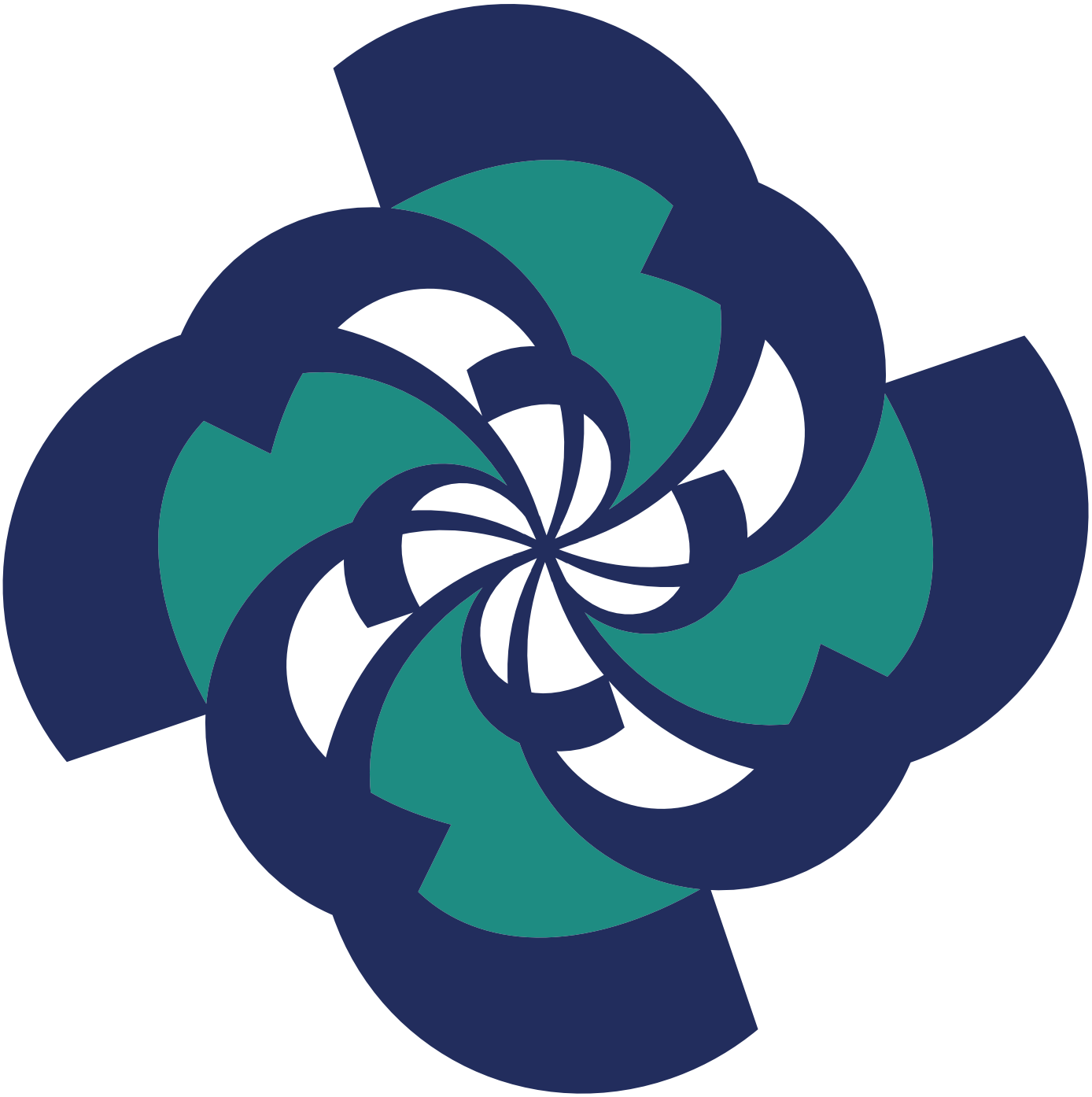
2024

Annual General Report



CONAI

Contents

Guide to reading this document

The *Annual General Report* provides an account of the activities and results achieved in 2024 by the national packaging and packaging waste management system, which centres on the activities of CONAI, Packaging Material Consortia and existing and approved Self-compliant EPR Organisations.
It is required by Article 225, paragraph 3 of Legislative Decree 152/2006, as amended, and must be sent to the competent Authorities by 30 November of each year, as provided for by Legislative Decree 23 of 2022 December 213, known as the Corrective Measure of Legislative Decree 116/2020.

For ease of reading, CONAI has provided an executive summary, which summarises the main contents and data referring to packaging placed on the market, deliveries of packaging waste under the ANCI-CONAI Framework Agreement, the tools for managing Commercial and Industrial packaging waste, and the results for reuse, recycling and recovery of packaging waste.

The first chapters describe the packaging and packaging waste management system in Italy and the regulatory and macroeconomic context that influenced its operation and results in 2024.

The document continues with the measures adopted by the various EPR systems to fulfil the tasks defined by the regulations on the prevention of the environmental impact of packaging and the achievement of reuse and recycling targets (Article 225, paragraph 1 of Legislative Decree 152/2006). In order to facilitate reading and relating the initiatives and specific measures, a table is provided below linking the targets and measures promoted directly by CONAI. As can be seen, some measures are common to almost all the targets that CONAI has been working towards for several years, adapting and updating them according to the context.

Connections between targets set by standards and CONAI measures

	CONAI measures and references	
Prevent the formation of packaging waste **Description** Promote efficient use of resources and prevention at source.	• EPR Fee positioning	p. 61
	• E-PACK – "Raw Material Savings" and "Use of Recycled Material" levers, Essential Requirements Guidelines	pagg. 71, 73
	• ECOPACK – Call for Eco-design Projects	p. 84

Design, manufacture and use packaging that is resource-efficient, durable (including in terms of lifespan), decomposable and reusable, and use waste materials that are generated during the packaging's production **Description** Develop eco-design tools to design packaging with reduced environmental impact.	• EPR Fee incentive procedures	pagg. 63, 261
	• *E-PACK – "Raw Material Savings", "Use of Recycled Material", "Reuse" and "Optimising Production Processes" levers, Essential Requirements Guidelines*	pagg. 71, 73
	• *Design for Recycling*	p. 80
	• *EcoD Tool*	p. 83
	• *ECOPACK – Call for Eco-design Projects*	p. 84
	• *PPWR Handbook*	p. 82
	• *Green Claims Guidelines*	p. 80
Increase the proportion of recyclable packaging waste to non-recyclable packaging waste **Description** Use the structural leverage of fees to incentivise and stimulate placement on the market of recyclable packaging.	• *Modulated EPR Fee*	p. 66
	• *E-PACK – "Facilitating Recycling Activities" levers*	p. 72
	• *E-PACK – Environmental labelling tools for packaging*	p. 75
	• *Design for Recycling*	p. 80
	• *EcoD Tool*	p. 83
	• *ECOPACK – Call for Eco-design Projects*	p. 84
Increase the proportion of reusable packaging waste to non-reusable packaging waste **Description** Use the structural leverage of fees to incentivise and stimulate placement on the market of reusable packaging.	• *EPR Fee incentive*	p. 61
	• *E-PACK – "Reuse" lever and Essential Requirements Guidelines*	p. 72
	• *ECOPACK – Call for Eco-design Projects*	p. 84
	• *Network of regeneration platforms and dedicated projects*	p. 123
Improve the characteristics of packaging to enable it to withstand more journeys or rotations under normal conditions of use **Description** Leverage good reuse practices and related measurement systems.	• *EPR Fee incentive*	pagg. 63, 280
	• *E-PACK – "Reuse" lever and Essential Requirements Guidelines*	p. 72
	• *ECOPACK – Call for Eco-design Projects*	p. 84
	• *Network of regeneration platforms and dedicated projects*	p. 123
Achieve recovery and recycling targets **Description** Develop effective and efficient collection models. Research applications to feed the recycling market. Measures and tools to increase the quantities of packaging waste being recycled.	• *Development of quality separate collection*	p. 143
	• *E-PACK – Environmental labelling tools for packaging*	p. 75
	• *Local communication projects*	p. 143
	• *Research and development in technology*	p. 97
	• *Industrial and commercial packaging platforms*	p. 139
	• *Communication activities*	p. 233
	• *ANCI-CONAI Framework Agreement*	p. 131

Executive summary

2024 DATA

All supply chains exceeded the EU 2025 minimum recycling target per material.

EFFECTIVE RECYCLING RATE

76.7%

+1.07% points
over 2023

Contribution to direct recycling by the CONAI EPR Organisation, in line with its market support role

was 42.56% in 2023

44.32%

PLACED ON THE MARKET

13.95 million tonnes

+0.7%
over 2023

EFFECTIVE RECYCLING

10.70 million tonnes

+2.1%
over 2023

TOTAL RECOVERY*

12.10 million tonnes

* recycled + energy recovery

+2.1%
over 2023

The results achieved in 2024 should be interpreted in consideration of:

- the macroeconomic context which saw **volatile prices for raw materials (virgin and secondary) and continued weakness in industrial production**;
- the sudden drop in the value of glass cullet, which led many operators to return to the agreements with the CoReVe Consortium, contributing to an increase in the quantities delivered to the CONAI EPR Organisation and, consequently, to the relative share of recycling managed out of the total.

Placement on the market

A total of 13.95 million tonnes of packaging (+0.7%), essentially stable compared to 2023 and with slight decreases of less than 1% for the paper and glass packaging supply chains.

PLACEMENT ON THE MARKET BY MATERIAL

Material	2023	2023 consolidated	2024	Annual change
	KTONNES	KTONNES	KTONNES	%
Steel	487.548	484.229	504.149	4.1
Aluminium	84.300	84.300	91.500	8.5
Paper	5,062.204	5,024.414	4,984.109	-0.8
Wood	3,332.669	3,332.669	3,444.682	3.4
Plastic and bioplastic	2,289.949	2,289.950	2,308.769	0.8
of which traditional plastic	*2,212.027*	*2,212.028*	*2,226.523*	*0.7*
of which compostable plastic	*77.922*	*77.923*	*82.246*	*5.5*
Glass	2,642.425	2,642.425	2,618.750	-0.9
Total	**13,899.095**	**13,857.988**	**13,951.959**	**0.7**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

Reuse

CONAI and the relevant Packaging Material Consortia promote reuse through a structural lever that provides for incentive formulas for the application of the EPR Fee. In 2024, out of 1.2 million tonnes of reusable packaging declared through these incentive procedures, 96% consisted of wooden pallets repaired and/or reused by the Rilegno Consortium. Added to these quantities are those related to reusable plastic packaging that fall within the CONIP Consortium circuit (2,549 tonnes).

There are also other informal circuits that are not tracked in the figures and that derive from commercial agreements between companies mainly related to commercial and industrial packaging (e.g. containers, big bags, interlayers, etc.).

Packaging waste sent to recycling

The effective recycling rate in 2024 increased from 75.6%[1] in 2023 to 76.7%, due to the increase in the volume of packaging recycled for the wood and plastic supply chains. In absolute terms, 10.7 million tonnes of packaging waste were recycled, confirming the continuous increase in the quantities recycled.

PERCENTAGE OF EFFECTIVE RECYCLING OUT OF MATERIAL PLACED ON THE MARKET

Material	2023	2023 consolidated	2024	Annual change
	%	%	%	% POINTS
Steel	87.8	89.0	86.4	-2.63
Aluminium	70.3	70.3	68.2	-2.15
Paper	92.3	92.6	92.4	-0.25
Wood	64.9	64.9	67.2	2.24
Plastic and bioplastic	48.0	49.0	51.1	2.01
of which traditional plastic	*47.7*	*48.8*	*50.8*	
of which compostable plastic	*56.9*	*55.8*	*57.8*	
Glass	77.4	77.4	80.3	2.88
Total	**75.3**	**75.6**	**76.7**	**1.07**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

1 Corrected following consolidation of data.

QUANTITIES OF PACKAGING WASTE EFFECTIVELY RECYCLED

Material	2023	2023 consolidated	2024	Annual change
	KTONNES	KTONNES	KTONNES	%
Steel	428.043	431.048	435.539	1.0
Aluminium	59.300	59.300	62.400	5.2
Paper	4,673.536	4,654.965	4,605.294	-1.1
Wood	2,164.246	2,164.246	2,314.294	6.9
Plastic and bioplastic	1,099.007	1,123.200	1,178.935	5.0
of which traditional plastic	*1,054.669*	*1,079.704*	*1,131.424*	*4.8*
of which compostable plastic	*44.338*	*43.496*	*47.511*	*9.2*
Glass	2,045.768	2,045.768	2,102.979	2.8
Total effective recycling	**10,469.900**	**10,478.527**	**10,699.441**	**2.1**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

In addition, it should be noted that the recycling figures presented above include the contribution of Packaging Material Consortia (44.32%), Self-compliant EPR Organisations (2.06%) and independent operators (53.63%). Compared to 2023, CONAI EPR Organisation management increased by 1.76 percentage points, mainly due to the decrease in the value of glass cullet and the return of managers and operators to the CoReVe agreement.
In 2024, all the supply chains for the various packaging materials therefore reached and exceeded the minimum targets set for 2025. Indeed, the plastic packaging supply chain exceeded 50% effective recycling for the first time.

ACHIEVED RESULTS (EFFECTIVE RECYCLING) COMPARED WITH CURRENT TARGETS

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

This result has been made possible by the volumes regenerated and the waste collected – more than half of which from the packaging waste stream in municipal collection and the remainder from interception in the private sector.

The main tool for municipal collection is the ANCI-CONAI Framework Agreement, which operates in a market support role.

Agreements

For the year 2024, the distribution of agreements maintained a high degree of local coverage at the national level (up to 97%) with 7,396 municipalities served. Compared to the previous year, there was an increase in both the number of inhabitants served and the number of municipalities covered by all Packaging Material Consortia. In particular, we note:

- a modest increase in the metal, paper and plastic sectors;
- a more significant increase for the bioplastic supply chains, due to the expansion of the Biorepack Consortium in the area, and for glass, due to the aforementioned return to the agreement.

AGREEMENTS IN FORCE FOR INDIVIDUAL SUPPLY CHAINS (final data for 2024)

Material	Inhabitants covered	Population covered	Municipalities served	Municipalities served
	MILLIONS	%	No.	%
RICREA	51.7	88	6,250	79
CiAI	45.8	78	5,540	70
Comieco	56.6	96	7,195	91
Rilegno	n/a	n/a	n/a	n/a
Corepla	57.3	97	7,396	94
Biorepack	50.4	86	5,872	74
CoReVe	51.3	87	6,692	85

Source: Packaging Material Consortia.

As is known, the agreements under the ANCI-CONAI Framework Agreement establish the obligation for municipalities to deliver packaging waste to the Consortia, which in turn are responsible for collecting it and sending it for recycling, paying them the necessary fees to cover the costs incurred for the management of separate collection.
These fees are adjusted in line with the CPI index (inflation) and modulated according to the quality of the materials collected.

FRAMEWORK AGREEMENT 2020-2024: PAYMENTS FOR 2024

Material	Minimum	Maximum
	€/TONNE	€/TONNE
Steel	70.11	158.63
Aluminium	154.26	479.11
Paper	21.81	145.42
Plastic	95.81	490.79
Bioplastic	73.36	147.86
Glass	3.70	82.85

Source: Packaging Material Consortia.

Deliveries

In 2024, Italian municipalities delivered 4,857.45 ktonnes of packaging waste, an increase of 4.1% compared to 2023, confirming the CONAI EPR Organisation's contribution to the proliferation of separate collection.

PACKAGING WASTE DELIVERED UNDER THE AGREEMENT (final result for 2023 and 2024)

ANCI-CONAI deliveries	Final results 2023		Final results 2024		Delta
Consortium	ktonnes	kg/person	ktonnes	kg/person	%
RICREA	144.4	2.88	129.0	2.49	-10.7
CiAl	16.94	0.38	17.17	0.37	1.4
Comieco	1,517	27.04	1,587	28.04	4.6
Rilegno	n/a	n/a	n/a	n/a	n/a
Biorepack	43.86	0.78	52.36	1.04	19.4
Corepla*	1,284	22.81	**1,335****	23.31	4.0
CoReVe	1,660	39.32	1,737	33.86	4.64
Total	**4,666**		**4,857.45**		**4.10**

* The data for deliveries to Corepla for 2023 were updated following the adjustment of the actual figures for placement on the market of Corepla and Coripet CPL PET volumes. Following this adjustment, deliveries to Corepla in 2023 were 1,282 ktonnes.
** The quantities also include 5,424 tonnes of collection pertaining to the CONIP Consortium.

Source: Packaging Material Consortia.

- **Steel:** the RICREA Consortium recorded a 10.7% decrease in material delivered compared to the previous year, due to the rise in prices of recycled ferrous metals, which directed some consortium members towards the market.
- **Aluminium:** CiAl saw a slight increase in deliveries.
- **Paper:** deliveries to Comieco were up. The economic situation and domestic demand for recycled paper showed no signs of a solid recovery that would divert significant quantities of material to recycling channels other than the Consortium.
- **Compostable bioplastics:** there was a significant increase in quantities due to a nationwide increase in the agreed rate with Biorepack compared to 2023.
- **Plastic:** deliveries under agreement with Corepla are significantly up on the previous year.
- **Glass:** CoReVe saw a significant increase in the quantities managed, due to market subsidiarity.

The municipal waste collection stream also includes quantities managed directly by Self-compliant EPR Organisations from the public sector. In this case, Coripet's management is relevant due to its relative share of responsibility.

Managed by ANCI-Coripet*	**2024**
	TONNES
CPL PET from separate collection**	7,208
CPL PET from separate collection	157,818
PLASMIX from separate collection	28,331
Total	**193,357**

* Data not usable for SUP targets.
** Selective collection using digital recycling stations, as governed by the ANCI-Coripet Agreement, concerns volumes collected using digital recycling stations belonging to the Coripet network, which are purchased, installed and managed by Coripet at its own expense.

Source: Coripet, Management Report 2024.

Adding the total amount managed by ANCI-Coripet to that managed by ANCI-CONAI relating to Corepla deliveries, the total amount delivered to Packaging Material Consortia and Self-compliant EPR Organisations under their respective agreements with ANCI amounted to 5,043.60 ktonnes in 2024 (+4%).

	2023	**2024**	**Delta**
	KTONNES	KTONNES	%
Managed by ANCI-CONAI (Corepla)*	*1,284*	*1,335*	4%
Managed by ANCI-Coripet*	*175.86*	*186.15*	6%
Total plastic	**1,460**	**1,521**	**4%**

* The quantities also include 5,424 tonnes of collection pertaining to the CONIP Consortium for 2024 and 4,315 tonnes for 2023.
** Excluding the share of CPL PET from selective waste (5,356 tonnes in 2023 and 7,208 tonnes in 2024), see previous table and related comments.

Source: Coripet, Management Report 2024.

The municipal collection stream is then completed with the portion recycled by independent operators, following the decision by municipalities and their operators to directly manage packaging in municipal collection on the market, a phenomenon that mainly concerns steel and aluminium packaging waste and a portion of cellulose waste.

Management of commercial and industrial packaging

A large proportion of C&I packaging waste is recycled thanks to the market. However, in order to develop management on these flows as well, the CONAI EPR Organisation is implementing various measures. This begins with the Rilegno Consortium, which is most involved in packaging falling into this category. The measures include incentive payments for reused packaging, agreements with companies to reclaim and recycle specific types of industrial packaging (multi-material drums and tanks), and a network of platforms dedicated to recovering and recycling industrial and commercial packaging.

SUMMARY OF THE ACTIONS OF PACKAGING MATERIAL CONSORTIA ON INDUSTRIAL AND COMMERCIAL PACKAGING

Consortium	Reuse	Regeneration II and III	Recycling II and III	Assimilation
RICREA		• **Drums and tanks:** 35 ktonnes	• **Collected and recycled together with other ferrous scrap:** 133 ktonnes • **Strapping:** 28 ktonnes	
Comieco			• **Collection at business premises and other small and medium-sized businesses (UND)** • **Network of 118 platforms**	• **Cardboard boxes** from households in combined separate collection and from non-residential users in selective separate collection
Rilegno	• **Weight abatement on EPR Fee for reusable packaging:** 984 ktonnes benefited from reduction (data from CONAI).	• **Recovered tank bases:** 9.1 ktonnes per 27 plants • **Pallet reprocessing project:** 123 ktonnes of regenerated pallets from 67 EPR Organisation members	• **Network of 394 platforms:** 1,756 ktonnes	
Corepla		• **drums and tanks (PIFU):** 22 ktonnes per 28 plants	• **PEPS – expanded polystyrene packaging recycling platform:** 11.5 ktonnes per 33 plants • **PIA network of 55 platforms in partnership with CARPI Consortium-affiliated plants:** 190 ktonnes	• **Film:** 131 ktonnes

Source: Packaging Material Consortia.

These CONAI EPR Organisation initiatives are supplemented by those of the Self-compliant EPR Organisations operating in these circuits, primarily PARI and CONIP.

- PARI: in 2024 there were 500 collection points nationwide for LDPE flexible packaging waste[2];
- CONIP: in 2024 there were 65 collection points nationwide[3].

2 PARI, Management Report 2024.

3 CONIP, Management Report 2024.

Main activities

In order to ensure that recycling targets are met, CONAI, Packaging Material Consortia and Self-compliant EPR Organisations promote and carry out numerous activities, which are described in more detail in the document, and which are aimed at:

- designing packaging with reduced environmental impact through the development of tools, services and dedicated training activities;
- developing effective and efficient separate collection through numerous awareness-raising, information and training initiatives throughout the country;
- spreading a culture of recycling and circularity, including through communication campaigns and the organisation of exhibitions, awards and competitions which also include journalists.

In particular, the following local projects are of note:

- CONAI's 7 Metropolitan Cities Extraordinary Project, an extraordinary plan aimed at the municipalities of Rome, Naples, Bari, Reggio Calabria, Catania, Palermo and Messina, joined by the Municipality of Genoa in 2025;
- local projects carried out by Packaging Material Consortia and activities promoted by Coripet to raise citizens' awareness of the correct disposal of packaging waste in separate collection and to promote the collection of specific types of packaging. Here are some projects:
  - "Capitan Acciaio" ("Captain Steel") by RICREA;
  - "Ogni Lattina Vale" ("Every Can Counts") by CiAl;
  - "Paper Week" by Comieco;
  - "We are Walden" community by Rilegno;
  - "RecoPet" by Corepla;
  - Radio and local campaigns on selective waste collection by Coripet;
  - "Eco-mind: the game of conscious recycling" by CONIP;
  - "Ecodesign the Future: Packaging Edition" by Erion Packaging;
  - "I buttadentro" ("The Bouncers") by Biorepack;
  - "Fatti mandare dalla mamma" ("Let Mum Send You") advertising campaign by CoReVe.

With regard to **preventing the environmental impact of packaging**, CONAI invests significant resources to support all companies (regardless of whether they are members of the Consortium or other EPR systems) and associations by providing free tools for packaging design, encouraging the efficient use of resources, recyclability and reuse (e.g. Design for Recycling, EcoD Tool, various labelling tools, CONAI Call for Eco-design Projects – ECOPACK), as well as regulatory tools (guidelines and handbooks). In addition, it promotes design for recycling among member companies through EPR Fee modulation, which, for the plastic packaging supply chain, has seen a reduction in

the share of packaging for which there are no recycling activities in progress or which cannot be sorted or recycled with current technology from 43.3% of the total in 2018 to 19% in 2024. Also in 2024, important decisions were taken on the modulation of EPR Fees for paper-based composite packaging, which will be subject to new, more stringent recyclability rules from July 2025.
At the same time, Packaging Material Consortia and Self-compliant EPR Organisations are carrying out activities to support, for example, the reduction of material use (CiAI), innovation and design (Comieco), the development of reusable packaging (Rilegno, CoReVe), recyclability (Corepla, RICREA, Erion Packaging, Coripet, PARI), the use of recycled material (CONIP) and labelling (Biorepack).

To contribute to **the development of skills**, CONAI, Packaging Material Consortia and Self-compliant EPR Organisations are also involved in training, information and environmental education projects aimed at:

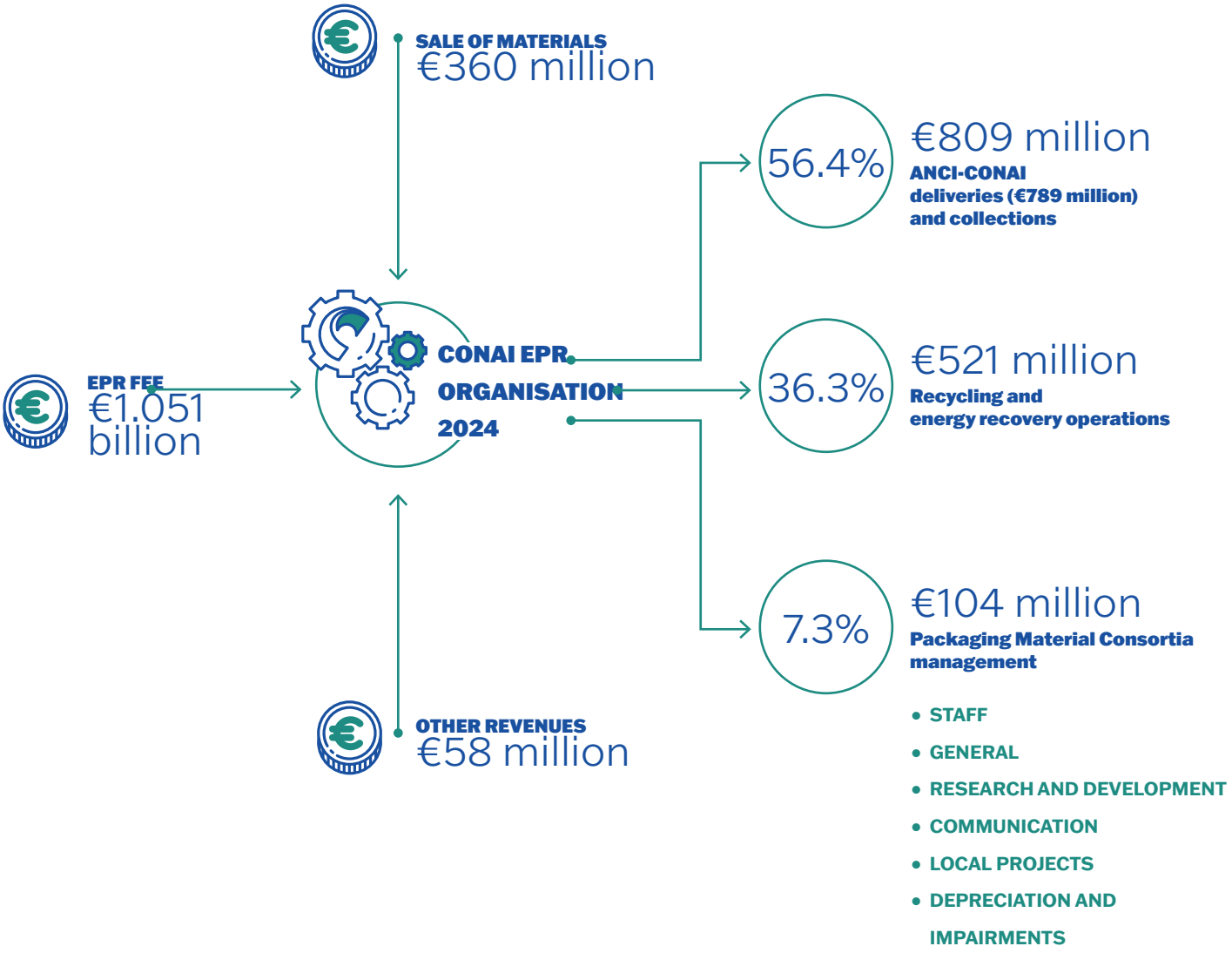
- **primary and lower secondary schools** ("Ambarabà Riciclò® – "Guess what? Clever puzzles on steel recycling" – Ricrea, "Alu Experience" – CiAI, Education section on the website – Comieco, "Recycle, Reflect, Share. Imagine the future with compostable bioplastic" – Biorepack, "Voyage to a new world" – Rilegno);
- **secondary schools** ("It's a question of plastic" – Corepla, "Evviva i riPET-tenti" ("Hooray for rePETers!") – Coripet);
- **universities**, with, for example, the inter-consortium higher education project "Green Jobs" in collaboration with the Packaging Material Consortia, and the Marketing Award with the Italian Marketing Association organised by CoReVe.

CONAI pays particular attention to the issue of transparent reporting and its accuracy, in line with its regulatory tasks, which see the Consortium working alongside national institutions in this area as a privileged interlocutor in the provision of data and information on packaging and packaging waste and on recycling and recovery performance at national level, using calculation methods validated annually by an accredited third party.

Economic and financial balance of the CONAI EPR Organisation

Finally, with regard to the economic balance of the CONAI EPR Organisation, i.e. CONAI and Packaging Material Consortia, thanks to the EPR Fee paid by member companies and revenues from the sale of recycled materials for those fractions that have a positive economic return, the system has supported the national supply chains, from collection to recycling, with around €1.3 billion. The reserves at the end of the year total were sufficient to cover 3-4 months of costs and were therefore in line with the consortium's self-regulation process for reserves.

ECONOMIC RESULTS OF SYSTEM



The year 2024 closed with an operating surplus, bringing the CONAI EPR Organisation's reserves at the end of the year to €517 million, amounting to 36% of the year's total costs.
Given the positive trend in the sales prices of secondary raw materials and the increase in average annual contributions, total revenues were more than sufficient to cover costs, generating an operating surplus with a consequent increase in the capital reserve.


1

The packaging waste management system in Italy

More than 20 years ago, the packaging chain was among the first to be regulated at the European level, with an approach that we now call the circular economy.

The national reference standard is Legislative Decree 152/2006 as amended, known as the Consolidated Environmental Act (TUA, "Testo Unico Ambientale"). It is derived from the European Directives on packaging and packaging waste (Directive 1994/62/EC, updated with Directive 2004/12/EC and now with the Circular Economy Package Directives 2018/851/EC and 2018/252/EC).
The national regulatory context has been affected by important changes over the years, which occurred with the transposition of EU Directives. Nevertheless, the two key principles of the management model have remained unchanged:

- **Extended producer responsibility**, in accordance with the "polluter pays" principle, which places the responsibility for the "correct and effective environmental management of packaging and packaging waste attributable to their products defined in proportion to the quantity of packaging placed on the national market" on producers and users (Article 221). It is the responsibility of the "producer" to pursue the final recycling and recovery targets set by the regulations in force;
- **Shared responsibility**, i.e. cooperation between all economic actors involved in packaging waste management, public and private.

PACKAGING WASTE TARGETS ESTABLISHED BY LEGISLATION

	2002 targets	2008 targets	2025 targets	2030 targets
Total recovery	50%	60%	–	–
Total recycling	25-45%	55-80%	65%	70%
Recycling by material				
Paper	15%	60%	75%	85%
Wood	15%	35%	25%	30%
Steel	15%	50%	70%	80%
Aluminium	15%	50%	50%	60%
Plastic	15%	26%	50%	55%
Glass	15%	60%	70%	75%

1.1 CONAI, Packaging Material Consortia and Self-compliant EPR Organisations

CONAI is a private, non-profit consortium, representing the both producers and users of packaging. It is the cornerstone of the national packaging management system, and with 651,713[4] EPR Organisation members, it guarantees the achievement of recycling and recovery targets nationwide.

The law assigns important tasks to CONAI in the environmental field.

4
As of 31 December 2024. The CONAI Board of Directors' resolution of 26 March 2025 updated this figure to 638,154 members.

CONAI's duties to the environment

Ensuring the achievement of the packaging waste recovery and recycling targets currently in force, overseeing the cooperation of Consortia and other economic actors.

Reducing the amount of packaging waste going to landfill by promoting recovery alternatives.

Organising information, training and awareness-raising campaigns aimed at packaging users and consumers in particular.

Acquiring data relating to packaging flows into and out of the country and from the economic operators involved and supplying the data and information requested by the Ministry of Environment and Energy Security (MASE).

Promoting and coordinating the separate collection of packaging waste in accordance with efficiency, effectiveness and affordability criteria.

Promoting environmental packaging and packaging waste impact prevention, through study and research into the production of environmentally friendly, reusable and recyclable packaging.

Ensuring compliance with the "polluter pays" principle as regards producers and users by means of EPR Fee calculation.

Incentivising recycling and recovery of secondary raw materials by promoting the market for them.

Working in accordance with the principle of subsidiarity, taking over from separate collection service managers in the event of the inadequacy of the separate collection systems set up by local governments, in order to achieve recovery and recycling objectives.

Entering into a national Framework Programme Agreement with ANCI, the Union of Italian Provinces (UPI) or the sector authorities, with a view to guaranteeing implementation of the principle of management co-responsibility between producers, users and local governments (authorities).

CONAI is responsible for implementing extended producer responsibility, whereby producers are required to collectively bear the costs of the correct end-of-life management of packaging placed on the market in Italy. For this reason, the Consortium sets the value of the CONAI EPR Fee depending on the reference material and weight of the packaging, modulated with respect to specific criteria (reusability and recyclability). The legislation assigns CONAI the task of distributing among the EPR Organisation members (producers and users) *"the consideration for the costs" relating to "separate collection, transport, sorting and other preliminary operations, [...] as well as the costs for the recycling and recovery of packaging waste delivered to the separate collection service. [...]."* The necessary funds come from the definition and collection of the CONAI EPR Fee used *"as a priority for the collection of primary packaging or packaging delivered to the public service".*

With regard to packaging waste management, CONAI directs the activities of the seven Packaging Material Consortia representing the materials used for the production of packaging:

Steel
RICREA

Paper and cardboard
Comieco

Glass
CoReVe

Aluminium
CiAl

Wood
Rilegno

Bioplastic
Biorepack

Plastic
Corepla

The Packaging Material Consortia, both private and non-profit and acting in a market support role, work to collect packaging waste of various materials and send it to recycling/recovery across the whole of Italy.
CONAI also has important general functions, including the development of the *"General Programme for the Prevention and Management of Packaging and Packaging Waste"*, liaising and coordinating between public administrations, Packaging Material Consortia and other economic actors, conducting information and awareness campaigns for citizens, and collecting and transmitting data from the supply chain to the competent authorities.

The law also provides packaging producers with alternatives to joining the Packaging Material Consortia. They can either *"independently organise the management of their own packaging waste throughout the country"* (Article 221, paragraph 3, letter a) or implement *"a return system for their own packaging"* (Article 221, paragraph 3, letter c). There are currently four Self-compliant EPR Organisations.

PARI, a Self-compliant EPR Organisation developed by Aliplast SpA for the management of its flexible PE packaging waste, falling within the commercial and industrial circuit.

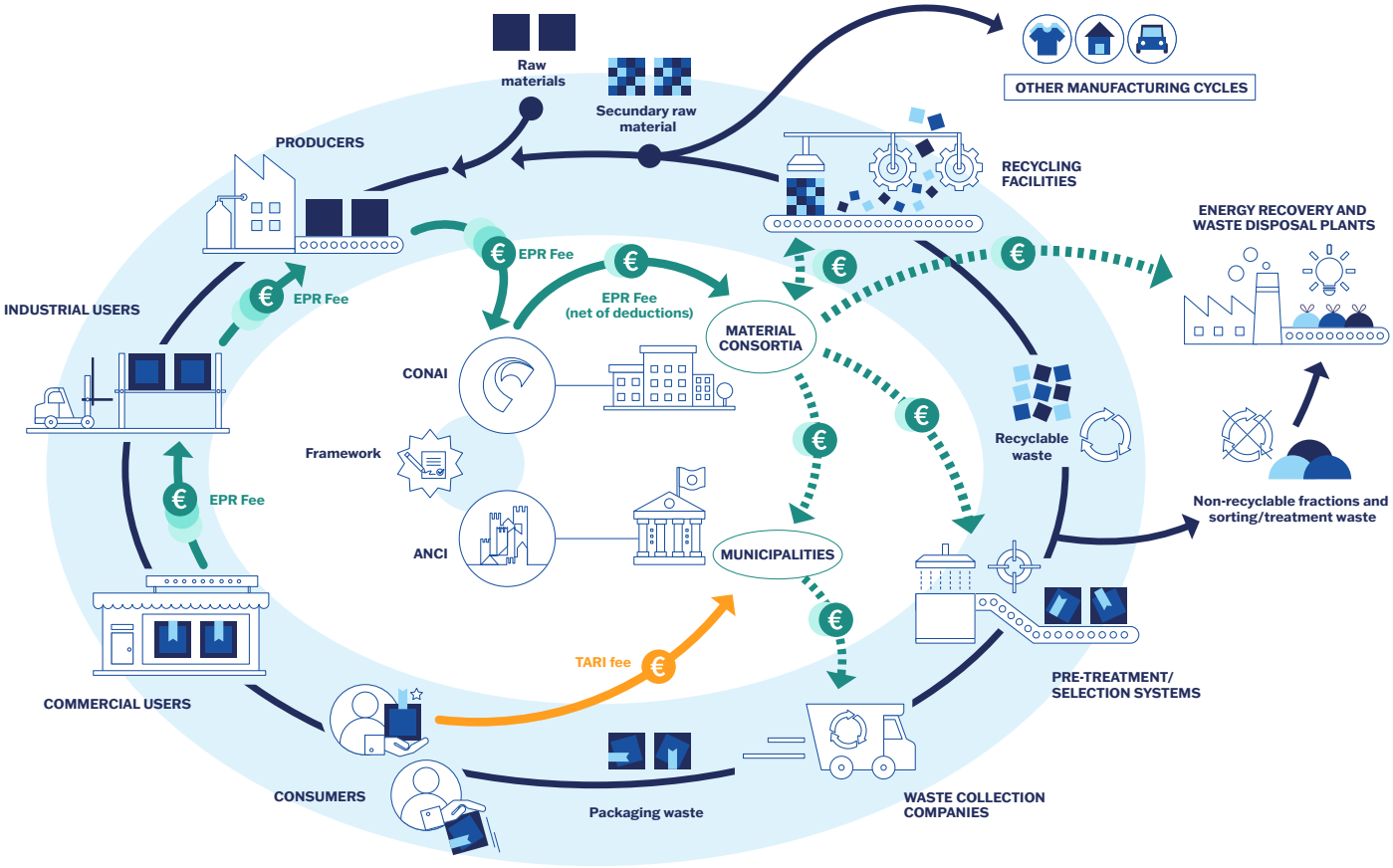
CONIP, an organisation that manages, guarantees and promotes the collection and recycling of the plastic crates and pallets of its EPR consortium members at the end of their life cycle.

Coripet, an organisation for the management of PET packaging for food and non-food liquids.

Erion Packaging, an organisation working to enable member firms to fulfil their extended producer responsibility obligations for paper, plastic and wood packaging and packaging waste originating from EEE (Electrical and Electronic Equipment)[5].

In accordance with current legislation, CONAI and the Self-compliant EPR Organisations promote a framework programme agreement on a national basis with the National Association of Italian Municipalities (ANCI), with the Union of Italian Provinces (UPI) or with the Optimal Local Area Management Bodies (EGATOs), to ensure coverage of the costs arising from separate collection, transport, sorting and other preliminary operations for packaging waste, as well as the methods for collecting this waste for recycling and recovery.
The programme agreement consists of a general part and technical annexes for each packaging material and is also signed by the Packaging Material Consortia.

THE NATIONAL SYSTEM OF PACKAGING WASTE MANAGEMENT



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Pursuant to the provisions of the decree for the recognition of the Erion Packaging Self-compliant EPR Organisation, the project was approved until January 2025 and is currently extended to allow for data completion.

THE CONAI EPR ORGANISATION

The market support role in packaging waste management

The legal nature of CONAI in relation to the functions of guidance, coordination and support for the proper functioning of the market (public mandate to a private entity) is expressive of an extended concept of "market sociality" – of autonomous but interdependent economic stakeholders with common objectives that would otherwise be unavailable to individual actors. This is the case for activities linked to the Framework Agreement with ANCI), research and public awareness, but also for more vertical activities such as technical and operational support to local authorities/regulators and businesses (e.g. labelling and eco-design).

The concept of market subsidiarity applied to the CONAI Consortium allows environmental protection and competition to be considered not as independent and opposing variables, but as complementary.

This concept is expressed along two dimensions:

- downstream, in the management of packaging waste in view of the universality of the service to be guaranteed throughout the country through the Packaging Material Consortia;
- upstream, regarding compliance with EPR obligations, for all companies that do not organise themselves in Self-compliant EPR Organisations (obligation to join CONAI).

The role of the CONAI System emerges clearly when analysing the evolution of the secondary raw materials (SRM) index – which summarises the price trends of the main secondary raw materials sent for recycling in Italy – compared to the trend in deliveries by specific types of materials to the Packaging Material Consortia. Essentially, in an economic context where the price of raw materials is falling, there are higher deliveries to the CONAI EPR Organisation (which replaces the market to protect the environment), contrary to when the price of secondary raw materials alone sustains the supply chain.

In light of the general tasks assigned to CONAI by legislation, the Consortium has worked on various levels to ensure that the objectives are achieved and has implemented numerous projects in line with the provisions of the *General Programme for the Prevention and Management of Packaging and Packaging Waste*, with particular reference to the ANCI-CONAI Framework Agreement, local projects and the promotion of eco-design of packaging. These initiatives for the year 2024 are reported in this Annual General Report, which also includes all the activities promoted directly by the Packaging Material Consortia and Self-compliant EPR Organisations.


2

Context

2.1 EU legislation

Packaging and Packaging Waste Regulation (PPWR)

In 2024, intensive negotiations took place to define both the compromise text of the PPWR and the corrigendum, as the elections in June for the new EU Commission and the new EU Parliament had not allowed for the legal and linguistic revision of the text. The Consortium also participated indirectly in this work to support the institutions and national representations by providing data and technical arguments.

Regulation 2025/40 on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904 and repealing Directive 94/62/EC, was therefore finally approved on 19 December 2024 and published in the Official Journal of the European Union on 22 January 2025. It entered into force on 11 February 2025 and will be directly applicable by Member States from 12 August 2026, with the exception of amendments to the SUP Directive 2019/904, which will apply from 12 February 2029.

The Regulation aims to replace the current fragmented framework of individual national packaging laws with a uniform regulatory framework directly applicable to Member States, without the need for transposition into national law. The Regulation applies to:

- all packaging, regardless of the material used;
- all packaging waste, regardless of the context in which it is used or from which it originates: industry, other manufacturing, retail or distribution, offices, services or private households;
- all Member States of the European Union.

The Packaging and Packaging Waste Regulation has three main objectives:

- Prevent the generation of packaging waste, reduce its quantity, impose restrictions on single-use packaging and promote reusable and refillable packaging solutions;
- Promote high-quality recycling ("closed-loop recycling"), making all packaging on the EU market recyclable in an economically sustainable way by 2030;
- Reduce the need for primary natural resources and create a well-functioning market for secondary raw materials by increasing the use of recycled plastics in packaging through binding targets.

The main innovations of the Regulation include: measures and targets for prevention at source, reduction of the use of primary resources (through the introduction of minimum recycled content), stringent regulation on the requirements for placing packaging on the market linked to recyclability on a scale and more traditional recycling targets, made even more ambitious.

OBJECTIVES OF THE NEW PACKAGING REGULATION

The Packaging Regulation has **three main objectives**:

PREVENTION

Prevent the generation of packaging waste, reduce its quantity, impose restrictions on unnecessary packaging and promote reusable and refillable packaging solutions.

REDUCTION

Reduce the need for primary natural resources and create a well-functioning market for secondary raw materials by increasing the use of recycled plastics in packaging through binding targets.

RECYCLING

Promote high-quality recycling, making all packaging on the EU market recyclable in an economically sustainable manner by 2030.

Chapter II (Articles 5–11) of the Regulation is entitled "Sustainability requirements" and sets out the measures in the "macro-category" of packaging prevention summarised in the table below.

SUSTAINABILITY REQUIREMENTS

Regulation 40/2025

HAZARDOUS SUBSTANCES

- Report on the **presence** of **substances** of **concern** in **packaging** and packaging **components** from the European Chemicals Agency.
- The **sum** of the **concentration levels** of **lead, cadmium, mercury** and **chromium**present in packaging or packaging components **shall not exceed 100 mg/kg**.

RECYCLABLE PACKAGING

- Definition of **recyclability criteria** and **performance levels** to be validated through **delegated acts**.
- Reference to a **methodology** for assessing **"scale recycling"**, to be defined through **delegated acts**.

RECYCLED CONTENT

- Definition of **targets for recycled content** of plastic packaging by 2030 and 2040.

REUSABLE AND REFILLABLE PACKAGING

- Definition of **reuse targets** for 2030 and 2040 for different categories of packaging.
- **Refill** requirement for the **takeaway food** and **beverage sector**.

PACKAGING REDUCTION

- Setting **targets for packaging waste reduction** by 2030, 2035 and 2040.
- **Restriction** of various packaging formats.
- Setting **minimum empty space ratios** for certain packaging categories.
- Introduction of a **DRS** to **increase collection rates** for certain categories of packaging.

COMPOSTABLE PACKAGING

- **Definition** of the **conditions** under which packaging is to be considered compostable.
- **Obligations** and **options** for Member States on the **placing on the market** of **compostable packaging**.

The targets introduced have a time horizon longer than five years, but it is undeniable that the transition period required to achieve the objectives set will require work to be carried out well in advance. Companies are already asking themselves whether and how they should change their packaging to comply with the Regulation.

This is why CONAI has taken steps to verify the progress made in pursuing the targets and measures set out in the rules, with particular reference to the requirements relating to future placement on the market of packaging.

IN ORDER TO ACHIEVE PACKAGING WASTE PREVENTION TARGETS THE REGULATION IMPOSES NEW MEASURES AND RESTRICTIONS

Measures aimed at reducing packaging

OBLIGATION REGARDING EXCESSIVE PACKAGING – ARTICLE 24

Goal	Timeframe	Impacted packaging
Ensure that the **proportion** of **empty space** does not exceed **50%**	By **1 January 2030**	• Grouped packaging • Packaging for transport • Packaging for e-commerce • Within three years of entry into force, the European Commission will adopt implementing acts to establish the methodology for calculating empty space.

RESTRICTIONS ON THE USE OF CERTAIN PACKAGING FORMATS – ARTICLE 25

Goal	Timeframe	Impacted packaging
Restriction from the market of **certain types** of **packaging**	By **1 January 2030**	• Grouped, single-use plastic packaging (e.g. stretch film, heat-shrinkable plastic, etc.) • Single-use plastic packaging for **fresh fruit and vegetables** up to 1.5 kg (e.g. tubs, trays, nets, etc.) • Disposable plastic packaging for **food and beverages** in the **hospitality sector** (e.g. trays, disposable plates, etc.) • Disposable plastic packaging for **condiments, sauces**, etc. in the **hospitality sector** (e.g. sachets, tubs, etc.) • Single-use packaging in the hospitality sector for individual bookings (e.g. shampoo bottles, soap bags, etc.) • Plastic bags made from ultra-light material

PREVENTION OF PACKAGING WASTE – ARTICLE 43

Goal	Impacted packaging	Possible adjustments

Reduction in **per capita waste** production **compared to 2018** equal to:
• **-5%** in 2030
• **-10%** in 2035
• **-15%** in 2040
	• All packaging	• Correction factor for tourism
		• Request for a base year other than 2018 if:
		  • there has been a significant increase in packaging waste during the base year
		  • the increase is solely due to changes in reporting procedures and not due to an increase in consumption
		  • better comparability of data between Member States

The Regulation provides for exemptions to extend the period of application of the reuse targets (Article 29: Reusable packaging – Derogations introduced). Member States may exempt economic operators from the obligations for a period of 5 years if:

- the recycling targets for packaging waste by material to be achieved by 2025 are exceeded by 5 percentage points and are expected to exceed the 2030 target by 5 percentage points;
- they are on track to achieve the waste prevention targets and demonstrate that they have achieved at least a 3% reduction by 2028 (base year 2018);
- economic operators have adopted a waste prevention and recycling business plan that contributes to the achievement of the waste prevention and recycling targets.

With specific reference to these possible exemptions, the impact assessments carried out seem to show that all materials, with the sole verification to be carried out on the plastic packaging supply chain, could guarantee the 5 percentage points above the 2025 recycling targets, thus paving the way for a possible exemption from the provisions of Article 29.

Otherwise, with reference to the second requirement for the exemption, the implementation of the measures provided for in the Regulation alone may not guarantee a 3% reduction in per capita packaging waste generation by 2028, should the 2018 baseline for calculations be confirmed. The situation would be different if the baseline were moved to 2021 in light of the effective entry into force of the new calculation methods at EU level in the first statistically relevant year after the pandemic.

CONAI will continuously monitor the evolution of these parameters in order to provide greater certainty to companies that, as mentioned above, have already started internal processes to rethink their packaging in line with the PPWR.

Also of particular importance is the change in recyclability, which becomes a real prerequisite for the placing of packaging on the market, as does the recycled content. These issues are fully in line with CONAI's strategy for the circular economy.

Another area of focus related to the PPWR is Article 44 of the Regulation, which establishes a collection rate of at least 90% for plastic bottles and cans up to 3 litres by January 2029. If this is not achieved, the Regulation provides for the introduction of a deposit system on these packaging items. There is also an exemption from the obligation to introduce a deposit system if the collection rate of 78% is reached by 2026.

