

CIRCULAR ECONOMY IN THE 2021-27 ERDF PROGRAMMING (SO 2.6)

**Joint workshop with the Warmian-Masurian Voivodeship (Poland)
and study visit in Lombardy**

GD Environment's actions toward SO 2.6

October, 3 2023

Milan



**Sostenibilità
in Lombardia**



**Regione
Lombardia**

SO 2.6 – An overview

ERDF-RP 2021-27

Approved on August, 2 2022

Funding priority 2: **Greener, low-carbon and resilient Europe**

Budget 120 Meuros 2021-27 (2022-2029)

Not all under our responsibility



The wording

Support for industrial symbiosis actions, prevention of waste production, recycling and reuse to close the cycle

- The **design and management of integrated supply chains and public-private partnerships** that facilitate adherence to sustainable production and service processes, according to the “Life Cycle Thinking” approach
- The **support and promotion of industrial symbiosis as an eco-innovative system approach** that promotes the transfer of matter, energy and water and/or by-products between traditionally separate industries, also thanks to the synergistic possibilities offered by geographical proximity
- Supporting and promoting **reuse and preparation for reuse**, including through the development of reuse network

- The support and promotion of techniques and practices **for reducing food waste** at all points of the supply chain (primary sector, distribution, catering, large-scale retail trade, families);
 - Support for innovative **technologies and models for the collection, recycling and reintroduction of plastic** into the production cycle, as well as for the selective interception and initiation of recycling and reuse of single-use plastic products and reusable alternatives;
- The application and dissemination of **innovative recycling technologies and business models**, conceived starting from the needs of the target market product, with reference to waste fractions that are quantitatively or qualitatively critical or contain critical raw materials (e.g. plastics mixed, sludge from purification and phosphorus recovery, WEEE, "SVHC substances", textile waste, construction and demolition waste, etc...). **Consistently with the PRGR, investments will be allocated only to the recovery of material, as it is privileged in the waste management hierarchy, thus also contributing to the objective of minimizing landfill disposal.**

Prgr - Regional Waste management program



Investments addressing new technologies and principles of circular economy
in line with the Regional Waste Management Program (PRGR)

The PRGR includes ambitious objectives on recycling to be achieved by 2027
and on reducing waste production



Promotion of the efficient management of materials and the development of the circular economy with reference to various priority supply chains (textiles, plastics, food waste,...) through:

- **prevention of waste production (e.g. use of by-products, industrial symbiosis, reuse)**
- **recovery of material with more advanced performances or for currently critical flows, thus improving both production cycles and products, increasing their circularity**

Sustainability criteria

The SEA procedure suggested some sustainability criteria:

CO₂ emissions

Other impacts on environment (spill over effect)

Pushing company toward GPP product

SO 2.6 How are we implementing the action?





Osservatorio economia circolare e transizione energetica

Plastic board

L'Osservatorio per l'economia circolare e la transizione energetica ha organizzato il confronto istituzionale ad ottobre 2018, per la condivisione degli obiettivi strategici delle politiche regionali per il clima e per la sostenibilità dell'uso delle risorse con tutti gli attori del territorio. La partecipazione al dibattito istituzionale è aperta a tutte le associazioni di categoria, alle organizzazioni sindacali, alle università e agli enti di ricerca, alle associazioni degli enti locali, alle associazioni ambientaliste, alle associazioni dei consumatori.



A framework strategy for 2.6 calls validated by MA

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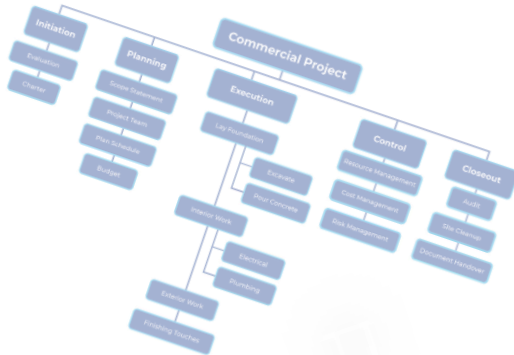
Ensure an optimal distribution of resources



Detailed breakdown of resources for different objectives over the years of validity of ERDF RP 2021-2027

Specific declination

for different waste and beneficiaries





Enhancing the dialogue with stakeholders

A critical analysis of the calls already done

Learning from previous calls

Solving and addressing critical elements emerged



One first call for projects

Funds:
we can allocate EUR 5 million

Beneficiaries:
SMEs

Contents:
Circular economy – plastic waste and textile



What we did: our pathway so far

Questionnaire

Dialogue:

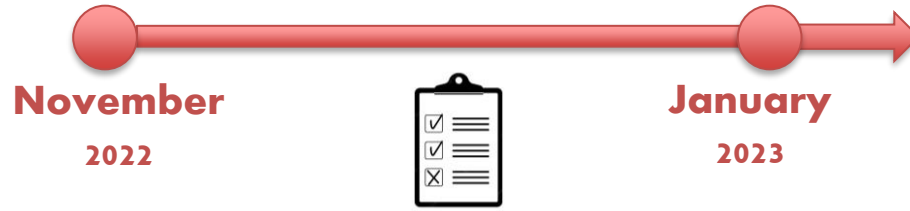
Stakeholders

ERDF-RP Managing Authority

Regional Environmental Authority



The Questionnaire



The main stakeholders interviewed:

