** 3 k€ (RER) 1 k€ (ART-ER)

Update on Action 4.1 progress

▪ 2019:

- The Emilia-Romagna Region participated in the **"End of Waste" group of the ICESP Platform**, held on April 4, 2019. RER worked in order to collect data on key issues concerning the authorizations related to the cessation of waste qualification and to lobby the national legislator for the adoption of specific regulatory actions on the subject. In this regard, the Action is influenced by issues related to the national political level, within which the "End of Waste" issue is not a priority.
- On November 7, 2019 in Rimini at the ECOMONDO fair, the event **"Good practices of circular economy : panel of the circular economy stakeholders platform (ICESP)"** was held. The panel presented success stories and best practices of Circular economy with the purpose to encourage their integration, to foster the dialogue and the identification of possible synergies. The conference also hosted representatives of the mirror platforms of Romania and Austria in order to share experiences and encourage the systemic approach for the transition to the circular economy.

▪ 2020:

- a meeting between RER, ART-ER, ENEA, National Agrifood Cluster (CLAN) and FICO Foundation was held (15/01/2020). The objective was to reflect about the launch of a **national working group on food waste**, with the organization of an inaugural event and the definition of a position paper.

Update on Action 4.2 progress

- ART-ER coordinates the activities of the “**Regional actions and policies for industrial symbiosis**” Working Group within the SUN Network. In the context of this activity, it has organised several conference calls with group members, and contacts with ICESP and SUN community stakeholders have been strengthened.

- The activities carried out in 2019 concerned the **mapping of Industrial Symbiosis actions** within the regional policy documents, with a particular focus on S3.

Sintesi dei risultati della mappatura

Regione	Prima versione S3	Aggiornamento
Basilicata	++ (2016)	+++ (ipotesi)
Emilia-Romagna	+++ (2014)	+++ (2018)
Friuli-Venezia Giulia	+ (2014)	++ (2017)
Lazio	+++ (2016)	+++ (ipotesi)
Marche	- (2014)	-
Molise	- (2016)	++ (ipotesi)
Puglia	+ (2016)	+++ (ipotesi)
Umbria	+ (2014)	+ (2018)

Update on Action 4.2 progress

- The first results of this mapping activity were presented during the SUN Conference, “Good practices of Industrial Symbiosis in Italy and the contribution of regional policies as strategic lever” organized on November 7, 2019 at "Ecomondo", the Green Technology Expo held in Rimini.
- 100 participants from research institutes, companies, local authorities.



Positive aspects

- The Regional Byproducts Table has been reactivated after a temporary suspension of the activities (Action 3)
- Opportunities from next programming period: Eu Green Deal - Awareness on circular economy and related tools like industrial symbiosis has increased in the Regional administration which will take it into account for the next programming period (interactions with Enterprises Qualification Service, Emilia-Romagna Region) (Action 2 – financing)
- The new Regional Government in Emilia-Romagna has sustainability and climate as clear goals together with social justice (Emilia-Romagna “Green New Deal” and “Just Transition”, as reported in the President new political programme).

Other considerations

- Political considerations and priorities can strongly influence the evolution of the actions included in the Action Plan (e.g. Action 1 on plastics; Regional Byproducts Table).
- At regional and national level, there is a growing interest towards Industrial Symbiosis (as highlighted by the regional policies mapping)



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Thank you!