Waste Framework Directive (WFD)

In 2024, Parliament and the Commission also worked on the revision of the WFD, and on 19 February 2025, the Council presidency and representatives of the European Parliament reached a provisional agreement on the targeted revision of the Waste Framework Directive, which sets EU targets for reducing food waste by 2030 and measures for a more sustainable textile sector.

Ecodesign for Sustainable Product Regulation (ESPR)

Following the publication of Regulation 2024/1781 on 13 June 2024, which establishes the framework for setting eco-design requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC, CONAI monitored and analysed the subsequent implementation steps in the second half of 2024. In particular, the JRC study supporting the ESPR implementation work to identify priority product categories revealed a possible complementarity between the ESPR and the packaging sustainability requirements already established by the PPWR (e.g. the use of recycled content for other packaging materials or the provision of refill solutions for other sectors). On 7 November, the European Commission launched a call for applications for members and observers of the Ecodesign Forum expert group, during whose first meeting in February 2025 the Commission proposed to focus first on textiles, furniture and tyres, and on aluminium and steel for intermediate products. In addition, the horizontal requirements proposed as priorities are reparability and recyclability and recycled content for electrical and electronic equipment. Furthermore, the Commission proposes a list of 16 energy-related products.

Empowering Consumer Directive (ECD) and Green Claims Directive (GCD)

In the first half of 2004, negotiations were concluded between the three European institutions on the ECD proposal to amend Directives 2005/29/EC (on unfair commercial practices) and 2011/83/EU (on consumer rights), published in the Official Journal of the European Union with **Directive 2024/825/EU**.

On the recommendation of Unionfood member companies, a special Green Claims Working Group was set up to work on this issue, which led to the development of guidelines for professionals, “Green Claims: obligations and prohibitions” (see section 5.1), published on the CONAI website and disseminated through webinars and specific conferences.

In the second half of 2024, the Green Claims Working Group continued to

analyse and monitor the work of the European Parliament and Council on the adoption of the GCD proposal on green claims. In the absence of specific rules on claims relating to the "green" nature of products, the proposal would require companies to substantiate the voluntary green claims they make in business-to-consumer commercial practices by complying with a set of requirements relating to their assessment (e.g. by adopting a life cycle perspective). Particular attention is paid to the requirement that environmental statements must be based on scientific evidence validated by independent third parties produced before the product or service to which the claim relates is placed on the market, and to the request to modify communication related to emissions offsetting.

Circular Economy Act

Ursula von der Leyen, newly re-elected President of the European Commission, presented her political guidelines for the next European Commission 2024-2029 on 18 July 2024. The main priority is competitiveness: the EU must do everything possible to ensure that its single market is strong, efficient and business-friendly. The Union must also take measures to address strategic vulnerabilities, minimising dependencies on third countries. A new Clean Industrial Deal will work to create the conditions for companies to meet EU targets, including decarbonisation, a must given that the climate crisis is worsening rapidly. This will require access to affordable, sustainable and secure energy supplies and raw materials. The circular economy is part of the answer to all these challenges. It will help the EU meet its demand for critical and non-critical raw materials. The policy guidelines call for a more circular and resilient economy, where a new Circular Economy Act will help create market demand for secondary materials and a single market for waste.

In December 2024, CONAI formalised the proposal for the CONAI System for the Circular Economy Act with the European Commission: an Omnibus Regulation that aims to establish a single market framework for waste, with a particular focus on critical raw materials and waste, including targeted amendments to existing legislation, first and foremost the Waste Framework Directive (WFD). The Commission has announced that the act will be published in 2026.

Secondary legislation

In 2024, the European Union continued its efforts in the development of secondary legislation based on the dossiers completed in previous years. The most relevant dossier is the one relating to the Single Use Plastic Directive (SUPD).

In the first half of 2024, the Commission worked on a proposal for guidelines to establish criteria on waste removal costs in accordance with Article 8, paragraph 4 of the SUP Directive. CONAI followed the work and asked the EU Commission to specify in the guidelines that the flat-rate method referred to must also include criteria for the effectiveness, efficiency and necessity of the service.
At the same time, work continued on the revision of Implementing Decision 2023/2683 on the method for calculating the recycled content of PET bottles in accordance with Article 6, paragraph 5 of the SUP Directive, which, in the draft under discussion, includes chemical recycling and the respective calculation method based on mass balance. An updated version of the proposed revision of the implementing act was submitted to Member States in early 2025.
On 14 October 2024, the European Commission also announced the preparation of a Public Consultation on Marine Litter – Rules on Single-Use Plastics and Fishing Gear, which will assess the measures of the 2019 Single-Use Plastics Directive (SUPD) in preventing and reducing the impact of single-use plastics specifically on the marine environment. The initiative will lead to a final report (REFIT), which will inform any future updates or amendments to the SUP Directive. The current timeline provides for a call for contributions, a public consultation in the fourth quarter of 2025 and adoption by the Commission in the second quarter of 2027.

2.2 National legislation

Legislative Decree on "Infringement Safeguard" – Electronic platforms

Law 166 of 2024 converting the "Infringement Safeguard" Decree, which came into force on 15 November last year, added Article 178-quater to Legislative Decree 152 of 2006. This article stipulates that any manufacturer of products placed on the national market through an e-commerce platform may fulfil the obligations established by the respective extended producer responsibility scheme by also using the services of the e-commerce platform, according to simplified procedures identified through specific agreements that the platforms themselves sign with the extended producer responsibility systems.
The agreements therefore identify these simplified procedures relating to participation in the relevant EPR schemes; the collection and communication of information; and the payment of the EPR Fee.
The law also provides that the National Register of Producers shall include a specific section in which the operators of e-commerce platforms that enter into the above agreements and, under simplified procedures, the producers that place products on the market through them are registered.
In particular, paragraph 10 of Article 178-quarter provides that, for packaging, the possibility of fulfilling their obligations through electronic platforms in accordance with simplified procedures is only available to producers with registered offices outside Italy and through a written mandate in favour of the platform operators.

In line with the law, CONAI has already finalised the Agreement with some of the main e-commerce platform operators who have taken steps to adopt it. The Agreement regulates, among other things, the simplified procedures for fulfilling the extended producer responsibility obligations identified in Article 178-quater of the TUA in favour of producers with registered offices

outside Italy who have given a mandate to the operator. The law provides that the Agreement shall be sent to the Ministry of the Environment and Energy Security for any amendments or additions.

Legislative Decree on the Environment

Law 191 of 2024 converting the "Environment Decree", which came into force on 17 December 2024, introduced important changes that affected Legislative Decree 152 of 2006.

In particular, the measure introduces:

- paragraph 10-bis to Article 221 of the TUA aimed at providing for **a system of equalisation of costs related to the universal service obligations guaranteed by the CONAI EPR Organisation**. The provision aims to ensure that all packaging management systems, i.e. the consortium system and alternative systems, bear a proportionate share of the overall costs of packaging management, which are currently borne exclusively by the CONAI–Packaging Material Consortia system. The paragraph also provides that these costs shall be verified by an independent body appointed by the Parties or, in the event of disagreement, by the Ministry of the Environment. The Parties will have to sign an agreement for each packaging material within 120 days of the law's entry into force. In the absence of agreements, the Minister of the Environment will intervene directly in consultation with the Minister of Enterprises and Made in Italy;
- amends letter n) of paragraph 3 of Article 224 of the TUA, extending the possibility for CONAI to **acquire data relating to packaging flows transferred within the country, including those of cross-border origin or destination, even from non-member economic operators**;
- amends paragraph 5-ter of Article 224 of the TUA to clarify that Self-compliant EPR Organisations are in any case required to bear the **costs of collecting and managing the quantity of waste from their products that ends up in municipal collection**. This obligation also applies if, through the management of waste from private sectors – i.e. from the commercial and industrial channels – these systems have achieved and/or exceeded the recovery and recycling targets.

Discussions are underway between CONAI, the relevant Packaging Material Consortia and Self-compliant EPR Organisations in order to comply with the provisions of the aforementioned new paragraph 10-bis of Article 221 of Legislative Decree 152 of 2006.

Register of producers

Decree 144 of 13 April 2024 of the Ministry of the Environment defined the procedures for registration in the Register of Producers, which is

mandatory for all those subject to extended producer responsibility. The Decree derives from Article 178-ter, paragraph 8 of the TUA, which established the aforementioned Register.

The Register is divided into separate supply chain registers for the production sectors subject to EPR and, in particular, for packaging, there are different registers depending on the packaging material as identified in the Annex to the Decree. The operating procedures for these supply chain registers will be laid down in specific ministerial decrees.
Enrolment in the Register is the responsibility of those subject to EPR schemes (including through an authorised representative for those based in another Member State but operating in Italy), but is carried out by the Consortia and Self-compliant EPR Organisations that fulfil, on their behalf, the obligations arising from EPR. The Consortia and Self-compliant EPR Organisations must communicate the list of participating producers.
The information system of the National Register of Producers guarantees automatic verification of the producer's membership of a Consortium or Self-compliant EPR Organisation.
Enrolment in the Register is carried out exclusively online through the portal made available by the Chambers of Commerce within sixty days of the announcement of the opening of registrations, made public through the Register's portal and the institutional website of the Ministry of the Environment and Energy Security.
Upon registration, the producer provides its personal and company details, as well as the categories of products that the producer places on the market and the manner in which the producer complies with extended responsibility obligations, i.e. membership of an existing collective system or the establishment of an individual system.
The list of registered entities subject to extended producer responsibility schemes is published on the website of the National Register of Producers.
The costs for the creation and maintenance of the Register are borne by the producers, including through EPR schemes. The relevant Chambers of Commerce determine the tariffs based on the actual cost of the service realised and rendered, as well as on the criterion of the quantities of products placed on the market by each producer. The fees are updated every three years. Producers pay their fees at the time of registration and, subsequently, annually at the time of reporting.

MASE Supervisory Board

On 24 April 2024, the Ministerial Decree of 15 December 2023 was published in the Official Gazette, which identifies the objectives and functioning of the Supervisory Board established by Article 206-bis, paragraph 4-bis, of Legislative Decree 152/2006, to strengthen the supervisory and control activities of the functioning and effectiveness of consortium and Self-compliant EPR

Organisation systems for the management of waste, packaging and packaging waste.

The Supervisory Board has the following composition as set by law:

- 2 representatives of MASE, one of whom acts as President;
- 2 representatives of the MIMIT;
- 1 representative of the AGCM;
- 1 representative of ARERA;
- 1 representative of ANCI.

The Board pursues the following specific objectives:

a. ensure the correct use of the EPR Fee, also in order to ensure waste management throughout the country and prevent discriminatory market situations and distortions of competition, by formulating technical and regulatory proposals to the competent Ministries;

b. improve the effectiveness and efficiency of the action of the Consortia and Self-compliant EPR Organisations for waste management by carrying out periodic reviews of the production chains, also aimed at formulating technical and regulatory proposals to the competent Ministries;

c. support the competent Ministries in carrying out their supervisory activities concerning:

- consistency of the Statutes of individual and collective management systems with the principles of extended producer responsibility referred to in part IV of Legislative Decree 152 of 2006;
- implementation of the General Programme for the Prevention and Management of Packaging and Packaging Waste, referred to in Article 225 of Legislative Decree 152 of 2006;
- operation of the systems set up pursuant to Articles 178-bis and 178-ter of Legislative Decree 152 of 2006, to promote the increase of reuse, prevention, recycling and recovery of waste;
- recognition by the competent Ministries of Consortia and Self-compliant EPR Organisations for waste management;
- correct quantification of the EPR Fee and its determination, in the event of incorrect determination, as provided for in Article 237, paragraph 7, of the Environmental Code.

If necessary, the Board may call upon the technical expertise of ISPRA and other competent administrations.

The activities carried out by the Board will be published on the MASE and MIMIT websites by 30 April each year.

It should be noted that on 16 April 2025, in Rome, CONAI was invited by the Board to present its institutional documents.

DDL Legislation on Competition

Law 193 of 16 December 2024, **Annual Law on the Market and Competition 2023**, amended Article 221-bis of Legislative Decree 152 of 2006, specifying that the project for the recognition of the establishment of a Self-compliant

EPR Organisation, either individually or collectively, may concern packaging relating to one or more supply chains.

The law also amended Article 238, paragraph 10 of the aforementioned decree, specifying that non-residential users who produce municipal waste and deliver all or part of it outside the public service are exempt from paying the TARI (municipal waste tax) for such waste only if they certify that it is sent for recycling.

ARERA (Regulatory Authority for Energy, Networks and Environment)

In 2024, ARERA continued its commitment to the municipal waste sector with a series of regulatory and procedural measures aimed at improving the technical quality, tariff transparency and environmental efficiency of waste management services.
Two resolutions approved at the end of the year were particularly significant for the sector:

- **Resolution 596/2024/R/rif**, which defines the standard tender procedure for the award of integrated municipal waste management services;
- **Resolution 574/2024/E/rif**, which gradually extends to the waste sector the system of safeguards currently in place for the energy, water and district heating sectors, in particular with regard to information and dispute resolution tools managed through the Energy and Environment Consumer Help Desk and the Conciliation Service.

Furthermore, with reference to the current year – although not specifically reported in this document – it is worth highlighting the Authority's commitment on several fronts in relation to:

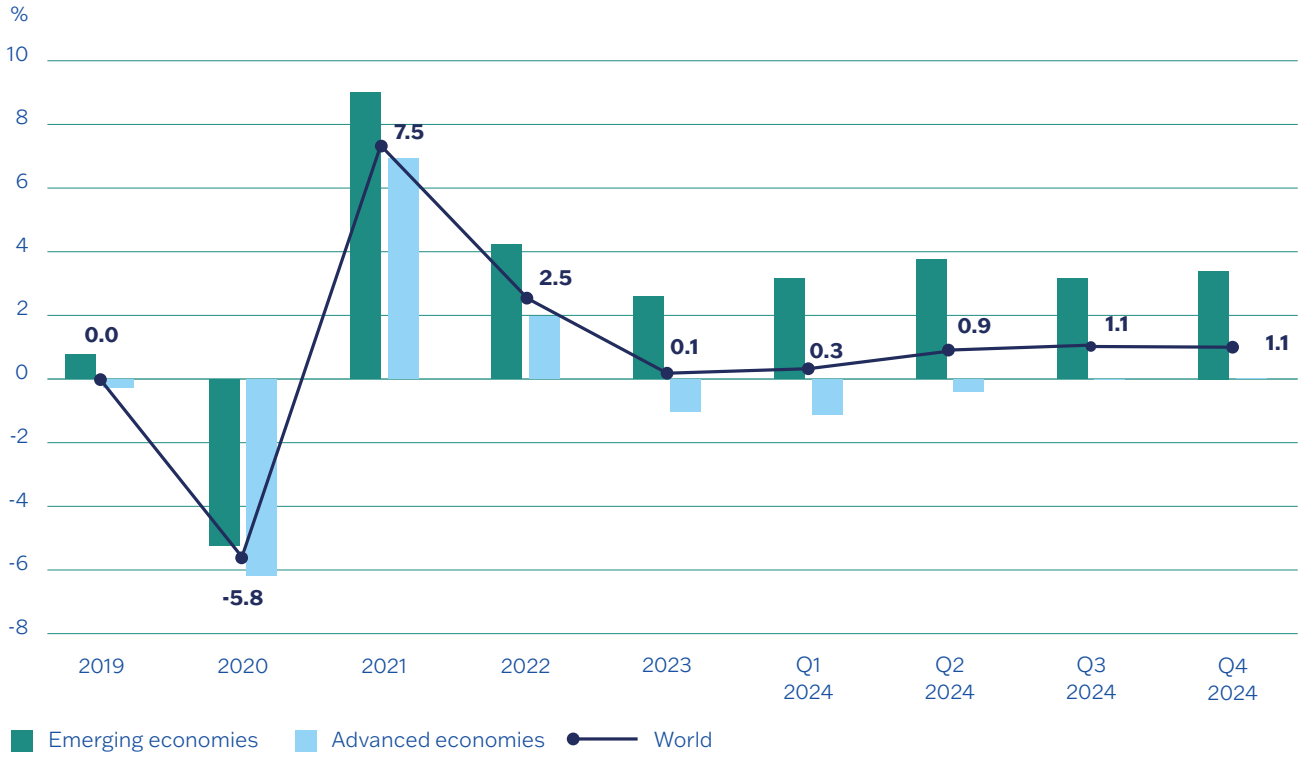
- Accounting and administrative separation in the municipal waste sector, **DCO 146/2025/R/rif**;
- Update of the Waste Tariff Method for the third regulatory period (MTR-3), **DCO 180/2025/R/rif**;
- Initial guidelines for the definition of initial criteria for the articulation of tariffs for users, **DCO 179/2025/R/rif**.

CONAI actively participated in the public consultations promoted by ARERA, contributing, within the scope of its competence, to the discussion on the main regulatory instruments currently being defined.

2.3 Macroeconomic context

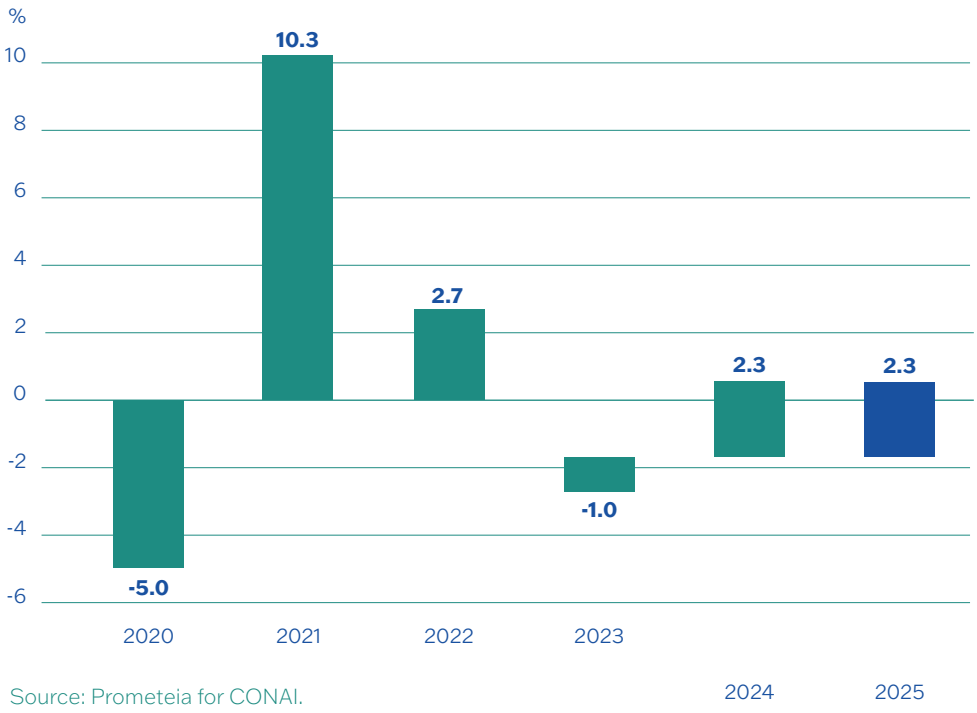
Over the course of 2024, despite the easing of supply chain bottlenecks, industrial production in advanced economies continued to show weakness, falling by an average of 0.4%. In particular, Europe was affected by structural difficulties in German manufacturing. In contrast, emerging economies consolidated their expansionary profile, with average growth of +3.2%, accelerating compared to 2023.

WORLD INDUSTRIAL PRODUCTION (% change over corresponding period)



After the contraction in global trade observed in 2023, 2024 saw a recovery in international trade, with growth of +2.3% in volume.
However, this positive figure was influenced by a particularly buoyant fourth quarter, due to the front-loading of imports (especially in the United States) in anticipation of the introduction of tariffs by the new US administration.

INTERNATIONAL TRADE (in constant $, % change)



Source: Prometeia for CONAI.

GROSS DOMESTIC PRODUCT (annual % change at constant prices)

	2023	2024	2025	2026	2027	2028-'29
WORLD GDP	**3.1** *(3.3)*	**3.1** *(3.2)*	**2.9** *(2.9)*	**2.5** *(3.0)*	**2.7** *(2.9)*	**2.7**
USA	2.9 *(2.5)*	2.8 *(2.3)*	2.3 *(1.8)*	1.7 *(2.0)*	1.6 *(1.8)*	1.6
EMU	0.5 *(0.5)*	0.8 *(0.7)*	0.7 *(1.1)*	0.9 *(1.2)*	0.9 *(1.1)*	0.9
Germany	-0.1 *(0.0)*	-0.2 *(0.1)*	0.0 *(0.9)*	0.8 *(1.3)*	1.1 *(1.1)*	1.1
China	5.4 *(5.2)*	5.0 *(5.1)*	4.8 *(4.3)*	3.8 *(4.1)*	4.2 *(4.2)*	4.2
WORLD TRADE	**-1.0** *(-1.3)*	**2.3** *(2.1)*	**2.3** *(3.0)*	**2.1** *(3.3)*	**2.3** *(3.2)*	**2.3**

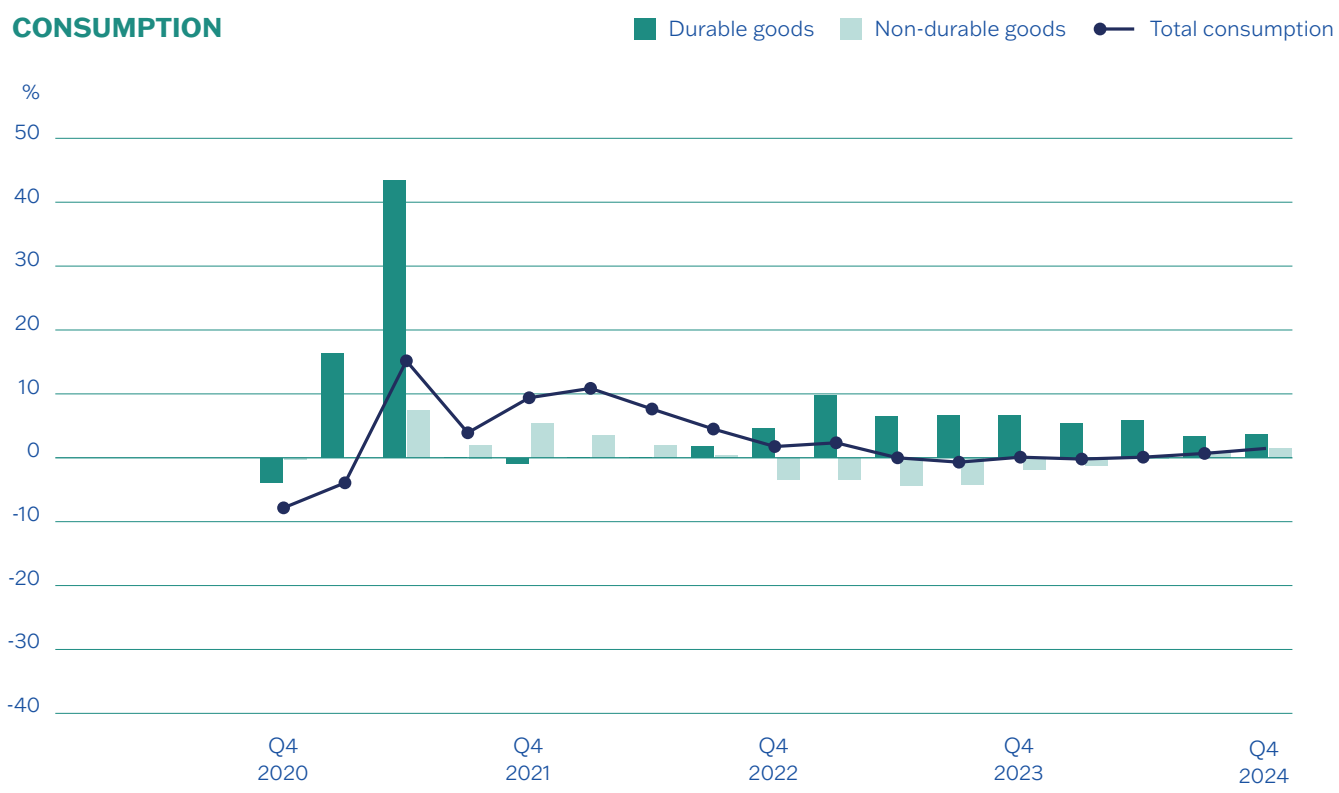
(in brackets in blue, Prometeia July 2024 outlook)
Source: Prometeia, Forecast Report, December 2024 and Brief, February 2025.

The deterioration in economic and geopolitical relations between the major world blocs can only have a negative impact on global growth. Between 2025 and 2029, the global economy is expected to slow down, with average growth of 2.7%, compared to 3.1% in 2023-2024.
In the United States, the Trump administration's initial measures, such as heavy import tariffs, are expected to lead to slower growth and higher inflation. This is due to the rise in foreign product prices and tensions in the labour market, partly caused by immigration restrictions.
In the euro area, uncertainty related to US tariffs and chronic difficulties in the manufacturing sector, especially in the automotive sector, are estimated to limit growth to +0.7% in 2025. A gradual recovery is then expected in the coming years, supported by the improvement in household incomes and a more expansionary monetary policy. In Germany, the economy is expected to emerge from recession thanks to an increase in public spending, made possible by the reform of the debt brake and the activation of a €500 billion infrastructure fund.

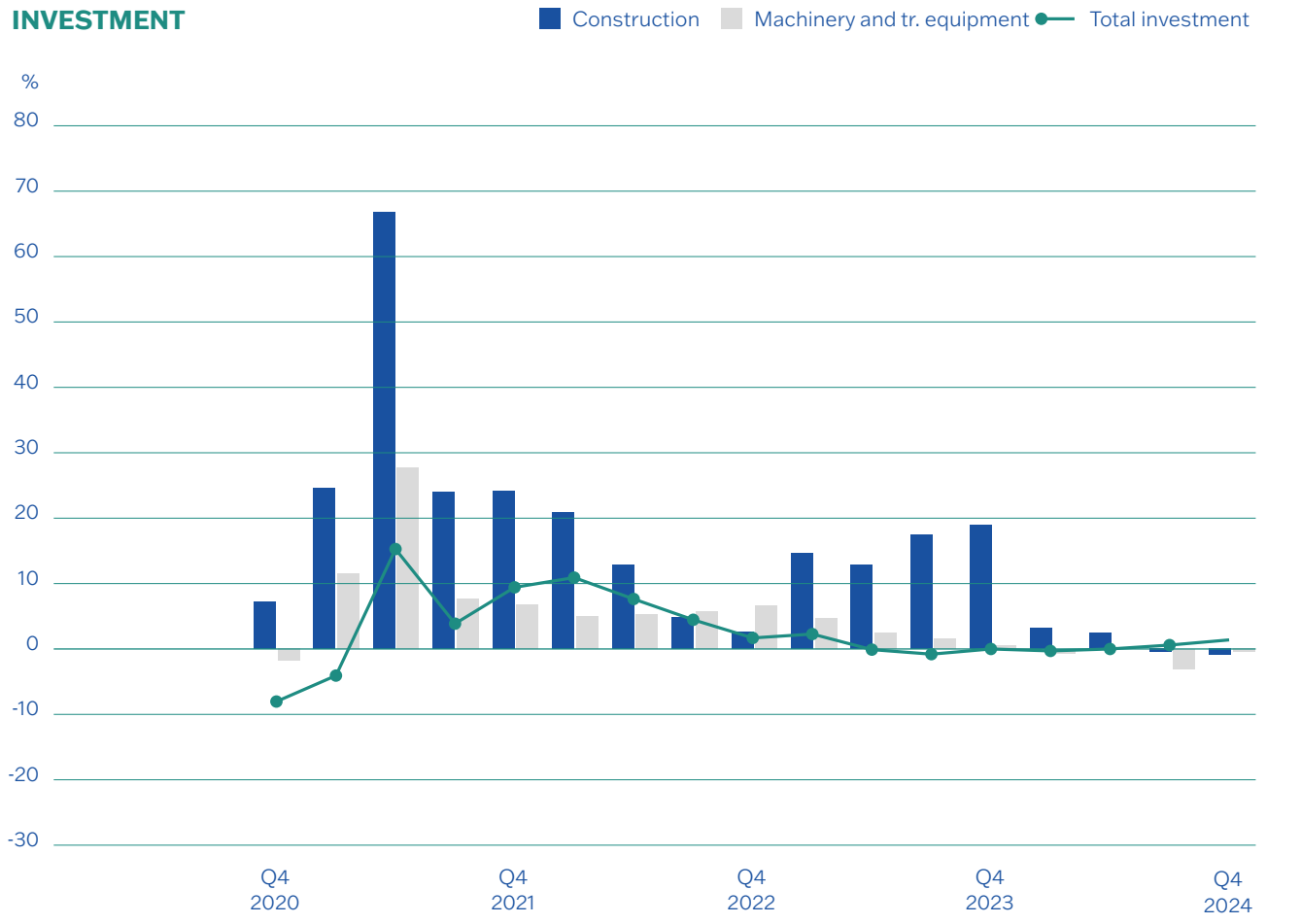
In China, critical issues remain, such as weak domestic demand and the real estate market crisis. These factors, combined with tensions with the US, will slow growth between 2025 and 2026, in the absence of new measures to support consumption.

At the national level, Italian GDP closed 2024 with growth of +0.5%, thanks to the recovery of investments in machinery and the resilience of net exports.
2024 was another difficult year for the Italian manufacturing sector, with 24 consecutive months of decline in industrial production. Only 5 out of 15 sectors recorded growth, with fashion and transport being the hardest hit. Food and beverages proved resilient thanks to the boost from exports.

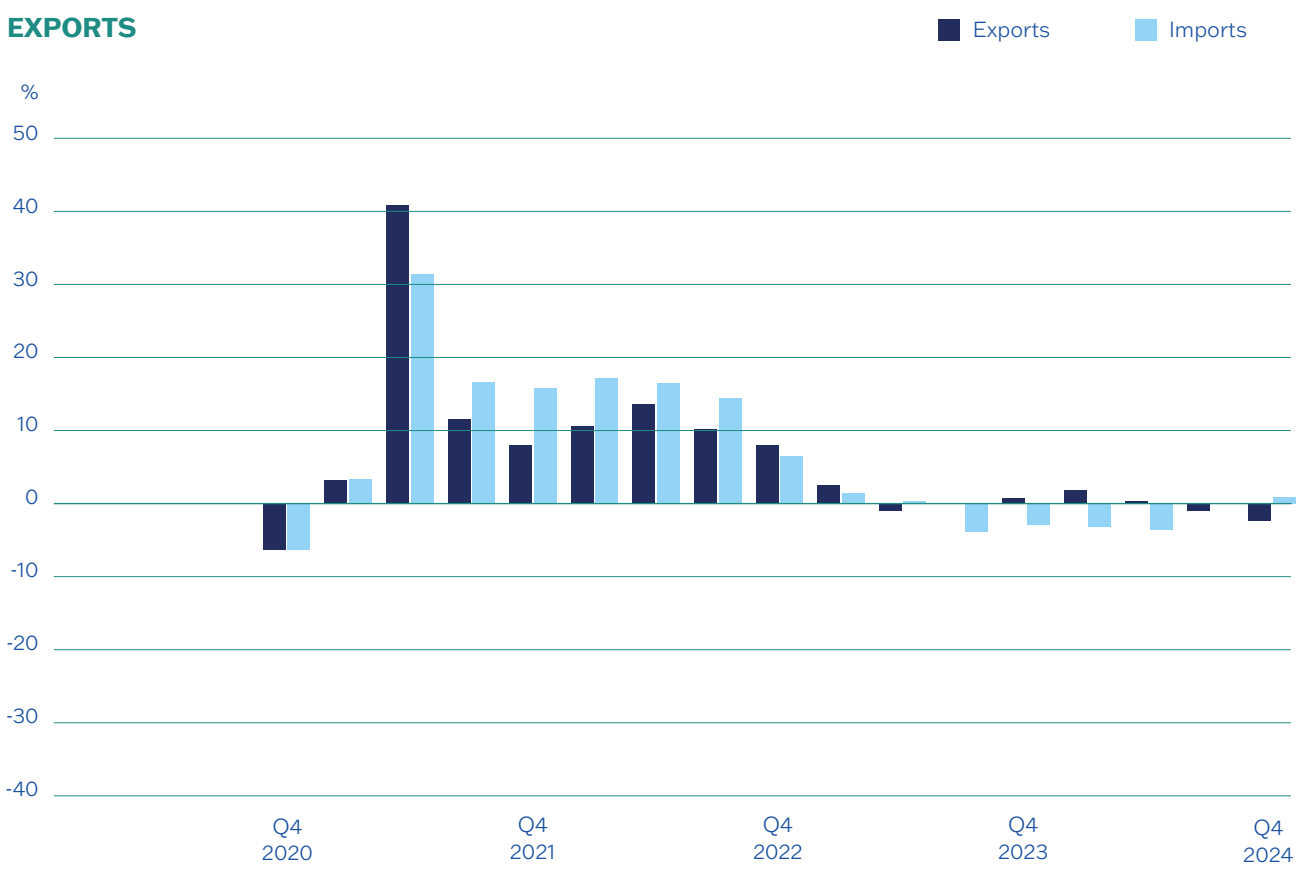
CONSUMPTION



INVESTMENT

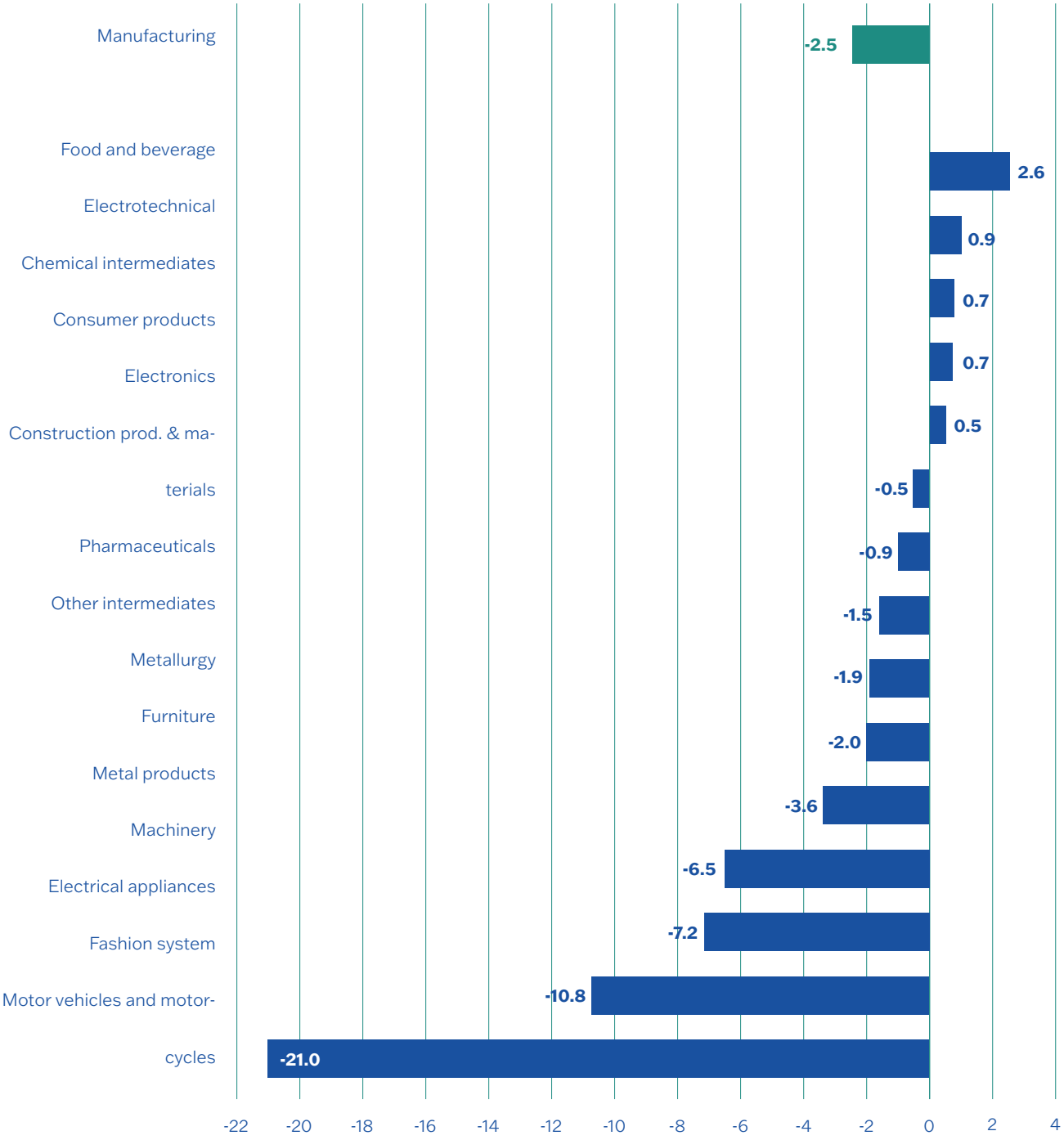


EXPORTS



As for consumption, 2024 saw growth of 0.6% for goods and 0.5% for services. Goods returned to growth after the decline in 2023, thanks to increased purchases of food, beverages and transport (supported by incentives). Household appliances are also doing well, driven by the replacement of old appliances and bonuses linked to renovations.

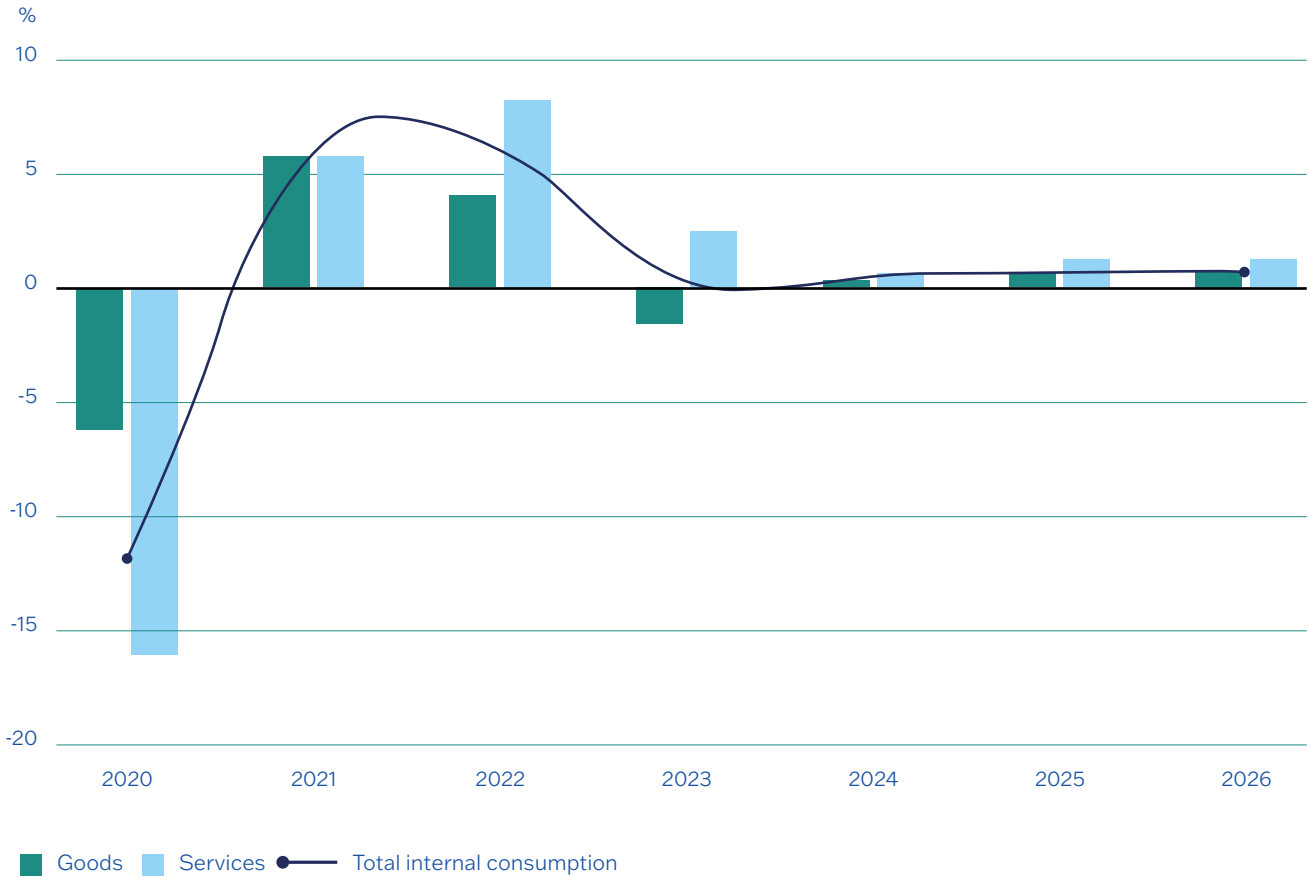
INDUSTRIAL PRODUCTION BY SECTOR (% change 2023-2024)



Source: Prometeia, Industry Sector Analysis, February 2025.

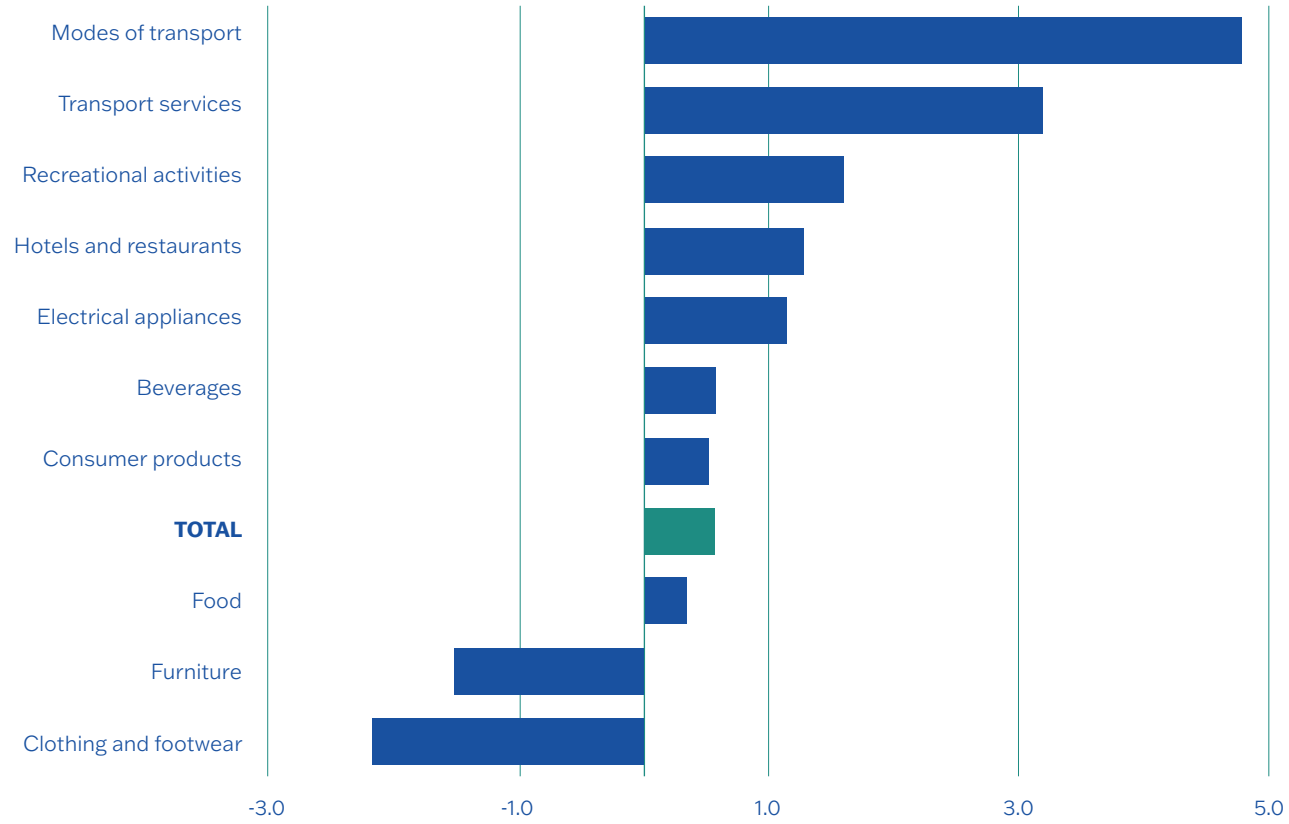
On the other hand, furniture, clothing and footwear declined, penalised by greater attention to spending by low- and middle-income households.

CONSUMPTION OF GOODS AND SERVICES (annual % change)



From 2025, domestic consumption growth will be slower, with increases of less than 1% per year. The main driver will be services, thanks in part to spending by foreign tourists, which is expected to increase due to events such as the Catholic Church Jubilee and the Winter Olympics. Non-durable goods will grow only slightly (+0.4% on average in 2025-2026), as households continue to save and cut back on spending.

CONSUMPTION IN 2024 (% change, volume data)



Source: Prometeia, Forecast Report, September 2024.

Index of secondary raw materials for packaging

Since 2021, thanks to the technical support of Prometeia, CONAI has been providing the Packaging Material Consortia with a report every two months containing a detailed analysis in graph and table form, highlighting current trends in the raw and secondary materials markets. The report includes the **CONAI-Prometeia Index** of prices of raw and secondary raw materials for packaging, which provides an overview of the price trends of secondary raw materials for packaging.

CONAI-PROMETEIA INDEX

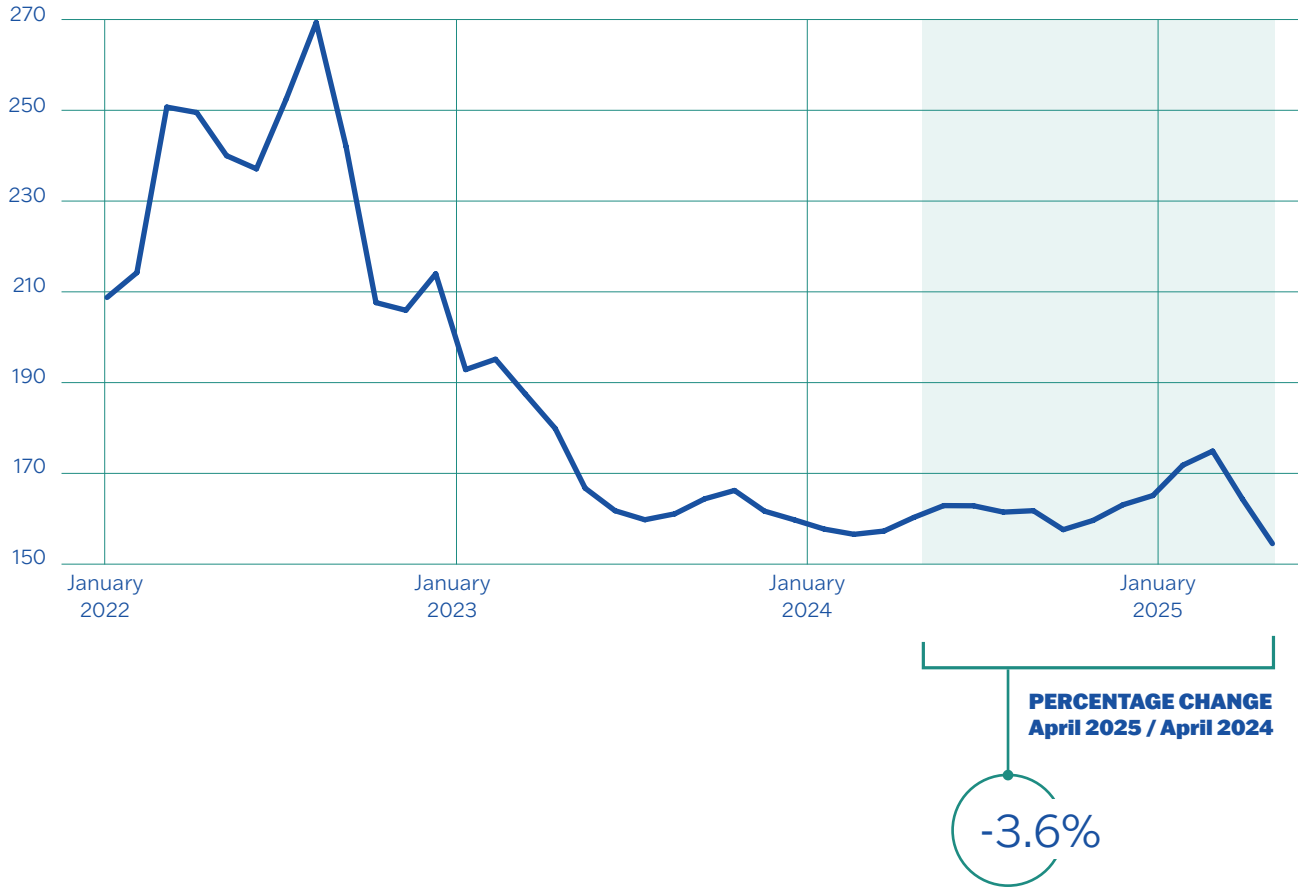
Price trend of commodity prices

In 2024, following the downturn in 2023, the Prometeia commodity price index showed unstable dynamics. Prices were supported by energy price increases, restocking and currency fluctuations, particularly the appreciation of the euro. However, the recessionary effects of tariffs and the global economic slowdown dampened demand for many commodities.

In early 2025, commodity prices continued to fluctuate. Brent crude oil prices fell sharply, losing 28% year-on-year in April, due to weak global demand and the effects of OPEC production policies. European natural gas (TTF) prices fell by around 30% compared to February, thanks to favourable weather conditions that facilitated early replenishment of stocks.