18 anonymous replies

Trade associations

Universities and research institutions

Citizens representatives

Also, some reports

The Questionnaire

Which are the priority productive or commercial sectors for an intervention of economic support?

actions for the prevention of microplastics

collections and innovative recovery processes of textile waste

collection and innovative recovery processes of plastic waste

dedicated collections and recovery processes for bioplastic waste

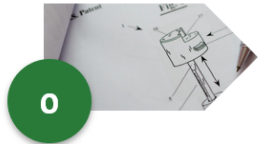
production and use of products/packaging in biomaterials or other materials alternative to plastic from fossil sources

production and use of textile products

production and use of plastic products/packaging

The Questionnaire

What could be promoted with economic regional support to improve the production cycle?



Pilot's licence or other registrations or markings



New equipment with also reorganisation of the production cycle



LCA studies



Costs for staff involved in the project



Design costs



Eco-design tools



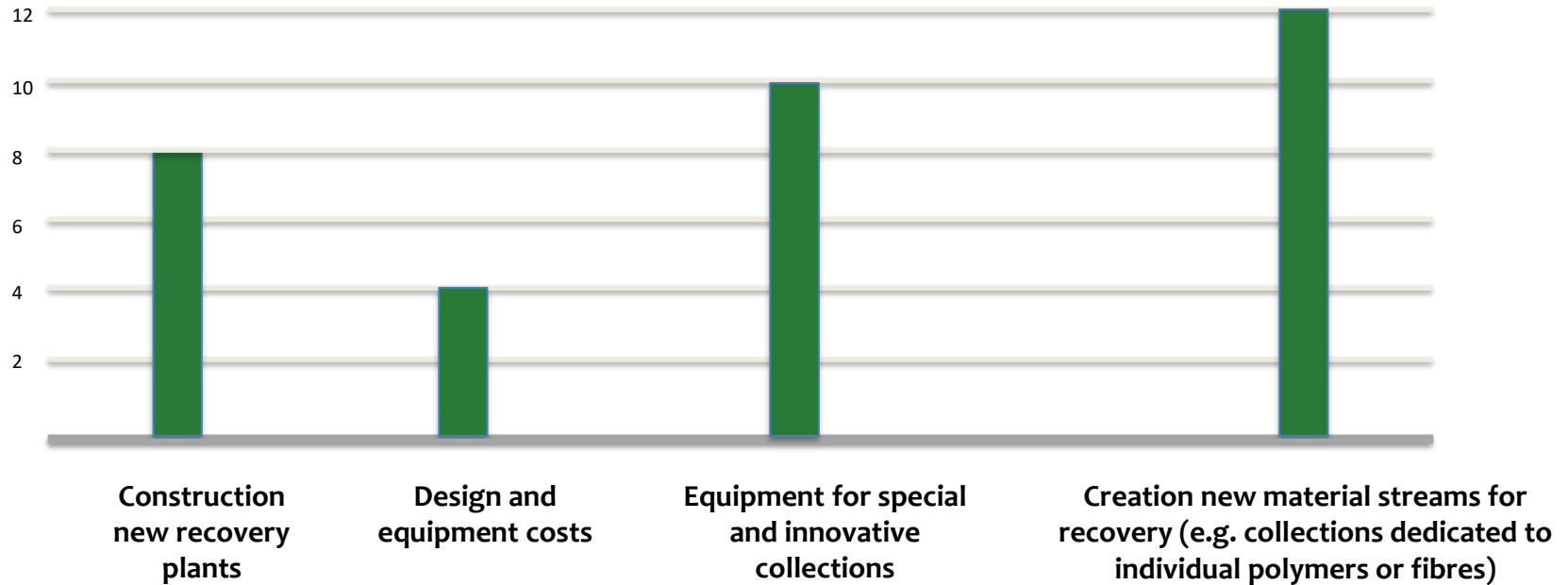
Automation systems and adaptive technologies