Non-ferrous metals, such as aluminium, also fell by 17% due to lower industrial demand, especially from the automotive and construction sectors. However, signs of détente between the US and the EU and the opening of dialogue between Washington and Beijing have helped to stabilise markets and partially boost prices, especially for metals. Despite this, geopolitical uncertainties and weak global demand continue to affect commodity markets.

PROMETEIA-CONAI INDEX OF PRICES OF COMMODITIES
2015=100, MAIN RAW MATERIALS USED BY MANUFACTURING*



* Data generated by Prometeia, "Analyses and Forecasts of Commodity Prices", May 2025.

CONAI-PROMETEIA INDEX

Price trend of raw and secondary raw materials

After sharp increases in 2023, the secondary raw materials index fell significantly in 2024, a trend that continued in the first two months of 2025 (-54% year-on-year). The decline was mainly caused by the collapse in the price of glass cullet (-70.2%), which had risen by 184% the previous year.

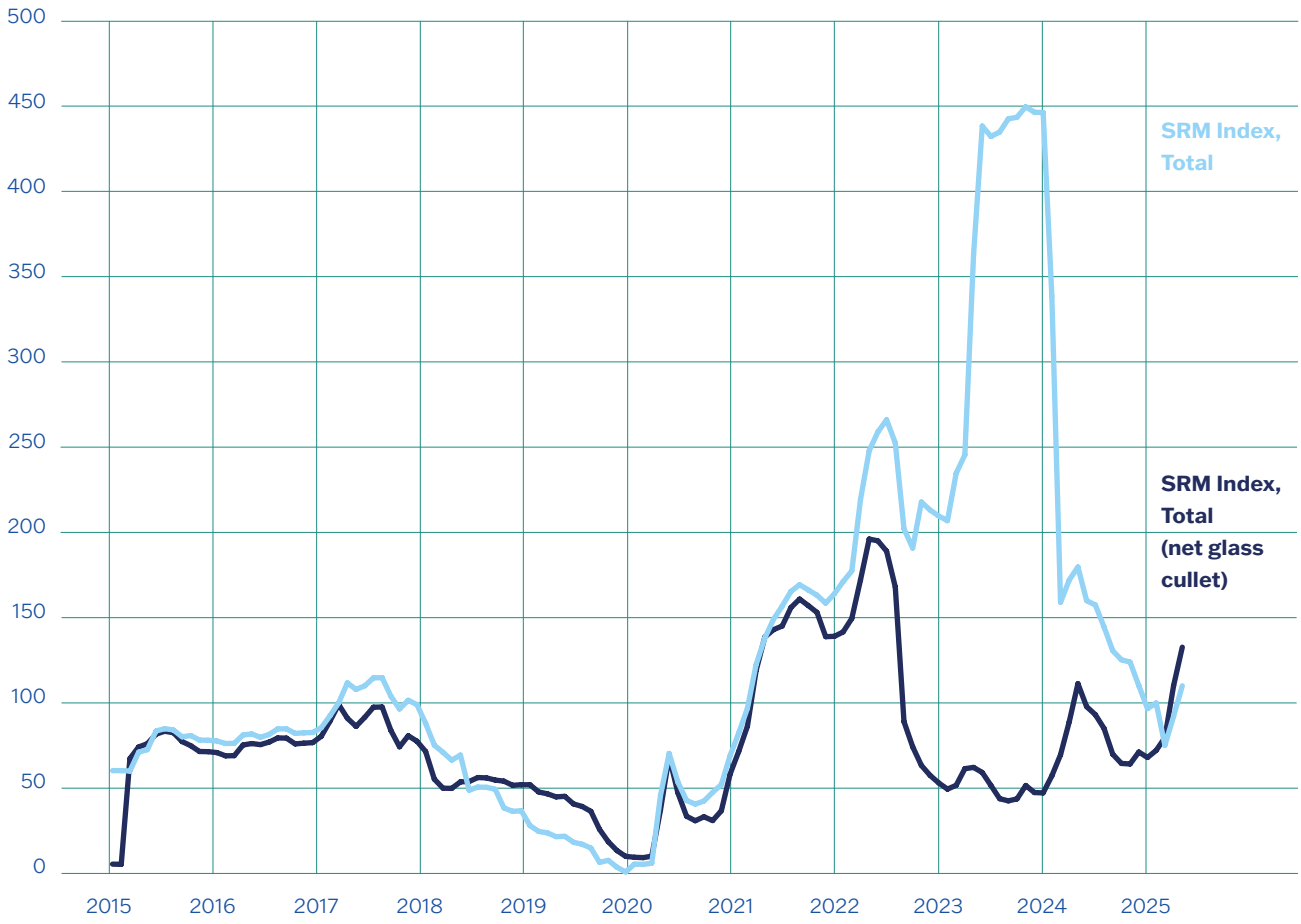
Secondary plastics also ended 2024 down, penalised by continued weak demand from processors. Both secondary polypropylene and polyethylene continued the downward trend that began in 2023, with price reductions of close to or exceeding 50%.

However, there were signs of recovery for rPET.

Bucking the trend, waste paper saw growth in 2024, driven by the recovery in paper mill production and foreign demand, especially from outside the EU. The price of mixed paper and board rose by 54% compared to 2023, although it remains below the record levels of 2021-2022.

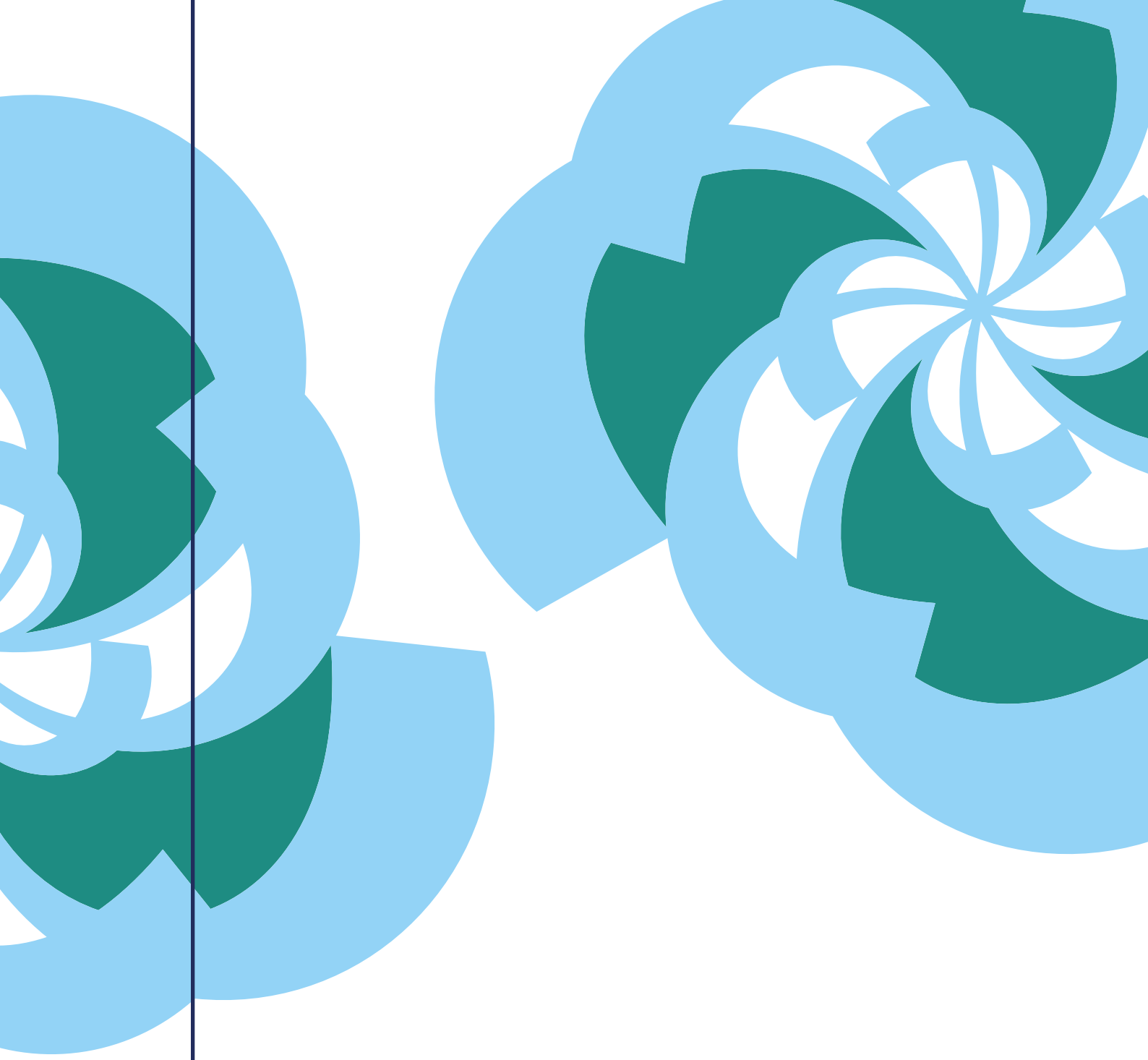
Scrap metal prices remained relatively stable. Aluminium prices followed the trend of primary metal, while ferrous scrap remained at the average levels of the previous year.

PROMETEIA-CONAI INDEX OF PRICES OF SECONDARY RAW MATERIALS (2015=100, WITH AND WITHOUT GLASS COMPONENT)



Source: Prometeia, June 2024 report.


3



Prevention and eco-design of packaging

One of CONAI's institutional tasks is to promote activities aimed at limiting the environmental impact of packaging and packaging waste and at improving their end-of-life management, within the scope of the possibilities and instruments assigned to the Consortium by legislation.
These measures are:

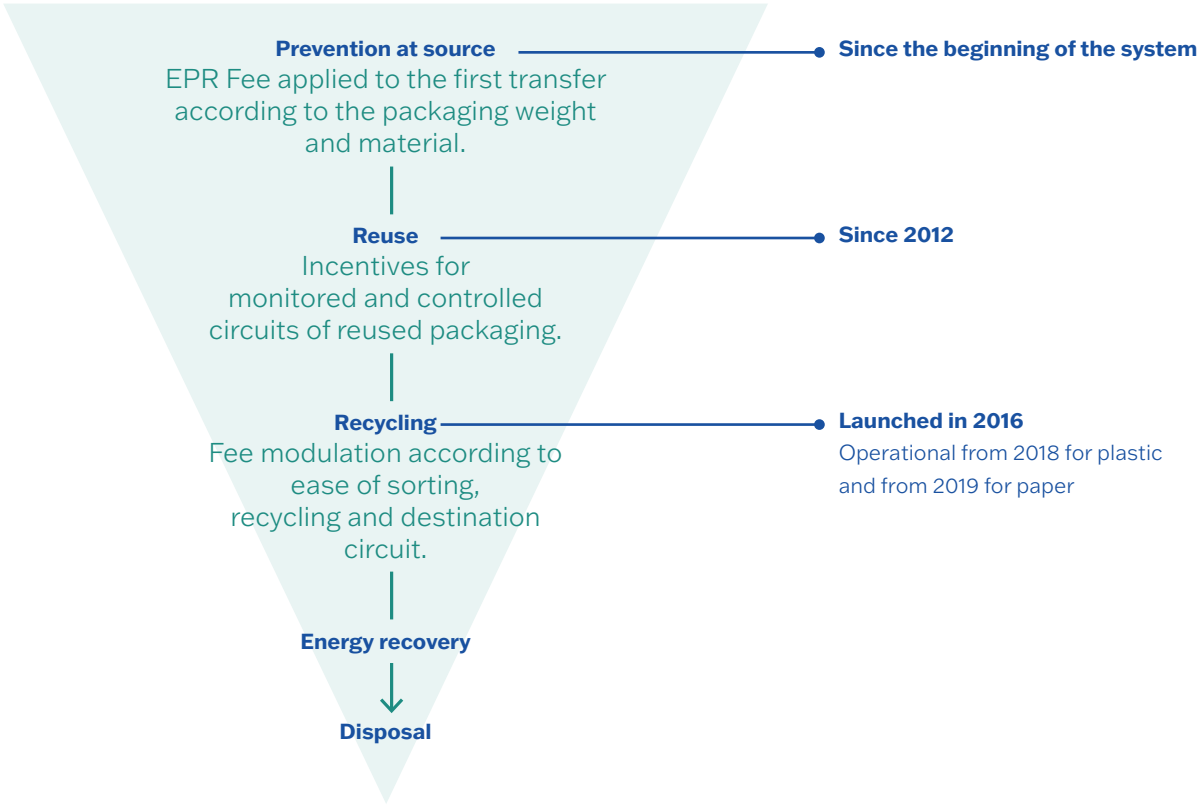
- structural measures, linked to utilising the fee lever for the objectives of:
  - prevention at source and efficient use of resources;
  - recyclability;
- awareness-raising and incentive measures aimed at EPR Organisation members, which fall under the evocatively named "Pensare Futuro" ("Thinking the Future")[6] project.

6
This project brings together services and tools to support firms in the design and placement on the market of packaging with reduced environmental impact.

3.1 Structural measures – CONAI EPR Fee

Structural prevention measures include the **definition of the CONAI EPR Fee EPR** which is based on the preference of management methods as derived from the "inverted pyramid" hierarchy. This facility is applied exclusively to firms that implement extended responsibility through Packaging Material Consortia.

EVOLUTION OF EPR FEE MODULATION



The principle of prevention at source has been inherent in the application of the EPR Fee since the system was launched.
For each packaging material, CONAI *"determines and charges to EPR Organisation members [...] the consideration known as the CONAI EPR Fee"* (Article 224, paragraph 3, letter h) of Legislative Decree 152/2008 as amended), which represents the main form of funding to share, between producers and users, the costs for recycling and recovering packaging waste delivered to the separate collection service.

The levy, applied in euros per tonne according to the quantity of packaging transferred, is charged at the time of the **"first transfer"**, i.e. at the time of transfer, even if temporarily and for whatever reason, within Italy, of the finished packaging made by the last producer or trader of empty packaging to the first user, other than a trader of empty packaging, or of packaging material made by a producer of raw materials or semi-finished products to a self-manufacturer who is or declares itself as such.
The euro-per-tonne formula represents one of the structural/system prevention initiatives as it motivates the stakeholders involved – packaging producers and users – to find solutions for optimising packaging from an environmental point of view, also to reduce its economic impact (e.g. the lighter the packaging, the lower the EPR Fee).

3.2 Incentive procedures for reusable packaging

With the aim of achieving a more eco-sustainable management of packaging waste, CONAI has paid particular attention to packaging that is structurally designed for multi-year use. For this, it reserves **incentivised or simplified formulas for the application of the EPR Fee**, with the constant involvement of business associations and companies representing the industrial or commercial sectors concerned.

Since the start of the CONAI–Packaging Material Consortia system, the following cases have been completely exempt from the EPR Fee:

- for reusable packaging used for the movement of goods within a production cycle, within an industrial plant or logistics hub. This exemption was then extended from 2012 to the handling of goods between several local units (production sites, logistic poles, points of sale) belonging to the same legal entity or industrial or commercial group/network;
- for gas containers of various types, if refillable.

Since 2011, reusable bags ("cabas") and "trolley bags" for supermarkets, which have the same basic functions, have also benefited from the same full exemption.

For the following types of packaging, there are also considerable contribution discounts through a mechanism for reducing the weight to be subjected to the CONAI EPR Fee:

- wooden pallets returned to the market (used, repaired or simply sorted) by sector operators carrying out repair activities, albeit secondary (40% abatement from 2013);
- wooden pallets (new or returned to the market) if produced in accordance with codified specifications within "controlled" production circuits (60% abatement from 2013 to 2018). With the aim of further incentivising the re-use circuit for these pallets, the abatement percentage is increased from

60% to 80% from 2019 and further increased to 90% from 2022. Also from 2022, a new simplified procedure (as an alternative to the ordinary procedure) has been introduced for repairers of wooden pallets conforming to codified specifications, owned by third parties (CONAI circular of 31 March 2022);

- reusable packaging (used in particular controlled and monitored return circuits or systems) such as glass bottles (85% abatement), plastic crates and baskets (93% abatement) from 2012.

For all reusable packaging used in strictly controlled return systems (such as rental or through commercial forms with non-transfer of ownership), since 2012 another form of incentive (as an alternative to the others) has been envisaged through the possibility of suspending payment of the EPR Fee until the packaging completes its reuse cycle or is otherwise dispersed or out of the circuit.

A different incentive is reserved for industrial packaging, such as multi-material (steel-plastic-wood), plastic or steel tanks, if they are regenerated and returned to the market within the country.
In this case, the incentive represents both a considerable simplification of the formulas for applying and declaring the EPR Fee (on the number of pieces sold rather than on the weight of the individual components and relevant accessories) and through the simultaneous recognition of periodic fees by the Packaging Material Consortia concerned to regenerators/recyclers for the activity that they perform on the same packaging sent to recycling/recovery.

Lastly, it should be noted that the Working Group for Simplification[7] is constantly engaged in analysing the types or flows of packaging worthy of incentives or simplifications, devoting particular attention to reusable packaging for which new incentive formulas should be reserved or existing ones extended.
The circulars relating to the main procedures mentioned above can be found in the Appendix and are available at www.conai.org.

With the aim of tracing packaging reuse practices in Italy, CONAI has promoted a survey of the types of packaging involved and the main sectors of use through a Reuse Observatory prepared by the Polytechnic University of Milan and published in the Studies and Research section of the conai.org website. The study showed that it is not always possible to obtain data (partly because it is often considered confidential by holders), and that this information is not updated annually.

7
This is the council working group whose purpose is to examine in depth the packaging qualification of the different types of products and to assess the need for and application of less complex and onerous procedures for the fulfilment of consortium obligations and in particular for the management of the CONAI EPR Fee, including through specific forfeiture procedures for sectors or particular packaging flows, according to fairness criteria and in compliance with the law, Statute and CONAI regulations.

The Observatory is completed by LCA analyses that CONAI has promoted on some specific types of reusable packaging, aimed at assessing the environmental impacts associated with the life cycle and the regeneration and reclamation systems envisaged for multi-material tanks, steel drums for chemical and petrochemical products, reusable plastic crates with collapsible sides, and returnable glass bottles, all evaluated according to the number of uses. These studies, also carried out by the Polytechnic University of Milan with the direct involvement of leading companies and associations, represent a unique and scientifically sound source of information on the subject of reuse, and they are also available in the Studies and Research section of the conai.org website.

3.3 Fee modulation

Since 2018, a logic has been introduced to **modulate the CONAI EPR Fee based on how easy the packaging is to sort and recycle**; this logic anticipated the provisions of the Circular Economy Package of Directives on "extended producer responsibility". The fee modulation has been:

- first introduced for the **plastic packaging chain**, in a process that saw the full extent of the fee differentiation come into effect in 2019 and subsequently strengthen and refine the lists of packaging and the related fee bands so as to make it even more meaningful and precise;
- extended to the **paper packaging chain** for an initial application from 2019, which covered "cellulosic packaging suitable for containing liquids" and was extended to other types of cellulosic-based composite packaging other than containers for liquids.

As of 2022, the project to implement a **EPR Fee modulation for paper packaging** other than containers for liquids came into force, with an approach that involves a fee increase (EPR Fee supplement) for each specific category of packaging (composite packaging with a paper component of less than 80% of the total weight of the packaging) in order to disincentivise these types of packaging that create difficulties, compromise recycling and increase waste in the industrial recycling stages.

Paper-based composite packaging, other than packaging for liquids, was initially divided into four types according to the weight of the paper component in relation to the total weight of the packaging:

- the first two types, **A** and **B**, with a paper component greater than or equal to 90% and 80% respectively;

- the third type, **C**, qualifies packaging where the paper component is greater than or equal to 60% and less than 80%;
- the fourth type, **D**, is composite packaging where the paper component is less than 60%: a percentage that compromises the recyclability of the packaging, nullifying it, with obvious consequences in terms of environmental impact.

In 2024, as of 1 July 2025, it was decided to expand the fee modulation project for paper packaging and at the same time to introduce a significant reduction in the EPR Fee supplement for composite packaging other than that for liquids subjected to laboratory testing conducted according to the UNI 11743:2019 standard and for which the level of recyclability has been assessed according to the Aticelca® 501 assessment system[8].
From **1 July 2025**, there will therefore be a rise from 6 to **8 EPR Fee bands**, some of which will include **incentives for certified packaging**.

Band	Type	Current EPR Fee	EPR Fee from July 2025
		€/TONNE	€/TONNE
1	Single-material	65.00	65.00
2	Type A composites (90–95% paper)	65.00	65.00
3.1	Type B1 composites (certified, 80–90%)	65.00	75.00
3.2	Type B2 composites (non-certified)	65.00	90.00
4	CPL	85.00	135.00
5.1	Type C1 composites (certified, 60–80%)	175.00	130.00
5.2	Type C2 composites (non-certified)	175.00	175.00
6	Type D composites (<60% paper or composition unknown)	305.00	305.00

The expansion of the fee modulation project includes a one-year trial period and an initial assessment of the results and economics after six months.
To support companies in the correct application of the new criteria, **Operational Guidelines**[9] have been prepared, accompanied by Design for Recycling ideas for increasingly recyclable cellulose-based composite packaging.

8
This is a voluntary method of assessing recyclability based on a laboratory analysis carried out in accordance with the UNI 11743:2019 standard, which simulates the stages of the industrial process of processing paper for recycling and analyses the main elements that determine the recyclability of paper and cardboard products.

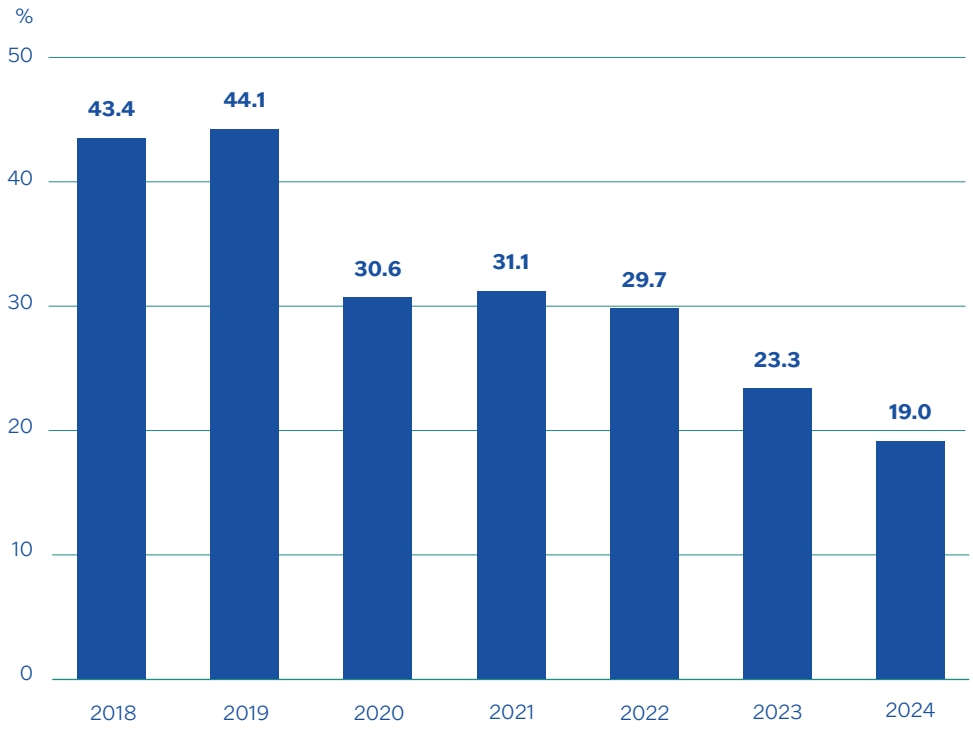
9
https://www.conai.org/wp-content/uploads/2025/04/Linee-Guida-nuove-fasce-contributive-imballaggi-compositi-a-base-cellulosica.pdf

As regards the **fee modulation of plastic packaging**, the commitment to revise and update the criteria and logic of the fee modulation of plastic packaging has continued, linking the values of each band not only to the recyclability and destination circuit of the specific types of packaging, but also to the management costs sustained by CONAI–Packaging Material Consortia, thus adding the specific chain deficit for each macro type of packaging as a factor in defining the individual fee values per band.

The whole evolution of fee modulation is geared towards consideration for the issue of recyclability at the EU level, and therefore to the logic of actual recycling and not potential recycling, confirming the criteria underlying the fee modulation adopted thus far.

A figure that clearly summarises the result of the actions taken both on packaging and on the sorting and recycling chains is the percentage of Band C packaging in relation to the total amount of packaging placed on the market. Packaging for which there are no ongoing recycling activities or which cannot be sorted or recycled with current technology has fallen from 43.3% of the total in 2018 to 19% in 2024[10]. This is an important result that demonstrates the importance of fee modulation as a concrete and effective lever.

BAND C PACKAGING IN RELATION TO THE TOTAL AMOUNT OF PACKAGING PLACED ON THE MARKET (% of total)



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https://www.corepla.it/wp-content/uploads/2025/05/Punto-3-odg_PROGRAMMA-SPECIFICO-DI-PREVENZIONE.pdf

3.4 “Pensare Futuro” project

The initiatives of CONAI’s Pensare Futuro (“Thinking the Future”) project represent concrete operational support for companies and associations, offering tools and services designed to effectively accompany them in the transition towards increasingly environmentally sustainable packaging. CONAI acts as a point of reference for all national production companies, regardless of how they fulfil extended producer responsibility – through Packaging Material Consortia or Self-compliant EPR Organisations – providing accessible and customisable resources for associations, both at national and local level, and for designers, consultants or planners who wish to improve packaging through scientific tools which are free of charge.

The “Pensare Futuro” project includes the packaging eco-design tools made available by CONAI for Italian firms.

PENSARE FUTURO
INSIEME A CONAI PER LA PROGETTAZIONE SOSTENIBILE

- **ECOPACK**
- **E-PACK**
- **Design for Recycling**
- **CONAI EcoD Tool**
- **Labelling website**
- **DifferENTI**

E-PACK

Within the **"Pensare Futuro"** project, E-PACK is an online service that has been active since May 2013, which provides a dedicated e-mail address, *epack@conai.org*, to support companies and associations in developing packaging with reduced environmental impact through the dissemination of information and documents related to:

- mandatory and voluntary environmental labelling of packaging;
- the essential requirements defined by Directive 94/62/EC;
- the free tools that CONAI makes available to firms for design for recycling;
- promotion of actions that companies can take to improve the environmental performance of their packaging (eco-design levers);
- eco-design tools to design packaging with reduced environmental impact.

IMPLEMENTATION OF THE SUP DIRECTIVE and the impact on the packaging sector

Following the entry into force, on 14 January 2022, of Legislative Decree 196 of 8 November 2021 transposing the Directive on the reduction of the impact of certain plastic products on the environment, CONAI has drawn up guidelines to support companies, associations and the various stakeholders.

The document represents a snapshot of the measures currently in force in Italy concerning single-use plastic packaging.
The document will be updated according to new requests received by CONAI through the e-mail address *epack@conai.org* and the FAQ section on the official website https://www.conai.org/en/faq/ will be supplemented with relevant cases.

The E-PACK service promotes the **CONAI eco-design levers**, encouraging firms to take eco-design actions that reduce the environmental impact of their packaging throughout its entire life cycle, and that are valued and rewarded through the *CONAI Call for Eco-design Projects* described below.
In order to further incentivise measures that reduce the withdrawal of primary resources as preventive actions at source, the new lever "virgin raw material savings" was added in 2023. In 2025, following the proposal put forward

during the workshop “Let’s design the future of the call for proposals” – see specific paragraph below – the “Refill” lever was introduced. This innovation aims to further strengthen the compliance of CONAI’s eco-design levers with the European SUP and PPWR regulations, which identify the increase in reusable packaging, including through refill systems, as a strategic solution.

ECO-DESIGN LEVERS PROMOTED BY CONAI

SAVING RAW MATERIAL
Reducing the consumption of raw materials used in packaging and consequently reducing weight for the same packaged product and performance.

SAVING RAW MATERIAL
Reducing the mass of virgin raw material used in packaging, with the same material family, packaged product and performance.

REUSE
Designing packaging that perform a minimum number of movements or rotations during its life cycle, for the same use that it was designed for.

REFILL
Designing or planning packaging, purchased by the end user, to be refilled by the distributor or user with the original product.

FACILITATING RECYCLING
Simplifying the recovery and recycling phases of packaging, such as the separability of different components (labels, closures and dispensers, etc.).

USE OF RECYCLED MATERIAL
Replacing a proportion or all of virgin raw material with recycled/recovered material (pre-consumer and/or post-consumer) to contribute to a reduction in resource withdrawals.

OPTIMISING PRODUCTION PROCESSES
Implementing innovative packaging production processes that can reduce energy consumption per unit produced or reduce production waste or reduce the use of
production inputs in general.

OPTIMISING LOGISTICS
Improving warehousing and display operations, optimising pallet and vehicle loads, and perfecting the relationship between primary, secondary and tertiary packaging.

SIMPLIFYING THE PACKAGING SYSTEM
Integrating several functions into one packaging component, eliminating one element and thereby simplifying the system.

PROMOTING EFFICIENT USE OF RESOURCES

With regard to the efficient use of resources, all packaging supply chains immediately dedicated, and continue to dedicate, intense efforts to achieving a more satisfactory ratio between weight and surface area/thickness/volume of packaging, guaranteeing or increasing its technical performance. The results are and have been appreciable, thanks also to the technological innovations offered by the industry.

Reducing the thickness and weight of packaging means developing production technologies. These improvements are technological leaps typical of innovative processes, and have long-term deployment times with major investment that companies must subsequently recoup. The prevention of packaging waste represents an optimisation of the use of input resources for the production of packaging, and in some cases ensures economic savings for companies (the less packaging weighs, the lower the costs for raw material supplies and the lower the EPR Fee). However, it is also a cost item due to the initial investment that takes a long time to recuperate.

The environmental performance of packaging has also increased due to the use, where regulations, performance and availability allow, of second raw materials. Here too, over time technology has enabled packaging to be made from recycled material that is lighter than initial practices.
The issue of using recycled material depends on many factors, such as packaging performance, application, regulations with respect to food contact, availability of secondary raw materials on the market, and the price of those secondary raw materials.

As reported, all supply chains have been promoters of innovation in increasing the environmental performance of packaging, each with their own peculiarities, linked to the characteristics of both the material and their specific sectors. For example, **for wood packaging** used mostly in the logistics sector, capacity and safety are fundamental requirements that must be guaranteed. For this reason, rather than focusing on weight reduction, resource efficiency has been achieved by encouraging regeneration and reuse of packaging.

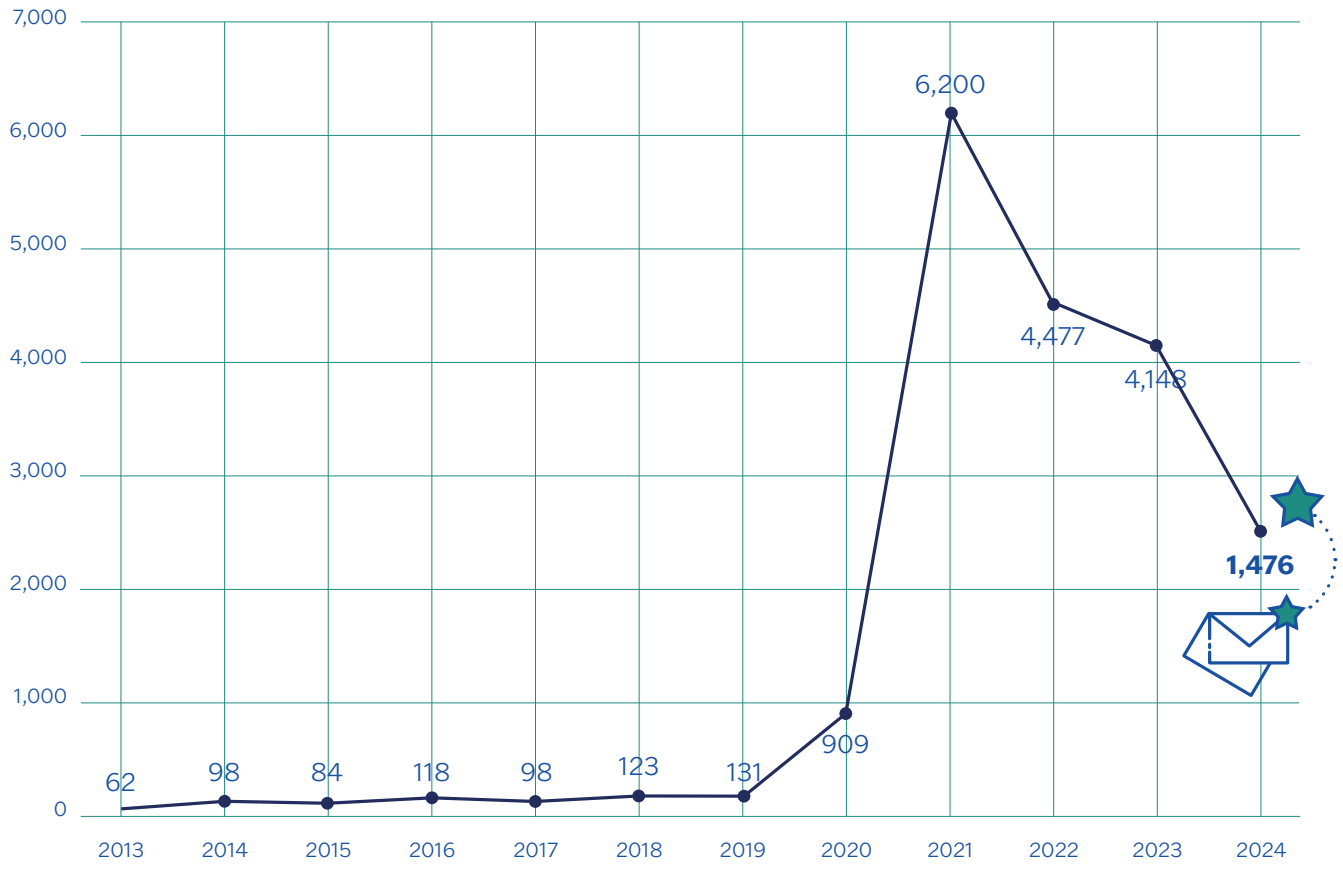
It should also be noted that **for certain types of plastic packaging**, the use of recycled material to make the supply chain increasingly circular is the new frontier promoted by the European Union to save resources upstream. As already reported, the 2019/904 SUP Directive requires PET bottles for beverages placed on the market from 2025 onwards to be at least 25% recycled material, and this percentage is set to rise to 30% by 2030. This requirement has already led many brands to commit to converting virgin polymers to recycled ones wherever technologically and commercially feasible.

A total of **1,476** requests were handled by the E-PACK service in 2024, representing a significant decrease compared to previous years, mainly due to the huge investment made since 2020 in offering companies support tools and services, particularly in the area of **environmental labelling of packaging** (see below).

After peaking in 2021, there was already a decrease in requests on the subject of labelling in 2022, thanks to a number of factors:

- multiple activities promoted by CONAI;
- greater awareness of this issue among firms;
- dissemination of information;
- a clearer regulatory framework.

EVOLUTION OF E-PACK REQUESTS HANDLED BY THE EPACK@CONAI.ORG EMAIL ADDRESS



Source: Data generated by CONAI.

CONAI tools for environmental labelling of packaging

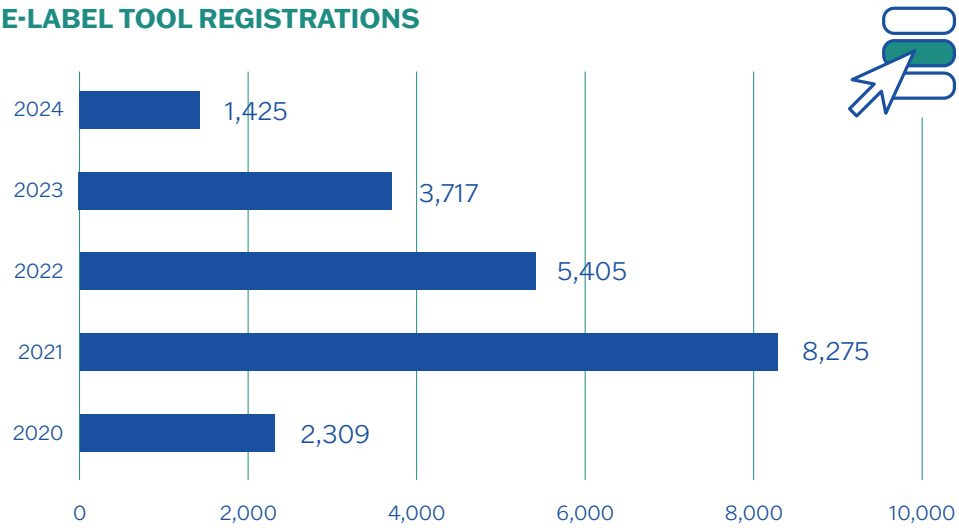
Legislative Decree 116 of 3 September 2020 introduced mandatory environmental labelling for all packaging placed on the market in Italy.

In addition, on 21 November 2022, Ministerial Decree 360 of 28 September 2022 was published, adopting the *Environmental Labelling Guidelines* pursuant to Article 219, paragraph 5 of Legislative Decree 152 of 3 April 2006, for the correct fulfilment of packaging labelling obligations by responsible parties.

CONAI has therefore developed a series of tools and initiatives in partnership with various associations, to support companies and associations in complying with the labelling requirements for packaging which are continuously updated:

- guidelines for mandatory and voluntary labelling;
- guidelines for sector-specific labelling;
- handbook on the use of digital channels for environmental labelling;
- e-label tool, which makes it easy to compile the information required for compulsory and voluntary labelling, which had 21,131 registered users as of 31 December 2024, including **1,425 new users**.

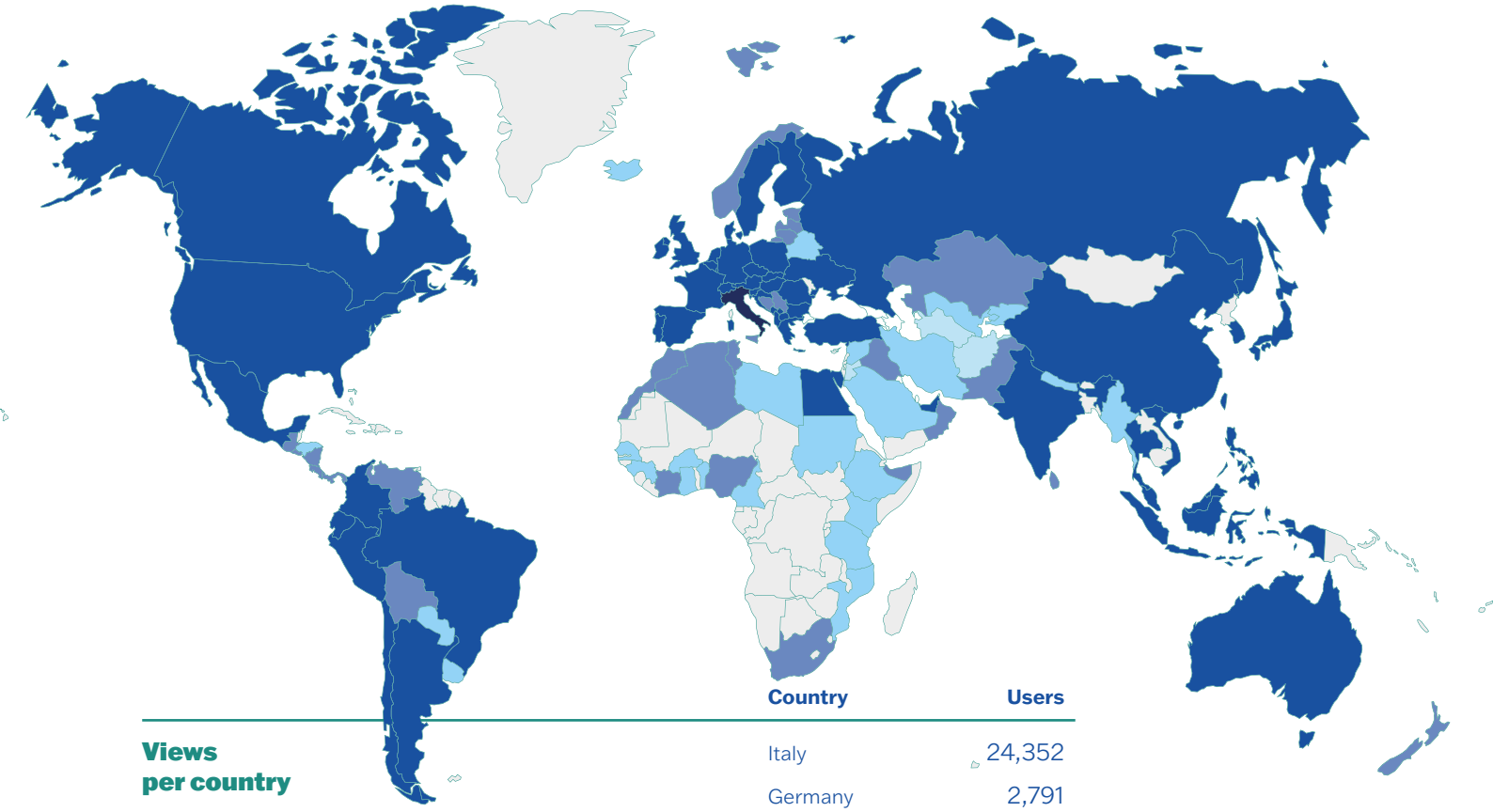
E-LABEL TOOL REGISTRATIONS



Source: Data generated by CONAI.

- **multilingual website dedicated to environmental labelling**, available at **https://www.etichetta-conai.com/en/**. During 2024, the site was viewed by 34,832 users from different parts of the world. The figure below shows the data for the seven countries with the highest number of views, with 30,773 users, of whom 29,762 were first-time visitors (new users).

PAGE VIEWS OF WWW.ETICHETTA-CONAI.COM



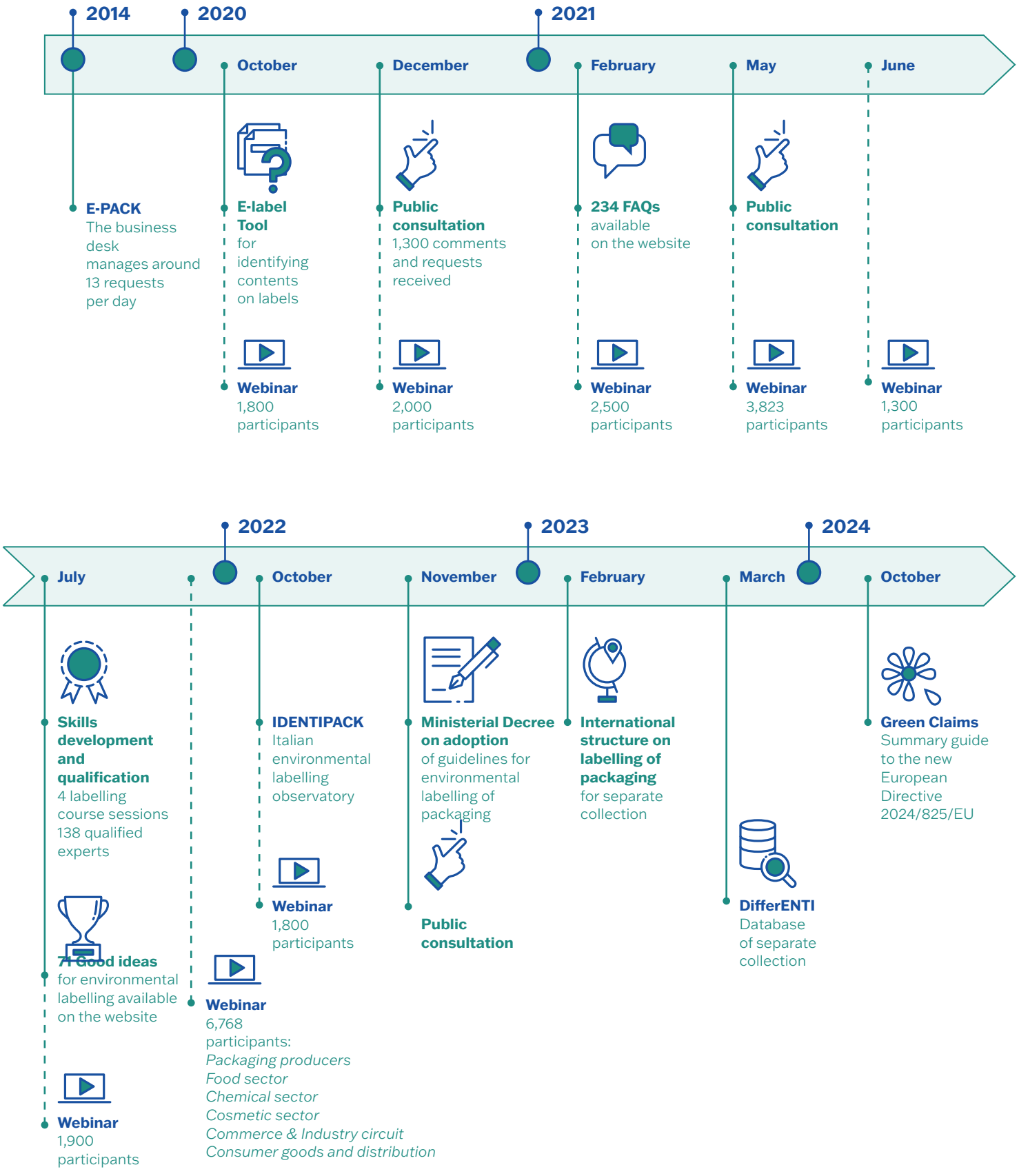
Views per country

Country	Users
Italy	24,352
Germany	2,791
Spain	1,692
United Kingdom	566
France	517
Netherlands	452
United States	403

The website contains:

- 314 FAQs;
- 82 Good Ideas for environmental labelling;
- checklists to support firms in identifying responsibilities and tasks for each stakeholder in the supply chain;
- list of Environmental Labelling Specialists;
- all the relevant webinars from the CONAI Academy;
- a tool for users to test their knowledge of labelling and take the exam to become an Environmental Labelling Specialist. In 2024, 24 users registered for at least one of the exam sessions. Of these, 12 passed the exam and became Labelling Specialists, adding to the list of 185 individuals that companies can now refer to.

CONAI INITIATIVES ON ENVIRONMENTAL LABELLING



Source: CONAI.

The high average level of satisfaction gives us reassurance as to the usefulness of the tools developed for firms to support the ongoing transition processes.

SATISFACTION OF FIRMS WITH LABELLING SERVICES IN 2023

	E-PACK	E-LABEL TOOL	ETICHETTA-CONAI.COM
USERS at least once a year	66%	53%	69%
RATING between 1 and 4	average 3 51% rated 3 or 4	average 2.98 37% rated 3 or 4	average 3.31 57% rated 3 or 4
MOST APPRECIATED ASPECTS	Clarity of responses	Ease of use	Ease of use
AREAS FOR IMPROVEMENT	Speed of response & Completeness of responses	Completeness of information	Comprehensiveness of information

Sample of 86 respondents.

IDENTIPACK

www.osservatorioidentipack.it/en/

Monitoring is essential in order to assess the effectiveness of the information provided and identify any training/information gaps that need to be filled. This is why, with the aim of monitoring the adoption of environmental labelling on consumer packaging, **IdentiPack**, the CONAI and *GS1 Italy* Packaging Environmental Labelling Observatory, was launched in October 2022. The aim of the study is to monitor, on a six-monthly basis, environmental information shown on packaging relating to the packaging itself. Some of this is required by law, while some is voluntary, such as trademarks and certifications, or suggestions for high-quality separate collection.

Since 2024, the six-monthly report has also been published in English and the website is available in two languages.

IDENTIPACK Environmental Labelling Observatory

KEY FIGURES FOR IDENTIPACK IN THE SECOND HALF OF 2024

WHAT WE ARE MADE OF

See page 13 of the July 2025 report

52,6%
PRODUCTS
with alphanumeric identification code of the packaging composition material
+ 4.1 pp
vs. previous year

76,6%
UNITS SOLD
with alphanumeric identification code of the packaging composition material
+ 2.2 pp
vs. previous year

GIVE US THE (RIGHT) END WE DESERVE

See page 19 of the July 2025 report

60,5%
PRODUCTS
with instructions on the type of packaging and proper disposal for separate collection
+ 3.0 pp
vs. previous year

82,5%
UNITS SOLD
with instructions on the type of packaging and proper disposal for separate collection
+ 1.6 pp
vs. previous year

WE ASSURE YOU OF OUR SUSTAINABILITY

See page 23 of the July 2025 report

0,2%
PRODUCTS
with information on the packaging's compostability certification
+ 0.0 pp
vs. previous year

0,2%
UNITS SOLD
with information on the packaging's compostability certification
– 0.0 pp
vs. previous year

TRAIN WITH US, THE WASTE SEPARATION PERSONAL TRAINERS

See page 27 of the July 2025 report

7,3%
PRODUCTS
with additional information to ensure quality separate collection
+ 0.4 pp
vs. previous year

8,0%
UNITS SOLD
with additional information to ensure quality separate collection
+ 0.2 pp
vs. previous year

TRUST ME, WE'RE WORKING FOR YOU (AND THE PLANET)

See page 31 of the July 2025 report

8,7%
PRODUCTS
with voluntary environmental claims and declarations
+ 0.3 pp
vs. previous year

11,4%
UNITS SOLD
with voluntary environmental claims and declarations
+ 0.0 pp
vs. previous year

FOLLOW US, AND YOU'LL LEARN MORE!