Costs to introduce alternative materials into the production cycle

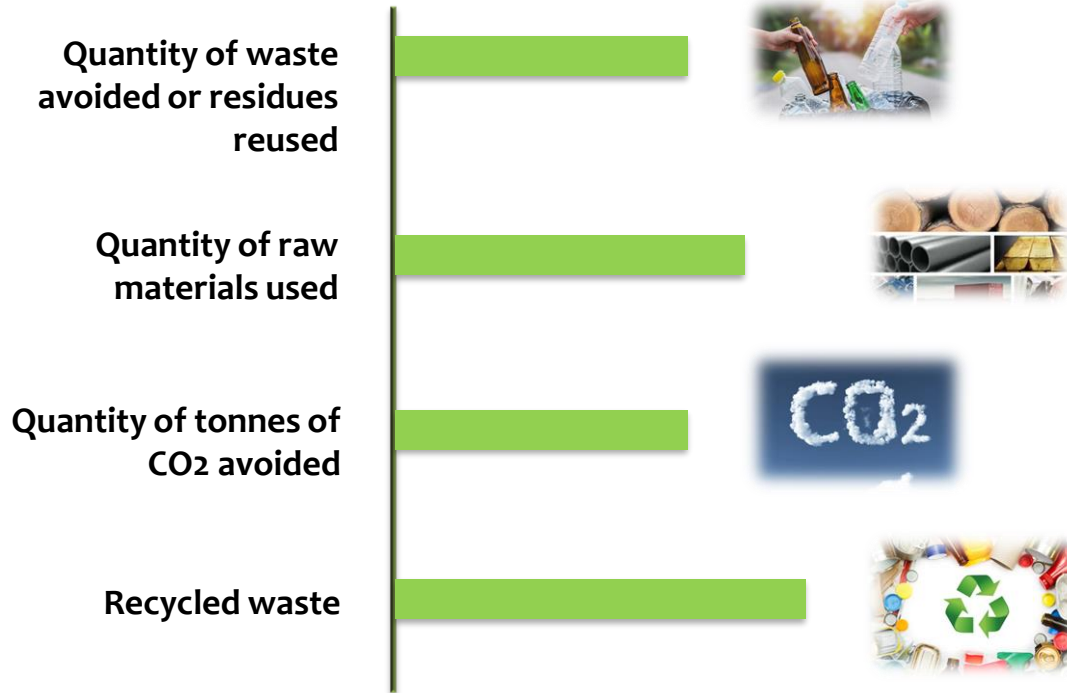
The Questionnaire

What could be promoted by economic regional support to encourage innovative forms of collection and recovery?



The Questionnaire

Which indicators could be identified as a demonstration of the environmental effectiveness of the intervention?



A focus on the contents

Changes in the production cycle

Create a symbiotic system for the use of by-products

Actions to prevent the leaking of microplastics into the environment

Eligible intervention:

Projects relating to one or more of the following areas of intervention in the plastics and textile supply chains are eligible:

- Use of production residues as a material, also under an industrial symbiosis perspective and introduction of by-products into the production cycle
- actions to reuse end-of-life packaging, also thanks to the creation of a deposit system
- changes to production lines to create products/packaging with less use of raw materials
 - changes to production lines to reduce or use its own processing waste/scrap
 - changes to production lines for the introduction of "end of waste" materials

Eligible interventions:

- changes to the production lines following the redesign of the product for the purpose of improving its end-of-life (greater durability and recyclability) also through the use of alternative materials
- innovative projects, with transferability and scalability characteristics, related to waste collections devpted to homogeneous fractions for the purpose of optimizing preparation processes for reuse or recycling
- innovative projects, with transferability and scalability characteristics, related to preparation processes for the reuse or recycling of plastic waste, compostable bioplastic waste and textile waste
 - projects for the prevention of the release of microplastics into the environment

The areas of action can be associated with all phases of the life cycle of the plastic and textile supply chains:

Supply
Design
Production
Distribution
Use
Collection
End of life



These phases can concern both the single company and an aggregation of companies, making **industrial symbiosis actions** possible.



Assessment of the projects

The assignment of the contribution takes place on the basis of a ranking evaluation procedure



Evaluation criteria

1

Quality of the initiative:

- design quality
- innovativeness and effectiveness
 - cost consistency
- consistency of implementation times, including the times for obtaining the necessary authorizations
 - replicability and scalability

2

Project that involves quantified actions
to save or optimize water and energy consumption

Evaluation criteria

3

Project that includes actions to prevent the release of microplastics into the environment

4

Degree of reduction in CO₂ emissions avoided thanks to the intervention.

5

Quantification of expected results in terms of prevention of waste production and/or increase in recycling.

Awarding criteria



The SME(s) takes part in agreements with research institutions in areas related to the project



Presence of Life Cycle Assessment (LCA) or Product Environmental Footprint (PEF) studies to support the project



Presence of certifications referring to the organization and production sites, through an Environmental Management System (EMS) with ISO 14001 accreditation and/or EMAS registration



The organization is an innovative start-up and/or SME



Relevance of the female and youth component in the project team

Conditions

The interventions must respect the DNSH (Do Not Significant Harm) principle, taking into account the specific evaluation and mitigation elements indicated in the SEA Report according to the methods that will be detailed in the implementation notice.

The project must be concluded within a maximum of 18 months

Financial details

Type and amount of financing: Non-repayable grant

Granted and paid up to 50% of eligible expenses and up to the maximum amount that can be granted to companies in compliance with Regulation (EU) no. 1407/2013 relating to the application of articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid (to date: 200,000.00 euros).