See page 35 of the July 2025 report

3,6%
PRODUCTS
with digital sharing of environmental information
– 0.1 pp
vs. previous year

3,2%
UNITS SOLD
with digital sharing of environmental information
– 0.1 pp
vs. previous year

GREEN CLAIMS

An important new development that completes the range of tools available to support businesses on the issue of labelling is the publication of the regulatory overview document **"Green Claims: Obligations and Prohibitions – Summary guide to the new European Directive 2024/825/EU"** for providing consumers with accurate information and avoiding misleading practices such as greenwashing.

This document is the result of collaboration with the Sant'Anna School of Advanced Studies in Pisa and the activities developed within the **"Green Claims" working group**, promoted by CONAI and the Italian Food Union association, which is made up of companies in the food sector.

The document is available at www.etichetta-conai.com/en/ together with some examples and FAQs.

DifferENTI

www.differenti-conai.com

On 4 May 2023, the **differENTI** web platform – **www.differenti-conai.com – was presented at the "Green Med Symposium" in Naples, providing information on the separate collection methods and systems of Italian municipalities. The database can be used by companies or service providers who wish to develop digital systems to convey location-based information about separate collection of packaging. The website also provides information on prevention actions initiated by those local authorities.**

In the first quarter of 2024, new information was added regarding the colours used for separate collection bins in various Italian cities. Furthermore, by the end of 2024, the platform will also publish information on the different selective collection methods in Italy (e.g. "Mangiaplastica" Digital Recycling stations).

differENTI
L'impegno ambientale in ogni ente locale

Alongside the information activities conveyed through E-PACK, throughout 2023 CONAI demonstrated a strong commitment to training and broader requests for more in-depth information on topics related to the circular economy and eco-design of packaging by companies, universities and training organisations *(see chapter Education and development of skills)*.

DESIGN FOR RECYCLING

To further support companies that intend to take action on the recyclability of packaging during the design phase, in 2016 the web platform **"Design for Recycling"** was created, which can be visited at **www.progettarericiclo.com** in Italian and English. It collates the CONAI guidelines on *design for recycling* of packaging, created in collaboration with the main Italian universities active in the field of design, the Packaging Material Consortia and the relevant associations.

The design indications in the guidelines are based on the description of the industrial processes involved in packaging waste treatment operations: collection, sorting and recycling. Through analysis of these phases, readers are guided through which aspects must be considered during the design phase so that the packaging is compatible with existing processes.
With this in mind, the guidelines provide useful tips and suggestions with the intention of stimulating innovation and design creativity and of devising packaging solutions that represent the best synthesis of functionality, performance, requirements and compatibility with recycling processes.

It is fundamental to give absolute priority to the multiple functions that packaging must fulfil, first and foremost that of ensuring that the product arrives intact to the end consumer, preventing it from becoming waste from the start. In addition to this primary function, there are also communication and information functions, as well as those associated with extending product shelf life which, especially in the food sector, is a topical and sensitive issue from both a social and environmental point of view. Innovative solutions can therefore be devised with the same performance, that also ensure recycling of the materials that the packaging is made from.
Design for Recycling is a permanent forum for discussion on design for recycling of packaging, allowing users from different sectors and categories – packaging producers and users, universities and research centres, consultants and environmental experts, associations, consortia and subjects belonging to the waste management chain – to participate, by registering on the platform, in the public consultation of documents, aimed at collecting the contributions of the entire chain to create shared and updated guidelines.

The project envisages the development of guidelines for each of the packaging materials. The guidelines currently available are for packaging made of:

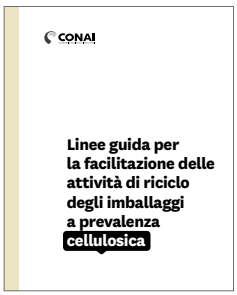
- **plastic** – resulting from a collaboration with the IUAV University of Venice and the support of Corepla;
- **aluminium** – with the involvement of the Department of Architecture and Design of the Polytechnic University of Turin and the support of experts from CiAl;
- **paper** – developed with the "Giulio Natta" Department of Chemistry, Materials and Chemical Engineering of the Polytechnic University of Milan and specialists from Comieco;
- **steel** – drawn up in collaboration with the Advanced Design Unit research group of the Department of Architecture of the "Alma Mater Studiorum" University of Bologna and the technical support of RICREA, the ANFIMA association and the FIRI association.

The guidelines also represent a voluntary measure available to and in support of companies wishing to design packaging solutions to replace those that currently have an end-of-life other than recycling. These solutions, once placed on the market, can be communicated and highlighted through the *ECOPACK Call for Proposals* (also known as the "CONAI Call for Eco-design Projects"), which also helps to disseminate them among firms and create the critical mass necessary for recycling plants.

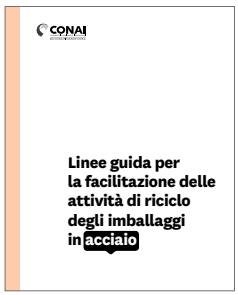
DESIGN FOR RECYCLING

Published in 2016
IUAV University of Venice

Published in 2018
Polytechnic University of Turin



Published in 2020
Polytechnic University of Milan



Published in 2024
University of Bologna

HANDBOOK ON THE PREVENTION MEASURES REFERRED TO IN REGULATION 2025/40 ON PACKAGING AND PACKAGING WASTE

On 22 January 2025, Regulation 40/2025 was published in the Official Journal of the European Union. Already in 2024, the proposed Regulation engaged CONAI in analysing and monitoring regulatory developments.

Given the complexity and structure of the regulation, a PPWR sub-group was formed within the prevention group with the aim of drawing up a handbook on the main sustainability requirements to help companies adapt to the new provisions. The sub-group's meetings were held at the end of 2024 and continued into the first quarter of 2025.
The document, which is open for public consultation until 20 June, was presented on 16 April 2025 during a dedicated webinar (the second on the PPWR). Given that the legislation still leaves room for interpretation and defines criteria whose concrete implementation is postponed until the adoption of delegated and implementing acts by the European Commission, it will be a dynamic document that will be updated from time to time in line with secondary legislation that will clarify the aspects still open.

ECOD TOOL

In February 2020, CONAI added to the free tools available to companies for designing packaging with reduced environmental impact with the EcoD Tool, which can be accessed at **www.ecotoolconai.org** – "Area EcoD" (EcoD Area). This is a free packaging eco-design tool that suggests improvement actions at the design stage, allowing packaging manufacturers and users to assess the environmental impacts, related to the different life cycle phases of different packaging solutions.

Since 2020, the EcoD Tool has had 284[11] authorised users and approximately **1,115 completed forms**.

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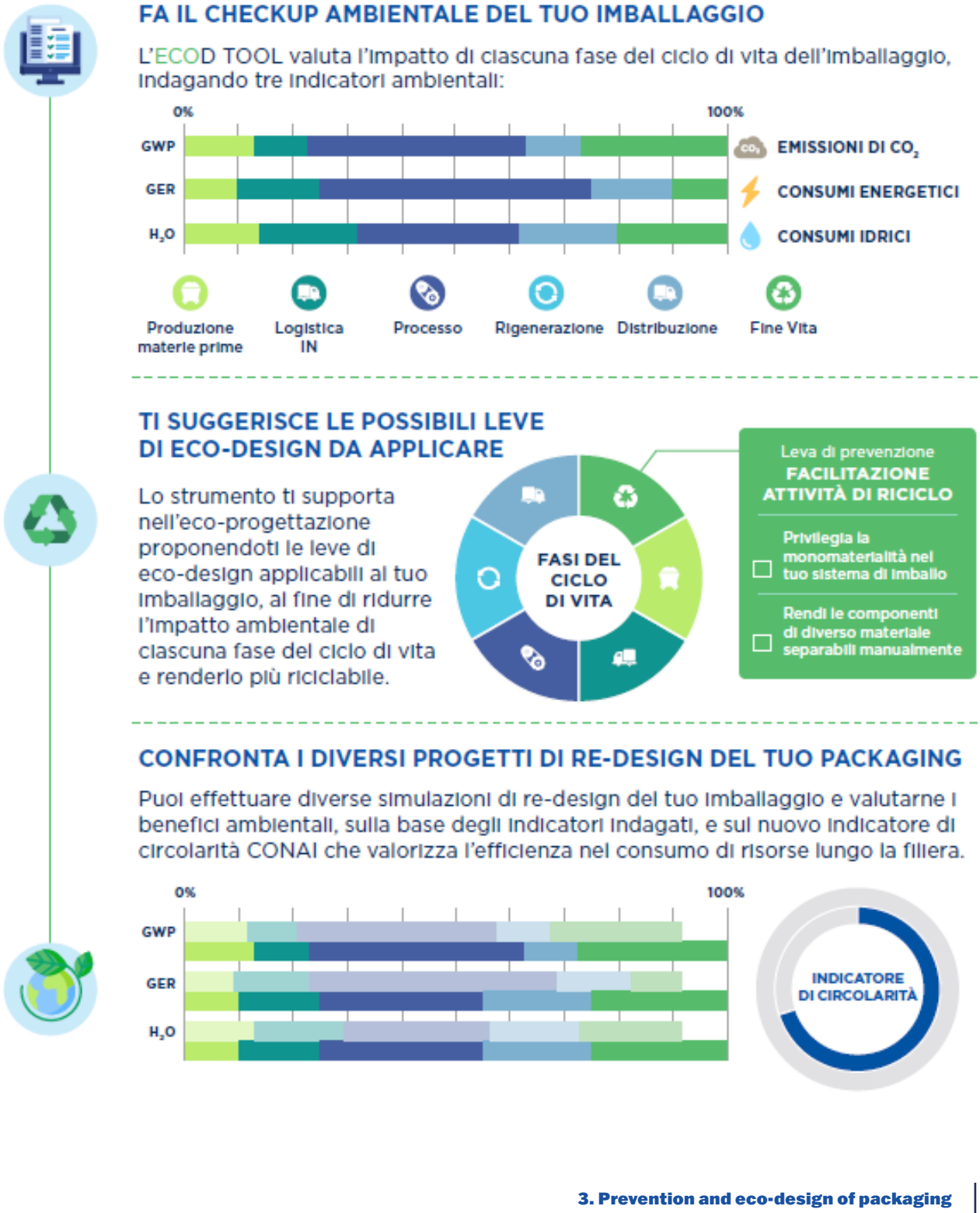
As of 11 June 2025.



In addition to environmental indicators such as water consumption, energy consumption and CO_2 emissions, the analysis of the EcoD Tool is enhanced by a fourth indicator: the **packaging circularity indicator**, developed by CONAI in cooperation with *Life Cycle Engineering Srl* and the Civil and Environmental Engineering Department of the Polytechnic University of Milan.

CONAI PACKAGING CIRCULARITY INDICATOR

In 2018, CONAI decided to provide companies with a way within the EcoD Tool to measure and evaluate the circularity of their packaging, **considering only the physical aspects** of the recycling chains.

Within the "CONAI Circularity Indicator" project (hereafter CCI), CONAI set up a technical committee consisting of CONAI, the Polytechnic University of Milan (POLIMI) and LCE to define the scope of work and, finally, the algorithm. The result was submitted for evaluation to a small group, made up of the Working Group for Prevention's technical committee and Packaging Material Consortia representatives, for final approval prior to the drafting of the methodology, which was then submitted for validation by a certification body (DNV GL).

The indicator is designed with a **simplified but advanced approach**, with the aim of enhancing circularity by considering the physical aspects and utilising the mass sent for reuse and recycling within the packaging system, and the secondary raw material used for the production of packaging.

The result of the indicator is a relative number expressed as a percentage (%) whose meaning is to report how many flows are utilised within the packaging system out of the total flows circulating within the technological system.

Environmental, economic and social aspects are outside the scope of the project. Environmental aspects are assessed separately by the EcoD Tool with the environmental impact indicators (GWP, GER and H_2O).

The project was carried out using established methodologies developed within similar projects (Ellen MacArthur Foundation, 2015) and the British circular economy standard BSI 8001:2017, customising the model in the context of the packaging supply chains in Italy.

The CCI formula is constructed in such a way that the packaging production phase and end-of-life management can be utilised to calculate a percentage of reused or recycled flows out of the total mass flows circulating in the packaging system.

The EcoD Tool can be used by interested CONAI EPR Organisation members and other users, such as students, researchers or consulting firms, to carry out internal analyses and specific case studies for communication and study/research purposes.

ECOPACK – CONAI CALL FOR ECO-DESIGN PROJECTS

Once sustainable packaging has been designed and placed on the market, companies can participate in the **ECOPACK** initiative, also known as the **CONAI Call for Eco-design Projects**, an incentive initiative that, since 2013, has been collecting and promoting the experiences of companies that have invested in prevention and eco-design activities for ever greater environmen-

tal sustainability of their packaging. Through voluntary participation in the Call for Proposals, companies that have developed packaging with reduced environmental impact are given financial incentives[12] to continue their efforts to adopt measures aimed at improving the environmental performance of their packaging. Specifically, the Call for Proposals rewards packaging solutions placed on the market in Italy that, compared to their previous version, have adopted one or more eco-design levers (see related insert) and have enabled a reduction in environmental impact assessed through the CONAI EcoTool, for simplified LCA analysis.

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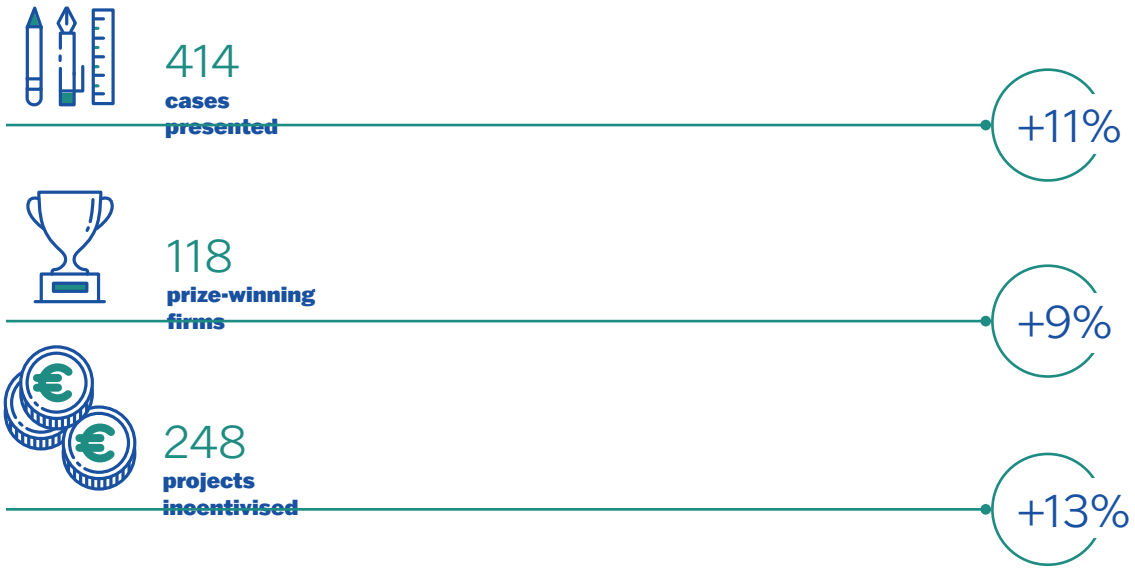
For assessment of cases of good packaging submitted by companies, reference should be made to the special regulations published on the conai.org website.

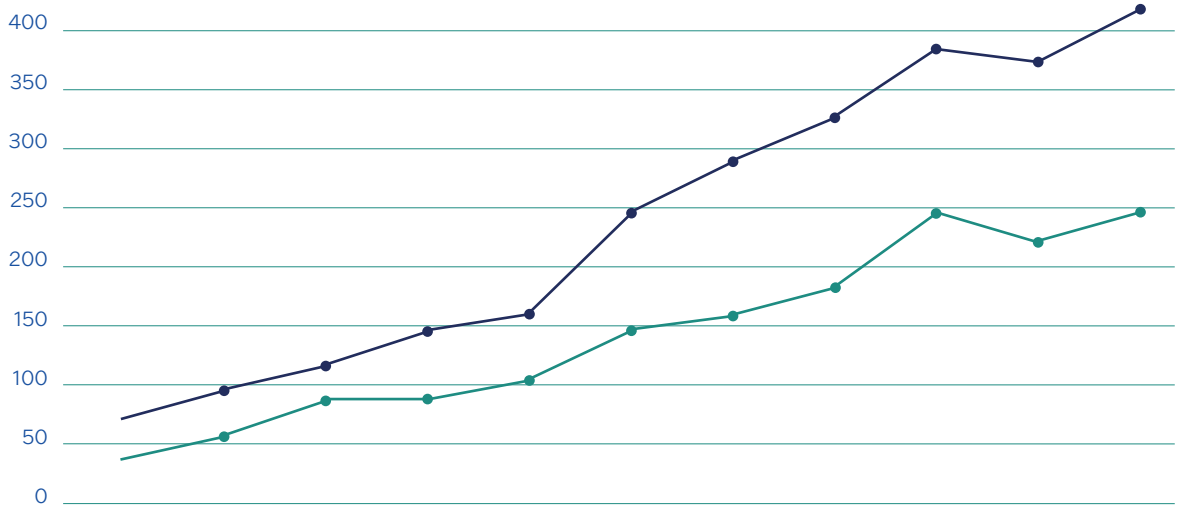
The CONAI Call for Eco-design Projects is an important observatory of how companies promote eco-design in packaging, identifying best practices, and is sponsored by the Ministry of the Environment and Energy Security.
The interest and participation of companies in the CONAI Call for Eco-design Projects in the eleven editions from 2014 to 2024 have encouraged growth of the initiative, including in terms of the total prize money for the winning companies. The prize money has risen from €200,000 in the first edition to €600,000 in the most recent. For the 2025 edition, the total prize money has been confirmed at €600,000.
The favourable cases benefit both economically and through communication initiatives via various media and social channels.
In 2024, 248 projects submitted by 118 companies were supported.

CONAI CALL FOR ECO-DESIGN PROJECTS
CONAI REWARDS THE MOST SUSTAINABLE PACKAGING SOLUTIONS
2024 EDITION



Source: CONAI, General Programme for the Prevention and Management of Packaging and Packaging Waste 2024.

CASES PRESENTED AND APPROVED



Edition	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cases presented	68	91	120	146	161	245	289	326	383	373	414
Cases approved	36	56	88	86	103	145	160	185	243	219	248

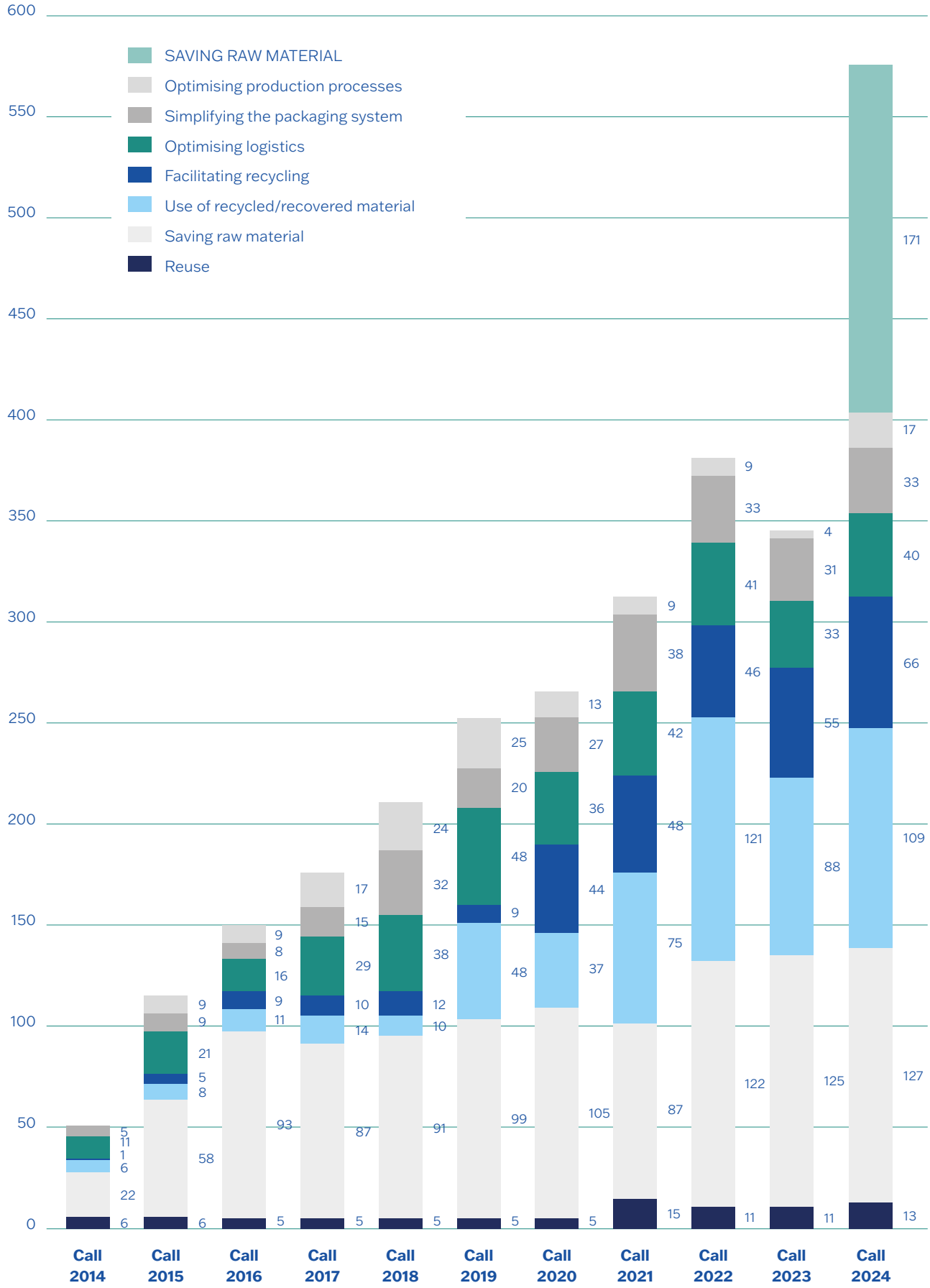
Source: Data generated by CONAI.

As can be seen from the graph on the following page, for the 2024 edition there is continued growth in actions concerning:

- **recyclability**, especially for those applications whose end-of-life management was more complex. It is important that packaging is recyclable so that, once it becomes waste, it can be transformed into new (secondary) material to be reintroduced into new production cycles. This is a complex issue that requires study, design, collaboration and synergy between multiple stakeholders in order to identify the optimal solution that can guarantee functionality, feasibility and environmental sustainability;
- **use of recycled material**, a lever closely related to recyclability, since it is from the recycling of packaging that secondary raw materials are obtained to reduce the extraction and use of primary resources.

Companies wishing to participate in the CONAI Call for Eco-design Projects fill in a questionnaire using the CONAI EcoTool – www.ecotoolconai.org – "Area BANDO" (Call for Proposals) section. This tool allows users to carry out a simplified LCA analysis and measure the effects of the eco-design changes made to the packaging (facilitation of recycling, reuse, use of recycled material, raw material savings, virgin raw material savings, simplification of the packaging system, optimisation of logistics and optimisation of production processes), in terms of three environmental indicators such as the reduction of CO_2 emissions (GWP), reduction of energy consumption (GER) and reduction of water consumption (H_2O), as well as an indicator of secondary raw material generated, highlighting cases where packaging demonstrates *design for recycling*.

ECO-DESIGN LEVERS ACTIVATED IN THE VARIOUS EDITIONS

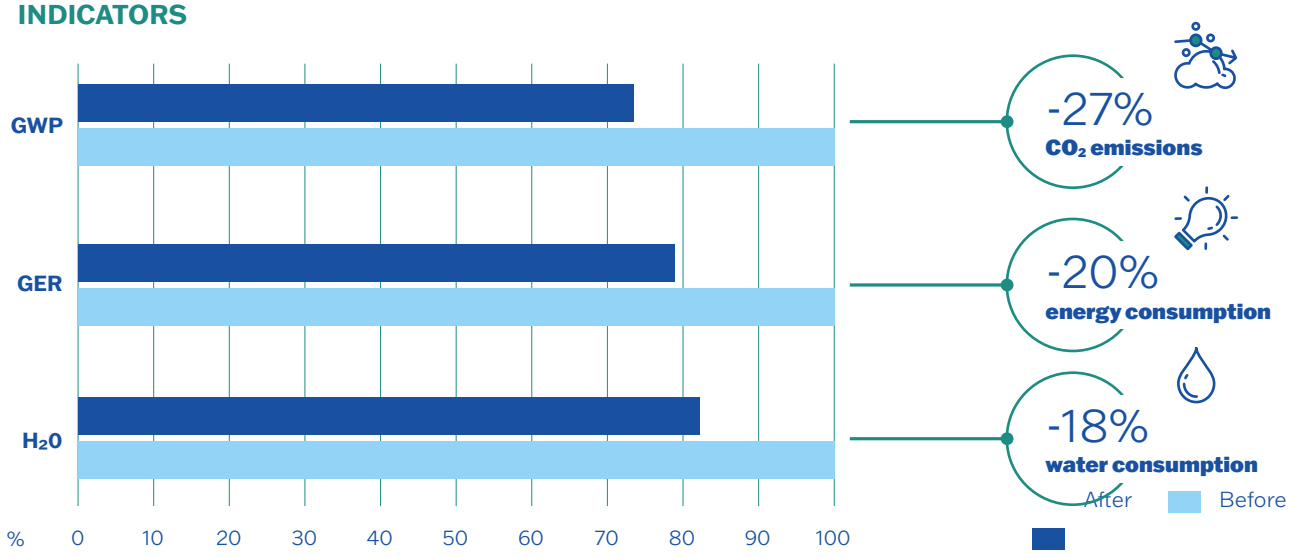


Source: Data generated by CONAI.

Each year, ECOPACK regulations are published, setting out the requirements and how to participate. Packaging material cases submitted by firms are analysed and evaluated by a technical committee composed of representatives from CONAI and Packaging Material Consortia.
To guarantee both greater objectivity of the initiative and transparency of the procedures applied and defined in the regulations, the analysis/assessment and operation of CONAI's EcoTool for the Call for Eco-design Projects is subject to verification by a third-party certification body (see Verification Statement in the appendix). The list of winning cases is published on conai.org.
The Call for Eco-design Projects is an important observatory of how companies promote the eco-design of packaging, identifying best practices and making experiences available as examples to be replicated where possible.
In 2024 the CONAI EcoTool underwent a revamp, with changes made to the software, graphics, and front-end and back-end user functionality.
On average, the 248 admitted cases resulted in a 18% reduction in water consumption (H_2O), a 20% reduction in electricity consumption (GER) and a 27% reduction in carbon dioxide emissions (GWP).

With the collection of promoted cases carried out in recent years, it has been possible to record numerous stories recounting the experiences of producers and users who have chosen to evolve and modernise their packaging,

CONAI CALL FOR ECO-DESIGN PROJECTS 2024: AVERAGE BENEFITS OF ENVIRONMENTAL INDICATORS



Source: Data generated by CONAI.

often acting as a stimulus for innovation for one another. The cases outlined refer to positive results of producers and users in design, research and development activities that have reached the market, which end consumers often do not realise.

Analysis of these actions shows that the greatest focus is on upstream prevention; for example, choosing to use recycled material and/or reducing thickness and weight while maintaining the same performance, thus saving

raw materials and reducing the extraction of primary resources.
Interventions concerning end-of-life represent the continuous effort of companies in the search for applications that facilitate the operations and process of recycling packaging, so that it can be transformed into secondary raw materials for use in new production cycles.
Next, among the most frequent actions are those related to the optimisation of logistics and distribution. This is made possible by introducing more easily stackable designs and shapes or by rethinking the entire packaging system (primary, secondary and tertiary) and design and production. Specifically, this involves simplifying the packaging system and optimising production processes by reducing waste or eliminating production inputs (water, energy), often linked to modernising machinery and rethinking packaging designs.

In the "Success Stories" section of the www.conai.org website, you can see the packaging that has been awarded through the CONAI Call for Eco-design Projects. Although these examples are merely illustrative and not representative of the market as a whole, it is nevertheless important to note that many of the winning projects were submitted by leading companies in their respective sectors, which often drive innovation and promote initiatives that the market tends to replicate.

Furthermore, the promotion of best practices on the CONAI website (https://www.conai.org/en/prevention-and-eco-design/successful-cases/) and collected through the aforementioned CONAI Call for Eco-design Projects provides examples for interested companies, encouraging them to seek possible solutions to improve the environmental performance of their packaging, including with a view to saving raw materials.

WORKSHOP: "LET'S DESIGN THE FUTURE OF THE CALL FOR PROPOSALS TOGETHER"

The workshop took place on 19 December 2024 and aimed to collect feedback and discuss the future evolution of the Call for Proposals.
Participants were mainly selected from among the members of the prevention working group and represented:

- Environmental associations
- Trade associations
- Packaging Material Consortia
- Large-scale retail
- Packaging producers
- Packaging users

They were interviewed to gather information on their **perceptions of the existing Call for Proposals**, highlighting its strengths, areas for improvement and any critical issues. **Ideas and proposals** for the future emerged during the workshop and were further developed and divided into four thematic

areas: communication, support, process and new ideas. Post-event analysis allowed CONAI to define three levels of intervention based on the priorities and the possibility of developing these proposals. Some of these have already been incorporated into the new Rules of the 2025 Call for Proposals (published on 26 February 2025) and others will be evaluated for possible future developments.

The activities, services and tools described thus far constitute a stable basis over time for prevention measures implemented by CONAI. These make it possible to comply with the requirements of the legislation, and also to evaluate and measure actions taken by companies – without claiming to be representative, given the voluntary nature of these initiatives.

THE POTENTIAL OF PREVENTION
Extract from the Sustainability Report 2024

Data and information collected from the latest edition of the CONAI Call for Eco-design Projects were extracted and processed from the now extensive CONAI EcoTool database in order to estimate the potential environmental benefits associated with the dissemination of best practices implemented by packaging manufacturers and users in Italy.

The analysis was based on a sample of 331 eco-design actions. For each type of packaging, the average potential environmental benefits that could be generated through "amplification" of eco-design levers were calculated for all packaging in the typical basket placed on the market in Italy. These improvements were then multiplied by the number of units sold, based on an analysis of packaging placed on the market by material and product category for the year 2023[13].

Environmental benefits of prevention activities estimated by analysis

RAW MATERIAL SAVED

8 million tonnes

The weight of 556 Towers of Pisa

WATER SAVED

77 billion litres

31,000 Olympic swimming pools

ENERGY SAVED

73 TWh

The average annual electricity consumption of 19 million households

EMISSIONS AVOIDED

13 million tCO_2

Emissions generated by 30,000 Rome-New York return flights

Source: Data generated by Life Cycle Engineering from CONAI data.

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Due to the purely simulative nature of the study, however, it is not possible to draw a time series due to the high variability of the solutions presented from year to year.

CONAI's prevention activities do not undergo changes in name; they do so in content, at the level of business support, of innovation with respect to what has been done, of functionality according to the needs considered appropriate with a view to continuous improvement and continuous promotion of the eco-design approach that takes into account all the phases of the life cycle of packaging and its environmental impact. Among other things, all of the tools and initiatives on prevention are promoted within a special Working Group coordinated by a CONAI board member and open to the participation of all Packaging Material Consortia representatives, the main local and trade associations, as well as the most important companies in the sector, to ensure a joint approach on these issues.
Alongside these initiatives, the Packaging Material Consortia and Self-compliant EPR Organisations promote a number of specific initiatives, but they are essentially based on what has been described above, participating in the Working Groups and discussions promoted by CONAI.

REMADE FOUNDATION

Within the CONAI forum during the Ecomondo Fair in Rimini, the ReMade Foundation, of which CONAI is a founding member, was presented to the public for the first time. The Foundation pursues civic and social utility goals aimed at promoting awareness and use, within the scope and as a driver of the circular economy, of environmentally sustainable materials and products made from recycled materials, as well as materials and products made from the reuse of other materials and/or products (eco-sustainable goods).

The Packaging Material Consortia and Self-compliant EPR Organisations also promote and carry out numerous activities, summarised below, aimed at preventing the environmental impact of packaging, considering all stages of its life cycle. As with other activities, such as local and communication activities, the Consortia and Self-compliant EPR Organisations are committed to carrying out specific activities for their respective supply chains.

Summary table of the measures adopted by Packaging Material Consortia and Self-compliant EPR Organisations to achieve the targets set out in Article 225 paragraph 1 of the TUA

Prevent the formation of packaging waste	
ALUMINIUM **CiAI**	• Study aimed at monitoring the evolutionary trend (reduction in material use) of the different aluminium packaging components (can, canister, tray, foil, etc.) over the last 20 years. • Continued industry activities to reduce packaging weight and awareness campaigns to increase the collection of the thinnest and smallest fractions.
PAPER **Comieco**	• Strong commitment to innovation to make papers as light as possible and use renewable, recyclable and compostable raw materials. • Active presence at award ceremonies and contests concerning innovation and sustainability. • Use of pulp for the production of paper and cardboard for packaging. • Support for the design sector, closely linked to the design of increasingly innovative packaging. • Collaborations with universities on the subject of eco-design and sustainability of cellulose packaging. • Monitoring of "prevention indicators" identified by the Consortium that reflect the performance of the packaging supply chain. • In collaboration with Aticelca, funding of a study that demonstrated the comparability between the UNI (11743:2019) and CEPI (v.2) methods in the field of packaging recyclability certification.
WOOD **Rilegno**	• Promotion of the use of certified wood from neighbouring sites. • Driving the use of energy from renewable sources. • Use of post-consumption waste agglomerate blocks or spacers, chipboard wood boards for assembling pallets and chipboard panels for making industrial crates. Notably, pallet blocks made from recovered wood, already PEFC certified, have obtained Remade in Italy certification. • Weight reduction consistent with the required performance in terms of use, transport and safety. • Reduction in processing waste. • Use of machining waste for the production of first and second grade packaging. • Optimisation of logistics through the design of wooden packaging with folding walls and the possibility of assembly at the user's site. • Promotion of environmental certifications and labels. • Promotion of Green Public Procurement and Minimum Environmental Criteria.
PLASTIC **Corepla**	• Participation, on behalf of EPRO, in the activities of the *Circular Plastics Alliance* (CPA), so that by 2025 at least 10 million tonnes of recycled plastics are used in products made in the European Union.
PLASTIC **CONIP**	• Use of recycled material for the production of fruit and vegetable crates and pallets. • Incentives for its members for "plastic second life" certification.

WOOD/PAPER/ PLASTIC Erion Packaging	• Use of fee modulation.
GLASS CoReVe	• Consideration to lightening the weight of packaging. • Reducing the quantity and environmental harm of raw materials used in packaging through the use of glass cullet for packaging production. • Development of the returnable circuit. • Promotion of the use of glass cullet resulting in: raw material savings; energy savings; CO_2 emission savings. • Driving the use of glass cullet fractions in the construction sector.
Increase the proportion of recyclable packaging waste to non-recyclable packaging waste	
STEEL RICREA	• Creation and promotion of the "Guidelines for Facilitating the Recycling of Steel Packaging".
ALUMINIUM CiAl	• Promotion of an additional treatment option for the sub-sieve fraction at treatment plants in order to maximise recovery. • Creation of the "Design for Recycling" guidelines and the "Guidelines for Facilitating the Recycling of Aluminium Packaging" (the latter produced by CONAI). • Support for extraction and recycling of aluminium from bottom ash for subsequent recovery for recycling.
PAPER Comieco	• Monitoring Aticelca label concessions for recyclability of packaging. • Technical support to CONAI to introduce, from 2025 and as part of fee modulation, a correlation between the EPR Fee and the actual recyclability assessment of packaging, based on the Aticelca 501 assessment system. • Presentation of guidelines on optimising collection and separation flows of different types of packaging and their recyclability in specialised plants. • Training and information activities concerning cellulose-dominated composite packaging. • Membership of the European 4evergreen network, to strengthen the contribution of fibre packaging to the circular economy, and participation in specific working groups for the drafting of guidelines on eco-design, collection and sorting.
WOOD Rilegno	• Use of recycled wood and recycled semi-finished products in the production of packaging.
PLASTIC Corepla	• Technical support to CONAI for fee modulation of plastic packaging. • Creation of the "Design for Recycling" guidelines and the "Guidelines for Facilitating the Recycling of Plastic Packaging" (the latter produced by CONAI). • Participation in working groups at PETCORE Europe, the leading European PET supply chain association, to share best practices aimed at increasing the amount of packaging sent for recycling.
WOOD/PAPER/ PLASTIC Erion Packaging	• Promotion, together with Interzero Italy Srl, of an initiative for member companies aimed at assessing the recyclability of packaging materials
GLASS CoReVe	• Support for scientific research aimed at identifying better characteristics for glass packaging to increase its recyclability.

Increase the proportion of reusable packaging waste to non-reusable packaging waste	
STEEL **RICREA**	• Support for reconditioning and regeneration of used steel packaging. • Support for drum and tank regeneration activities.
PAPER **Comieco**	• Encouraging reuse, especially in the B2B sector or within a closed and controlled production cycle or commercial circuit. • Collaboration on an academic workshop on the reuse of paper and cardboard packaging, promoting circular and sustainable solutions.
WOOD **Rilegno**	• Inspections at used pallet regeneration and sorting plants. • "Wooden packaging reprocessing" project to incentivise the repair of wooden pallet waste.
PLASTIC **Corepla**	• Support for reconditioning and regeneration of used plastic packaging.
GLASS **CoReVe**	• Monitoring on the returnable circuit.
Improve the characteristics of packaging to enable it to withstand more journeys or rotations under normal conditions of use	
STEEL **RICREA**	• Support for reconditioning and regeneration of used steel packaging.
PAPER **Comieco**	• Monitoring innovations in reusable packaging through the Best Pack database.
WOOD **Rilegno**	• Inspections at used pallet regeneration and sorting plants. • "Wooden packaging reprocessing" project to incentivise the repair of wooden pallet waste.
PLASTIC **Corepla**	• Support for reconditioning and regeneration of used plastic packaging, including through promotion of platforms for drums and tanks (PIFU).
GLASS **CoReVe**	• Monitoring the returnable circuit and optimising the collection system to reduce the amount of glass lost at the sorting and treatment stage.
Achieve recovery and recycling targets	
STEEL **RICREA**	• Development of steel packaging recovery from unsorted waste. • Collaboration with universities for studies and research on the life cycle of steel. • Campaigns to raise awareness of quality separate collection. • Continuation of communication activities for the development of separate collection in schools, local authorities and companies/associations. • Product analysis campaign to establish the presence of the different types of composite packaging in the separate collection of aluminium.
ALUMINIUM **CiAl**	• Develop effective and efficient collection models. • Awareness-raising activities geared towards quantitative and qualitative improvement of material delivered post-consumption. • Support for supplementary recovery options such as cap recovery from separate collection of glass; aluminium recovery from unsorted waste or post-combustion slag; treatment of sub-sieve fractions at sorting plants. • Promotion of induced current separation systems. • Information and awareness-raising campaigns aimed at citizens for high-quality separate collection.

BIOPLASTIC **Biorepack**	• Promotion and dissemination of the "Environmental Labelling Guidelines for Packaging", making bioplastic packaging easier to identify. • Monitoring forms of illegal placement on the market of packaging that does not comply with current regulations. • Educational awareness projects for primary and secondary school pupils. • Information and awareness-raising campaigns aimed at citizens for high-quality separate collection.
PAPER **Comieco**	• Targeted communication activities to raise awareness among citizens of the value of separate collection and recycling, which, for paper and cardboard, are the best management options currently implemented. • Promotion of a study on collection and recycling of cellulosic packaging in the fast-food sector. • Organisation of a conference at Ecomondo on the "flagship" projects of the PNRR on paper and cardboard recycling.
WOOD **Rilegno**	• Communication projects aimed predominantly at disseminating good wood and cork recovery practices to institutions, businesses, citizens, schools and younger sections of the population.
PLASTIC **Corepla**	• At the sector agreement committees, promotion of dissemination of digital recycling stations as a collection method to supplement those currently provided for in the agreements between EPR systems and ANCI. • Continuation of the working group coordinated by MASE and attended by ANCI, CONAI, Corepla and Self-compliant EPR Organisations to achieve national targets for the selective collection of PET beverage bottles. • Support for reforming the auction system and ensuring bottlers have access to auctions for the purchase of post-consumer bottles. • Adoption of incentives to increase secondary solid fuel recycling performance. • Support for the Institute for the Promotion of Recycled Plastics (IPPR) and the Plastic Second Life (PSV) mark to strengthen product and process certification • Incentives and promotion of PIA[14], PIFU[15] and PEPS[66] platforms. • Project for recovery of mixed PET fractions (e.g. single- and multi-material trays, opaque PET bottles), with the primary objective of verifying recyclability through mechanical recycling or chemical recycling (depolymerisation) processes. • Project for recovery of post-consumer expanded polystyrene packaging (mainly XPS food trays) in separate collection for recycling to produce new packaging. • Support for research projects aimed at increasing the percentage of products sent to recycling compared to those destined for energy recovery, and developing new applications and synergies along the entire plastic packaging chain. • Plastic to Plastic – a project to evaluate depolymerisation and chemical recycling technologies, with the aim of identifying non-conventional recycling processes to complement mechanical recycling processes, in order to achieve the new recovery targets for plastic packaging. • Support for innovation to optimise analysis activities, including through the integration of AI. • Targeted communication activities to raise awareness among citizens of the value of separate collection and recycling. • Communication activities aimed at informing and raising awareness among citizens/schools on the correct management of plastic packaging. • Raising awareness among citizens on proper management of packaging waste in relation to waste dispersal and litter prevention measures. • Continuation of promotion and support actions aimed at municipalities and/or signatories in order to increase the quantity and quality of separate collection of plastic packaging.

14
Platforms for plastic packaging waste from industrial, artisanal and commercial activities that have signed an agreement with Corepla.

15
Recovery plants from dedicated circuits for drums, jerrycans and tanks.

16
Recovery systems from dedicated circuits for expanded polystyrene.

PLASTIC CONIP	• Communication activities aimed mainly at information on managing plastic crates and pallets. • Commitment to strengthening the collection network through continuous improvements to the circuit.
PLASTIC Coripet	• Continuation of the process of intercepting post-consumer PET bottles from the expired milk return management circuit for subsequent recycling. • A new model has been activated that allows EPR Organisation members to obtain the rPET necessary to achieve SUP and PPWR targets. • Increase in the number of digital recycling station installations.
PLASTIC PARI	• Continuous training at producers to maximise the upstream separation capacity of packaging waste.
WOOD/PAPER/ PLASTIC Erion Packaging	• Promoted communication, training and support activities for EPR Organisation members on the new requirements set out in the PPWR.
GLASS CoReVe	• Communication campaigns and support for projects aimed at improving the quality of packaging waste collection.

3.5 Research and development

CONAI considers collaboration with scientific institutes, universities and national research centres to be fundamental for the evaluation of new research horizons. With a view to adopting the new recycling objectives envisaged by the *Circular Economy*, CONAI intends to continue to play a proactive role in guiding and encouraging Packaging Material Consortia to carry out research and technological innovation projects, to promote the recycling of post-consumer packaging flows that cannot currently be recycled, with particular reference to the more complex fractions. It also intends to intervene upstream to research and promote innovative solutions in terms of packaging eco-design. To this end, CONAI intends to expand and strengthen its network with leading universities, research centres and organisations active in these fields, promoting new studies and research and also evaluating possible international collaborations for the scouting of innovative technologies and solutions.
Below are some of the study and research initiatives planned by the Consortia.

RICREA has initiated collaborations with a number of university institutes for studies on topics such as the properties and performance of metal packaging or the environmental sustainability of steel used as food-packaging. In 2024 RICREA participated once again in the activities of the National Council for the Green Economy, which promotes the development of the green economy in Italy. Also for the year 2024, RICREA kept memoranda of understanding for individual projects active with trade associations in the sector, including ANFIMA, UNICAV, ANCIT and AIA.
Since 2024 RICREA has been a supporting member of the Experimental Station for the Food Preserving Industry – Research Foundation. SSICA carries out its activities of research, experimental development, technological supervision, laboratory analysis and consultancy, transfer of results, training

and other related activities for companies operating in the agri-food preserving sector. Through its activity, SSICA aims to provide answers to general problems concerning the food preservation industry, intervening throughout the agri-food production chain in order to improve quality and safety standards.

CiAl has been working for years to promote and foster among companies the propensity to research and develop solutions that can produce high industrial and environmental performance in the long term. Furthermore, the Consortium intends to acquire data on the commercial distribution of beverage cans, collected by leading research institutes from large-scale retailers and other distribution channels, in order to update information on placement on the market in the different areas of the country. This can be used to determine the recycling rate of this aluminium packaging component and for defining new strategies for local action with regard to both "ordinary" separate collection and the possible activation of dedicated collection schemes. It also proposes launching a study aimed at assessing the efficiency and interception capacity of aluminium packaging at various sorting plants, in order to optimise performance and achieve a qualitative and quantitative improvement in overall results. Finally, the Consortium will assess the possibility of commissioning a study to identify the characteristics and volumes of the aluminium packaging materials market, with particular reference to export flows.

In 2024, **Comieco** conducted an internal survey to analyse the main innovations in the paper and cardboard packaging sector, looking beyond national borders. This study identified product innovation trends, highlighting the most advanced solutions for improving the sustainability, recyclability and technical performance of packaging. Emerging innovations include new bio-based barrier coatings, single-material solutions for food packaging and the development of packaging laminated with recyclable or compostable materials, which respond to changing market needs and growing regulatory attention.
To promote innovation within companies, the Consortium has chosen to support and play an active role in the jury of several industry awards:

- for sustainable design and reduced environmental impact of exhibition furniture (DIVA – Display Italia Viscom Award competition);
- for the use of sustainable packaging and to provide correct information on the separate collection of products in the context of e-commerce (Netcomm Award);
- in adopting more eco-friendly practices, encouraging stakeholders in the sector to pursue innovative and sustainable solutions in luxury packaging (Avant-Garde).

Comieco also carries out ongoing activities to promote innovation linked to eco-design: within Italian universities, by setting up specific collaborations with various faculties through workshops, master's courses and dissemination activities, and by responding to requests received from firms (on issues such as recyclability, compostability, verification of essential requirements, etc.), and through collaboration on the Design Economy Report, produced by the Symbola Foundation with Deloitte Private, Poli.design.
Finally, in 2024 the Consortium renewed its membership of two networks that focus on highly innovative content: GSICA (Italian Scientific Group on Food Packaging), an association that brings together researchers in the food packaging sector with the aim of spreading the scientific culture of packaging, and Cluster Spring, which brings together active players for the development of the entire green chemistry supply chain in order to move towards a new economy (bio-economy).

As regards **Rilegno**, in 2024 the Recycling and Recovery Traceability Portal (TC1) became fully operational, used regularly and continuously by all affiliated platforms in Italy. At the beginning of the year, the accurate traceability system for packaging waste became fully operational, delivered free of charge to collection platforms.
Quality inspections to determine the presence of packaging waste in the flows managed by the platforms continued at a similar rate to the previous year, as did the characterisation of wood waste and the detection of formaldehyde content. An online portal was activated for inspectors to enter the quantitative data collected during inspections, which is then automatically imported into the internal database. Work also continued, in collaboration with TUV Italia, to monitor the performance of on-site checks, with the subsequent management of the relevant data to determine the percentage of packaging.

Compared to previous years, **Corepla** has placed particular emphasis on exploring the potential of artificial intelligence to improve the Consortium's stream quality analysis systems. It has also continued to focus strongly on eco-design activities, supporting the development of more sustainable and easily recyclable packaging solutions with a view to promoting the circular economy. The most significant projects for 2024 are summarised below:

- recovery of sub-sieve fractions – with the aim of assessing the possibility of transforming part of a stream destined for energy recovery into a stream of interest for the recycling market;
- study of the composition of polyolefin streams – with the aim of analysing in detail the mixed polyolefin streams selected by Corepla, examining

their product and polymer composition, the size and shape of the packaging, the percentage of food and non-food packaging, and the prevailing colours;

- mixed plastics recovery – a project to recycle packaging made of mixed plastics mainly consisting of residual flexible polyolefins in PLASMIX into streams suitable for both mechanical and chemical recycling processes;
- chemical recycling technologies – evaluation of pyrolysis, depolymerisation and chemical recycling technologies to be combined with mechanical recycling processes and gasification technology to transform mixed plastic packaging that cannot otherwise be recovered;
- Open Innovation – collaboration with PoliHub – Innovation Park and Start-up Accelerator of the Polytechnic University of Milan to support innovative start-ups with proposals in the field of *"Circular Economy & Waste"* in the Incubator programme;
- Mechanical recovery of mixed PET packaging – to increase recyclability and encourage commitment to higher value-added applications through mechanical recycling processes;
- Methodology for calculating plastic recycling through the oxides contained in the ash incorporated in clinker in SSF co-combustion processes in cement factories;

During the year, Corepla continued its collaboration with Italian universities and research centres to develop issues of interest to the entire supply chain.