Second call for projects

Call for project for institutions



A similar pathway, but for public institution

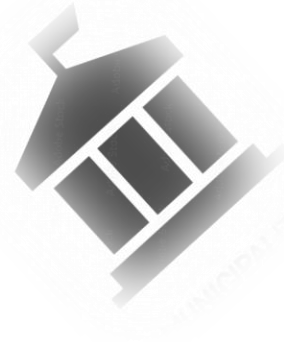
Implementation of collection systems

Waste prevention

Infrastructure for prevention (hub, reuse centers)

10.000.000 euros

Call for project for institutions



A Funding line 1 “Waste prevention”

- Reuse repair centers
 - Hubs to fight food wastage
- «water houses » public tap water springs
 - Waste prevention in public officies
 - School canteens

Call for project for institutions



A Funding line 1 “Waste prevention”

- Dispensers for beverage fountains
 - Reusable tableware
 - Dishwashers
- Appliances and equipment for the delivery and donation of unsold food (fridges , containers)
 - Eco-parties actions to reduce single use items

Call for project for institutions



A Funding line 2 “Collection”

- Community composting
- Mobile Collection Centers to collect WEEEs and other minor fractions
 - Collection of specific waste categories

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Regional Observatory on Circular Economy, Climate and Green Transition

October, 3 2023

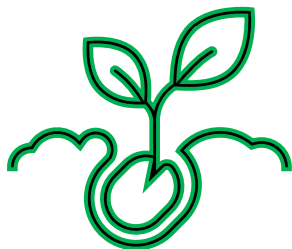
Milan



**Sostenibilità
in Lombardia**



**Regione
Lombardia**



When

Since 2018

What



Working on a shared (as much as possible) framework of the situation, with respect to:

- problems and possible solutions
- possible improvements

Keeping in mind the different skills, roles, etc

Who

Universities and Research – Business – Citizens – NGOs – public Organizations - Trade unions



Organization

Institutional board

Direction function and sharing of general strategies
Headed by the regional Minister

Technical secretariat

Technical-scientific support for the development of regional strategies
Coordination of thematic boards
Monitoring of the activities
Interaction with other cross-cutting boards (integrated policies)

Organization

Thematic boards

Analysis of critical issues and opportunities

Development of legislative and regulatory proposals, financing and support measures, supply chain collaboration methods

Specific initiatives (training, dissemination, projects)

Thematic boards – The past

Circular economy

- C&D waste
- Sewage sludges
- Smelting slag
 - Food waste
 - Plastics
- Soil remediation

Energetic transiton

- Regional refurbishment of public and private building stock
- Energy efficiency in industry and technological innovation monitoring
 - Behavioral measures
- Potential for photovoltaic development in the regional territory
 - Energy communities and self-consumption
 - Review of FER guidelines
 - Biogas and biomethane
 - Resilience of the regional electricity system
 - TRANSPOSITION of the RED II directive
 - Resilience to climate change

Thematic boards - Today

Climate and carbon neutrality
Circular economy development
Energy efficiency
Soli remediation
Culture of Sustainability
Air (quality) institutional table

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Matchmaking platforms – Market places

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Milan



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Lombardia**

2 examples

M3P Life project

(CentroCOT – Open innovation platform)
Cross sectorial match making platform3

Waste-by-products available and technical skills

<https://www.lifem3p.eu/en/>

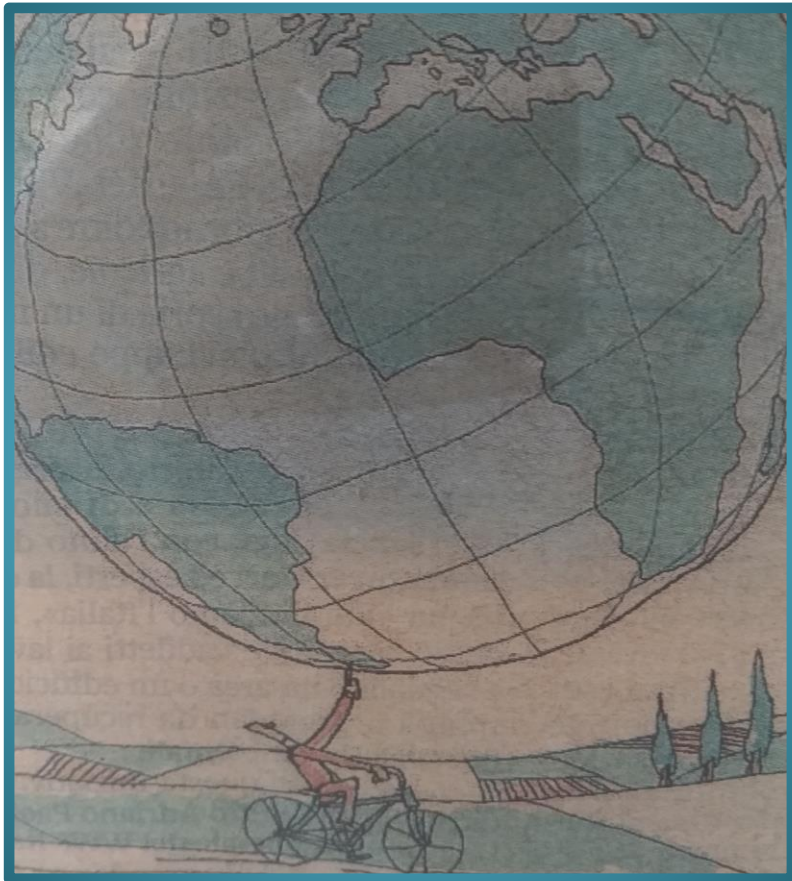


Market inert

(Lombardy Region- ARPA - Ance Lombardia)

Virtual Market for inert waste - Recycled aggregates





Thank you!