In 2024, **Biorepack** continued its collaboration with the University of Rome Tor Vergata to study and identify the best organic recycling methods and techniques. The aim of this collaboration is to identify industrial processes capable of maximising the organic recycling of compostable bioplastic packaging and municipal organic waste, while reducing the amount of waste generated.
A collaboration has also been launched with the University of Milan to carry out a research project aimed at investigating the behaviour of compostable bioplastic fragments in soil and to fund a PhD scholarship on the same topic.
The three-year collaboration with the University of Bologna, Department of Agricultural and Food Sciences and Technologies (DISTAL), continues with a study on the effects of compost derived from biodegradable materials, including bioplastics, on the soil-plant system.
The Consortium has also established a collaboration with the University of Campania Luigi Vanvitelli to carry out a research project aimed at developing methodologies and implementing procedures with the aim of verifying the procedure for analysing the content of carbon of biological origin (biobased) defined in current legislation, including through comparison with other laboratories, and methodological developments that will allow a greater number

of samples to be processed. These objectives will also be achieved through the co-funding of a PhD scholarship.

A collaboration agreement has been signed with the University of Padua, Department of Agronomy, Animal, Food, Natural Resources and Environment, for research activities concerning the development of biotechnological solutions to improve the anaerobic digestion process of end-of-life bioplastic packaging. The objectives concern the development of an innovative method for characterising pre-treatment and post-treatment waste within sites that involve an integrated process (anaerobic and aerobic) and the development of technological solutions useful for further accelerating the recycling of bioplastics.
During 2024, a collaboration was also launched with the University of Pisa to develop analytical methods based on pyrolysis, chromatography and spectrometry to be used for the chemical study of compostable bioplastics, both those placed on the market and those modified as a result of degradation, in order to verify the possible presence of non-biodegradable polymers.
Finally, the agreement with Roma Tre University is continuing for research and legal training on topics of interest to Biorepack relating to the circular economy.

Finally, the **CoReVe Consortium** has focused on the implementation of the following research projects:

- CoReVe–SSV project: "Recyclability and Eco-Design for Recycling" – Eco-design aimed at increasing the recyclability of glass packaging. Eco-design for recycling involves the adoption of a series of construction, material and assembly solutions, etc., aimed at maximising the yield of treatment plants, for example through design choices that minimise the probability of good glass being discarded as false positives by sorting machines, and at maximising the quality of the PAF cullet produced, for example through choices that minimise the potential impact on recycled finished products of non-glass contaminants that are not recognised or removed by sorting machines;
- CONAI–CoReVe–SSV project: "Recovery of waste fractions from glass cullet processing". The use of cullet in the production of glass containers as a replacement for traditional raw materials (such as sand, limestone, soda ash) is linked to the possibility of obtaining a high-quality secondary raw material that meets the quality requirements of the glass industry. For this reason, the glass waste collected is sent to specialised treatment plants, which remove any impurities. During these processes, waste is produced, such as waste from the sorting of "fine" and ceramic waste, and waste from the separation of glass with a high lead content. The project's goal is to recover the aforementioned waste fractions from glass cullet processing through the development of new solutions that enable reuse of waste

material, while reducing the amount of waste sent to landfill.

- CoReVe–SSV research project "Cullet Spectral Imaging: Identification of pollutants in glass cullet by means of image analysis acquired with multi- or hyper-spectral techniques". The aim of the project is to verify the applicability of spectroscopic recognition techniques to identify fragments of foreign material on raw and oven-ready glass cullet in a repeatable, effective and rapid manner. Through these techniques, foreign material fragments can be recognised thanks to their particular optical properties in response to UV, Visible and NIR (Near Infra Red) radiation of appropriate wavelengths;
- CoReVe–SSV research project "Verification of the impact of closed or semi-closed plastic bags on the yields of glass treatment plants".


4

Placement on the market and reuse

4.1 Placement on the market

The data for placement on the market is the first useful information for determining the prevention, reuse, recycling and recovery performance achieved for packaging and packaging waste, since, pursuant to Decision 2005/270/EC article 2, “the packaging waste generated in a Member State may be deemed to be equal to the amount of packaging placed on the market in the same year within that Member State”.

The data for placement on the market for the two-year period 2023-2024, for the share attributable to the volumes pertaining to the CONAI EPR Organisation, are reported together with the corrections identified at European level.

In defining the figure, specific corrective measures were taken into account, defined as “de minimis” (exempt from the EPR Fee because they refer to small flows) and “free riding” (not yet subject to the EPR Fee even though they fall within the scope of application). These corrective measures were introduced following the regulatory innovations provided by the revision of European Commission Decision 2005/270/EC – Commission Decision of 22 March 2005 establishing the formats relating to the database system pursuant to Directive 94/62/EC of the European Parliament on packaging and packaging waste. The changes were introduced by Decision (EU) 2019/655 and the calculation methods take the May 2024 Guidelines into account. In addition, for the plastic and aluminium supply chains, a new corrective measure called “composites” has been introduced, aimed at estimating the quantities pertaining to packaging made of multiple materials, in cases where each material exceeds the 5% threshold. The aim of the changes/corrections introduced is to harmonise, at European level, the calculation methods and reporting of waste generation and the various management phases from recycling to reuse, introducing common rules relating to the reliability of estimates in order to avoid significant overestimates or underestimates.

These corrections have an average impact of 1.3% on the total placement on the market.

An analysis of the 2024 data over the 2023 data[17] shows a slight increase in data for placement on the market (+0.7%) mainly due to a physiological rebound after the decline in 2023.

PACKAGING PLACED ON THE MARKET (2023[18]-2024)

Material	2023	2023 consolidated	2024	Annual change
	KTONNES	KTONNES	KTONNES	%
Steel	487.548	484.229	504.149	4.1
Aluminium	84.300	84.300	91.500	8.5
Paper	5,062.204	5,024.414	4,984.109	-0.8
Wood	3,332.669	3,332.669	3,444.682	3.4
Plastic and bioplastic	2,289.949	2,289.950	2,308.769	0.8
of which traditional plastic	*2,212.027*	*2,212.028*	*2,226.523*	*0.7*
of which compostable plastic	*77.922*	*77.923*	*82.246*	*5.5*
Glass	2,642.425	2,642.425	2,618.750	-0.9
Total	**13,899.095**	**13,857.988**	**13,951.959**	**0.7**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

PLACEMENT ON THE MARKET BY SELF-COMPLIANT EPR ORGANISATIONS

Self-compliant EPR Organisations	2023	2023 consolidated	2024
	KTONNES	KTONNES	KTONNES
CONIP – Crates	73.061	73.061	75.492
CONIP – Pallets	0.064	0.064	-
PARI	13.075	13.075	13.783
Coripet	249.371	249.371	253.361
Erion Packaging – Paper	7.204	7.204	18.491
Erion Packaging – Wood	1.885	1.885	4.480
Erion Packaging – Plastic	3.784	3.784	5.766
Total	**348.444**	**348.445**	**371.373**

Source: Self-compliant EPR Organisations.

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The 2023 figures have been adjusted to take into account the corrections mentioned above and following the usual verification and adjustment activities carried out by CONAI.

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The 2023 figures have been adjusted to take into account the corrections mentioned above and following the usual verification and adjustment activities carried out by CONAI.

Below is the breakdown of placement on the market by material:

The steel packaging supply chain, with 504.149 ktonnes of packaging placed on the market in 2024, increased by 4.1% compared to 2023.
The data in the table below shows that almost all types of packaging maintain the same percentage distribution. In absolute terms, there is an increase in the quantities produced in the "Drums" and "Raw materials for packaging" categories. There was also an increase in the quantities deriving from the regeneration of tanks[19].

PLACEMENT ON THE MARKET BY TYPE OF PACKAGING

Type of packaging	Quantity placed on the market 2023		Quantity placed on the market 2024		2024/2023 change	
	TONNES	%	TONNES	%	TONNES	%
Aerosol cans	18,042	4	19,287	4	1,245	7
General line	69,380	14	69,391	14	11	0.0
Open top	134,268	28	133,581	26	-686	-1
Caps	24,626	5	27,500	5	2,874	12
Crown caps	8,415	2	7,452	1	-963	-11
Steel drums	63,761	13	75,191	15	11,430	18
Regenerated steel drums	8,209	2	6,303	1	-1,906	-23
Cages/bases for tanks	22,441	5	25,267	5	2,826	13
Regenerated cages/bases for tanks	21,939	5	23,207	5	1,268	6
Strapping	27,609	6	27,743	6	134	0
Black annealed iron wire	21,996	5	19,736	4	-2,260	-10
Raw material for packaging	38,605	6	45,622	9	7,017	18
Other packaging + composite packaging	24,940	7	23,870	5	-1,069	-4
Total	**484,229**	**100**	**504,149**	**100**	**19,920**	**4.1**

Source: Management Report 2024 – RICREA.

The aluminium packaging supply chain, with 91.5 ktonnes of packaging placed on the market, recorded a significant increase (+8.5%) compared to 2023, almost entirely attributable to the introduction of the new "composites" corrective measure in application of EU Decision 2019/655. In quantitative terms, the difference is attributable to just under 6,000 tonnes for the corrective items, which include free riding, de minimis and the aluminium content in predominantly plastic composites, and 1,000 tonnes as a result of

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Management Report 2024, Financial Statements and Specific Plan for Prevention, RICREA.

the new calculation rules adopted by CONAI for the allocation of quantities deriving from simplified procedures[20].

The paper packaging supply chain remained virtually stable, with 4,984 ktonnes of packaging placed on the market (-0.8%) compared to 2023 figures.
The figure for packaging placed on the market includes the share accounted for by Comieco (99.6%) and Erion Packaging (0.4%).
As regards Comieco, the final figure for 2023 for placement on the market, equal to 5,017,210 tonnes, was slightly lower (-0.8%) than the preliminary figure for 2023. After peaking in 2021 and 2022, the value of packaging placed on the market is now back in line with pre-COVID levels.

As far as Erion Packaging is concerned, the placement on the market of packaging is closely linked to trends in the reference market – i.e. the household appliance sector at global, European and national level – as well as to developments directly related to the increase in membership of the Consortium during the year.
In 2024, the Italian market performed well, with overall growth of 4.2% for a total value of approximately €78 billion, consolidating its position as one of the most dynamic sectors in the durable goods landscape.
Erion Packaging's share stands at a total value of 18.491 ktonnes.

PLACEMENT ON THE MARKET BY REMIT

KTONNES

Paper	2023	2023 consolidated	2024
Comieco	5,055.000	5,017.210	4,965.618
Erion Packaging – Paper	7.204	7.204	18.491
Total	**5,062.204**	**5,024.414**	**4,984.109**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

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Management Report and Financial Statements 2024 – CiAI.

The wood packaging supply chain, with 3,444.682 ktonnes placed on the market, recorded an increase of 3.4%.
The figure for placement on the market includes the share pertaining to Rilegno (99.9%) and Erion Packaging (0.1%).

PLACEMENT ON THE MARKET BY REMIT KTONNES

Wood	2023	2023 consolidated	2024
Rilegno	3,330.784	3,330.784	3,440.202
Erion Packaging – Wood	1.885	1.885	4.480
Total	**3,332.669**	**3,332.669**	**3,444.682**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

The main types of wood packaging are pallets, industrial packaging (crates, cages, reels) and fruit and vegetable packaging.
Pallets (new and reused) account for 76% of the packaging placed on the market each year in the wood supply chain. The pallets can be classified into the following uses:

- disposable pallets, used only once, also called non-reusable or disposable;
- reusable pallets intended for multiple use, also known as multi-rotation pallets;
- internal-use pallets, whose use is limited to a single company or a closed distribution system;
- exchangeable pallets, which, by mutual agreement, can be exchanged for an identical pallet.

In everyday use, other classifications can also be identified.

- standard pallets, referring to a manufacturing standard (Italian, European or international);
- standard pallets, designed for specific uses with respect to a defined market. Like standard pallets, these stem from the need to harmonise and reduce the costs associated with goods exchange and fleet management. The characteristics of these pallets are set by their individual specifications. These are mostly exchangeable and reusable pallets, such as EPAL pallets[21].

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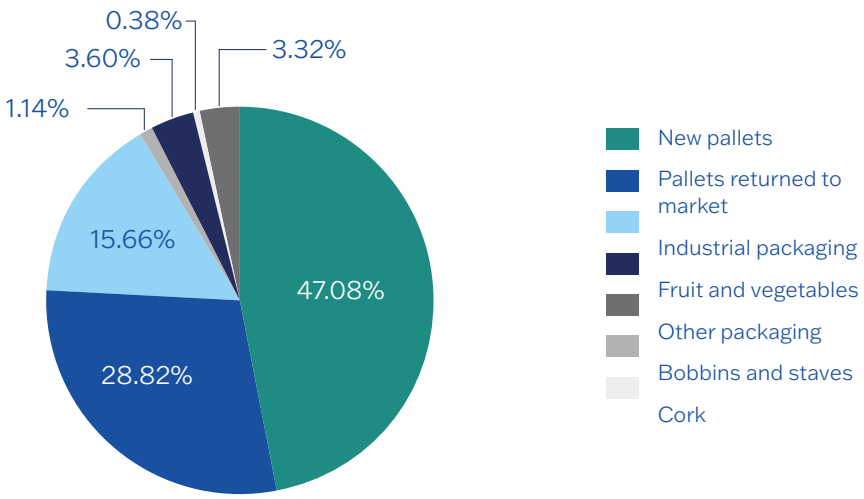
Specific Plan for Prevention 2024 – Rilegno.

TOTAL PLACEMENT ON THE MARKET 2024 BY TYPE



Source: Rilegno, Specific Plan for Prevention 2024.

In terms of Rilegno, taking into account the corrective factors and methodological revisions applied to imported quotas, the placement on the market of wood packaging for 2024 shows an increase of 3.29%, equal to approximately 109,000 tonnes.
Erion Packaging's share increased to 4.48 ktonnes, with similar reasons to those reported for the evolution of packaging covered by the Consortium.

The plastic packaging supply chain, with 2,308.769 ktonnes of packaging placed on the market, recorded an increase of 0.8% in 2024. This figure includes the two flows relating to traditional plastic packaging with 2,226.523 ktonnes and biodegradable and compostable plastic with 82.246 ktonnes.

TRADITIONAL PLASTIC

The total placement on the market amounted to 2,226.523 ktonnes, an increase of 0.7% compared to 2023. The breakdown of the figures is as follows:

- Corepla (1,878.121 ktonnes)
- Coripet (253.361 ktonnes)
- CONIP crates (75.492 ktonnes)
- PARI (13.783 ktonnes)
- Erion Packaging (5.766 ktonnes)

PLACEMENT ON THE MARKET BY REMIT

KTONNES

Plastic	2023	2023 consolidated	2024
Corepla*	1,872.672	1,872.672	1,878.121
CONIP – Crates	73.061	73.061	75.492
CONIP – Pallets	0.064	0.064	-
PARI	13.075	13.075	13.783
Coripet	249.371	249.371	253.361
Erion Packaging	3.784	3.784	5.766
Biorepack*	77.922	77.923	82.246
Total	**2,289.949**	**2,289.950**	**2,308.769**

* The figure includes the corrections calculated by CONAI on the Corepla and Biorepack flows.
Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

As regards the function of packaging, primary packaging continues to predominate, accounting for over two-thirds of total consumption, while secondary packaging (mostly shrink film for bundling) accounts for around 7% of the total.
Finally, looking at the distribution of placement on the market according to waste generation channels, the domestic channel remains predominant, while trade and industry account for just over 37% of the total. The summary table of placement on the market is shown on the following page[22].

Regarding Corepla, in terms of polymers, the bulk of consumption is covered by polyethylene, mainly for flexible packaging, where it remains the majority share at over 60%. There is also considerable consumption for PET and PP, which are mainly used for rigid packaging.

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Corepla Management Report 2024

COMPOSITION OF GOODS PLACED ON THE MARKET (%) – COREPLA

%

	2022	2023	2024
TYPE			
Flexible packaging	43.7	43.5	43.8
Rigid packaging	56.3	56.5	56.2
Total	**100**	**100**	**100**
POLYMER			
PE	43.8	43.2	43.5
PET	24.1	24.9	24.9
PP	19.5	19.2	19.2
PS/EPS	5.8	5.8	5.6
Biopolymers	3.6	3.6	3.6
Others	3.2	3.3	3.2
Total	**100**	**100**	**100**
FUNCTION			
Primary packaging	67.8	67.6	67.7
Secondary packaging	7.0	7.1	7.0
Tertiary packaging	25.2	25.4	25.4
Total	**100**	**100**	**100**
CHANNEL			
Domestic	62.9	62.7	62.9
of which containers for liquids of domestic origin	21.8	22.1	22.0
C&I	37.1	37.3	37.1
Total	**100**	**100**	**100**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

For CONIP[23], 2024 was the first year after five years of continuous decline in which the placement on the market of plastic crates returned to positive growth. More specifically, in 2024, 75,492,046 kg of plastic crates were placed on the market in Italy, compared to 73,060,753 kg in 2023, representing an increase of +3.33%.

The increase in placement on the market was the result of a series of interrelated factors: first and foremost, 2024 was the first year in which fruit and vegetable consumption stabilised, halting the downward trend that had

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In 2024, no plastic pallet producer was registered with the CONIP Consortium. However, the recoverers/recyclers in the circuit made every effort to collect and recycle CONIP-branded plastic pallets at the end of their life cycle that were intercepted on the market.

characterised the market over the previous decade; in addition, 2024 was a record year for tourism, which recorded a 2.5% increase compared to 2023, thus contributing to an increase in consumption. Finally, this increase is part of a context of growing demand for more efficient and sustainable logistics solutions, as well as adaptation to new market requirements and environmental packaging regulations[24].

In 2024, Coripet members placed 234,593 tonnes of CPL PET on the market (+3,694 tonnes compared to 2023), with a market share of 52.6%. During 2024, Coripet therefore maintained and increased its majority share in the CPL PET market (compared to 51% in 2023). The Coripet 2024 figure for placement on the market used to calculate the recycling target is assumed to be 253,361 tonnes. The figure for quantities placed on the market also takes into account the share represented by caps and labels (8%), as these are also part of the quantities sent for recycling in recycling plants and are also treated and recycled[25].

In 2024, PARI packaging placed on the market recorded overall growth of approximately 5%, reaching a value of 13.783 ktonnes[26].

Erion Packaging's share increased to 5.766 tonnes[27].

BIODEGRADABLE AND COMPOSTABLE PLASTIC

In terms of the biodegradable and compostable plastic packaging supply chain, in 2024 placement on the domestic market of compostable bioplastic packaging amounted to 82.246 ktonnes, up (+5.55%) compared to 77.923 ktonnes in 2023[28].

Below is an illustrative and non-exhaustive list of the main types of compostable bioplastic packaging on the market:

- bags for transporting goods (carrier bags/"shoppers", Article 226-bis of Legislative Decree 152/2006)
- bags for hygiene purposes or loose food (Article 226-ter of Legislative Decree 152/2006)
- flexible packaging other than the above
- disposable tableware (plates and cups), trays and containers made of non-expanded material
- bottles, jars, flasks and preforms for their production
- emptyable capsules for beverage dispensing systems (CONAI Circular of 7 October 2014)
- other rigid packaging
- composite packaging made mainly of biodegradable and compostable plastic

24 CONIP Management Report.
25 Coripet Management Report.
26 PARI Management Report.
27 Erion Packaging Management Report.
28 Biorepack Management Report.

COMPOSITION OF BIOPLASTIC PACKAGING PLACED ON THE MARKET

CHARACTERISTIC	TYPE	2023		2024		Change 2024-2023	
		TONNES	%	TONNES	%	TONNES	
FLEXIBLE	Bags for transport of goods	57,165	73.36	60,985	74.15		
	Bags for hygiene purposes or loose food	14,074	18.06	14,603	17.76		
	Various flexible packaging	2,144	2.75	2,044	2.49		
	Bioplastic-based composite packaging	182	0.23	149	0.18		
Subtotal		**73,565**	**94.40**	**77,781**	**94.57**	**4,216**	
RIGID	disposable tableware, trays and containers	4,048	5.20	3,784	4.60		
	Caps	1	0.00	0.01	0.00		
Subtotal		**4,049**	**5.20**	**3,784**	**4.60**	**-265**	
Rigid CPL	Bottles, jars, flasks and preforms*	1	0.00	0.002	0.00		
	Other rigid packaging*	43	0.06	173	0.21		
Subtotal		**44**	**0.06**	**173**	**0.21**	**129**	
UNDEFINED	Other packaging/ Not classified	264	0.34	508	0.62	244	
							Change 2024-2023
TOTAL		**77,922**	**100**	**82,246**	**100**	**4,324**	**5.55%**

* Rigid bioplastic packaging has been divided according to physical characteristics and behaviour in relation to organic waste (rigid and rigid CPL, i.e. containers for liquids).

The glass packaging supply chain, with 2,618.75 ktonnes of packaging placed on the market in 2024, had a slight decrease of 0.9% compared to 2023. The figure is obtained using a methodology that does not base itself on the CONAI EPR Fee. With the contribution of glass packaging manufacturers, who periodically collect data on the average weight of containers, sorted by category and format (capacity in ml), it is possible to convert the number of glass products sold in Italy into tonnes.

From these quantities, after subtracting the quantity of glass packaging belonging to the "returnable" circuit, estimated by Circana (on wholesalers and door-to-door sales to households) at 282,933 tonnes, the value the packaging placed on the market for 2024 is obtained. In 2024, the quantities of glass packaging subject to the CONAI EPR Fee decreased more markedly year-on-year than the YouGov survey (-3.0%)[29].

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Specific Plan for Prevention, CoReVe.

4.2 Reuse

Article 183, paragraph 1, letter r) defines reuse as *"any operation by which products or components that are not waste are reused for the same purpose for which they were designed"*; and Article 218, paragraph 1, letter e) of Legislative Decree 152/2006 defines reusable packaging as *"packaging or packaging component that has been created, designed and placed on the market to withstand multiple movements and rotations within a reuse circuit during its life cycle for the same purpose for which it was designed"*.
From the above definitions, it is clear that primary packaging is often not suitable for reuse due to its function; examples include food trays, packaging used in delicatessens, and sweet wrappers. Furthermore, the eco-design lever "reuse" often risks conflicting with the lever "raw material savings", since reusable packaging, in order to guarantee a minimum number of rotations, needs to be heavier than single-use packaging. For this reason, specific and detailed assessments are necessary for this specific action, and it is not possible to give an absolute positive or negative assessment.

CONAI reports reuse data annually through the submission of the *Single Declaration Form (Modello Unico di Dichiarazione, MUD)* – currently being developed, in light of the upcoming deadline of 28 June 2025.

Reporting reuse data is in itself a complex activity, as it is often not tracked by official documentation that would make it verifiable, and it is often necessary to resort to estimates and self-declarations by companies and associations. Existing reuse circuits at national level are often economic agreements between the parties (companies), resulting from Italy's natural entrepreneurial and manufacturing structure.

Below are the quantities of reusable packaging declared to CONAI, broken down by material, through the specially developed incentive procedures. It should be noted that these figures represent only part of the total amount in

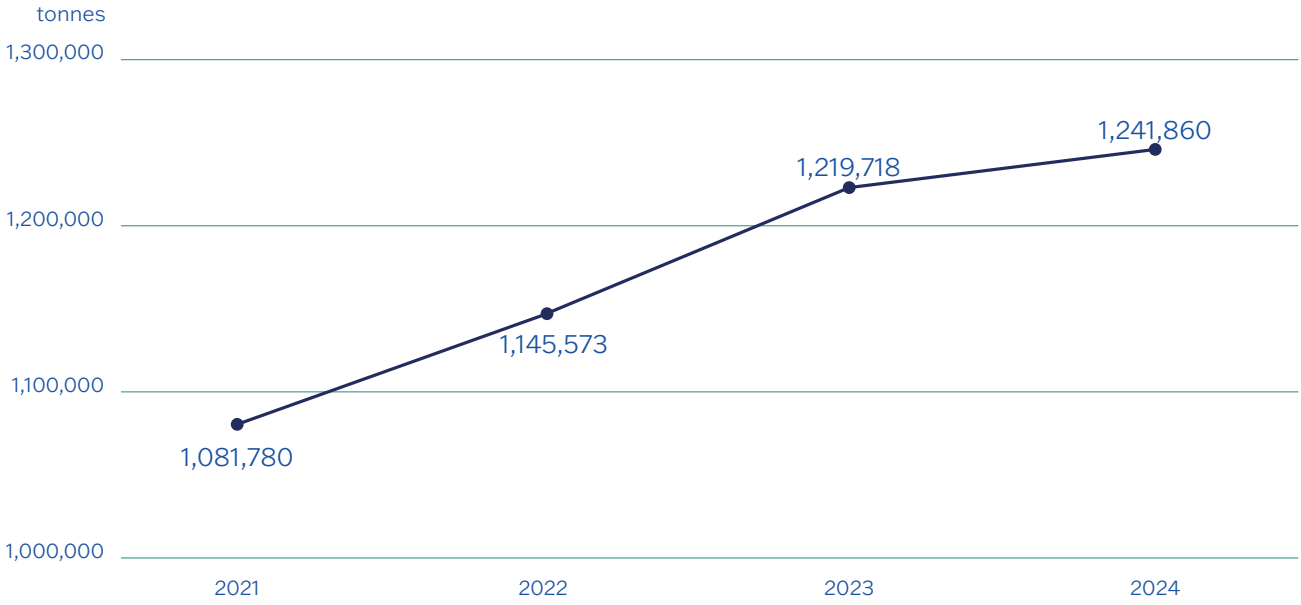
circulation and relate to the types of packaging for which these procedures are provided.

The data presented reflect a methodological update of the reporting criteria applied over the last four years, with the aim of including all procedures related to reusable packaging.

The analysis shows an overall positive trend in the use of reusable packaging, with steady growth between 2021 and 2024.

Wood remains the predominant material, accounting for 96% of the total in 2024.

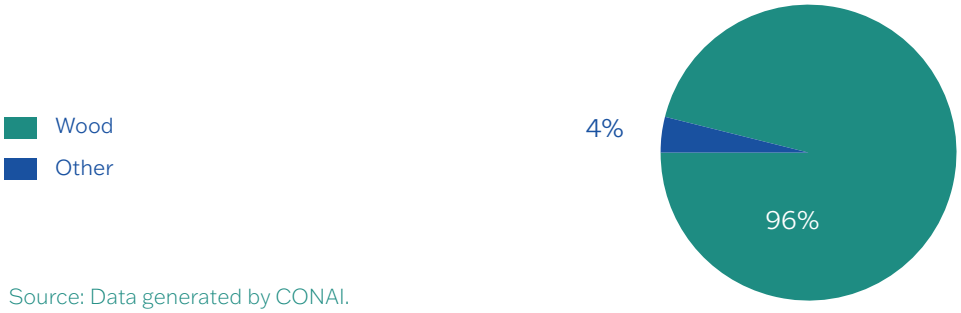
QUANTITY OF REUSABLE PACKAGING UNDER INCENTIVE PROCEDURES



Source: CONAI, Packaging Material Consortia.

It should be noted that the data for reusable glass packaging for 2023 and 2024 will be subject to further revisions following the checks, currently underway, relating to declarations made under the incentive procedures. Therefore, this data will be updated to ensure greater accuracy in reporting.

The following table shows the reusable packaging subject to reporting that is used in controlled and verifiable circuits.



Source: Data generated by CONAI.

REUSABLE PACKAGING USED IN CONTROLLED AND VERIFIABLE CIRCUITS

Material	Type of packaging	2023	2024	Percentage change
		TONNES	TONNES	%
PLASTIC	Crates	3,671	2,736	-
	Baskets	18,551	11,370	-
	Reusable (drums) – Procedure 6.20	14,941	18,304	18
	CONIP crates	2,675	2,549	-5
	Bags, carrier bags and big bags	38,244	39,669	4
	Total plastic	**78,081**	**74,629**	**-5**
WOOD	Reusable (pallets)	37,911	18,338	-107
	Pallets conforming to specifications	539,311	570,893	6
	Total wood	**577,223**	**589,231**	**2**
STEEL	Reusable (drums)	8,209	6,303	-30
	Total steel	**8,209**	**6,303**	**-30**
GLASS	Applicable bottles as per Circular 2 July 2012	50,185	30,429	-65
	Reusable (bottles)	948	1,874	49
	Total glass	**51,133**	**30,791**	**-66**
	Total reusable	**714,646**	**700,954**	**-2**

Source: Data generated by CONAI.

As stated above, CONAI supports the value of reuse by applying incentive criteria for calculation of the EPR Fee for reusable packaging. The data sent to the Institutions for reusable packaging includes information on the quantity placed on the market and the number of rotations within a reuse system. This information is crucial to determine the share of reusable packaging out of the total.

In addition to the quantities reported from consortium declarations, certain Packaging Material Consortia and Self-compliant EPR Organisations make specific estimates on particular types of packaging.

Specifically:

- **CoReVe** – Monitors quantities for the "returnable" glass packaging circuit, i.e. glass containers intended for industrial "reuse". This circuit involves collection and conditioning (through sterilisation) in order to refill (reuse) empty containers which are returned to the market and distributed as full packaging for a certain number of usage cycles (called "rotations"). As the number of rotations for which the container is designed and manufactured increases, the average weight of packaging for the circuit increases accordingly. The survey on "returnable" packaging for 2024 shows there was a consistent quantity of this packaging, especially in the hospitality sector, for water and beer segments. Volumes recovered compared to the previous year, which had seen the forced closure of public establishments serving food and beverages for much of the year, especially bars and restaurants. For these two market segments, based on the impact of returnable sales units out of total domestic sales, once the average number of annual rotations of "returned" packaging and the average expected useful life of this packaging (in years) had been defined, an estimated **282,933 tonnes of reused glass packaging (returnable circuit)** has been calculated which, as such, did not become waste to be recycled through separate collection during 2024.

- **Corepla** – In the world of reusable packaging for commerce and industry, there are two distinct business models. The first is the formal circuits; specialist companies that manage a circuit made up of packaging pools and carry out recovery of the used packaging, reconditioning and any necessary reclamation, before putting it back into the circuit for reuse or sending it to recycling if it can no longer be used. Alongside these well-defined circuits, there is a free market of companies that purchase used packaging from end users and resell it after reconditioning. Unlike the companies in the formal circuits, these unstructured reuse circuits are difficult to quantify, due to the different types of companies involved, which vary from small local businesses to multinationals. One of the main examples was that of crates and baskets for the sale of mineral water and other bottled liquids in returnable glass containers to public establishments and, with the door-to-door delivery system, also to private individuals. This market, which experienced considerable growth in the past, was then displaced by the emergence of disposable plastic bottles. The use of virgin polymer is now completely marginal, with the bulk of production of these products now fuelled by regrind obtained from crates returned to suppliers at the end of their useful life cycle.

  More recent, and still under development, is the introduction of reusable crates with folding sides used to transport fruit and vegetables from the producer to the point of sale. The crates, which are gen-

erally rented to fruit and vegetable producers and wholesalers but increasingly directly to large-scale retailers, make numerous trips each year. In Italy, too, reusable folding crates have been very successful, achieving almost total penetration in large-scale retail.

Other areas where there are established circuits for the reuse of transport packaging are large PE containers (drums and tanks with a capacity generally between 120 and 2,000 litres, obtained by blow moulding or rotational moulding), used for shipping, inter-plant movements, storage and internal handling of a wide range of chemical, petroleum and food products.

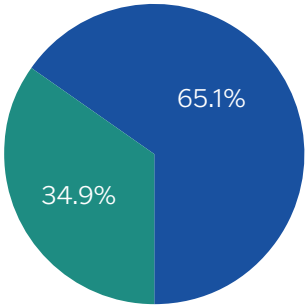
Other areas represented by established transport packaging reuse circuits are:

- returnable pallets, e.g. formalised within the activities of the CONIP Consortium;
- fruit and vegetable collection crates, which are left to the private initiative of individual operators in the sector (where, however, the recovery and recycling circuit is typically only activated at the end of the product's useful life);
- PP raffia big bags, used for handling and shipping a wide range of bulk products (from food to chemicals/pharmaceuticals);
- collapsible containers with honeycomb panels for transporting goods;
- interlayers.

Ultimately, returnable packaging systems have a limited, albeit growing, influence on the evolution of plastic packaging consumption, as they are mainly confined to transport packaging.

The total placement on the market of reusable packaging amounted to 108 ktonnes in 2023, with HDPE and PP being the reference polymers, as shown in the graph below.

- **CONIP** – Of the plastic crates placed on the domestic market in 2024 by member producers of the CONIP system, 96.62% were "Use & Recover" crates made of PP (polypropylene) and 2% were "returnable" crates made of HDPE (high-density polyethylene)[30]. Specifically, in 2024, 72,943 tonnes of "Use & Recover" crates and 2,549 tonnes of reusable crates were placed on the domestic market.



Total absolute value: 108,000 tonnes

HDPE
PP

- **RICREA** – Steel drums and tank cages that are still in good condition can be regenerated and reused as packaging thanks to specialised processing carried out by specialist companies. These companies are also able to process packaging that has contained hazardous substances or substances that are difficult to remove (oils, resins and paints) and which must undergo a decontamination process before they can be reclaimed. As for drums, the process involves restoring their shape (repairing edges and dents), cleaning (draining, washing, drying), checking the seal and internal surfaces and, finally, brushing the outside and painting. Drums that prove to be too damaged to be reused are sent for recycling through scrap recovery plants. For tank cages, the regeneration process consists simply of restructuring the cage, replacing or reshaping the necessary parts where necessary. Note that the pallets which the tanks rest on can also be made of steel, as well as wood or plastic, and they can be reused too[31].

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Specific Plan for Prevention, CONIP.

31
RICREA Management Report 2024, Financial Statements and Specific Plan for Prevention.

CABAS plastic-fabric bags

Quantitative analysis

Reusable packaging also includes thick plastic-fabric bags, referred to as *cabas*. These bags, although fully falling within the definition of packaging, have been excluded from the application of the EPR Fee in order to encourage their dissemination and promote their reuse.

Below is a breakdown of the number of pieces and relative weight of *cabas* bags placed on the market in Italy. These figures come from a specific study that CONAI has commissioned from Nielsen, using a specific and replicable methodology that can help assess how the bags are spreading.

The analysis is based on Nielsen Market*Track data, for Italy as a whole, for hypermarkets, supermarkets and self-service stores, and covers a two-year period.

The analysis shows a reduction in the use of *cabas* bags, in terms of the number of bags sold in a year, totalling 13.1 ktonnes.

PROMOTION OF REUSE

Several initiatives aim to tangibly promote reuse in the supply chain.
As mentioned above, there are certain materials that, due to their specific characteristics and applications, lend themselves better to reuse than others.

Below are some examples of activities directly promoted by Packaging Material Consortia or Self-compliant EPR Organisations to develop reuse, taken from the relevant Specific Plans for Prevention of May 2025.

The RICREA Consortium invests significant resources in the reconditioning and regeneration of used steel packaging. In particular, drums and tanks with steel cages, due to their solid and resistant properties, can undergo various regeneration processes that allow them to be used again as safe and renewable packaging.
In Italy there are more than 30 plants which are suitably authorised and equipped to carry out this type of operation. The plants are mainly located in Northern Italy, near the areas with the most industrial activity.
The total quantities regenerated by these companies amounted to over 35,000 tonnes in 2024, marking a significant increase compared to previous years, especially in the "tanks" category.

The following table shows the details of the quantities regenerated for the different types of packaging over the past four years.

REGENERATED PACKAGING (2020-2024)

TONNES

Stream	2020	2021	2022	2023	2024
Regenerated tank cages	22,758	26,416	25,481	25,345	27,315
Regenerated drums*	7,920	8,932	8,729	7,747*	7,829
Total	**30,678**	**35,348**	**34,210**	**33,092**	**35,144**

* The reported figure also includes the quantities of drums exported and used to contain other waste.
Source: RICREA, Specific Plan for Prevention, 2025.

The cages of the tanks have a steel structure that is particularly suitable for repair and regeneration, allowing subsequent application of a regenerated inner tank or a new inner tank if it is not possible to regenerate it correctly.
The regeneration potential of such packaging varies, therefore, mainly depending on two factors: the physical state they are in at the time of recovery (dents, cuts, oxidation, etc.) and the type of products they have contained (paints, oils, solvents, etc.).

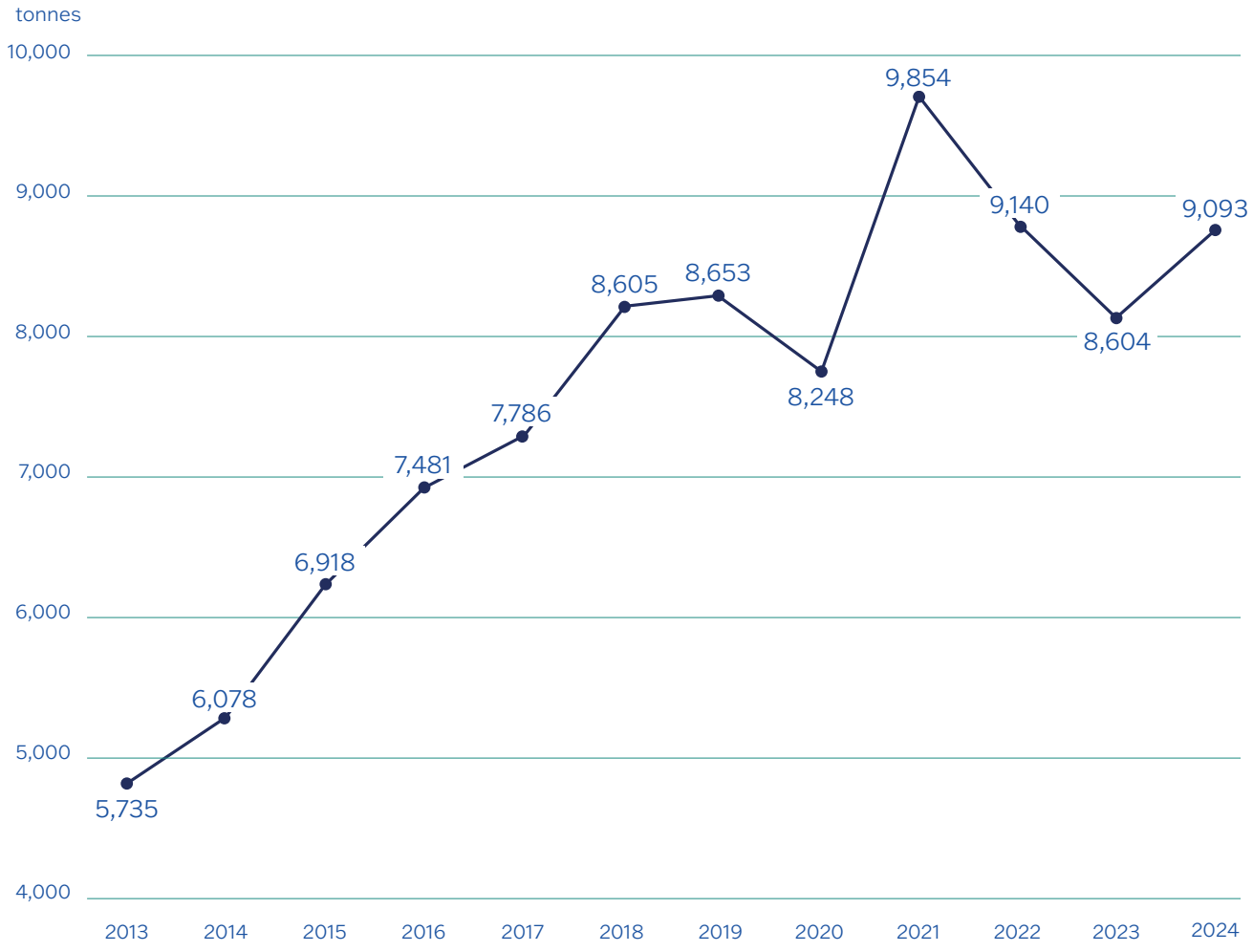
A specific agreement has been in place for several years between RICREA and FIRI (Italian Federation of Packaging Regenerators), which brings together companies operating in the
collection and management of industrial packaging and packaging waste (such as multi-material tanks,
plastic drums and steel drums). This type of management, aimed at preparing packaging for reuse, significantly reduces its environmental impact.

In the three-year period 2021-2024, the agreement, which included the participation of Corepla and Rilegno for packaging in their respective supply chains, aimed to support the activities carried out by these companies, dedicating more resources to technical and regulatory support and promotion of the sector. Renewal for a further three years is planned for 2025.

As stipulated in the agreement for entities involved in the regeneration of the wooden component of multi-material packaging, membership of the Rilegno Consortium is mandatory; 27 regenerators are members of the agreement.

The total reference quantity in tonnes for the payment of the EPR Fee, paid to support the activities of regenerators, has increased from 8,604 tonnes in 2023 to 9,093 tonnes in 2024 – an increase of approximately 5%. It should be noted that this figure is calculated based on the procedures defined in the agreement and differs from the amount calculated for placement on the market solely for administrative accounting purposes.

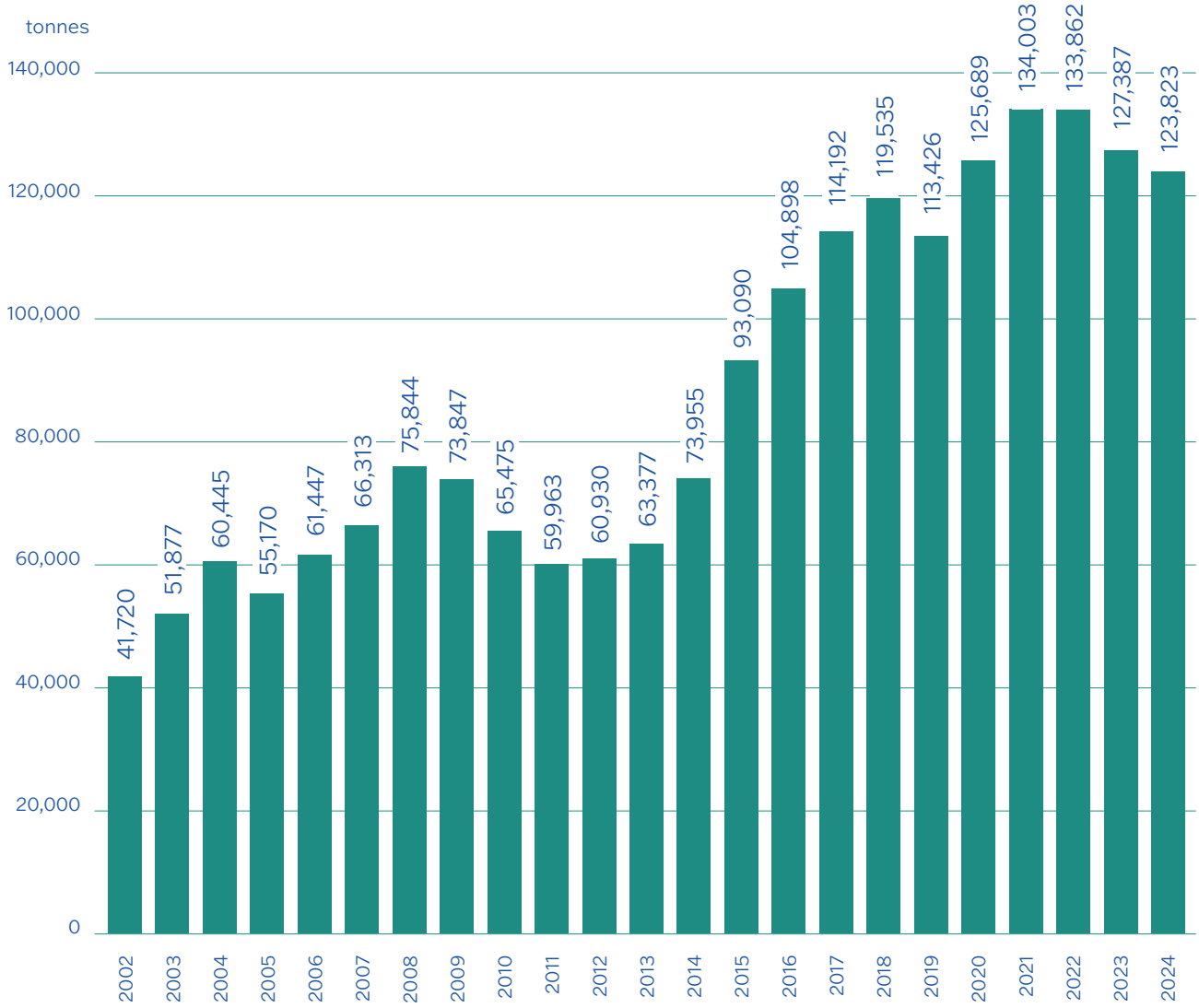
TONNES REGENERATED OF WOOD FRACTION OF MULTI-MATERIAL TANKS



Source: Rilegno, Specific Plan for Prevention, May 2025.

On the other hand, for wooden pallets, attention should be drawn to the “Reprocessing of wooden packaging” project launched by the Rilegno Consortium in 2002 which, through payment of a fee, only involves pallet waste taken back by member firms participating in the project itself, which is returned to the market after repair.

REPROCESSING PROJECT 2002-2024



Source: Rilegno, Specific Plan for Prevention, May 2025.

As part of the reprocessing project promoted by the Consortium, 2024 saw a 2% increase in the volume of waste collected compared to the previous year. However, despite this increase in input, the total quantity of regenerated pallets fell by 2.8% to 123,823 tonnes. This reduction in the quantity of packaging reintroduced onto the market is mainly attributable to the decrease in the reprocessing percentages declared by operators, following the introduction of a more rigorous adjustment procedure within the agreement, which has allowed for more accurate monitoring of flows.

PACKAGING WASTE COLLECTED, REGENERATED AND RETURNED TO THE UTILISATION CIRCUIT

Region	Number of member entities	Tonnes regenerated	% tonnes regenerated
	No.	TONNES	%
Abruzzo*	0	2,567.03	2.08
Basilicata	1	666.27	0.54
Calabria	1	113.46	0.09
Campania	1	950.27	0.77
Emilia-Romagna	7	9,812.78	7.92
Friuli-Venezia Giulia	2	4,907.84	3.96
Lazio	1	1,522.91	1.22
Lombardy	24	49,321.58	39.83
Marche	5	4,192.62	3.39
Piedmont	11	23,859.21	19.27
Tuscany	3	15,366	12.40
Umbria	1	223.73	0.19
Veneto	8	10,319.31	8.34
Total	**65**	**123,823**	**100**

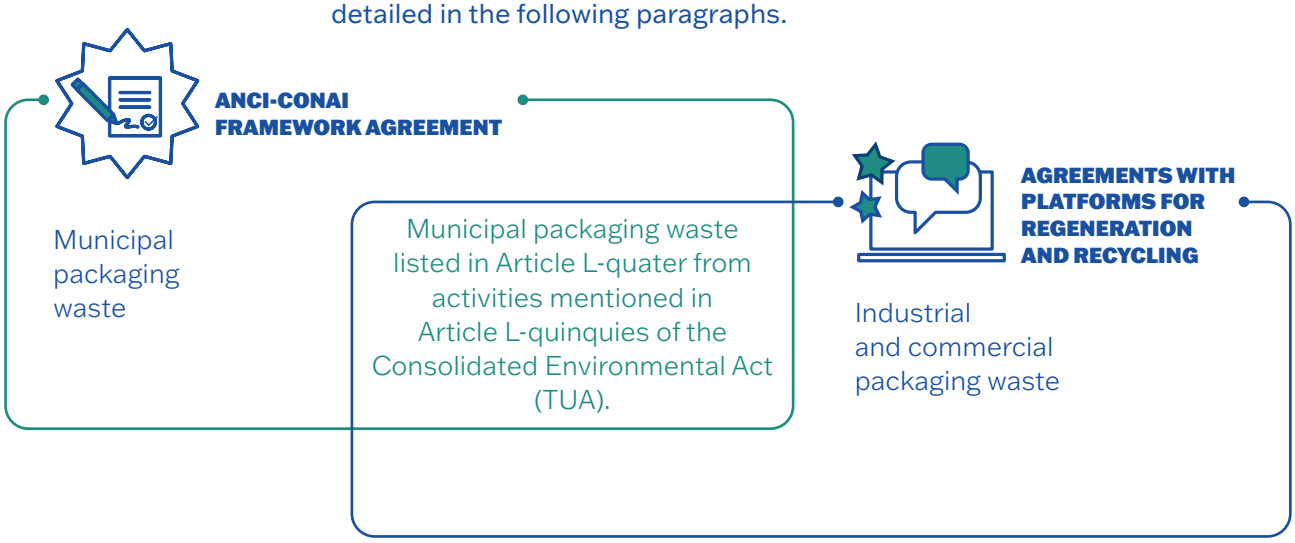
* Figures for members outside of the region.
Source: Rilegno, Specific Plan for Prevention, May 2025.


5

Collection of packaging waste and local operations

In order to achieve recycling and recovery targets, the national packaging and packaging waste management system provides for waste interception, which is organised differently from the production flow.
The CONAI EPR Organisation, therefore CONAI and the Packaging Material Consortia, focuses primarily on urban waste, which is more differentiated in terms of type and quality and on which the market intervenes only marginally, depending on economic convenience.

The CONAI EPR Organisation operates on several fronts, carrying out activities related to the development of high-quality separate collection under the ANCI-CONAI Framework Agreement, supporting research and development projects to start recycling even the most complex fractions of packaging waste, and organising events and communication campaigns in local areas dedicated to the importance of separate collection for recycling. These activities are accompanied by development by the Packaging Material Consortia of a network that includes treatment, repair, regeneration and recycling plants for commercial and industrial packaging. These activities are further detailed in the following paragraphs.