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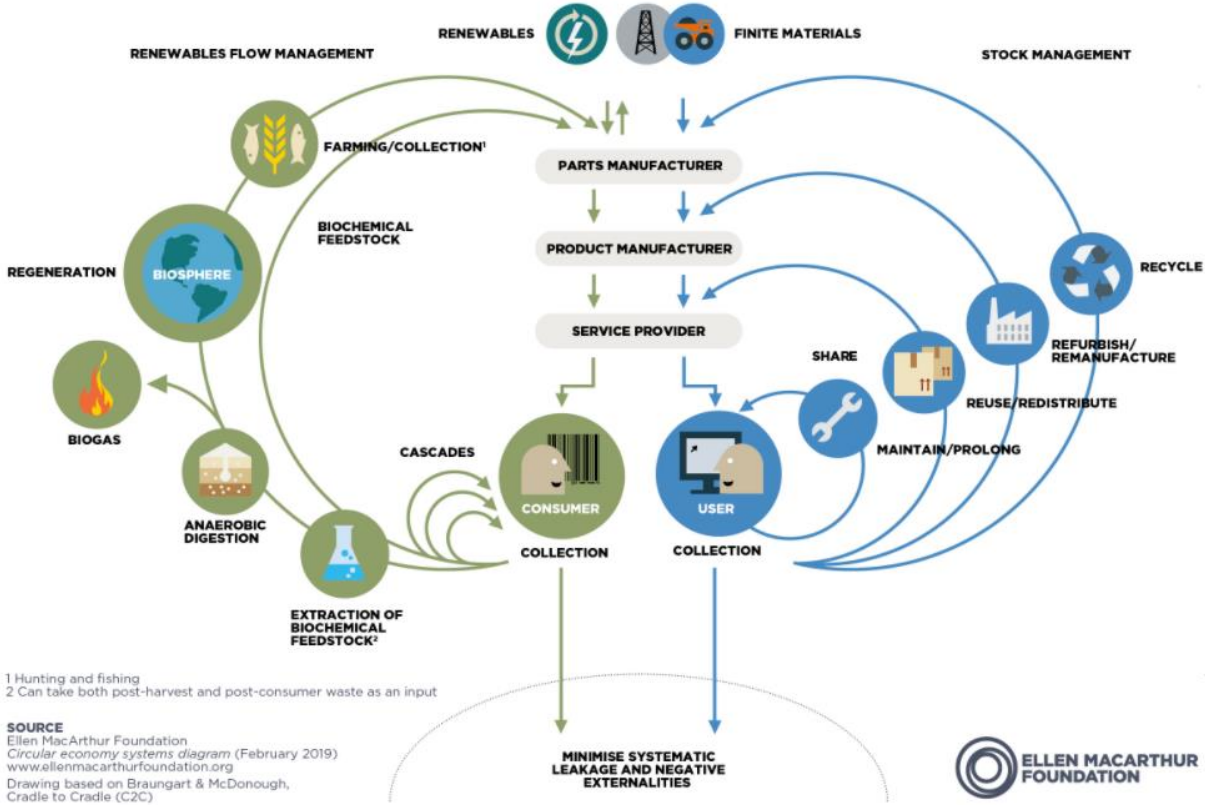
Alessandro Dacomo

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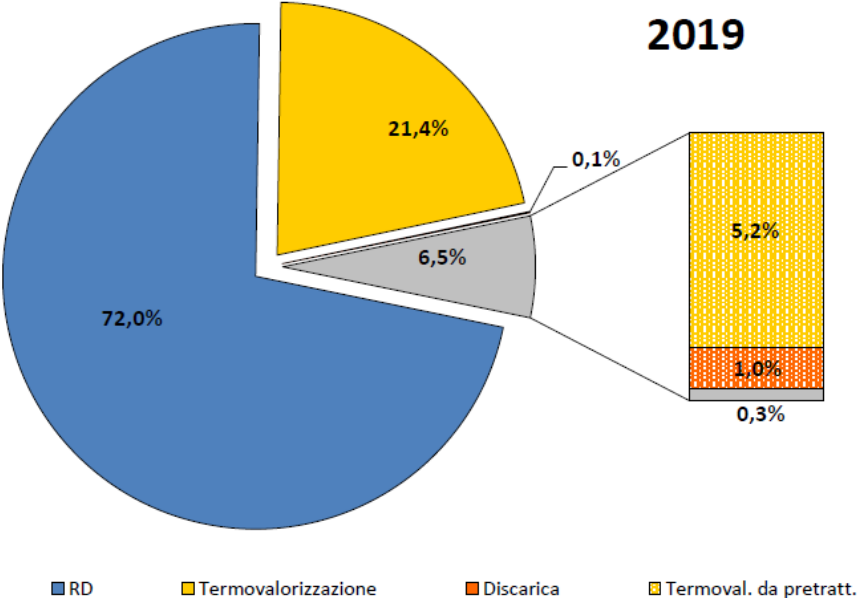
A word cloud featuring the phrase "thank you" in multiple languages. The central text is "thank you" in large, bold letters. Surrounding it are various translations in smaller fonts and colors, including: danke (German), 謝謝 (Japanese), ngiyabonga (Ndebele), tesekkür ederim (Turkish), спасибо (Russian), Баярлалаа (Mongolian), Bontata (Luganda), danke (Swahili), ありがとう (Japanese), спасибо (Bulgarian), благодарам (Serbian), viakata (Hindi), weiahn (Frisian), taack (Yoruba), misaotra (Malagasy), matondo (Shona), paldies (Latvian), grazul (Lithuanian), mahalo (Hawaiian), tapadh leat (Irish Gaelic), хаала (Chechen), asante (Swahili), manana (Hawaiian), obrigada (Portuguese), hvala (Slovene), maururu (Māori), koshoni (Swahili), dziękuję (Polish), hvala (Croatian), enkosi (Zulu), bedankt (Dutch), bayalalea (Fulani), kiites (Finnish), dankie (Afrikaans), honyevu (Xhosa), go raibh maith agat (Irish Gaelic), mochchakkeram (Burmese), agat (Burmese), sukriya (Urdu), kop khun krap (Kannada), arigatō (Japanese), takk (Norwegian), dakujem (Slovak), trugarez (Breton), sukriya (Urdu), terima kasih (Indonesian), tanemirt rahmet (Hindi), xixie (Vietnamese), ευχαριστώ (Greek), arigato (Japanese), dloch (Welsh), dhanyavadagalu (Kannada), shukriya (Urdu), merci (French), merosi (Hindi), sagolun (Sinhalese), najis tuka (Hindi), kan sab hamidra (Hindi), ramnat (Hindi), and তোসাকে ধন্যবাদ (Bengali).

The Circular Economy: a tricky pathway



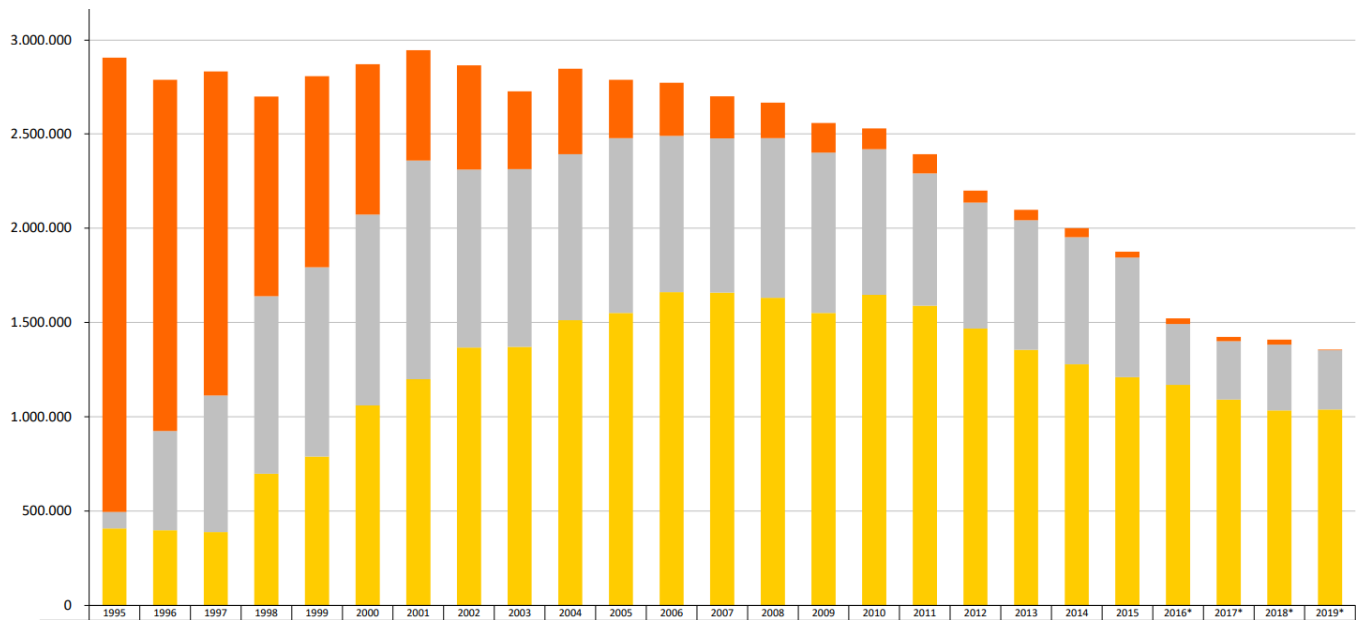
CE is waste management policies: regional results