In addition to these flows, there are also direct activities carried out by Self-compliant EPR Organisations on specific flows, such as the selective collection promoted by Coripet and the targeted collection by PARI and CONIP on their respective packaging.

5.1 Municipal collection

5.1.1 The key instrument provided by law: the ANCI-CONAI Framework Agreement

This is the instrument through which the CONAI EPR Organisation guarantees Italian municipalities the collection of separately collected packaging waste and its transfer for recycling and/or recovery. Through this Agreement, municipalities that collect steel, aluminium, paper, plastic, bioplastic and glass packaging waste in a separated manner have the option of signing the ANCI-CONAI conventions with individual Packaging Material Consortia, whether directly or through a third party delegated by them. The agreements establish the obligation for municipalities to deliver packaging waste to the consortia, which in turn undertake to collect it and send it for recycling, paying them the necessary fees to cover the costs incurred for the management of separate collection.

In line with the Agreement's subsidiarity principle, agreements with Packaging Material Consortia, and therefore the delivery of separately collected packaging waste to them, are an option for municipalities, which they resort to when they cannot find more favourable market conditions. In practice, this means municipalities, or those delegated by them, can enter and exit agreements depending on the extent of opportunities offered by the market.

The Agreement also provides for indexing of fees. In the first few months of 2024, as provided for in the Agreement, fees were adjusted in line with the CPI index (inflation) and continue to be modulated according to the quality of the materials collected.

FRAMEWORK AGREEMENT 2020-2024 – Payments for 2024

Material	Maximum	Minimum
	(€/TONNE)	(€/TONNE)
Steel	70.11	158.63
Aluminium	154.26	479.11
Paper	21.81	145.42
Plastic	95.81	490.79
Bioplastic	73.36	147.86
Glass	3.70	82.85

When the current Framework Agreement was signed, it was not possible to renew the technical annex for wood packaging, and the relevant data are therefore not included in this document. In this regard, it is worth emphasising that the collection and recovery of wood fractions from the public sector are in any case guaranteed by the network of platforms and by the Consortium's economic support for wood waste logistics. This support also facilitates public collections, which would otherwise have to bear much higher processing costs.

The Framework Agreement was first signed by ANCI and CONAI in 1999 and subsequently renewed every five years. The current Agreement, due to expire on 31 December 2024, has been extended to 30 June 2025 and negotiations are underway between the parties concerned to agree on a new Framework Programme Agreement which will contain important changes.
These changes, resulting from the provisions of Legislative Decree 116/2020, primarily concern the expansion of the signatories, which to date have been ANCI and CONAI, to include Self-compliant EPR Organisations.

Governance bodies

The Framework Agreement in force is governed by two bodies: the Coordination Committee and the ANCI-CONAI Verification Committee, whose operating costs and/or agreed initiatives are covered by CONAI, as provided for in the Agreement.

The Coordination Committee was set up to ensure the consistent and coordinated implementation of the Agreement, while the Verification Committee acts as the technical body responsible for monitoring the correct application of the provisions contained in the Technical Annexes and in the General Conditions of the Framework Agreement.

Both committees are composed of experts appointed by CONAI and ANCI and, among their various tasks, the committees may propose amendments/additions to the Agreement, settle any disputes arising from the implementation of the various phases of the Agreement, monitor and analyse the status and methods of implementation of the Agreement throughout the country, and ratify the annual review of the fees in accordance with the revaluation mechanisms provided for in the Agreement.

5.2 Conventions and deliveries under the ANCI-CONAI Framework Agreement

The following table shows the final figures relating to agreements entered into with municipalities and operators as at 31 December 2024, with reference to both population coverage and the number of municipalities served. The figures highlight the effectiveness and relevance of the Framework Agreement in the territory, confirming its central role as a support and assistance tool for municipalities.

AGREEMENTS IN FORCE FOR INDIVIDUAL SUPPLY CHAINS – Final data for 2024

Packaging Material Consortia	Inhabitants covered	Population covered	Municipalities served	Municipalities served
	MILLIONS	%	No.	%
RICREA	51.7	88	6,250	79
CiAI	45.8	78	5,540	70
Comieco	56.6	96	7,195	91
Rilegno	n/a	n/a	n/a	n/a
Corepla	57.3	97	7,396	94
Biorepack	50.4	86	5,872	74
CoReVe	51.3	87	6,692	85

Source: Packaging Material Consortia.

The table shows there is broad coverage of the agreements throughout the country.

Compared to the previous year, there was an increase in both the number of inhabitants served and the number of municipalities covered by all Packaging Material Consortia. This trend confirms the widespread presence of the Consortia in small urban centres and also demonstrates their ability to

collaborate with operators in large cities and medium-sized urban centres.

The expansion of coverage across the country stems from a modest increase in the metal, paper and plastic sectors, with more significant increases in bioplastics and glass. With regard to the latter, following the changed market conditions – in particular the fall in the price of raw glass cullet, which had reached particularly high levels in 2023 – CoReVe has seen a gradual return to the agreement of numerous municipalities and operators who had previously opted for independent management of the material collected. This phenomenon led to an increase in the number of inhabitants covered and municipalities served by the Consortium compared to the previous year. In the case of bioplastics, there was also a significant increase in both the population covered and the municipalities involved, reflecting the Consortium's significant expansion at national level.

The second important indicator of the Framework Agreement concerns the quantities of material delivered to Packaging Material Consortia. In 2024, Italian municipalities delivered 4,857 ktonnes of packaging waste, an increase of 4.1% compared to 2023, confirming the CONAI EPR Organisation's contribution to the proliferation of separate collection.

PACKAGING WASTE DELIVERED UNDER THE AGREEMENT – Final result for 2023 and 2024

ANCI-CONAI deliveries	Final results 2023		Final results 2024		Delta
Consortium	ktonnes	kg/person	ktonnes	kg/person	%
RICREA	144.4	2.88	129.0	2.49	-10.7
CiAI	16.94	0.38	17.17	0.37	1.4
Comieco	1,517	27.04	1,587	28.04	4.6
Rilegno	n/a	n/a	n/a	n/a	n/a
Biorepack	43.86	0.78	52.36	1.04	19.4
Corepla*	1,284	22.81	**1,335****	23.31	4.0
CoReVe	1,660	39.32	1,737	33.86	4.64
Total	**4,666**		**4,857.45**		**4.10**

* The data for deliveries to Corepla for 2023 were updated following the adjustment of the actual figures for placement on the market of Corepla and Coripet CPL PET volumes. Following this adjustment, deliveries to Corepla in 2023 were 1,282 ktonnes.
** The quantities also include 5,424 tonnes of collection pertaining to the CONIP Consortium.

Source: Packaging Material Consortia.

The data show that, as regards the RICREA Consortium, there was a 10.7% decrease in material delivered compared to the previous year, due to the rise in prices of recycled ferrous metals, which directed some members towards the market, taking advantage of the subsidiary nature of the Framework Agreement. In contrast, there was a slight increase in aluminium deliveries compared to the previous year. Paper deliveries also increased in 2024. In fact, the economic context and domestic demand for recycled paper did not show signs of a solid recovery that would have directed significant quantities of material to recycling channels other than the Consortium. This confirms the market-supporting and countercyclical role of the CONAI EPR Organisation, in a period, starting in 2019, which has seen sharp changes in price trends.

With regard to bioplastic collection, there was a significant increase of 19.4% due to the increase in the rate of agreements across the country compared to 2023. As for plastic, in 2024, deliveries under agreement were also up compared to the previous year, +4.1% in 2024 compared to 2023.

Finally, for CoReVe, there was an increase in the quantities managed by the Consortium, following the considerable drop in the market price of glass cullet, which prompted many municipalities and collection operators to request the reactivation of their local agreements with CoReVe.

Corepla selective collection

In 2024, COREPLA strengthened the initiatives launched in the previous two years, and further developed the "RecoPet" project. This integrated selective collection system uses digital recycling stations with barcode readers to recognise food-grade PET for bottle-to-bottle recycling, as well as a logistics and digital structure that can track waste flows and user access to offer incentive rewards.

In total, 15 tonnes of bottles were collected selectively in 2023, while 253 tonnes were collected in 2024. These quantities are not included in the calculation of the ANCI-CONAI deliveries reported above, as they are managed directly by the Corepla Consortium.

PACKAGING WASTE DELIVERED UNDER THE AGREEMENT BY MACRO AREA – 2022 and 2023

Packaging Material Consortium	Final results 2023	Final results 2024
	TONNES	TONNES
Corepla	15	253

	NORTH			CENTRE			SOUTH		
Consortium	**2023**	**2024**	**Delta**	**2023**	**2024**	**Delta**	**2023**	**2024**	**Delta**
	KTONNES	KTONNES	%	KTONNES	KTONNES	%	KTONNES	KTONNES	%
RICREA	75.0	73.6	-1.8	23.6	22.8	-3.1	45.8	32.5	-29.0
CiAI	10.1	9.7	-3.5	1.4	0.9	-32.0	5.5	6.5	18.7
Comieco	721.7	770.5	6.8	314.4	328.3	4.4	480.9	488.2	1.5
Rilegno	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Biorepack	22.2	29.6	33.3	9.6	9.5	-0.7	12.1	13.2	9.7
Corepla*	614.0	630.4	2.7	243.5	257.3	5.7	426.5	447.3	4.9
CoReVe	933.0	927.0	-0.6	296.0	325.0	9.8	431.0	486.0	12.8
Total	**2,376**	**2,441**	**2.73**	**888**	**944**	**6.23**	**1,402**	**1,474**	**5.14**

* It was not possible to obtain the 2023 adjusted figure broken down into the three macro areas; the 2023 pre-adjusted macro-area breakdown (1,284 ktonnes) therefore remains in the table.

Source: Packaging Material Consortia.

The table above shows the breakdown of packaging waste delivered to the Consortia in the three macro areas (North, Centre and South). For 2024, as regards RICREA, there was a decrease in the volumes intercepted in separate collections across all macro-areas, more marked in Southern Italy, mainly caused by the contraction in the volumes of ferrous metals, which was affected by the transition of waste flows from the CONAI EPR Organisation to the market. For CiAI, on the other hand, despite a decrease in deliveries in Northern and Central Italy, there was an increase in the quantities delivered in Southern Italy. Comieco and Biorepack also recorded an increase in all macro-areas (with the exception of Central Italy for bioplastics, which saw a slight decrease). With regard to CoReVe, there was an increase in deliveries in both Central and Southern Italy for the reasons outlined above.
Finally, it is important to remember the importance of structural interventions aimed at bridging the gap in treatment and recycling facilities in Central and Southern Italy. This imbalance is a distinctive feature of these areas and is a restraint on the balanced development of the sector. It is therefore essential to increase installed capacity and encourage the aggregation of operators, so that these factors become strategic levers for both more harmonious growth of the system and the improvement of collection standards, in terms of both quantity and quality.

In addition to the quantities managed directly by the Packaging Material Consortia, there are those collected by Self-compliant EPR Organisations that act directly on the municipal collection stream. With regard to the plastic packaging supply chain, the table below shows the volumes managed by Coripet based

on its share of the market, in light of the ANCI-CORIPET Agreement and the installation of digital recycling stations throughout Italy for selective collection.

Managed by ANCI-Coripet*	**2024**
	TONNES
CPL PET from separate collection**	7,208
CPL PET from separate collection	157,818
PLASMIX from separate collection	28,331
Total	**193,357**

* Data not usable for SUP targets.
** Selective collection using digital recycling stations, as governed by the ANCI-Coripet Agreement, concerns volumes collected using digital recycling stations belonging to the Coripet network, which are purchased, installed and managed by Coripet at its own expense.

Source: Coripet, Management Report 2024.

Adding the total from ANCI-Coripet to the ANCI-CONAI total relating to Corepla deliveries, we obtain a total amount of plastic packaging waste delivered, as shown in the table below.

	2023	**2024**	**Delta**
	KTONNES	KTONNES	%
Managed by ANCI-CONAI (Corepla)*	1,284	1,335	4
Managed by ANCI-Coripet**	175.86	186.15	6
Total plastic	**1,460**	**1,521**	**4**

* The quantities also include 5,424 tonnes of collection pertaining to the CONIP Consortium for 2024 and 4,315 tonnes for 2023.
** Excluding the share of CPL PET from selective waste (5,356 tonnes in 2023 and 7,208 tonnes in 2024)

Given this data, the total amount delivered by Packaging Material Consortia and Self-compliant EPR Organisations under agreements with ANCI would be 5,043.60 ktonnes in 2024 and 4,842.03 ktonnes in 2023, with a delta of 4%.

5.3 Collection of industrial and commercial packaging waste

A further tool for achieving recycling and recovery targets is the network of platforms made available to companies, which guarantees that industrial and commercial packaging waste is sent for recycling under the CONAI EPR Organisation.

For these packaging waste streams, the CONAI–Packaging Material Consortia system acts as a guarantee: exclusively in cases where the market is unable to absorb packaging waste for recycling, a second-tier service is offered, including for commercial and industrial packaging waste. This service therefore acts as a safety net in those areas (and time periods) where market conditions are not favourable.
There are four Packaging Material Consortia directly involved in managing industrial and commercial packaging: RICREA, Comieco, Rilegno and Corepla, whose main intervention models are:

- economic support for reusable solutions and/or reclamation and reprocessing;
- agreements with delivery platforms for commercial and industrial activities and subsequent recycling;
- agreements with recycling management facilities for specific special waste streams;
- economic support and separate collection management from conventions for the significant (and growing) presence in urban separate collection.

Comieco, Corepla and Rilegno, under specific agreements, have therefore created a network of 573 platforms throughout the country (see below) that can receive packaging waste from industrial, commercial, craft and service companies free of charge.

This tool complies with the provisions of the Consolidated Environmental Act, Article 221, which requires packaging manufacturers to identify collection points for the disposal of used packaging, in agreement with the companies that use the packaging.
In operational terms, this means that packaging users are responsible for collection and transport to the designated platform, while producers are responsible for the subsequent recovery of the material.
Thus, companies can send their packaging waste to the network of platforms while bearing the transport costs, and Packaging Material Consortia bear the costs of sorting and recovery of the delivered waste.

As of 31 December 2024, there are a total of 573[32] industrial and commercial waste management platforms participating in the CONAI–Packaging Material Consortia system, distributed throughout the country: 51% in the North, 18% in the Centre and 31% in the South.

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The total number of installations also takes into account platforms dedicated to receiving multi-material drums and tanks, and platforms for expanded polystyrene packaging waste.

TOTAL NUMBER OF PLATFORMS FOR MANAGING INDUSTRIAL AND COMMERCIAL WASTE PARTICIPATING IN THE CONAI–PACKAGING MATERIAL CONSORTIA SYSTEM

Region	No. of plants	Paper	Wood	Plastic	Steel	TOTAL per material
Emilia-Romagna	52	13	32	14	1	**60**
Friuli-Venezia Giulia	9	2	5	3	0	**10**
Liguria	19	3	17	2	1	**23**
Lombardy	100	19	52	33	15	**119**
Piedmont	38	8	26	11	3	**48**
Trentino-Alto Adige	19	5	13	1	1	**20**
Valle d'Aosta	1	1	1	0	0	**2**
Veneto	56	11	33	18	2	**64**
Total North	**294**	**62**	**179**	**82**	**23**	**346**
Lazio	48	7	43	2	1	**53**
Marche	22	2	21	0	0	**23**
Umbria	11	2	7	4	0	**13**
Tuscany	19	3	15	8	2	**28**
Total Centre	**100**	**14**	**86**	**14**	**3**	**117**

Region	No. of plants	Paper	Wood	Plastic	Steel	TOTAL per material
Abruzzo	15	2	12	2	0	**16**
Basilicata	4	0	3	1	0	**4**
Calabria	25	7	22	0	0	**29**
Campania	44	16	23	12	1	**52**
Molise	2	0	1	1	0	**2**
Puglia	28	7	18	7	0	**32**
Sardinia	9	3	5	1	0	**9**
Sicily	52	7	45	4	0	**56**
Total South	**179**	**42**	**129**	**28**	**1**	**200**
TOTAL	**573**	**118**	**394**	**124**	**27**	**663**

Moreover, under a special agreement signed in 2012 between CONAI, Corepla, RICREA, Rilegno and the companies in the sector of reclamation and recycling of multi-material drums, cages and tanks, represented by ARI, ANRI and CONFIMA, a network of platforms dedicated to the reclamation and regeneration of such rigid industrial packaging is also supported.
Specifically, Corepla is involved in the management of packaging from commerce and industry through three types of agreements with:

- PIFU – platforms for drums and tanks for the reclamation, reuse and recycling of primary industrial rigid packaging. They provide a fee structure aimed at promoting reuse and thus regeneration of packaging. In 2024 there were 28 active agreements;
- PEPS – platforms for recycling expanded polystyrene packaging. In 2024 the number of signatory platforms stood at 33 (+1 compared to 2023);
- PIA – platforms for free collection of plastic packaging waste from the private sector. This activity is mainly carried out in cooperation with CARPI Consortium-affiliated plants. Companies affiliated with PIA offer the service at 55 plants. The quantities sent for recycling by PIA are recorded as independent recycling, as discussed below.

SUMMARY OF THE ACTIONS OF PACKAGING MATERIAL CONSORTIA ON INDUSTRIAL AND COMMERCIAL PACKAGING

Consortium	Reuse	Regeneration II and III	Recycling II and III	Assimilation
RICREA		• **Drums and tanks:** 35 ktonnes	• **Collected and recycled together with other ferrous scrap:** 133 ktonnes • **Strapping:** 28 ktonnes	
Comieco			• **Collection at business premises and other small and medium-sized businesses (UND)** • **Network of 118 platforms**	• **Cardboard boxes** from households in combined separate collection and from non-residential users in selective separate collection
Rilegno	• **Weight abatement on EPR Fee for reusable packaging:** 984 ktonnes* benefited from reduction (data from CONAI)	• **Recovered tank bases:** 9.1 ktonnes per 27 plants • **Pallet reprocessing project:** 123 ktonnes of regenerated pallets from 67 EPR Organisation members	• **Network of 394 platforms:** 1,756 ktonnes	
Corepla		• **drums and tanks (PIFU):** 22 ktonnes per 28 plants	• **PEPS – expanded polystyrene packaging recycling platform:** 11.5 ktonnes per 33 plants • **PIA network of 55 platforms in partnership with CARPI Consortium-affiliated plants:** 190 ktonnes	• **Film:** 131 ktonnes

* In addition to quantities returned to the market in accordance with the codified specifications and used in controlled circuits, this figure includes all other items that are subject to CONAI incentive procedures.

These CONAI EPR Organisation initiatives are supplemented by those of the Self-compliant EPR Organisations operating in these circuits, primarily PARI and CONIP.

- PARI: in 2024 there were 500 collection points nationwide for LDPE flexible packaging waste[33];
- CONIP: in 2024 there were 65 collection points nationwide[34].

33 Management Report 2024 – PARI.

34 Management Report 2024 – CONIP.

5.4 Support for high-quality separate collection for recycling

The national packaging and packaging waste management system has put in place a number of tools to promote separate collection, particularly at municipal level.
These tools are rooted in the ANCI-CONAI Framework Agreement and concern local communication, training for local administrators and planning in the area.
In addition to these initiatives, which are managed by CONAI and the Packaging Material Consortia, there are also specific initiatives by Self-compliant EPR Organisations.

5.4.1 Call for Local Communication Projects

The ANCI-CONAI Framework Agreement also provides for the Call for Local Communication Projects, which allows municipalities and those delegated by them to obtain co-funding for the implementation of local communication projects that they have developed. The Call for Proposals, published annually, collects applications from across the country, dividing them into three macro-areas (northern, central and southern Italy). Each of these is allocated a different budget, with higher amounts for the central and southern regions which require greater support. The applications, submitted through a dedicated web portal, are evaluated on the basis of predefined award criteria and, based on the score received, are ranked in the list for their respective macro area and are eligible for co-funding until the budget allocated to each macro area is exhausted.
The 2023/2024 edition of the Call for Proposals closed in 2024, awarding co-funding to 45 projects aimed at promoting local information on the separate collection of packaging waste, selected from 134 proposals received from

all over the country, mainly from the southern regions (72 projects received) and, to a lesser extent, Central Italy (32 projects received) and Northern Italy (30 projects received). The applications approved for co-funding involved more than 650 municipalities with a total catchment area of approximately 7 million inhabitants. Over €1,420,000 was awarded for the activities carried out and reported on last year.

ANCI-CONAI Call for Local Communication Projects 2023 edition
Geographical distribution of co-funded projects

2023 EDITION

The 2024/2025 edition of the ANCI-CONAI Call for Proposals was published in 2024, with 100 projects competing, mostly from the regions of Southern Italy (56 projects) and to a lesser extent from Central Italy (25 projects) and Northern Italy (19 projects). Based on the applications submitted, 49 projects involving around 600 municipalities and over 7 million inhabitants were approved for co-funding.

ANCI-CONAI Call for Local Communication Projects 2024 edition
Geographical distribution of co-funded projects

2024 EDITION

5.5 Support for the development of packaging waste collection and management systems for recycling

THE TOOLS OF THE ANCI-CONAI FRAMEWORK AGREEMENT

In addition to the agreements that municipalities can enter into with the relevant Packaging Material Consortia, the Framework Agreement provides a number of tools for the development of separate collection of packaging waste, whose costs and implementation are directly borne by CONAI. These tools are presented below, outlining what has been achieved in the areas within their scope.

5.5.1 Guidelines for local projects

Local projects are the instrument through which CONAI intervenes in local areas to support the qualitative and quantitative development of separate collection for recycling in areas that are lagging behind. In these cases, CONAI is available to support local administrations, **municipalities and municipal associations**, for all those interventions, from planning to design, communication and information, necessary for the development of separate collection of packaging waste.

During 2024, in addition to its "standard" measures, CONAI has drawn up an Extraordinary Plan specifically aimed at the municipalities of the 7 Metropolitan Cities from Lazio to Sicily: Rome, Naples, Bari, Reggio Calabria, Catania, Palermo and Messina. This complex process in some cases builds on collaborations and projects already launched in previous years and will continue in the years to come. The involvement of Packaging Material Consortia is planned with the aim of providing, where conditions and availability allow,

additional tools to those already provided for in the *ANCI-CONAI Guidelines for Local and Experimental Projects*, aimed at implementing new models and systems for the separate collection of packaging waste. These initiatives have driven, and are expected to drive in the future, the growth of all separate collection on a regional scale and of packaging waste, thus helping to intercept larger quantities and improve their quality.

Below is a first section specifically dedicated to the collaborations launched as part of the Extraordinary Project for the 7 Metropolitan Cities. This is followed by a list of the numerous other local projects active in 2024, listed from north to south, with particular emphasis on those with the greatest impact on the area in terms of both the size of the area involved and the size of the population involved.

5.5.2 7 Metropolitan Cities Extraordinary Project

In **Rome**, following collaborations in previous years, discussions have been underway since 2024 with the Municipality and the public management company Ama Spa with a view to sharing a path for the implementation of a new separate collection model in two new municipalities in the city. Technical support is focused on the municipalities involved in the interventions, selecting nightlife areas that present particular challenges and managing the 2025 Catholic Church Jubilee events. At the same time, a reconnaissance activity has been launched, which should be completed by the first half of 2025, to identify specific operational activities for design, start-up, communication and flow monitoring.

In **Naples**, the technical support launched in 2022 primarily concerned the design, start-up and communication phase to citizens and non-residential users for the implementation of a new separate collection model in the Naples VI Municipality (120,000 inhabitants).
During 2024, CONAI participated in the "CUORE DI NAPOLI" ("HEART OF NAPLES") project, which involved streamlining separate collection in three major areas of the city: the historic centre, the Spanish quarter and the shopping centre, with the total involvement of approximately 49,000 inhabitants and approximately 4,200 non-residential users. This intense activity has made it possible to launch a communication campaign to support the new service, first in the Spanish quarters and then in the remaining two areas. The support activities will be completed in the second half of 2025.

In **Bari**, in collaboration with the municipality and AMIU Puglia, the home collection model developed through previous collaboration was extended to 40,000 residents in January 2024, bringing the total number of inhabitants covered by the new service to around 120,000, or approximately 36% of the total population. During the year, the decision was also taken to implement the household model in other key neighbourhoods of the city and to develop projects dedicated to non-residential users, schools and the university. Support activities will continue throughout 2025 with the aim of developing door-to-door collection for at least 45% of the population and achieving 50% separate collection.

In **Palermo**, CONAI supported the public management company RAP Palermo and the Municipality in the process of revising and streamlining the Industrial Plan. A working group was set up to analyse the critical issues and propose additions and changes to the collection model to be implemented in the various neighbourhoods, as well as a specific study of collection from non-residential users. The project, which will involve a total of around 160,000 inhabitants, also saw the participation of the Packaging Material Consortia and was delivered and shared with RAP in May 2025. The very ambitious project, also financed with funds from the Ministry, plans to reduce the 300,000 tonnes of unsorted waste collected in 2022 to just 123,000 tonnes. Implementation will take place in batches with an timetable starting from June 2025 and continuing until 2027.

In **Catania**, CONAI and the Municipality are collaborating on the implementation of the new separate collection service, with the aim of activating a series of control and monitoring activities in the area, raising awareness among residential and non-residential users, including through communication and training initiatives, with the participation of environmental facilitators and promotion of dedicated rewards to improve the quality of separate collection. Another strategic objective is to bring the collection system to a higher level of effectiveness and efficiency, addressing and overcoming the many critical issues currently present in the area, which in 2022 halted separate collection at an unsatisfactory 22%.
Preliminary activities and project development began in 2024 and will be completed in the second half of 2026.

In **Messina**, the commitment involves launching a communication campaign throughout the municipal area to improve the quantitative and qualitative performance of separate collection, with a particular focus on packaging waste. The project includes a specific intervention for the University of Messina, aimed at raising awareness among students, teachers and guests, following the *Guidelines for the Organisation and Management of Separate Collection of Municipal Waste and Packaging in Italian Universities*. The communication activities will be implemented in the second half of 2025 and will be completed by 2026, with the aim of achieving 65% separate collection.

Activities with the metropolitan city of **Reggio Calabria** will start in 2025.

In addition to the seven metropolitan cities mentioned above, the Ligurian capital, **Genoa**, will join the initiative. Starting in 2025, the municipality and AMIU will carry out communication and awareness-raising activities to support the development of separate waste collection, which will be launched over a period of eighteen months throughout the city.

5.5.3 Local activities

Regions of Northern Italy

In Northern Italy, at regional level, the collaboration initiated in previous years with ATERSIR continued, with the participation of the **Emilia-Romagna Region**, among others, for the creation of a fair and appropriate fee model to enable it to be implemented effectively throughout the region. During the year, in addition to calibrating the model and harmonising it with the evolution of the regulatory framework, a draft regulation and a simulation tool were developed.
Other major provincial capitals were then added. In **Liguria**, in **Genoa**, the municipality and AMIU – the service provider responsible for implementing separate collection – worked together to identify and implement effective and efficient separate collection methods in urban areas with small and micro-roads, and a service plan was drawn up for the Albaro district. In Veneto, the collaboration with the **Municipality of Verona** and **AMIA Verona** in the process of introducing a predominantly door-to-door collection model in the city contributed to the creation of a communication campaign aimed both at explaining the new collection system and raising awareness of the importance of proper household waste separation. Also in Liguria, CONAI collaborated with the **Municipality of Savona** and SEA, the service manager, in the implementation of the industrial plan for the introduction of separate collection.

In **Trentino-Alto Adige**, the service manager in some municipalities of Vallagarina and the Altipiani Cimbri, **Dolomiti Ambiente Srl**, was supported in its efforts to launch a home collection service.

Finally, in the **Lombardy Region**, a partnership was launched with the **Municipality of Legnano** to optimise the management of plastic packaging waste of non-residential origin.

Regions of Central Italy

In the **Lazio Region**, the company owned by the municipalities and the Provincial Administration of Frosinone was supported in the preparation of a technical, economic and operational feasibility study for waste management within the Optimal Local Area of Frosinone. This initiative is particularly important in light of the suspension of the Local Entity authorities established by Regional Law 19 of 16 November 2023, pending approval of the new Waste Management Plan 2026-2032.

In **Tuscany**, on the other hand, collaboration with the **University of Pisa** has been completed for the design and optimisation of a separate collection service at all the Tuscan university's campuses.

Regions of Southern Italy

In the **Abruzzo Region**, collaboration continued with AGIR on the drafting of the **Local Plan for the integrated municipal waste management service**, which defines the organisational and operational methods and timelines for developing the management model deemed most effective within the framework of the objectives set out in regional planning. Specifically, the Local Plan Guidelines have been prepared and will have to be shared and formally approved by the competent bodies.

In the **Campania Region**, CONAI's activity has been intense and widespread, both in terms of planning and service design. During 2024, intensive work continued on the drafting of the Local Plans for the Local Entities (EDAs) and, subsequently, where defined, on the drafting of the District Sub-Area Plans (SADs) with the aim of identifying a single integrated cycle operator for each SAD, as required by regional law.
The Local Plans and Urban Hygiene Service projects for the NA1, NA2, Salerno, Caserta and Avellino EDAs were drafted and delivered. For the BN EDA, support for the Local Plan was completed and work is underway on the design of Urban Hygiene Services. The above projects involved a total of 491 municipalities and 4,653,226 inhabitants. For the District Sub-Areas, District Sub-Area Plans for the Northern Agricultural Area, Southern Agricultural Area, Amalfi Coast, Ecodiano, Picentini and Battipaglia have been drawn up.

At the municipal level in **Salerno**, a feasibility study was carried out with a view to switching to a "pay-as-you-throw" tariff (TARIP), with an initial test on a sample of 2,100 users and a related communication campaign. At the end of the year, the results of the survey and various scenarios for implementing the TARIP were presented to the municipal administration. Once the administrative procedures for renewing the in-house service contract with Pubblica

Salerno Pulita have been completed, the administration will conduct a further study to decide whether and how to transform the proposed algorithm into a municipal regulation for the implementation of **TARIP**. Thanks also to our support, the municipality of Salerno has exceeded 74% separate collection.

In **Battipaglia**, collaboration continued on updating and implementing the Separate Collection Plan, which in its initial phase involves the implementation of new 4.0 technologies ("smart bins") and rewards with a flow tracking system at the Municipal Collection Centre (CCR), as well as a study for the transition to pay-as-you-throw pricing. The projects will be accompanied by a communication campaign aimed at users in the area; activities are ongoing.
In **Nocera Inferiore**, work has been carried out on the implementation of pay-as-you-throw pricing, with meetings held with municipal administration technicians and the municipal hygiene service manager (Nocera Multiservizi Srl). Finally, there are collaborations in Pontecagnano Faiano to update the collection plan and prepare a feasibility study for TARIP, in Fisciano for a project involving the University in the design of a collection model within the university, and in Santa Maria Capua Vetere for the introduction of separate collection within the prison.

In the **Calabria Region**, collaboration continued at the regional level, even though the protocol with the Region was not renewed, with the launch of various initiatives to improve separate collection in the Region:

- training for municipal administrations;
- technical support for the design of separate collection systems;
- information campaigns.

Support for the Region and Arpacal continued with the upgrading of the Regional Waste Tracking System for the 404 municipalities registered.
In this case too, great attention was paid to area planning and activities were launched to update the three regional ATOs (Optimal Local Areas).
At municipal level, long-standing collaboration continued with the municipalities of Catanzaro and Crotone, in the first case to ensure the full implementation of the Service Plan in line with current policy guidelines and the new needs of the city, and in the second case to carry out a widespread information campaign to accompany the start-up phase of the new door-to-door collection service.

In the **Puglia Region**, the approach of close collaboration with the Region has also been maintained, providing assistance with planning and local design in areas of particular importance. At the regional level, therefore, collaboration and dialogue have continued with the Region, the AGER agency and ANCI Puglia, with a particular focus in 2024 on the Waste Traceability System (STR), which has been enhanced and made mandatory by the regional institutions. Support also continued for local authorities in the implementation of PNRR projects eligible for funding thanks to the particular commitment and support of CONAI in previous years.

In terms of area planning, in the Bari area, work was carried out with the competent authority on drafting the ARO BA4 Local Plan, while in the Taranto area, the drafting of the ARO TA2 Local Plan was completed and put out to tender by the competent authority, which should be implemented during the current year.
At the municipal level, support was given to the Municipality of Foggia for the preparation of the new Service Plan and for a project dedicated to large commercial users and non-residential food-related businesses (UNDs), which led to a 6% increase in separate collection in 2024. With the municipality of Lecce, an analysis and optimisation of the planning started in previous years was carried out, and an experimental feasibility study on corresponding pricing was defined.

In the **Sicily Region**, collaboration with the Region continued in line with the ten-year agreement, which also involves the participation of MASE, and saw the continuation of the work of the preparatory coordination working group for the implementation of the activities of the agreement itself.
Collaboration continued with the ATO authority in 4 Agrigento Est (Sicily SRR – the waste management service regulation company), extending Service Plans to the municipalities of Favara and Lampedusa-Linosa, which already included the Municipality of Agrigento and other neighbouring municipalities. Work on designing the new service in these new municipalities began at the end of the year.
Finally, in Sicily, collaboration at the municipal level is particularly active: in Syracuse, where a feasibility study for a pay-as-you-throw system has been prepared; in Ragusa, where the industrial plan for the waste collection system has been drawn up and delivered; and in Mazara del Vallo, where a new waste collection service has been designed and a feasibility plan for the implementation of TARIP has been devised. Similar activities have been launched in the municipalities of Noto, San Giovanni la Punta and Ribera.

INITIATIVES OF PACKAGING MATERIAL CONSORTIA AND SELF-COMPLIANT EPR ORGANISATIONS FOR THE DEVELOPMENT OF HIGH-QUALITY SEPARATE COLLECTION	
RICREA	• In 2024 RICREA, in collaboration with Anfima, promoted the campaign "Recycled steel improves our world", to raise awareness among citizens of the importance of the correctly disposing of steel packaging, a permanent material that is 100% and infinitely recyclable without losing its intrinsic qualities. • Also in 2024, Captain Steel (Capitan Acciaio), the recycling superhero, set off once again to teach people about the importance of separate collection and the circular economy. The superhero met young and old alike, stopping off at Comicon in Naples and in the city piazzas of Chieti, Latina and Siena. • Environmental education for young people continued with the Ambarabà Ricicloclò and RiciClick projects.
CiAl	• In 2024, CiAl continued its commitment to the "Ogni Lattina Vale" ("Every Can Counts") project. The project aims to promote the collection and recycling of aluminium beverage cans, including at major events (e.g. music concerts throughout Italy, 100 beaches in Calabria, Naples Comicon, International Recycling Tour). • The collaboration with Nespresso Italiana continued to facilitate the collection and recycling of post-consumer aluminium capsules. • In 2024, the "Senti com'è Green" ("Feel how Green it is") campaign was launched.
Comieco	• The fourth edition of Paper Week saw events and initiatives take place across the country with the aim of informing, educating and explaining how the separate collection of paper and cardboard from households sets in motion an effective and efficient industrial process that produces great results for the environment and our economy. • The national campaign "CARTVARD UNIVERSITY – paper and cardboard recycling sets the standard" was relaunched to ensure high-quality recycling, with greater focus on certain periods, such as the Christmas holidays. • Collaboration with FIPE (Italian Federation of Public Businesses) continued to promote the "RIMPIATTINO" ("take-away boxes") project to combat food waste. • 2024 was also the year in which the "SALVACARTA" ("paper-saving") containers (made entirely of paper) were redesigned to efficiently organise the separate collection of paper and cardboard in shared environments (such as workplaces, schools and various communities). • In the municipalities identified in the Plan for the South, in many cases, dedicated paper bags or bins have been introduced to replace plastic bags for door-to-door collection of paper and cardboard. When plastic bags are used, in addition to not complying with Minimum Environmental Criteria, they affect the quality of downstream recycling activities and force municipalities to bear higher costs for subsequent sorting and disposal of the material.
Corepla	• In 2024, COREPLA strengthened the initiatives launched in the previous two years and gave particular impetus to the "RecoPet" project. This integrated selective collection system uses digital recycling stations with barcode readers to recognise food-grade PET for bottle-to-bottle recycling, as well as a logistics and digital structure that can track waste flows and user access to offer incentive rewards. The project, implemented in synergy with municipalities, several large-scale retailers and other private entities in the sports and catering sectors, saw the installation of 210 machines throughout Italy in 2024. In addition to these, there are a further 24 digital recycling stations owned by the consortium, located in the cities of Genoa and Potenza. The primary objective is to assist Italy in achieving its SUP targets. • Support also continued for information activities concerning the start of recovery/recycling of packaging waste from dedicated circuits (e.g. PIFU platforms for the regeneration and recycling of drums, cans and IBC and PEPS tanks for the collection and recycling of polystyrene packaging). • Finally, 2024 also saw the successful continuation of the "RiVending" Project, in partnership with Confida and Unionplast, for the selective collection of polystyrene cups and PET bottles distributed by vending machines.

Biorepack	• In 2024, Biorepack continued its multi-channel advertising campaign (TV, web and social media, press, radio and cinema) called "I buttadentro" ("The Bouncers"), explaining in a simple and clear way what can and cannot be disposed of as organic waste. • The Consortium launched a new edition of the Call for Local Communication Projects, aimed at promoting local communication and education campaigns to encourage citizens to recognise and correctly recycle compostable bioplastic packaging. • Educational projects were run, including one developed with the agency La Fabbrica, aimed at lower secondary schools throughout Italy and specifically dedicated to compostable bioplastics, entitled "Recycle, Reflect, Share. Imagine the future with compostable bioplastic". • Finally, in 2024, Biorepack renewed its partnership with Legambiente, commissioning the association to conduct a new monitoring campaign on littering on Italian beaches and in city parks.
CoReVe	• The ANCI-CoReVe call for proposals to improve the quantity and quality of separate glass collection in Italy enabled participating municipalities to obtain funding for the purchase of equipment (caddies, trolleys, containers, collection bins, etc.), implementation of local projects and/or the creation of communication projects to support separate glass collection. • In 2024, a major communication campaign was launched to support the improvement of collection quality (the "Fatti mandare dalla mamma" campaign ("Let Mum Send You") for TV and social channels). • Finally, it is worth mentioning the "CoReVe Bottles for Spring Water" project, which involved the distribution of bottles in locations including Marsciano, Zoagli, Viterbo and Spoleto, as well as participation in the Venice Glass Week with "Glass Bateo" – a travelling experience that showcases the art of glassmaking all around the Venetian Lagoon.
Rilegno	• Rilegno has developed educational projects targeting younger generations, from nursery schools to universities, to raise awareness of the importance of wood and its circular economy ("Voyage to a New World" and "Rilegno Contest" projects). • Another significant project was the continued development of the We are Walden Community, which involved young people and designers in raising awareness of wood recycling and sustainable materials.
Coripet	• Work continues on development of the digital recycling stations that the Consortium is installing throughout the country. The Consortium is developing software, hardware, and the physical frame that will further enhance the performance of selective collection. The recognition software will be able to recognise and select food-grade PET bottles through machine learning technology. • During 2024, the Consortium carried out educational and communication activities using traditional tools and social media, and developed projects to encourage green behaviour among citizens through discount agreements with various commercial operators and prize competitions.

5.5.4 | Other projects

Separate collection at the Royal Palace of Caserta

Initiated in 2021, the reorganisation of separate collection services within the gardens and offices of the **Royal Palace of Caserta** (over 770,000 visitors in 2022) saw significant progress in 2024, which should lead to the completion of activities during the first half of 2025. A total of 161 containers will be

installed throughout the site, designed and custom-made with a design consistent with the unique and renowned location, for the collection of five types of materials: plastic and metal packaging; paper, card and cardboard packaging; organic waste with compostable bioplastic packaging; glass packaging; and non-recyclable waste.
The plan has been promoted through the "Heritage in your Hands" campaign: a new communication project that combines CONAI values with UNESCO values.
Thanks to this initiative, the Royal Palace of Caserta has become the first architectural heritage site – which is also a UNESCO World Heritage Site – to adopt a plan designed by CONAI for the separate collection of packaging materials.

Packaging selective collection project

CONAI launched the Selective Collection project to evaluate systems for intercepting packaging in addition to traditional separate collection in relation to the ambitious new targets set by the SUP Directive. The project was an opportunity to test the effectiveness and sustainability of selective collection through multi-material recycling points, the first test of its kind in Italy: steel, aluminium, paper and glass, as well as plastic.
In collaboration with the Municipality of Bari and AMIU Puglia, five installations were set up in several stages, for a total of ten "EcoStations". Incentives were also introduced for citizens to recycle specific packaging (shopping vouchers and prizes donated by the RICREA, CiAI, Comieco, Corepla and CoReVe Packaging Material Consortia).
The project naturally includes a quantitative analysis of the waste collected from these stations and a parallel qualitative analysis of the waste collected from the ordinary system.

Guidelines for waste management in Italian ports

Following the Decree on "Saving the Seas" of 17 May 2022, CONAI is drafting guidelines to improve the management of packaging waste in Italian ports. The national guidelines are currently being drafted and involve the Port Authority of Salerno and Naples, the Port System Authority of the Northern Adriatic Sea (Chioggia and Venice) and the Port Authority of Genoa. They will be completed by the first half of 2026.

Reporting tool for the benefits of separate collection

Over the past few years, CONAI has designed and implemented a reporting tool on the environmental benefits deriving from the adoption of circular economy models. This tool calculates the environmental impact of all stages of waste management, from collection to recovery, using LCA (Life Cycle Assessment) methodologies. This makes it possible to assess the environmental benefits and critical issues associated with the entire life cycle of waste.

In 2024, the Consortium continued to develop this tool with the aim of making it accessible to users via a dedicated web platform. The project began with the definition of the boundaries of the waste collection and management system, as well as the collection of data for all supply chains. A modular structure was chosen for the platform so that the tool can be adapted to different municipal waste collection contexts. In this way, users can select and use only the modules that describe the processes actually adopted, obtaining more specific and detailed results based on the context analysed.

During the design phase, environmental indicators (such as greenhouse gas emissions avoided, energy and water savings, etc.) and sector-specific indicators (such as the amount of waste collected separately, recycled or recovered for energy, and secondary raw materials produced) were identified, and calculation algorithms were defined. In the final stage of development, the web platform is being finalised, which will enable the automated calculation of the benefits of separate collection, accessible via a portal with credentials. The last phase of the project includes training and support activities for users who will use the platform.

Guidelines for the organisation and management of separate collection in Italian universities

The study, analysis and optimisation of separate collection activities on the Fisciano Campus of the University of Salerno have resulted in a broader project to draw up guidelines involving the University of Salerno (UNISA), the Network of Sustainable Universities (RUS), the Municipality of Fisciano and its separate collection service manager. The project, which was completed in 2024, was presented at ECOMONDO 2024 in the presence of stakeholders and was awarded a prize at the national Legambiente Comuni Ricicloni 2024 event.

Contarina project

This collaboration began in 2023 with Contarina SpA, an in-house providing company for the Priula Basin Council, aimed at ascertaining the actual level

of interception of packaging waste in the Treviso area – with particular regard to post-consumer PET plastic bottles. The project continued in 2024 with a supplementary product analysis campaign on specific streams of sorted and unsorted waste.

The results of the product analysis and the acquisition and processing of the latest available data relating to the integrated waste management service adopted by Contrina SpA made it possible to determine the actual level of interception, in terms of volume and quality, of PET food container waste in the Priula Basin Council area, as well as the efficiency of the system in achieving separate collection results, including in terms of tariff impacts on end users.

5.5.5 Local Authorities Observatory and Database

The Framework Agreement provides for CONAI to finance the **ANCI CONAI Database**, a tool that provides municipalities with data on separate collection and the ANCI Technical Structure, thus offering valuable guidance on waste management. This data is then made available through an open portal, the "Local Authorities Observatory", which is a support tool for the development of separate collection and for improving the management of municipal packaging waste within the CONAI EPR Organisation.

The ANCI-CONAI Database and the Local Authorities Observatory are designed to collect key data on the quantities of municipal waste collected by municipal service operators and data on the quantities and payments for packaging waste managed within the consortium supply chains. All parties involved in the Framework Agreement, including contractors and Packaging Material Consortia, are required to periodically send the data for which they are responsible to the database manager. Thanks to the data collected and the support of experts in the field, the Local Authorities Observatory has been set up. Its aim is to provide municipalities with timely information on separate collection and the quality of waste management services, more quickly than current methods of data collection, allowing for more immediate intervention and control of separate collection management systems.

Finally, each year, the Database Report is drawn up, containing a rich and valuable summary of the main indicators of municipal waste management. It makes particular reference to packaging waste, throughout the country.

LITTERING

CONAI initiatives against littering

The transposition of the SUP Directive, together with the implementation of the "Mangiaplastica" Decree and the PNRR, introduces new and significant objectives for packaging systems, sets more ambitious recycling targets and defines strategies to combat littering.

CONAI remains a central player in coordinating and planning the measures needed to achieve these objectives and combat littering. Several initiatives have been launched in collaboration with local authorities, associations, universities and port authorities to combat the dispersion of packaging waste in the environment (beaches, waterways, sea, parks and universities) through targeted actions in the area, as described below.

Recycle Summer

CONAI, in collaboration with Legambiente, supports the "Ricicla Estate" ("Recycle Summer") awareness campaign in Campania and Calabria to promote separate collection and combat littering in seaside resorts. Thanks to the involvement of Legambiente volunteers and local clubs, the campaign informs tourists and residents through entertainment and discussion, encouraging virtuous behaviour in the disposal of packaging waste and supporting a circular economy. Ricicla Estate also extends to natural parks and UNESCO areas in Campania, involving 225 municipalities, to protect the territory and reduce littering in all tourist areas.

Clean Up the World

CONAI supports "Puliamo il Mondo" (Clean Up the World), Legambiente's long-standing national environmental volunteer campaign that involves thousands of people in cleaning up streets, squares, beaches and riverbanks of abandoned waste to combat littering and promote cleaner, more liveable and responsible cities.

Munnizza Free

CONAI actively supports "Munnizza Free", a regional project by Legambiente Sicilia dedicated to the dissemination of good practices for the management of municipal waste, packaging and littering. The initiative involves municipalities, urban hygiene service managers and Packaging Material Consortia through provincial Ecoforums, Ecofocus in metropolitan cities and regional workshops. Particular attention is paid to the prevention of littering, with awareness-raising activities in schools, training events and volunteer campaigns to clean up beaches and seabeds. The project promotes virtuous local experiences, encouraging sustainable and responsible management of municipal waste.

Support for EGATO operators and/or municipalities
to apply for projects under the PNRR

CONAI supported 189 municipalities in applying for 172 project proposals for the improvement and mechanisation of separate collection (Measure 1.1 line A, Ministerial Decree 396/2021). A total of 185 municipalities were admitted to the ranking, of which 65 projects were funded; the others, although admitted, did not receive funds due to the exhaustion of resources. Phase 2 is currently underway, dedicated to technical support to make the projects operational by 2026. The planned actions aim to prevent littering, with measures such as the development of collection centres with reward systems and the installation of smart mini recycling points.

CONAI's initiatives to combat littering also include the following projects:

- Selective collection (SC)
- Guidelines for waste management in Italian ports

- Guidelines for the organisation and management of separate collection in Italian universities

The actions implemented represent a firm commitment to prevent littering and improve packaging management throughout the country. Thanks to collaboration with local authorities, universities and communities, sustainable models and responsibility are being promoted. These experiences can be replicated in other contexts to contribute to environmental protection and the decorum of public spaces.

6

Recycling and recovery

6.1 Recycling

This section describes the recycling results for packaging waste in 2024 and consolidates the data for the year 2023 which will be reported to the Institutions. The results shown overall and by individual supply chain are based on the information contained in the Management Reports sent to CONAI by the Packaging Material Consortia and Self-compliant EPR Organisations.
The data has also been adjusted and corrected for any errors following communication with the Packaging Material Consortia and Self-compliant EPR Organisations.

Turning to the specific data, the following tables compare the 2024 and 2023 recycling results in percentage and absolute values, confirming the achievement of all the 2025 targets for packaging waste set by the legislation.

The recycling data is presented according to Eurostat guidelines for the verification of the 2025 and 2030 recycling targets. Is therefore referred to as "effective recycling", meaning the computation of secondary raw materials and waste entering the final recycling plants minus any waste from pre-treatment activities. This phenomenon mainly occurs for the plastic packaging chain, whose recycling involves different phases and types of plants according to the streams subject to recovery. For this, a calculation approach has been adopted which utilises average yields of the final plants, differentiated according to the polymer sent to recycling. In addition, in line with provisions from Eurostat, the recovery of bottom ash is included, which concerns the steel and aluminium packaging chains, following a special standard calculation methodology.

As shown by the figures in the tables below, effective recycling rose from

75.6% (consolidated figure for 2023) to 76.7% (+1.07 percentage points compared to 2023). In absolute terms, this meant the recovery through effective recycling of approximately 10.7 million tonnes of packaging waste (+2.1% compared to 2023).

The recycling figures for paper, wood and plastic packaging waste include the management of both Packaging Material Consortia and Self-compliant EPR Organisations.