Urban waste 2019



CE is waste management policies: regional results

Urban waste 2019

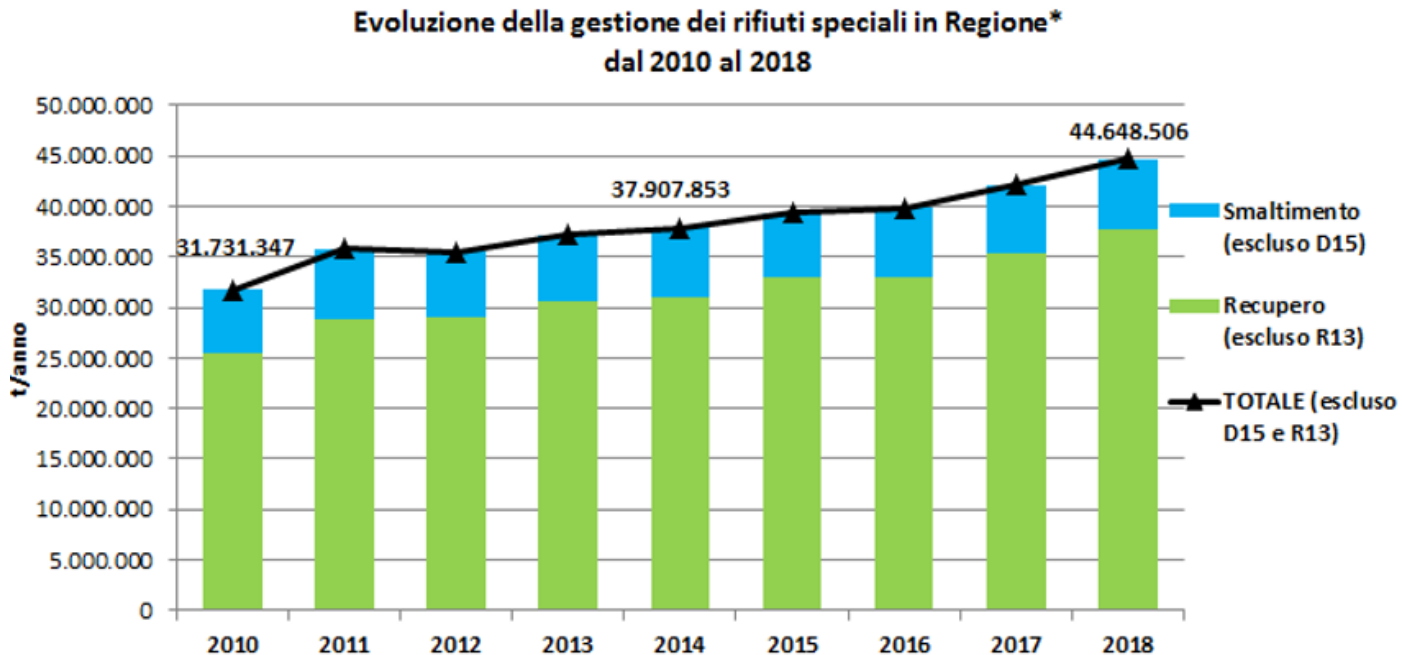


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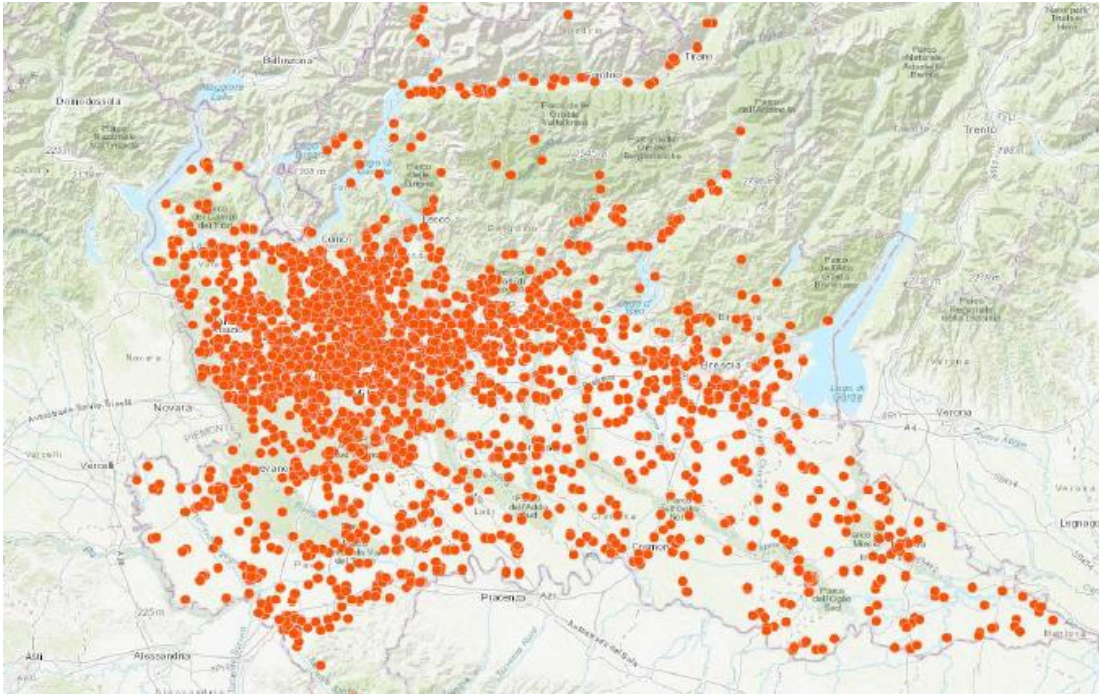
2019

CE is waste management policies: regional results

Special waste 2018



CE is also facilities and industrial plants



Plants

Waste
managed
(ton - 2018)

2231

46.250.00

Incinerators: 13

Organic waste facilities:

- Composting (65)
- Anaerobic digestion (15)

Some peculiarities

The first objective is to reduce the amount of waste landfilled (only material with no energy or material recovery opportunity are landfilled)

Usually, the regional plants can manage both urban and special waste

Some details: urban waste

More than Self-sufficiency for urban wastes

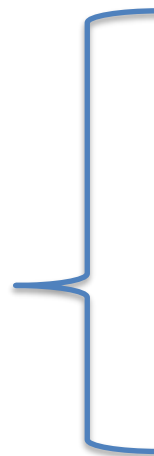
The system can also support other region in need

Then, for all the materials recovered (plastics, paper, cardboard, aluminum, glass) we have treatment plants for intermediate/preparatory processes and plants to transform them in materials ready to be used again for production

Some details : special waste

Special waste:

- Free-market
- High availability of plants
- There are waste exported and waste imported
- Some sectors manage also significant amount of waste from other regions or countries



Particularly strong sectors are:

- Wood
- Aluminium
- Metals
- Paper

The entire “reverse/circular” value chain is often represented, included the producers of the final “new” raw material

Web-applications and data-base

Data are essential to make circular economy and to support CE polices



Clear ideas on:

- Waste and material flows (how many, what kind, where)
- Facilities

Regional (supraregional) application and data base (managed by the Regional environmental protection agency)

- Orso (urban waste management)
- MUD: special waste (chambers of commerce)
- CGR-web: Waste management plants

Home [Introduzione](#) [Informazioni](#)

BENVENUTI IN ORSO3.0

Per accedere all'applicativo:

- selezionare sulla destra il tasto della sezione corrispondente (Amministrazione, Scheda comuni o Scheda Impianti)
- accesso come **Amministrazione**: digitare il proprio nome utente, quindi inserire la password (rispettando maiuscole e minuscole) e premere sul tasto LOGIN;
- accesso alla **Scheda Comuni**: selezionare Regione, provincia e nome utente (nome del comune), quindi inserire la password (rispettando maiuscole e minuscole) e premere sul tasto LOGIN;
- accesso alla **Scheda Impianti**: selezionare Regione, provincia e nome utente (denominazione completa dell'impianto - Ragione sociale, tipologia, comune e provincia ubicazione), quindi inserire la password (rispettando maiuscole e minuscole) e premere sul tasto LOGIN.

È possibile selezionare l'opzione "Ricordami", per memorizzare il nome utente

Logos in the footer: ARPA Lombardia, ARPAV, ARPA Umbria, ARPAM, arpa FVG, Regione Autonoma Valle d'Aosta, Regione Autonoma Valle d'Aosta, AGENZIA REGIONALE RECUPERO RISORSE, REGIONE BASILICATA, REGIONE LAZIO.

CE dialogue with stakeholder

The Regional CE Observatory

The working groups:

- Construction and demolition waste
- Sewage sludges
- Smelting slag
- Food waste
- Plastics



In the end

We have already done a lot in our region, even before the circular economy holistic approach acquired its importance.

We got positive and effective results

Of course we can do more, we want to do more, we are paving the way to do more

The framework we are setting up with the sustainable development regional strategy and new waste management regional programme are driving us in the right direction.

I hope next time we will be able to describe to you other good practices, which furtherly address circularity and sustainability.

PROGRAMMA FONDO EUROPEO DI SVILUPPO REGIONALE (FESR) 2021-2027 :

Il Programma Regionale a valere sul Fondo Europeo di Sviluppo Regionale - PR FESR prevede l'assegnazione di 2 miliardi di euro nel periodo 2021-2027, volti a promuovere la ripresa economica e la competitività delle imprese del territorio, profondamente colpito dagli effetti dell'emergenza sanitaria del 2020.

Regione Lombardia ha deciso di **accompagnare la ripresa e la crescita della competitività del territorio, mettendo al centro la riduzione delle disuguaglianze tra cittadini, l'aumento delle loro capabilities**, per migliorare la qualità della vita, **e promuovendo la transizione verso un nuovo modello di sviluppo sostenibile ed innovativo.**





Il **PR FESR 2021-2027** si pone tre obiettivi:

1) Un'Europa più competitiva ed intelligente (ASSE 1: 1,1 miliardo di euro)

2) Un'Europa più verde (ASSE 2: 591 milioni di euro; ASSE 3: 51 milioni di euro)

3) Un'Europa più vicina ai cittadini (ASSE IV - 207 milioni di euro)

Obiettivi specifici del PR – FESR 21-27

OP 1 Un'Europa più competitiva e intelligente 	ASSE 1	1.091.000.000 €
OP 2 Un'Europa più verde a basse emissioni di carbonio e in transizione verso la decarbonizzazione e la resilienza 	ASSE 2	591.000.000 €
	ASSE 3	51.000.000 €
OP 5 Un'Europa più vicina ai cittadini 	ASSE 4	207.000.000 €
Assistenza Tecnica 	ASSE 5	60.000.000 €