QUANTITIES OF PACKAGING WASTE RECYCLED

Material	2023	2023 consolidated	2024	Annual change
	KTONNES	KTONNES	KTONNES	%
Steel	428.043	431.048	435.539	1.0
Aluminium	59.300	59.300	62.400	5.2
Paper	4,673.536	4,654.965	4,605.294	-1.1
Wood	2,164.246	2,164.246	2,314.294	6.9
Plastic and bioplastic	1,099.007	1,123.200	1,178.935	5.0
of which traditional plastic	*1,054.669*	*1,079.704*	*1,131.424*	*4.8*
of which compostable plastic	*44.338*	*43.496*	*47.511*	*9.2*
Glass	2,045.768	2,045.768	2,102.979	2.8
Total	**10,469.900**	**10,478.527**	**10,699.441**	**2.1**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

PLASTIC	2023	2023 consolidated	2024
Corepla	858.957	882.352	927.004
CONIP – Crates	54.711	54.711	55.076
CONIP – Pallets	0.310	0.310	0.227
PARI	13.075	13.075	13.197
Coripet	121.780	123.368	126.254
Coripet from Digital Recycling stations – Plastic	4.281	4.285	5.766
Erion Packaging	1.555	1.603	3.900
Biorepack	44.338	43.496	47.511
Total	**1,099.007**	**1,123.200**	**1,178.935**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

WOOD	2023 PGP	2023 consolidated	2024
Rilegno	2,162.361	2,162.361	2,309.814
Erion Packaging – Wood	1.885	1.885	4.480
Total	**2,164.246**	**2,164.246**	**2,314.294**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

PAPER	2022 PGP	2022 consolidated	2023
Comieco	4,667.266	4,648.692	4,594.128
Erion Packaging – Paper	6.270	6.273	11.166
Total	**4,673.536**	**4,654.965**	**4,605.294**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

PERCENTAGE OF EFFECTIVE RECYCLING OUT OF MATERIAL PLACED ON THE MARKET

Material	2023	2023 consolidated	2024	Annual change
	%	%	%	% POINTS
Steel	87.8	89.0	86.4	-2.63
Aluminium	70.3	70.3	68.2	-2.15
Paper	92.3	92.6	92.4	-0.25
Wood	64.9	64.9	67.2	2.24
Plastic and bioplastic	48.0	49.0	51.1	2.01
of which traditional plastic	*47.7*	*48.8*	*50.8*	
of which compostable plastic	*56.9*	*55.8*	*57.8*	
Glass	77.4	77.4	80.3	2.88
Total	**75.3**	**75.6**	**76.7**	**1.07**

Source: CONAI, Packaging Material Consortia and Self-compliant EPR Organisations.

The recycling result recorded in 2024 is mainly due to the increase in the volumes of recycled packaging for the wood and plastic supply chains. With specific reference to the latter, it should also be noted that the specific target set by the legislation was achieved one year ahead of schedule[35].

35

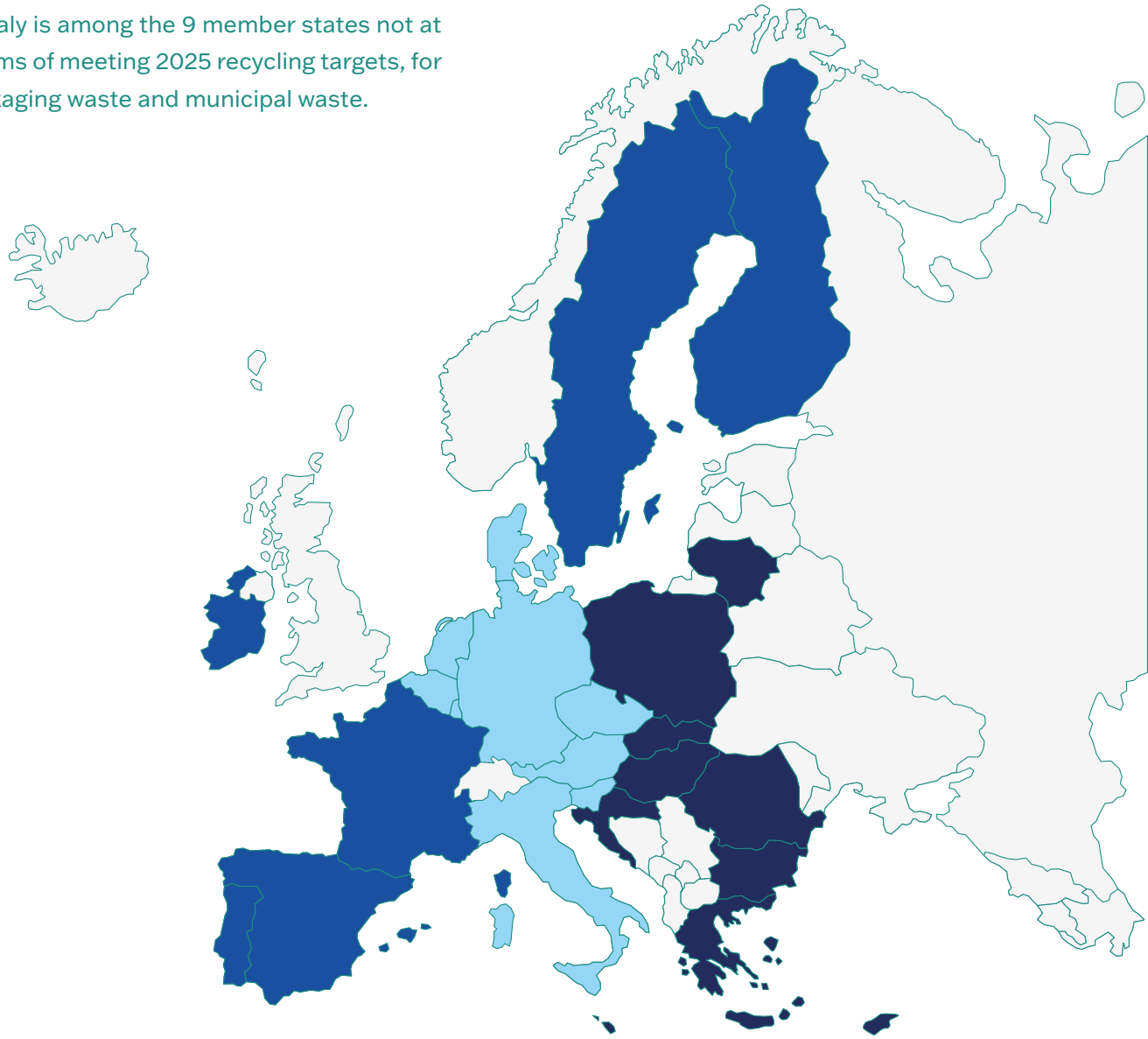
Annex E, Part IV of Legislative Decree 152/06 as amended: [..] By 31 December 2025, at least 65% by weight of all packaging waste shall be recycled by 31 December 2025, the following minimum recycling targets, by weight, shall be achieved for the following specific materials contained in packaging waste [..] **50% for plastics**; 25% for wood; 70% for ferrous metals; 50% for aluminium; 70% for glass; 75% for paper and cardboard.

ACHIEVED RESULTS (EFFECTIVE RECYCLING) COMPARED WITH CURRENT TARGETS

Source: CONAI.

ITALY IN EUROPE

On 8 June 2023, the European Commission published the early warning report on the implementation of waste legislation. Compared to the 2021 figures, Italy is among the 9 member states not at risk in terms of meeting 2025 recycling targets, for both packaging waste and municipal waste.

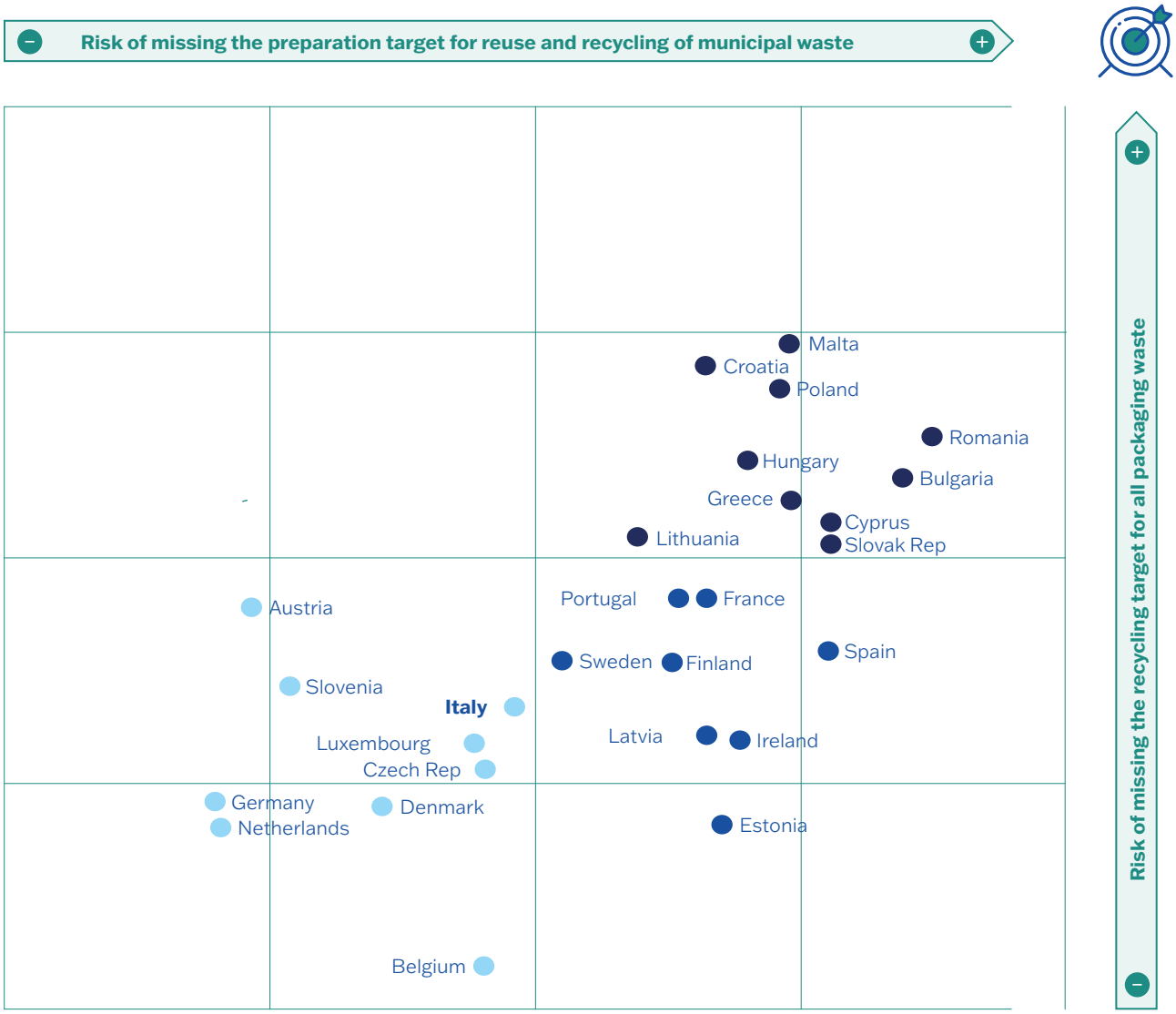


OVERVIEW OF MEMBER STATES PROJECTED TO MEET/ NOT MEET RECYCLING TARGETS (MUNICIPAL AND PACKAGING WASTE)

Source: European Environment Agency.

Reference data: © ESRI

- Member States not at risk of missing both targets
- Member States at risk of missing both targets
- Member States at risk of missing the preparation target for reuse and recycling of municipal waste, but not the recycling target for all packaging waste
- Out of coverage



Source: European Environment Agency.

- Member States not at risk of missing both targets
- Member States at risk of missing the preparation target for reuse and recycling of municipal waste, but not the recycling target for all packaging waste
- Member States at risk of missing both targets

Total waste

In terms of overall waste management, the European comparison of treatment methods published in the latest Eurostat report available ranks Italy **in first place** among EU countries, with 85% recycling and approximately 90% total recovery.

Municipal waste

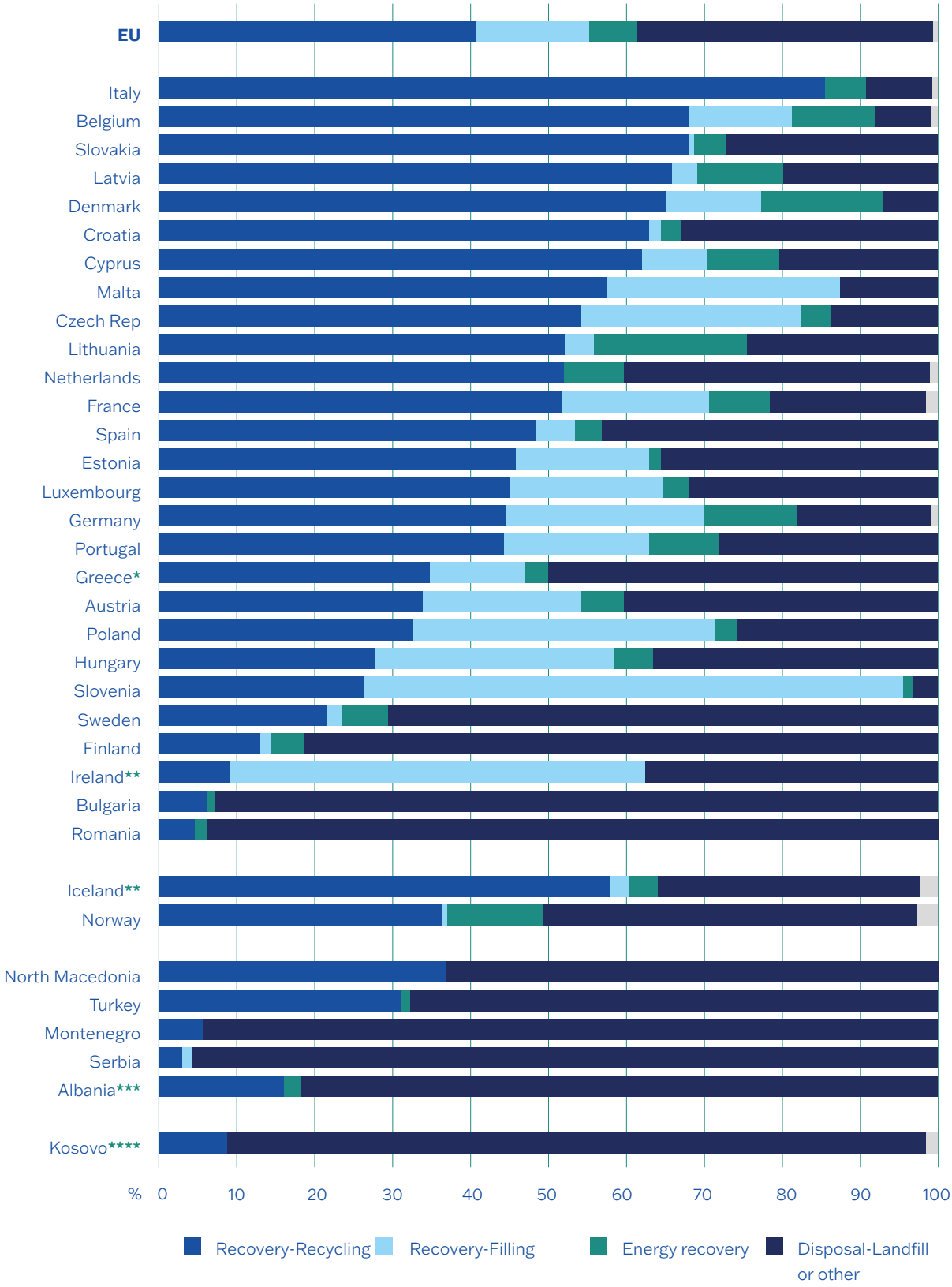
According to the Eurostat 2023 report, Italy[36] remained among the leading European countries in terms of reducing the amount of municipal waste, falling from 490 kg per capita in 2013 to 486 kg per capita in 2023[37].

(Graphs on following page)

36
Italy 2022 data.

37
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Municipal_waste_generated,_in_selected_years,_1995-2023_(kg_per_capita).png

TOTAL WASTE MANAGEMENT BY RECOVERY METHOD (2022)[38]



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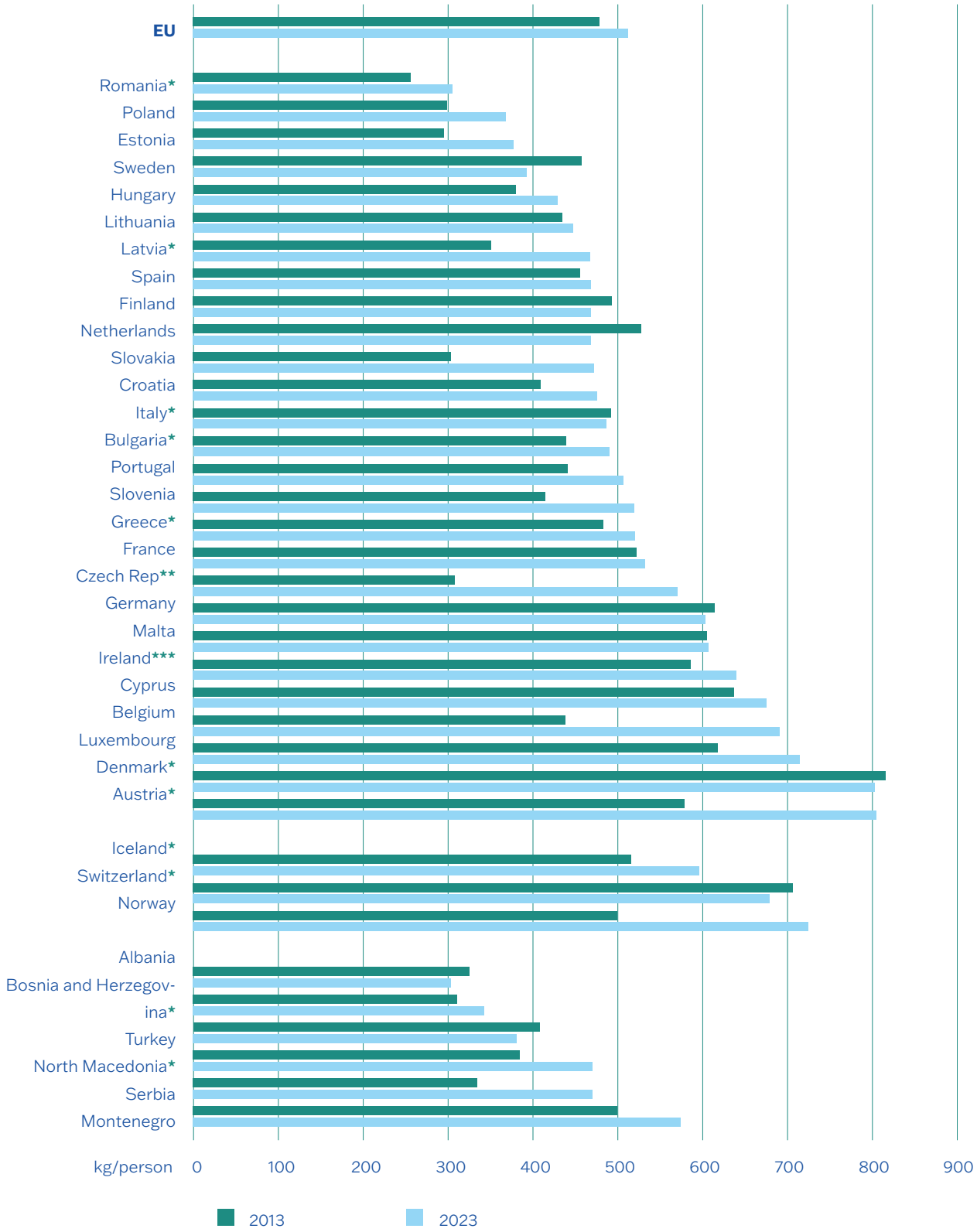
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:F6_Waste_treatment_by_type_of_recovery_and_disposal,_2022_(%25_of_total_treatment).png

* Provisional data. ** 2020 value. *** 2021 data.
**** This designation is without prejudice to positions on status and is in line with UNSC Resolution 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Source: Eurostat (online data code: env_wasmun).

MUNICIPAL WASTE GENERATION (2013-2023)[39]



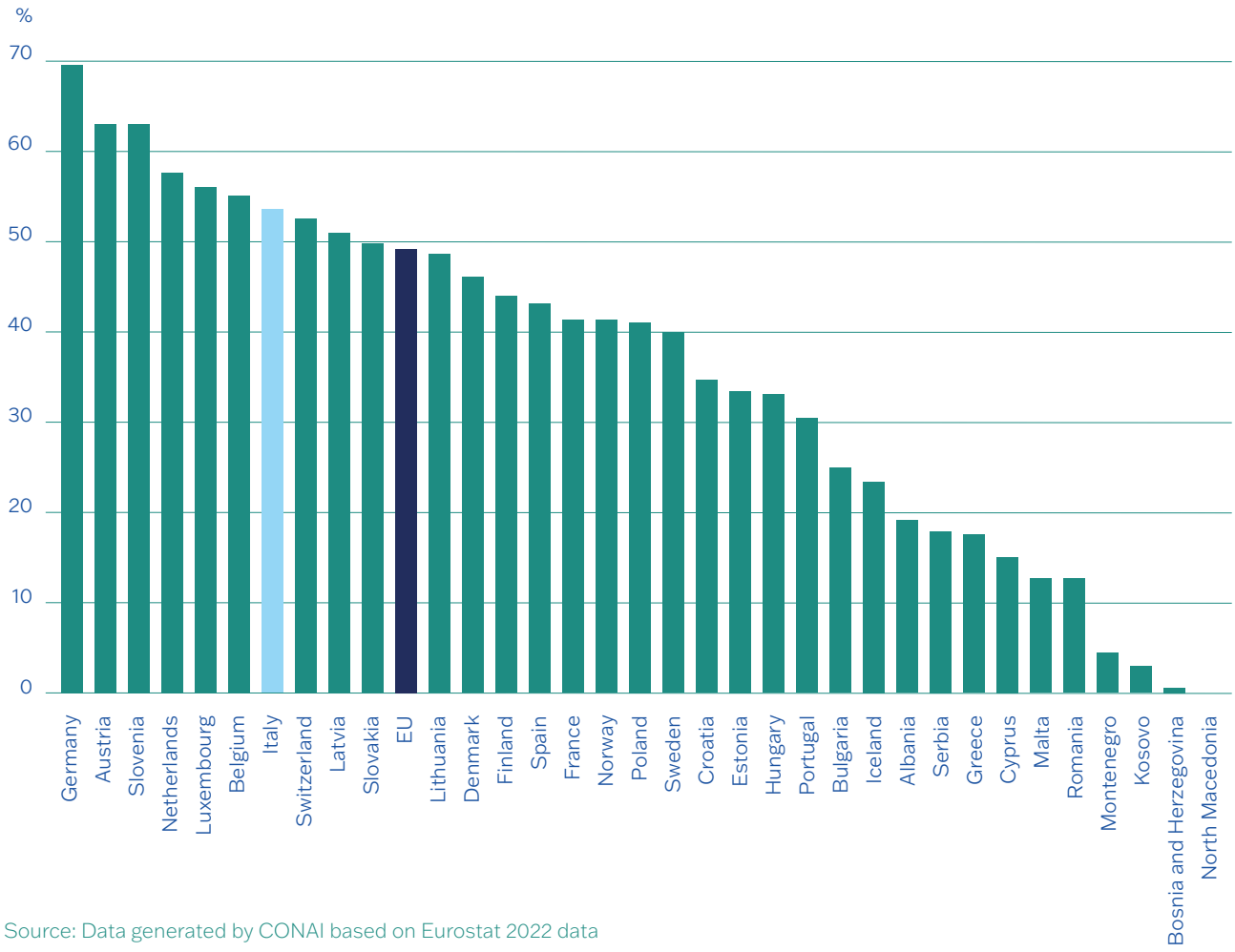
39 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Municipal_waste_generated,_2013_and_2023_(kg_per_capita).png

Countries in ascending order according to the amount of municipal waste generated in 2022.
* Data from 2022 instead of 2023. ** Data from 2021 instead of 2023.
*** Data from 2020 instead of 2023, and 2012 instead of 2013.

Source: Eurostat (online data code: env_wasmun).

As regards municipal waste recycling in Europe, Italy remains in **seventh place** for 2022, with 53.3% of municipal waste recycled in 2022.

RECYCLING OF MUNICIPAL WASTE (2022)[40]



Source: Data generated by CONAI based on Eurostat 2022 data

Packaging waste

According to the latest Eurostat report with 2022 data on packaging recycling and packaging waste, Italy remains in **first place for per capita recycling** of packaging waste, followed by Germany and Ireland.

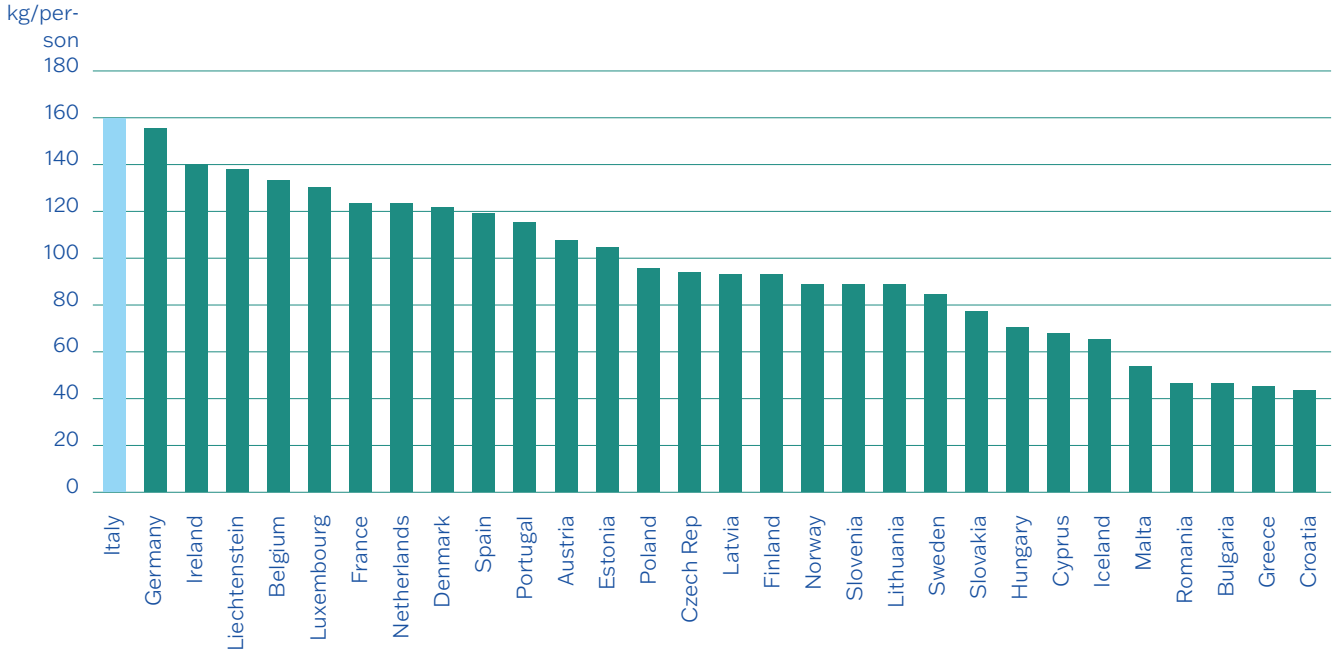
In percentage terms, Italy ranks **sixth** in the EU for total recycling of packaging waste (71.9%) and, when considering the most populous countries, Italy ranks first.

→ (Graphs on following page)

40

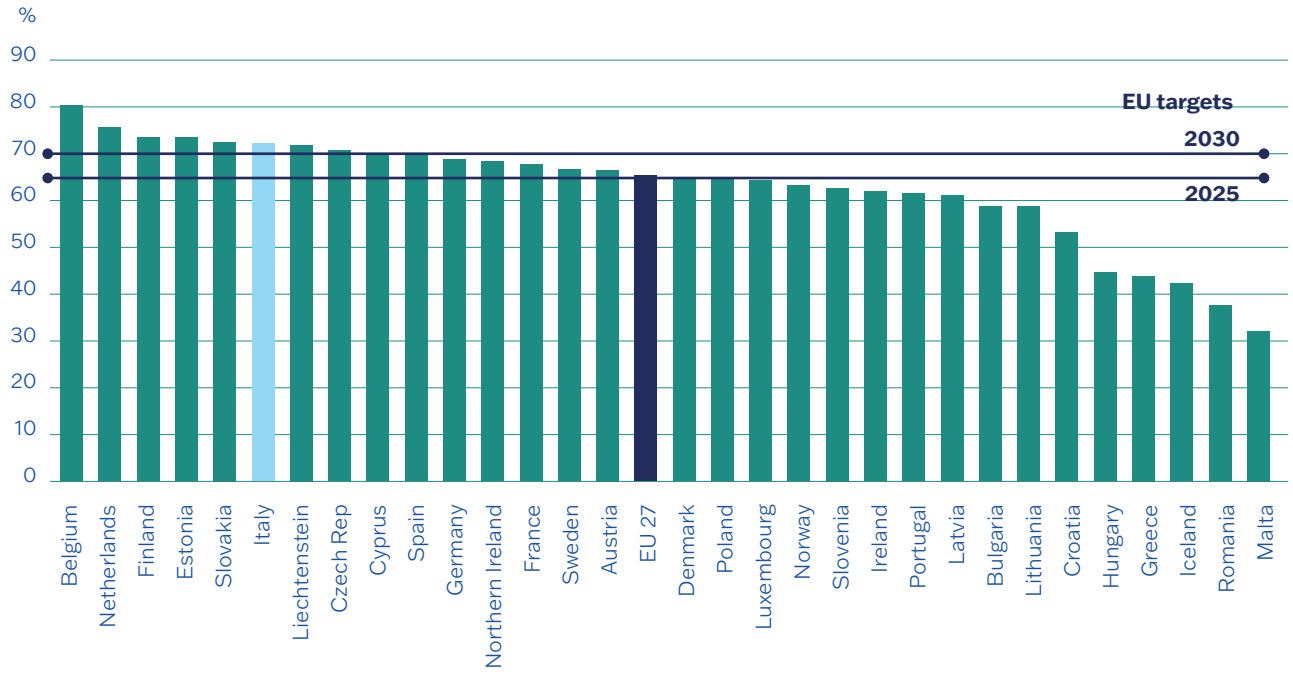
https://ec.europa.eu/eurostat/https://ec.europa.eu/eurostat/databrowser/view/cei_wm011/default/table?lang=en&category=cei.cei_wm

RECYCLING PER CAPITA OF PACKAGING IN EUROPE OUT OF GOODS PLACED ON THE MARKET (2022) [41]



Source: Data generated by CONAI based on Eurostat 2022 data

RECYCLING RATE OF PACKAGING IN EUROPE OUT OF GOODS PLACED ON THE MARKET (2022) [42]



Source: Data generated by CONAI based on Eurostat 2022 data

41
https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_17113721/default/table?lang=en

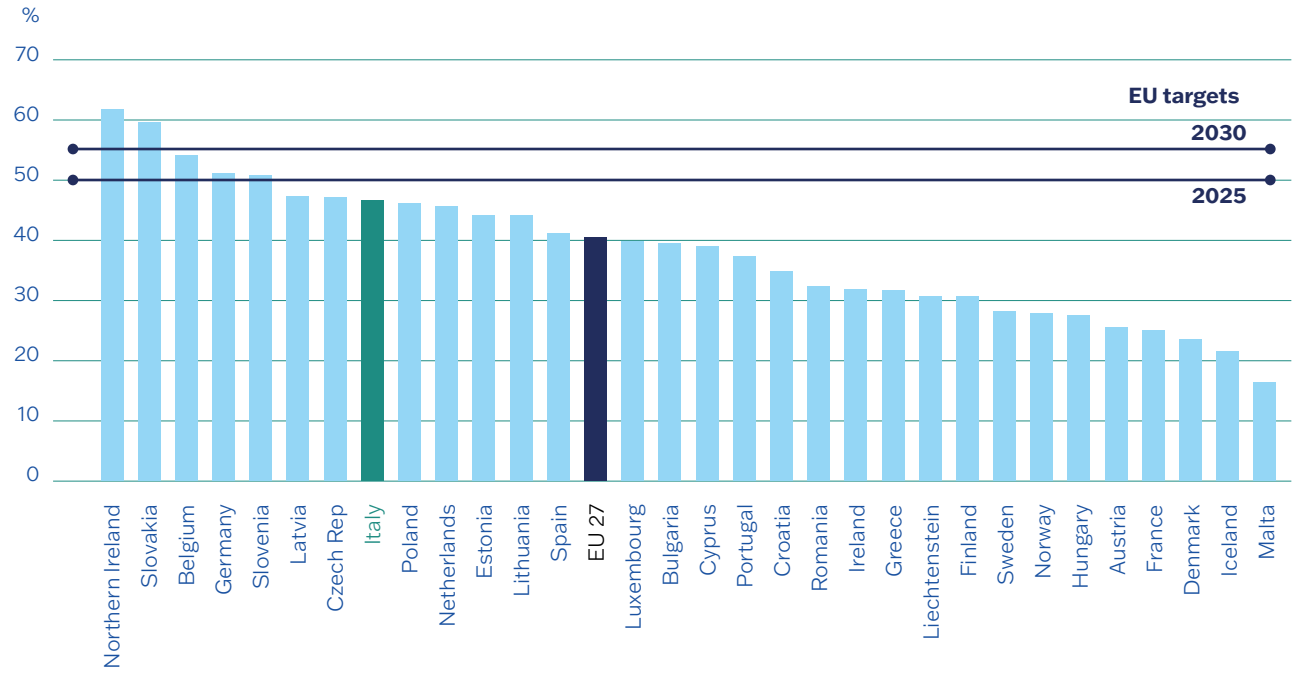
42
https://ec.europa.eu/eurostat/databrowser/view/env_waspacr/default/table?lang=en&category=env.env_was.env_wasst

Looking specifically at the recycling performance of individual packaging materials, Italy ranks among the top countries in Europe, in line with the European targets for 2025 and 2030.[43]

43
https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_17113829/default/table?lang=en

RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

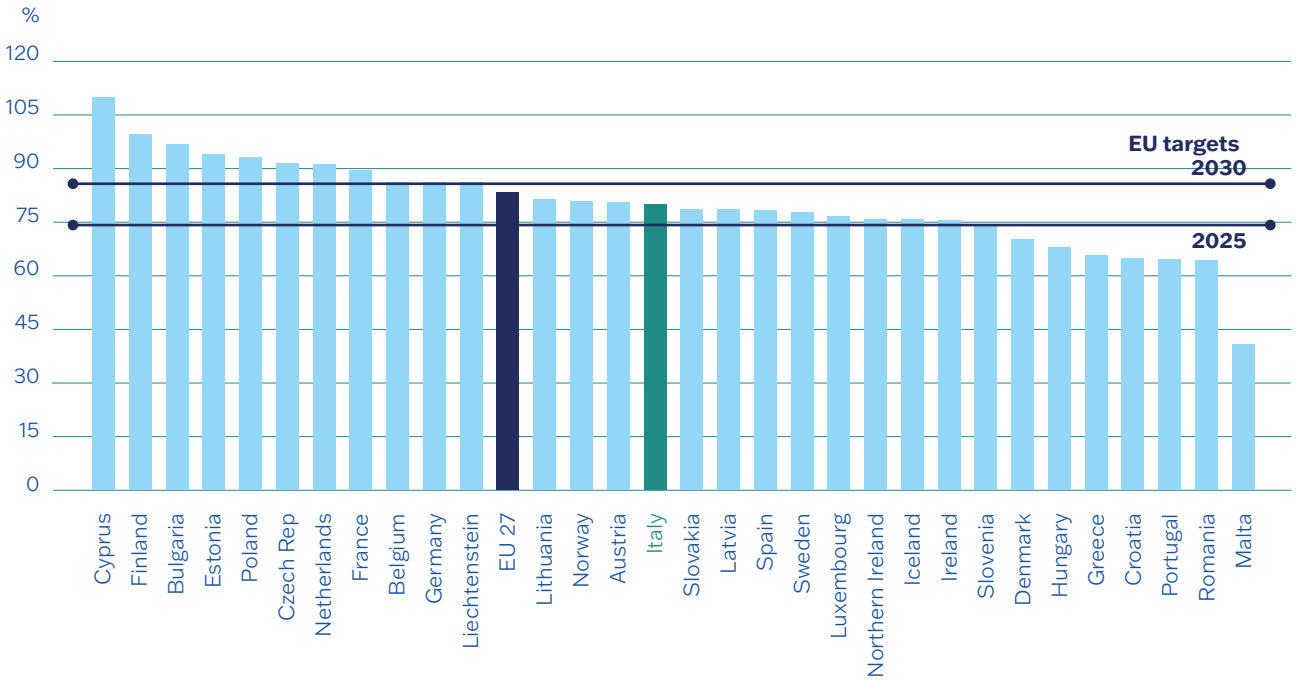
PLASTIC



Source: Eurostat.

RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

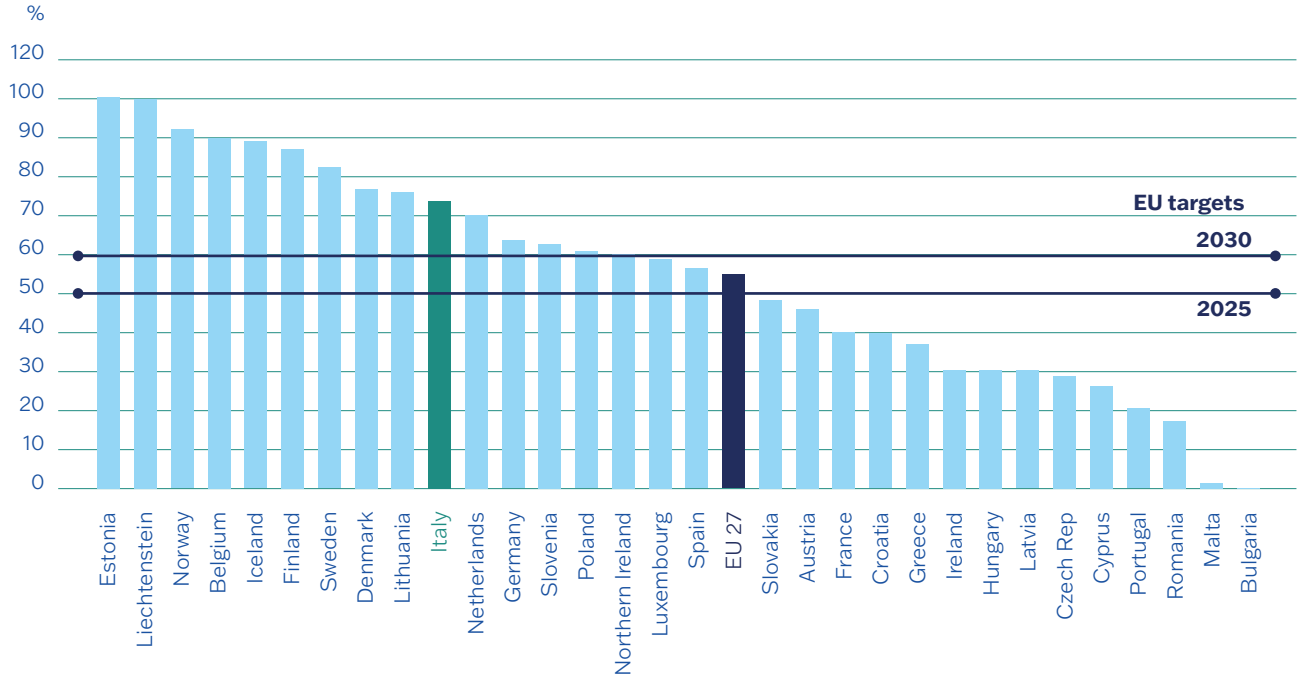
PAPER AND CARDBOARD



Source: Data generated by CONAI based on Eurostat 2022 data

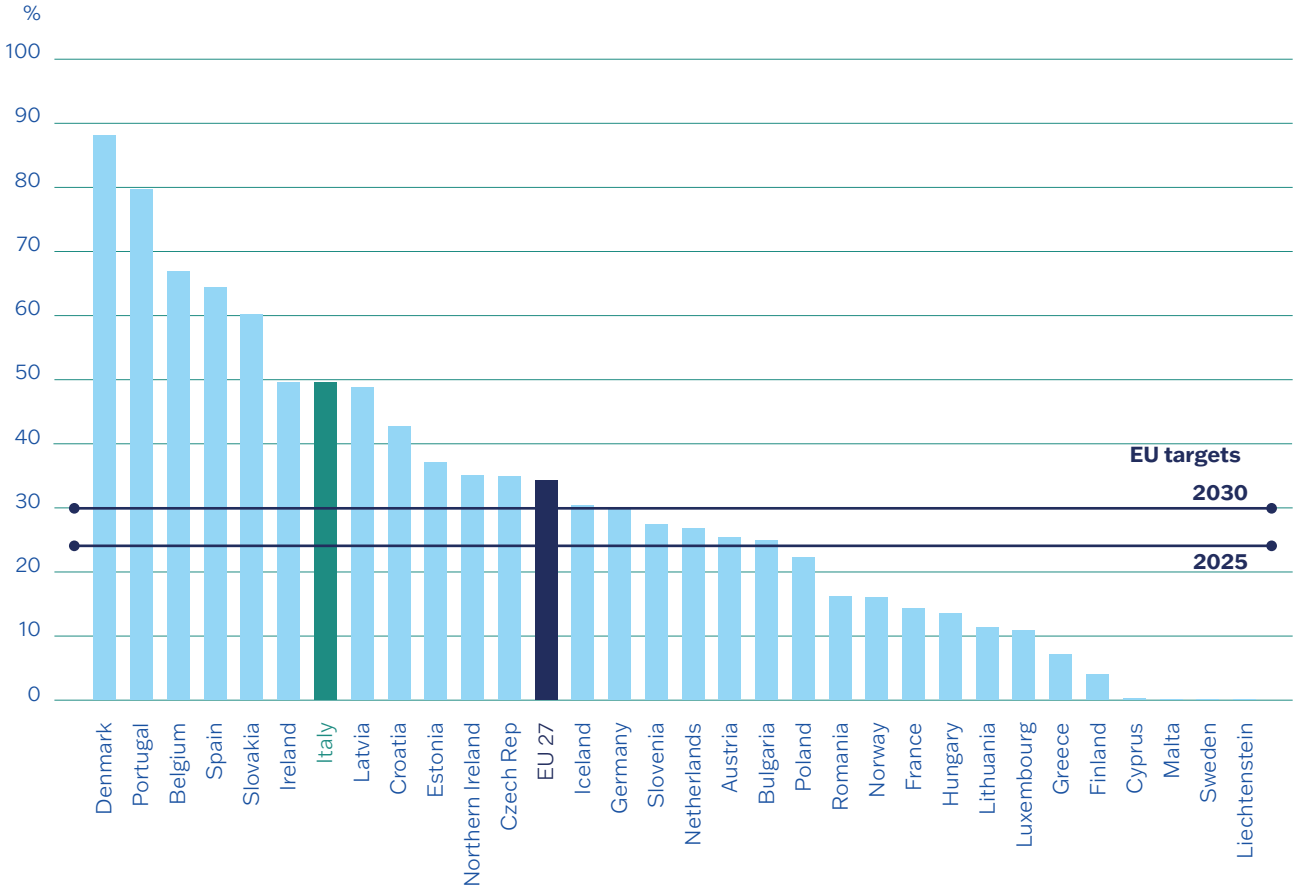
RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

ALUMINIUM



RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

WOOD

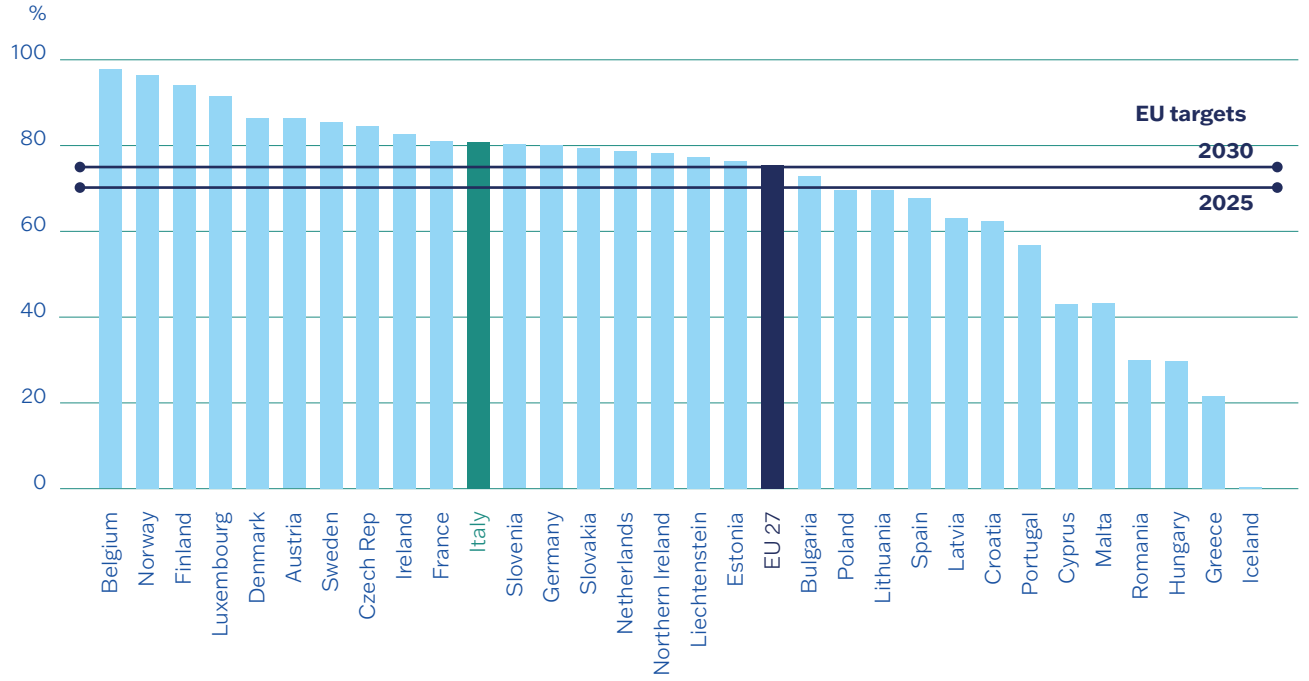


Source: Data generated by CONAI based on Eurostat 2022 data

With regard to wooden packaging, this graph does not include “repair” packaging, which is calculated and presented separately in Eurostat datasets.

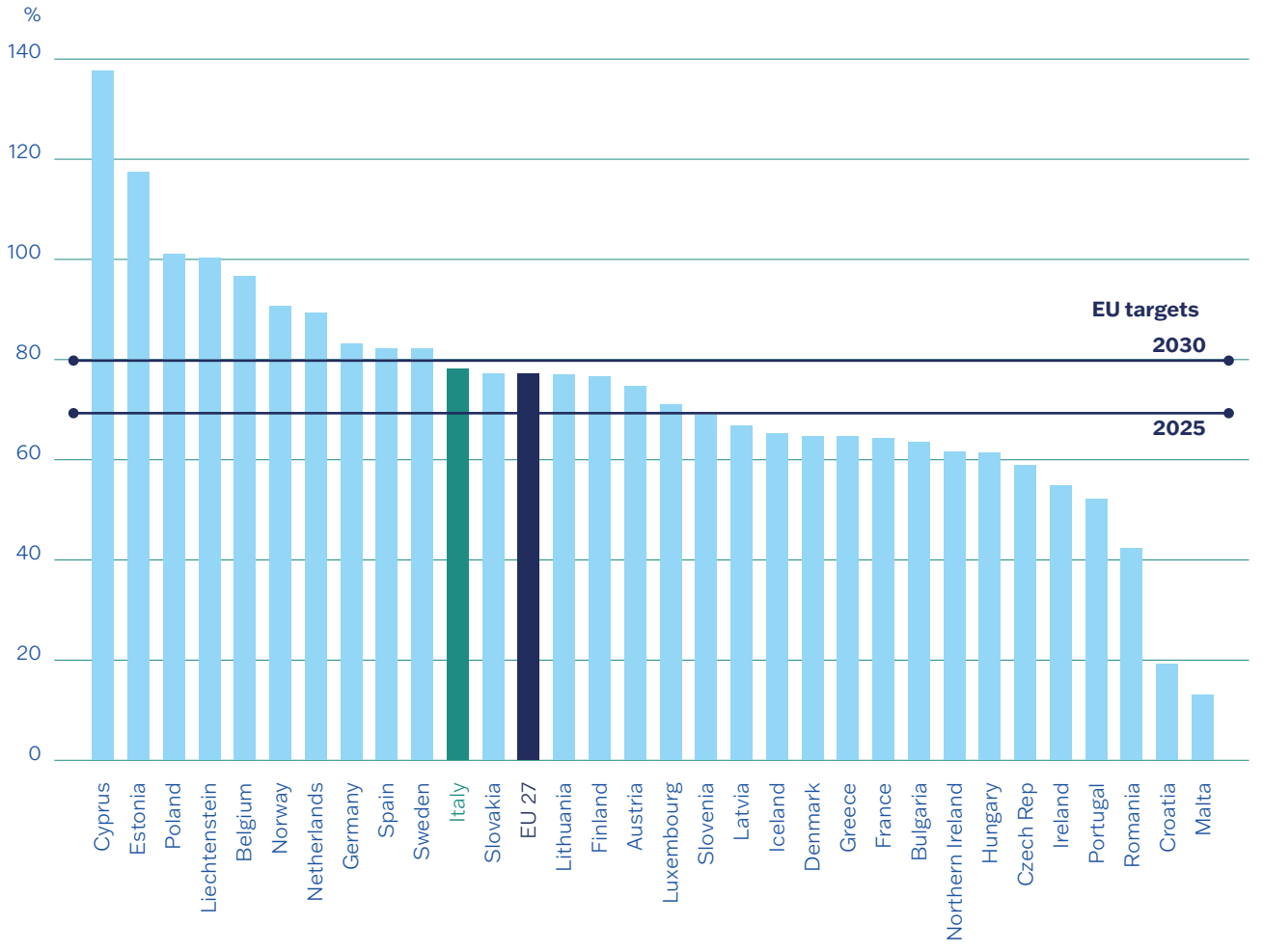
RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

GLASS



RECYCLING RATE OF PACKAGING BY MATERIAL (2022)

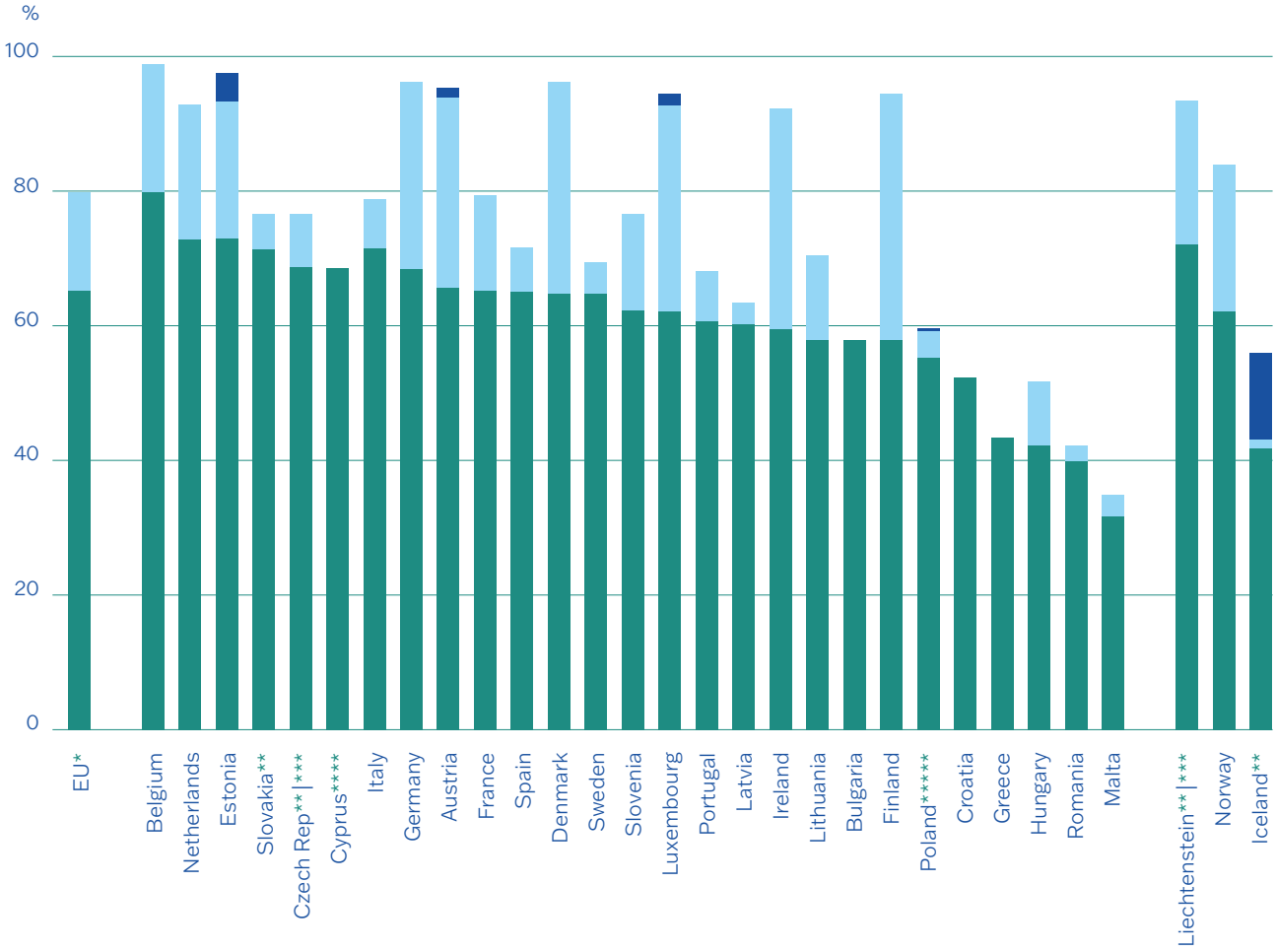
FERROUS METALS



Source: Data generated by CONAI based on Eurostat 2022 data

For packaging recovery, Italy remains in **seventh place** among European countries.

PACKAGING WASTE MANAGEMENT BY RECOVERY METHOD (2022) [44]



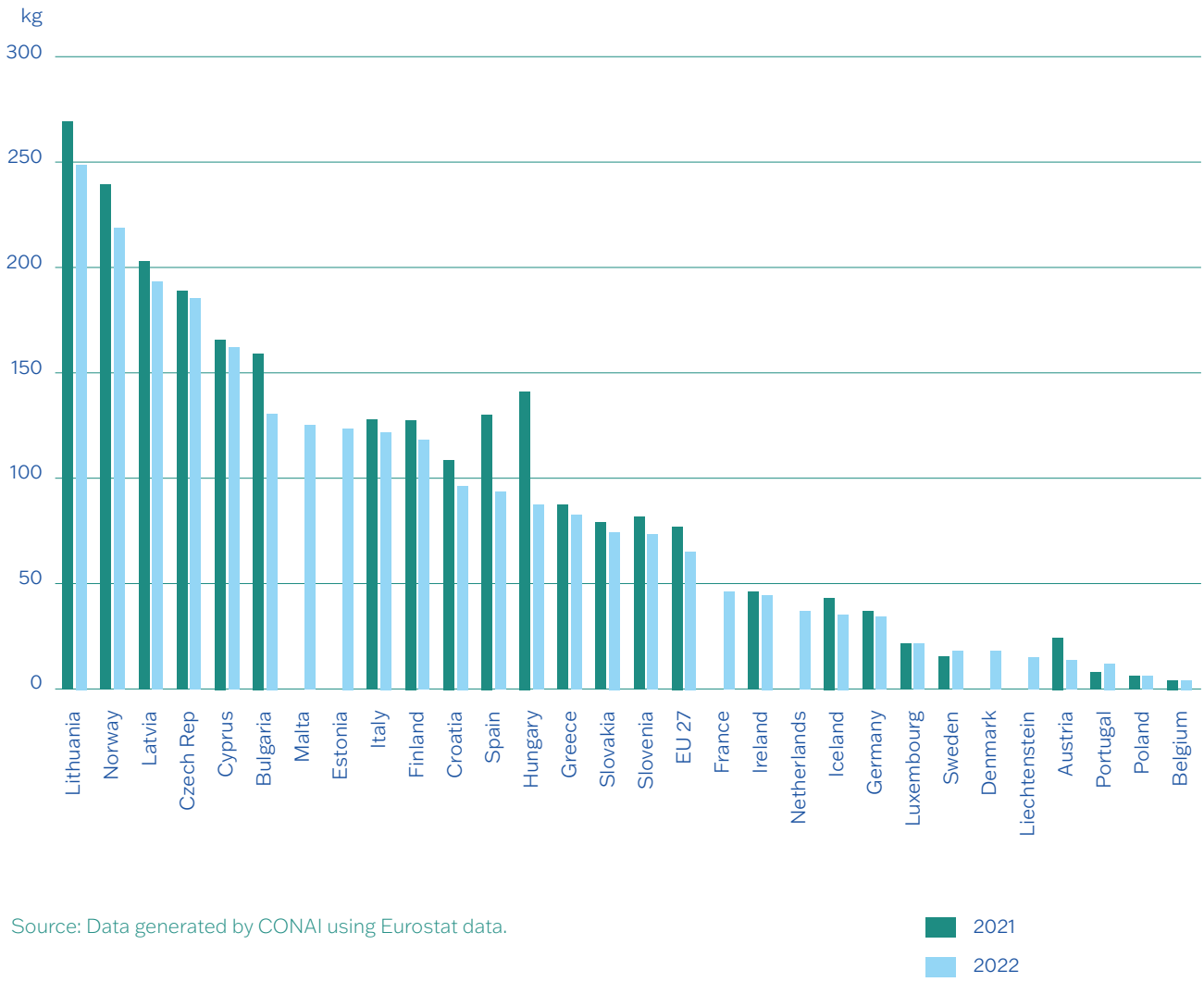
Sorted by recycling percentage. Due to methodological/ technical issues, the sum of recycling, energy recovery and other forms of recovery may differ from the total recovery rate in Table 1 and exceed 100%.

* Eurostat estimate.
** Non-unique definition.
*** 2021 data instead of 2022 data.
**** Estimates.
***** 2019 data instead of 2022 data.
Source: Eurostat.

44
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Packaging_waste_statistics

However, specifically for the consumption of carrier bags of various thicknesses, according to the latest data available for 2022, Italy has continued to show a steady downward trend over the last two years, from 127 to 121 per inhabitant.

CONSUMPTION PER CAPITA OF CARRIER BAGS OF DIFFERENT THICKNESSES, 2021-2022 [45]



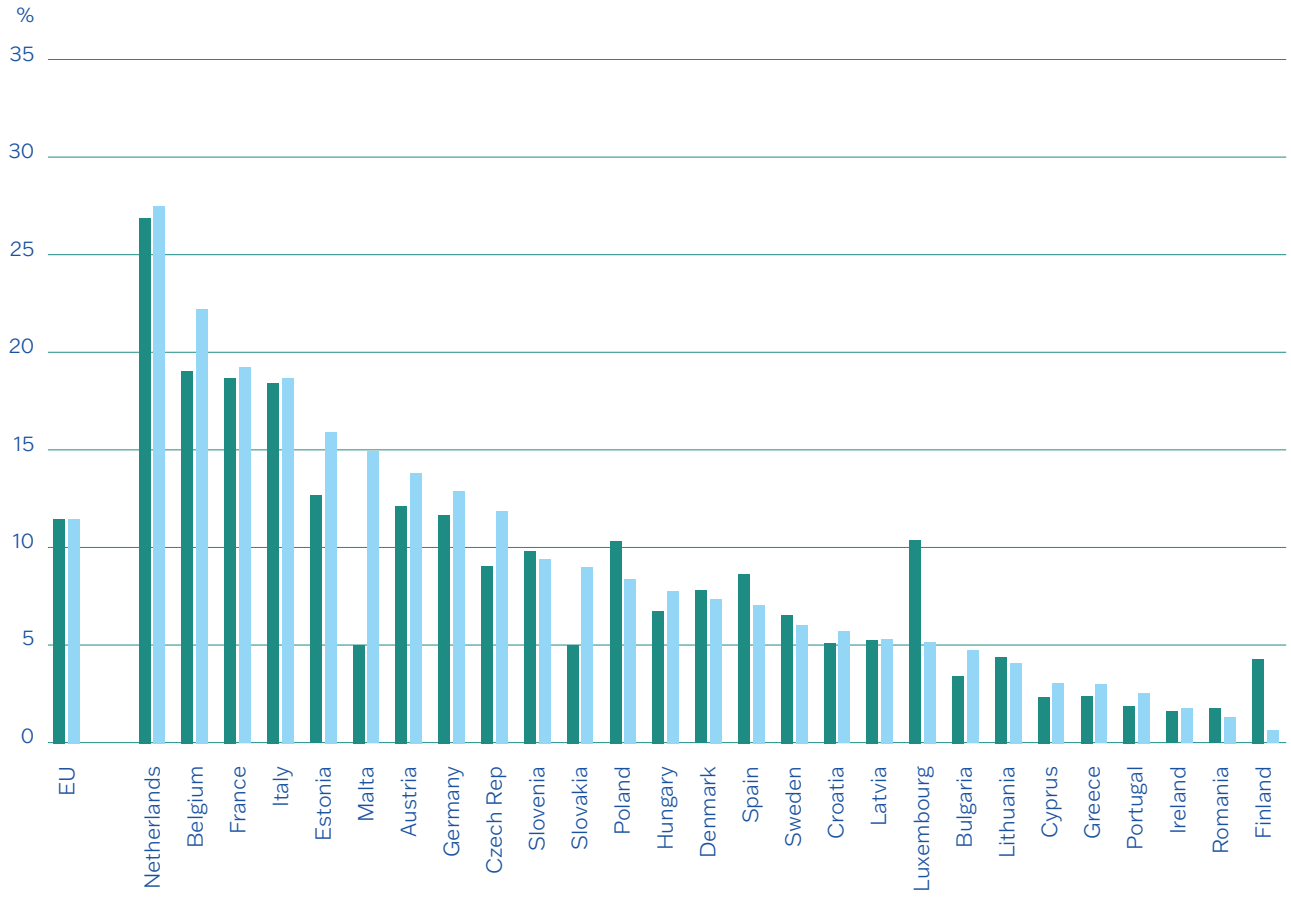
Source: Data generated by CONAI using Eurostat data.

45
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Consumption_of_plastic_carrier_bags_-_estimates

Material circularity rate

The circular material use rate (CMU) measures the share of materials recovered and reintroduced into the economy relative to total material use. A higher CMU rate indicates that more secondary raw materials are replacing primary raw materials, thereby reducing the environmental impact of raw material extraction. In the graph below we see that Italy ranks **fourth** after the Netherlands, Belgium and France.

USE OF CIRCULAR MATERIAL BY COUNTRY, 2017 AND 2022
(% of input of material for domestic use)



The 2022 figures are estimates.

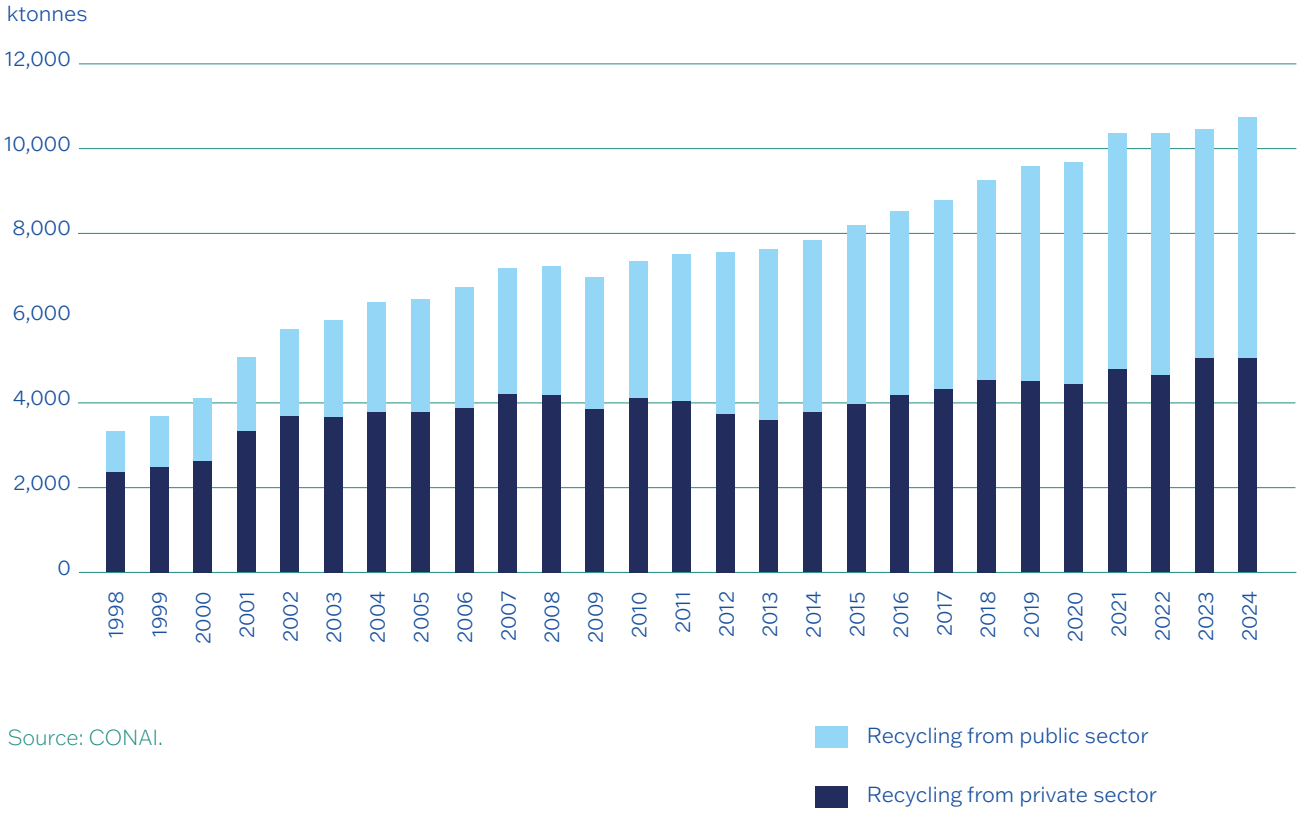
Source: Data generated by CONAI using Eurostat data.

Before analysing the trends in recycling in the different supply chains, it is pertinent to note that recycling is guaranteed by a private industrial supply chain, which operates for legitimate profit-making purposes. This implies that the CONAI – Packaging Material Consortia system supports a public service (separate collection), while also supplying raw materials for a market. Recycling is significantly affected by the price trends of virgin and secondary raw materials, which make recycled materials more or less profitable than their counterparts. In an expanding market, this issue becomes a potential factor facilitating the quantities sent for recycling, which, from a subsidiarity perspective, tends to be managed more outside the CONAI EPR Organisation. Conversely, during critical market conditions for virgin and secondary raw materials, as happened in 2020 with the pandemic, it leads to greater quantities being sent to recycling through the direct contribution of the CONAI EPR Organisation, and less market intervention.

Turning to data analysis, in 2024, just over 5 million tonnes of packaging waste was recycled from the public sector. 44% was from consortium management, a decrease of 1.76% compared to the previous year, confirming the priority of consortium intervention where the market alone would not guarantee recycling results. The figure for the flow managed by the public sector should be interpreted considering that it is an average of different situations: from chains where the management of separate collections for recycling/recovery is almost totally left to Packaging Material Consortia for reasons related to the complexity and cost of management, to chains in which independent operators can find economic opportunities – even temporary ones – to intervene, as in the case of paper and aluminium.

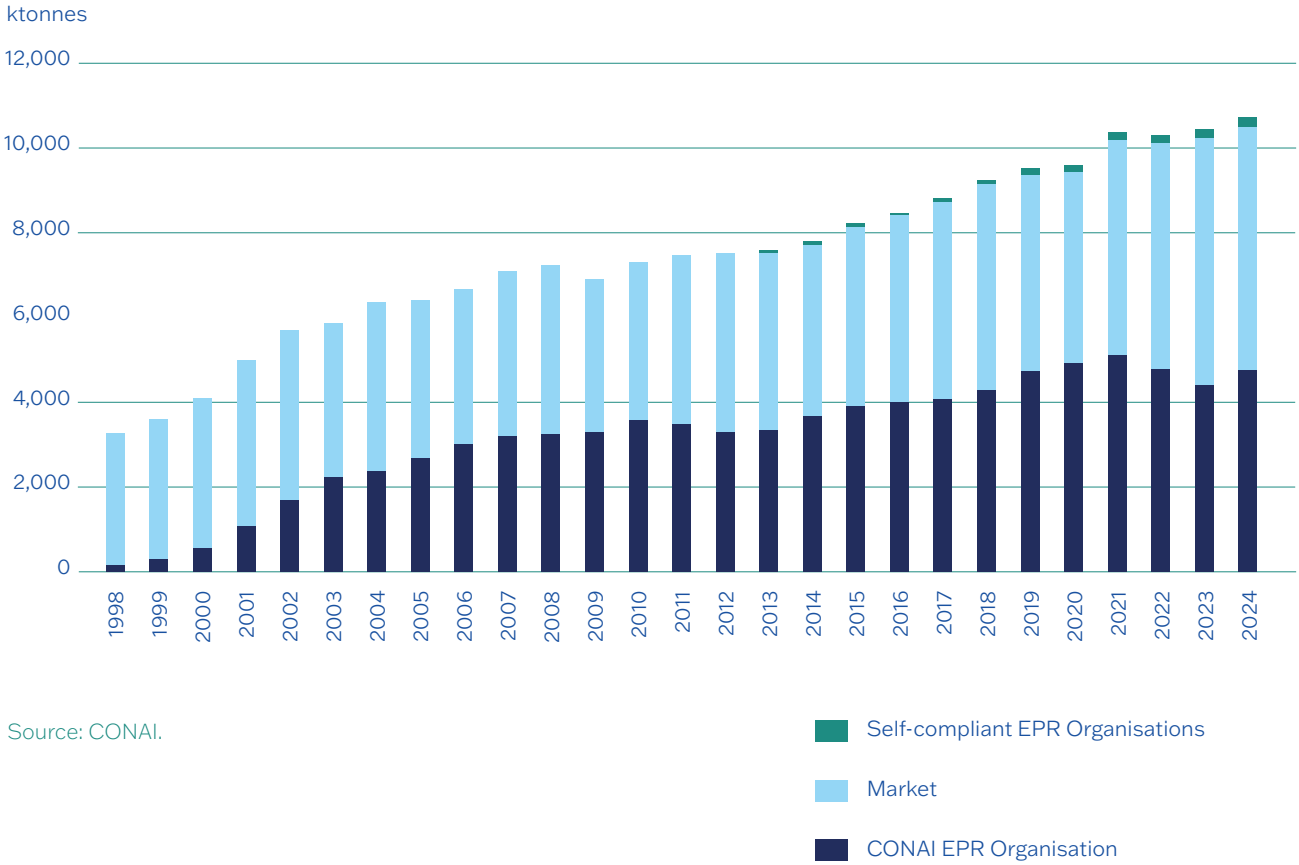
As regards recycling from the private sector, 5 million tonnes of packaging waste were recycled. This flow is almost stable compared to the previous year (-1%).
It should be noted, however, that in 2024 the flow of recycling from the public sector was higher than that from the private sector, and this was possible thanks to the CONAI EPR Organisation's efforts and initiatives in promoting metropolitan mines.
In 2024, packaging waste was recycled in the following ways:

TRENDS IN RECYCLED PACKAGING WASTE BY CHANNEL OF ORIGIN



Source: CONAI.

COMPARISON OF QUANTITIES OF RECYCLING BY CONAI EPR ORGANISATION, MARKET, AND SELF-COMPLIANT ORGANISATION MANAGEMENT



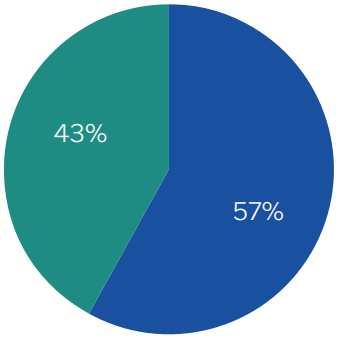
Source: CONAI.

- 44.32% attributable to Packaging Material Consortia, up 1.76 percentage points compared to 2023 (42.56%). This effect is mainly attributable to the glass supply chain, due to the decrease in the value of glass cullet which, as already highlighted, made it more convenient to manage within the ANCI-CONAI agreement, in line with the principle of subsidiarity of consortium management;
- 53.63% managed on the market by independent operators, down slightly by 1.85 percentage points compared to 2023;
- 2.06% attributable to the management of Self-compliant EPR Organisations active in the plastic, wood and paper packaging chain (CONIP – Coripet – PARI – Erion Packaging).

The graphs below show a percentage breakdown of individual packaging materials by type of recycling management in 2024.
It can be seen that the incidence of consortium management varies from a minimum of 27% for aluminium packaging waste to a maximum of 88% for biodegradable and compostable plastic packaging waste.
The results described above take into account the flows of packaging for recycling produced in Italy, both within the national recycling chains and abroad

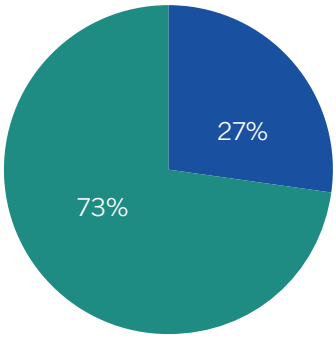
PACKAGING MATERIAL CONSORTIA CONTRIBUTION TO RECYCLING BY MATERIAL

STEEL
Total: 436 ktonnes



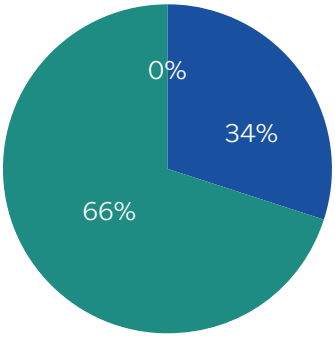
CONAI EPR Organisation
Market

ALUMINIUM
Total: 62 ktonnes



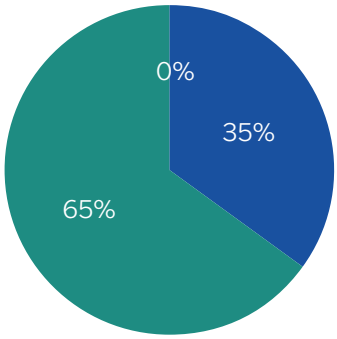
CONAI EPR Organisation
Market

PAPER
Total: 4,605 ktonnes



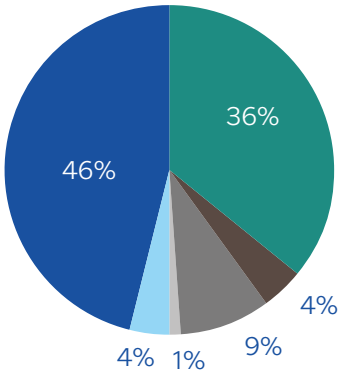
CONAI EPR Organisation
Market
Self-compliant EPR Organisations

WOOD
Total: 2,314 ktonnes



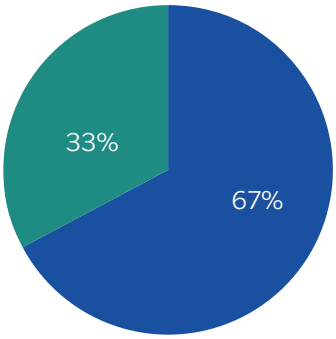
- CONAI EPR Organisation
- Market
- Self-compliant EPR Organisations

PLASTIC AND BIOPLASTIC
Total: 1,179 ktonnes



- CONAI EPR Organisation Corepla
- CONAI EPR Organisation Biorepack
- Market
- Self-compliant EPR Organisations – CONIP
- Self-compliant EPR Organisations – Coripet
- Self-compliant EPR Organisations – PARI
- Self-compliant EPR Organisations – Erion

GLASS
Total: 2,103 ktonnes



- CONAI EPR Organisation
- Market

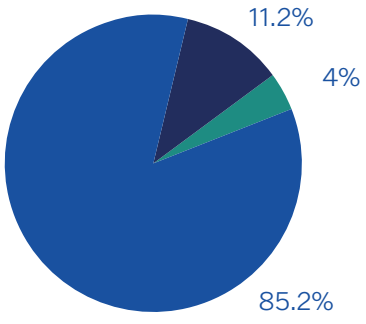
Source: CONAI, General Programme for the Prevention and Management of Packaging and Packaging Waste 2023.

(EU and non-EU). National supply chains represent the main outlet for packaging recycling, despite an increase in exports in 2024, in accordance with Decision 2005/207/EC.

The option of recovery abroad is particularly relevant for waste paper, which has decreased after the increase in 2022: approximately 1.4 million tonnes of waste paper were recycled abroad, against a total of 1.6 million tonnes.

Possible treatment options for recycling include:

- physical/mechanical recycling: recycling used to recover the material. This option historically accounts for the vast majority of total recycling and accounted for 89.2% in 2024;



RECYCLING BY DESTINATION

- Italy
- Europe
- Non-EU

Source: Data generated by CONAI.

- regeneration: activities carried out on packaging waste to enable its subsequent use (9.4% of the total). This option is particularly relevant for the wood packaging waste recycling chain, which accounts for more than 60% of total recycling;
- organic recycling or composting: the transformation of packaging waste into soil improver, which accounted for 1% of national recycling in 2024. This option concerns biodegradable and compostable plastic packaging waste and is also accounted for in the wood packaging recovery chain. It is known that also a portion of cellulose packaging (though not a significant amount) is recycled as compost, but at present, insufficient completeness of the available data means Comieco has chosen not to present an account of these flows;
- chemical recycling (0.4% of total recycling), carried out on the plastic packaging waste chain and intended both as the first industrial experiments of chemical recycling and the transformation into SRA (Secondary Reducing Agent) of the residual fractions downstream of plastic packaging sorting operations.

The individual supply chains are now analysed, highlighting how each has contributed to the achievement of recycling results and also reporting the role played by preparation for reuse activities involving certain supply chains.

Specifically, in 2024, the **steel supply chain** recorded 435.539 ktonnes of recycling: -2.63% (due to a conservative estimate of placement on the market) resulting in an actual recycling rate of 86.4%. Direct management by the RICREA consortium accounts for 57% of the total recycled. The main processing and recovery processes that steel packaging undergoes before being recycled are:

- regeneration;
- detinning;
- shredding;
- volumetric reduction.

As regards the flow from private sector and indirect management by the Consortium, this typically includes industrial packaging waste (strapping, wire, brackets and accessories) collected and recycled together with ferrous scrap in the “sheet” category, other mainly industrial ferrous packaging waste in the ferrous scrap stream in the “collection” and “demolition” categories (monitored at steel mills) or in the “proler” category (monitored at recovery plants before shredding) and, finally, steel packaging waste recovered from the treatment of ash from municipal waste-to-energy plants, found at shredding plants specialising in processing scrap iron. Also worth noting is the growing role of reconditioning and regeneration activities for steel drums and cages for IBC tanks. To this end, a specific agreement is in place between the RICREA, Corepla, Rilegno Consortia and the FIRI trade association, aimed at supporting companies in the sector through greater promotion and an increase in dedicated resources. The total quantities regenerated in 2024 by

these companies amounted to over 35,000 tonnes, a significant increase compared to previous years, especially in the “tanks” category.

The **aluminium supply chain** recorded 62.4 ktonnes of recycling, ensuring the effective recycling of 68.2% of the packaging placed on the market. Despite the increase in recycled quantities, the recycling rate decreased (-2.15% compared to 2023) due to the introduction of the new corrective measure on composite packaging, which means that the proportion of aluminium in composite packaging in which another material (e.g. plastic) is predominant is also taken into account in placement on the market and in recycling (if it is recycled).

The plants where aluminium packaging waste is sorted and then made available for collection by CiAl can essentially be divided into the following categories:

- multi-material plants (multi-light and multi-heavy), geared towards obtaining mono-material flows to be sent to recycling (aluminium, plastic, paper, glass);
- plants for treatment of glass collected with metals;
- plants for treatment of municipal waste;
- plants for waste-to-energy and/or post-combustion slag treatment.
- The materials treated and prepared for recycling are then sent to foundries.

The **paper supply chain**, despite a slight decline in placement on the market, recorded an almost stable quantity of recycled packaging of 4.60 million tonnes. The recycling rate confirmed last year’s figure, reaching 92.4%, higher than the European target of 85% set for 2030[46].

The **wood supply chain** achieved a recycling rate of 67.2%, with over 2.3 million tonnes recycled.

Recycling into raw materials refers to the production of chipboard, which are then used in various applications, typically in the furniture industry (the destination of approximately 95% of post-consumer wood waste). A niche use is the production of pulp for paper mills, replacing virgin fibre. Other applications include:

- production of wood-cement blocks for construction, certified as green

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Specific Plan for Prevention, Comieco 2024.

COMPOSITE PACKAGING

The results

During 2024, the Consortium continued to develop its activities related to composite packaging, focusing on increasing the collection and sorting of composite packaging for liquids (CPB) and on defining the EPR Fee supplement through the Aticelca 501 system to improve the eco-design of "other composites". Composite packaging, which combines paper and non-cellulose materials such as plastic and aluminium, is divided into two main categories: beverage cartons and "other composites", such as bags and jars. From 2022, manufacturers must declare the class of composite packaging based on the cellulosic fibre content, with an EPR Fee supplement for classes C and D.
In 2024, the "other composites" category recorded a decrease of 4.6%, reaching approximately 174,000 tonnes, most of which belonging to classes A and B, which are more easily recyclable. As of 1 July 2025, new fee bands will be introduced for this packaging, more consistent with its recyclability. In addition, seminars and workshops were organised to raise awareness on the issue. Finally, the recycling rate of beverage cartons remained stable, with approximately 30,000 tonnes recycled, reaching an overall recycling rate of 44%[47].

building materials;

- production of pallet blocks – making blocks for pallets to replace those made from virgin raw material. This product has also obtained *ReMade in Italy* certification.

The creation of the network of consortium platforms for the collection of municipal waste from the public and special packaging waste from the industrial circuit plays a key role in the system organised by Rilegno.
The importance of pallet regeneration is also underlined, with over 945,000 tonnes recovered and more than 70 million units returned to the market.
Another outlet for wood packaging waste is composting, with organic recycling for the 2024 financial year quantified at 63,211 tonnes, almost 29% more than last year.

The **plastics and biodegradable and compostable plastic supply chain** recorded a 5% increase in quantities effectively recycled in 2024, reaching effective recycling of 51.1% of packaging placed on the market, thanks to 1.178 ktonnes of recycling.
The incidence of consortium management by Corepla (54.4%) and Biorepack (4%) remained largely unchanged.

HDPE volumes also grew by around 2%, confirming a stable trend that has lasted for almost five years. Polypropylene (IPP) recorded an increase of 7%.
The other mixed packaging category continues to see new recycling outlets;

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Specific Plan for Prevention, Comieco.

these products as a whole were up 9% compared to 2023, driven in particular by RPO and FLEXS[48]. The portion of SRA (Secondary Reducing Agent) managed by Corepla and destined for integrated cycle steelworks to replace metallurgical coke, saw a steady increase in quantities. Quantities not managed directly by Corepla, which are mainly sent to electric arc steel mills, also increased compared to previous years.

The quantities recycled by the Coripet Self-compliant EPR Organisation also

	2023	2024	Delta
Corepla			
Sent to mechanical recycling			
PET	140,105	149,597	7%
HDPE	74,953	76,554	2%
FILM	168,129	192,659	15%
FILS	2,971		-100%
IPP	54,685	58,350	7%
Mixed packaging	223,720	243,854	9%
EPS	10,434	11,431	10%
Total	674,997	732,445	9%
Sent to recycling – SRA	38,456	39,226	2%
Sent to chemical recycling	4,209	2,625	-38%
Regeneration and recycling (PIFU)	22,251	22,551	1%
Total sent to recycling	**739,913**	**796,847**	**8%**
Corepla effective recycling	**589,122**	**640,006**	**9%**
Coripet			
Sent to mechanical recycling			
PET – from separate collection	154,210	157,817	2%
PET – from selective collection	5,356	7,208	35%
Total sent to recycling	**159,566**	**165,025**	**3%**
Coripet effective recycling	**127,653**	**132,020**	**3%**
PARI			
Sent to mechanical recycling			
PE FILM	13,075	13,197	1%
Total sent to recycling	**13,075**	**13,197**	**1%**
PARI effective recycling	**13,075**	**13,197**	**1%**

	2023	2024	Delta
CONIP			
Sent to mechanical recycling			
Crates	54,711	55,076	1%
Pallets	310	227	-27%
Total sent to recycling	**55,021**	**55,303**	**1%**
CONIP effective recycling	**55,021**	**55,303**	**1%**
Erion			
Sent to mechanical recycling			
PE film, EPS	1,603	3,900.00	
Total sent to recycling	**1,603**	**3,900.00**	
Erion Packaging effective recycling	**1,603**	**3,900.00**	
TRADITIONAL PLASTIC			
Total sent to recycling	**969,178**	**1,034,272**	**7%**
TRADITIONAL PLASTIC effective recycling	**786,474**	**844,426**	**7%**
Biorepack			
Organic recycling			
Biodegradable and compostable plastic	43,496	47,511	9%
Total biodegradable	**43,496**	**47,511**	**9%**
EFFECTIVE RECYCLING FROM EPR	**829,970**	**891,937**	**7%**
EFFECTIVE RECYCLING FROM MARKET	**293,230.302**	**286,998**	**-2%**
TOTAL EFFECTIVE RECYCLING	**1,123,200**	**1,178,935**	**5%**

Source: CONAI.

rose (+3%) – aided by greater volumes collected through selective collection – while the quantities recycled by the CONIP consortium decreased slightly in absolute terms, without however compromising the consortium's objectives.

As regards the recycling performance of the other recognised Self-compliant EPR Organisations, it should be noted that the PARI system achieved a recycling rate of 95.7% for the polyethylene (PE) film under its remit, adopting calculation methods in accordance with the provisions of Decision 655/2019. The quantities managed by the Erion System also increased, with a share of 3.9 ktonnes of recycled plastic packaging.

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Management Report 2023 – Corepla.

The biodegradable and compostable plastics chain recycled 47.5116 ktonnes

of packaging in 2024, representing a recycling rate of 57.8% compared to placement on the market. The 2024 recycling rate, up compared to 2023 (+2%), actively contributed to the achievement of the European recycling target for 2025 for the plastics supply chain.
The recycling rate is calculated net of waste – i.e. without taking into account bioplastics that enter organic recycling plants and can therefore be organically recycled but are eliminated from the process – and corrected to reflect the natural moisture content of packaging waste comparable to the equivalent packaging placed on the market.

For **the glass supply chain**, the domestic market for glass cullet, after significant increases in 2023, experienced a sudden drop in prices, making it less profitable to import material. Supplies from abroad recorded a significant reduction in volumes compared to the previous year, with a drop of about 34%. The quantities of packaging glass waste recycled grew by 2.8%, from 2,045,768 tonnes in 2023 to 2,102,979 tonnes. The recycling rate reached 80.3%, returning to the levels recorded in 2022, well above the target set by the European Union for the year 2030 of 75%.[49]

Further details are available in the institutional documents of the Packaging Material Consortia and Self-compliant EPR Organisations.

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Plan for Prevention, CoReVe 2025.

6.2 Energy recovery

The energy recovery option, regulated within EU and national legislation, represents another opportunity for reducing landfilling and recovering matter in the form of energy.
Reference legislation today no longer provides for a recovery target, but CONAI nevertheless intends to continue monitoring these flows in order to ensure greater traceability of information on the supply chain and simultaneously verify the contribution to reducing landfill waste to below 10% – another target set out in legislation.

The energy recovery figure is determined by the packaging waste streams (processing waste from wood/cellulosic waste) managed directly by Packaging Material Consortia, as well as packaging waste present in municipal waste sent for energy recovery through waste-to-energy and secondary solid fuel production plants.
For the latter municipal waste flow, CONAI stipulates an agreement with the firms that own the plants, so that specialised third-party companies can carry out the necessary product analyses to determine the amount of packaging waste sent for energy recovery. Furthermore, in order for incineration plants to be considered recovery plants, they must have an energy efficiency equal to or greater than a certain threshold (as per Annex 1 of the Environment Ministerial Decree of 7 August 2013).
In order to estimate the product composition of the unsorted waste entering the waste-to-energy and alternative fuel production plants – a preparatory activity to quantify the packaging waste sent to energy recovery – CONAI carried out its usual specific product analysis campaign at the aforementioned active signatory plants in 2024.
The product analyses make it possible to determine the quantity of packaging, broken down by material and type, present in the samples of municipal waste sent to waste-to-energy, with particular attention paid to types of

packaging for which significant recovery targets have been set at the European level.
Continuing a course already started in recent years with a view to corroborate the collected data – including taking into account variables linked to seasonality and origin that may distinguish the analysed waste – in 2024 the number of product analysis sessions was increased at signatory plants: 54 plants located mainly in Northern Italy (35) and to a lesser extent in Central (10) and Southern Italy (9).

The results of the product analyses were then entrusted to a specialised third-party company, which determined the overall amount of packaging

waste sent for energy recovery, incorporating information from the Packaging Material Consortia, and estimates for flows for which monitoring could not be activated.
The estimation process, as in previous years, used correction coefficients to take the following aspects into account: for paper and cardboard packaging waste, the moisture absorbed by the cellulosic waste present in the unsorted waste destined for waste-to-energy processing[50]; for aluminium packaging waste, possible contamination of the final figure by contaminants in other materials[51]; and finally, for plastic packaging waste, the moisture and organic

material, which, despite the cleaning carried out during manual sorting, still remains attached to the packaging. Use of these correctives is part of the policy of refining the data and information provided by CONAI.

Overall, in 2024, the amount of packaging waste sent to energy recovery increased by 1.7% compared to the previous year, accounting for 9.7% of the amount placed on the market.

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For this reason, a correction factor was introduced to bring the value of energy recovered waste down to 10% moisture content, as is already the case for recycled pulp according to UNI EN 643.

PACKAGING WASTE SENT TO ENERGY RECOVERY

Material	2023	2023 consolidated	2024	Annual change
	KTONNES	KTONNES	KTONNES	% POINTS
Steel	0.000	0.000	0.000	
Aluminium	3.200	3.200	3.200	-0.00
Paper	292.142	292.142	291.613	-0.18
Wood	58.203	58.203	76.070	30.70
Plastic	979.957	983.611	988.822	0.53
Glass	0.000	0.000	0.000	
Total	**1,333.502**	**1,337.156**	**1,359.705**	**1.69**

Source: CONAI, Packaging Material Consortia.

PACKAGING WASTE SENT TO TOTAL ENERGY RECOVERY

Material	2023	2023 consolidated	2024	Annual change
Packaging waste sent to total energy recovery (ktonnes)	11,804.266	11,815.684	12,059.146	2.1
Total recovery of goods placed on the market (%)	84.9	85.3	86.4	-1.2

Source: CONAI, Packaging Material Consortia.

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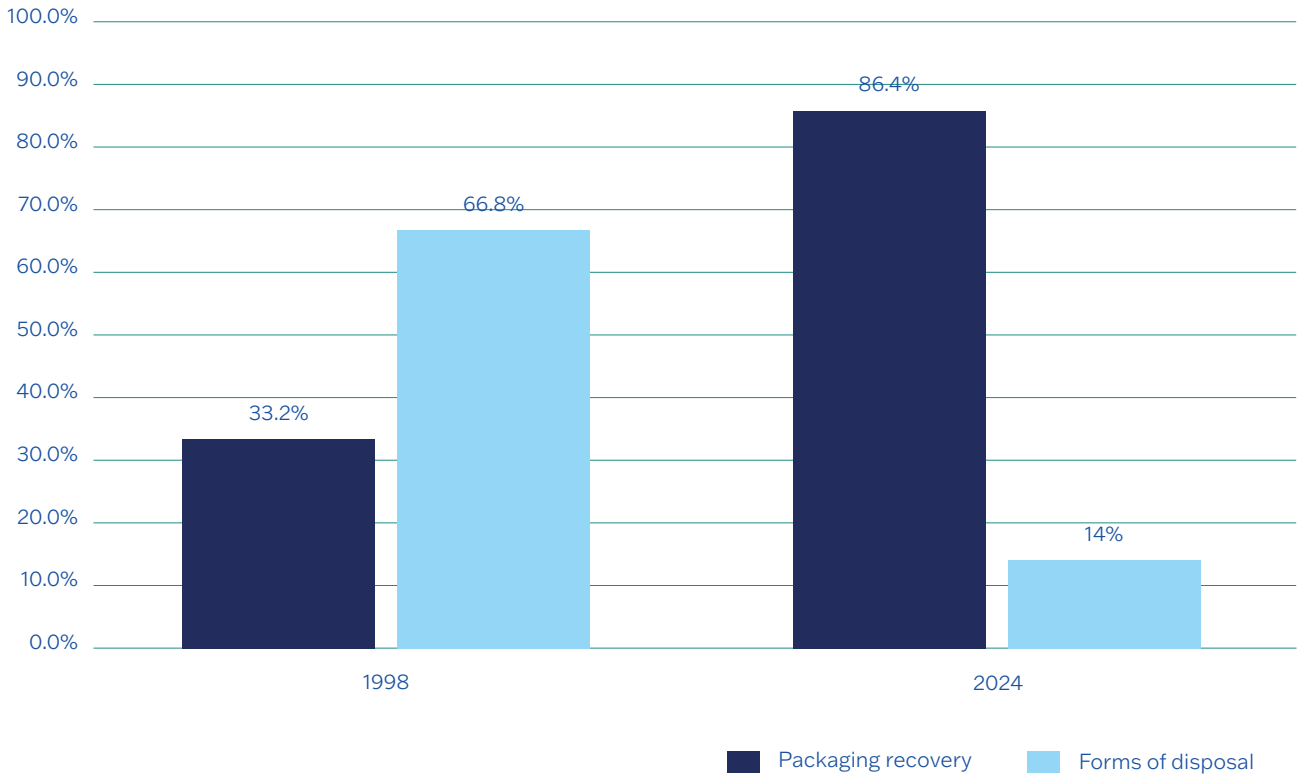
When comparing the amount of aluminium packaging waste entering sorting plants with the amount leaving the plants by means of product analysis, there is a constant overestimation of the presence of aluminium. This is due to the low weight of the individual aluminium packaging and the high percentage incidence that adhered or embedded material may have within the packaging waste.

TRENDS IN THE MANAGEMENT OF PRODUCED PACKAGING WASTE



Source: Data generated by CONAI.


7

CONAI Reporting: accountability and transparency

CONAI makes its unique wealth of data and information increasingly available to the Institutions and various stakeholders: from the packaging placed on the market to the data referring to waste management at a local level, including the calculation methods and the related results in terms of environmental benefits of the packaging waste recovery chain at the national level.

UNIQUE DATA ASSETS

CONAI has a unique wealth of data on packaging and packaging waste, which can be broken down as follows:

RECYCLING

National total and per material

Source: CONAI–Packaging Material Consortia, Self-compliant EPR Organisations, market.

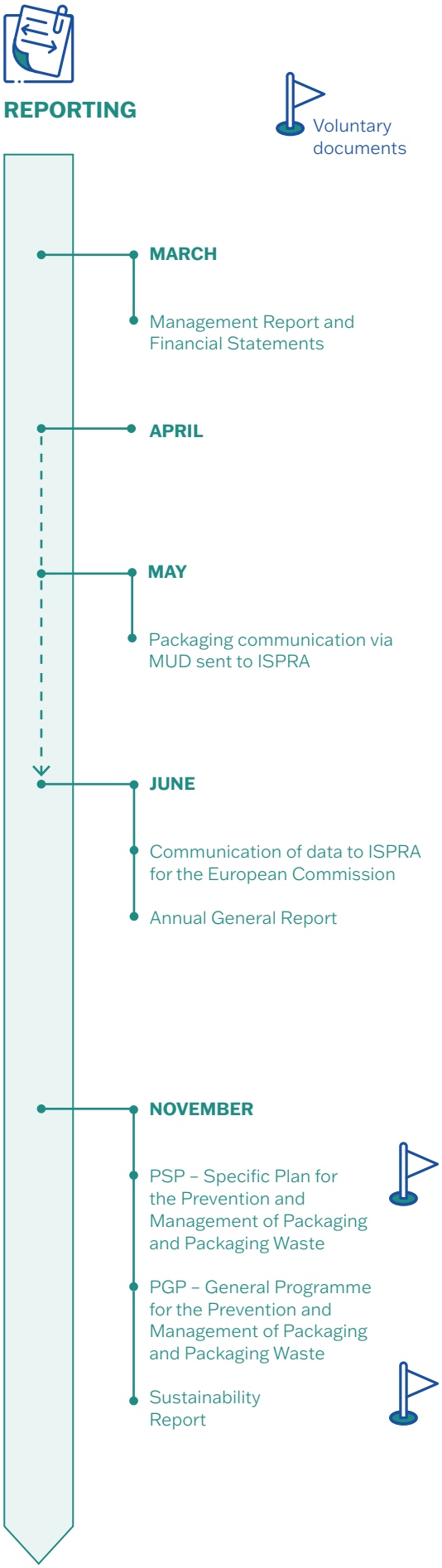
DISPOSAL

National and regional total, per capita and per material from separate collection

Source: CONAI, Packaging Material Consortia.

It ensures transparency and streamlining of the information flow for packaging supply chains, enabling timely reporting of recycling and recovery performance at the national level. All data reporting methods of the CONAI EPR Organisation are continuously updated to the highest quality standards and validated annually by an accredited third party.

CONAI's institutional tasks include **preparation of legally required documentation**, necessary liaison and coordination functions between public administrations, Packaging Material Consortia and other economic operators, as well as implementing information campaigns and collecting and transmitting recycling and recovery data to the competent authorities. Numerous documents, both required by law and voluntary, are provided annually to national authorities to report and present their work and actions in a transparent manner.



RELATIONSHIPS WITH THE INSTITUTIONS

Enhanced cooperation with ISPRA on reporting

Own resource plastic

As part of the revenue sources for the 2021-2027 EU budget, a levy calculated based on non-recycled plastic packaging waste has been introduced as of 1 January 2021. Essentially, a uniform levy rate of €0.80 per kg will be applied to the weight of non-recycled plastic packaging waste, including specific equalisation mechanisms to avoid excessive contributions from less wealthy Member States[52].

In order to increase understanding of the methodologies and processes involved in generating the data, Eurostat carried out voluntary informal audits, prior to those provided for in Regulation (EU, Euratom) 2021/768, to verify the data reported by the Member States, which were followed by verifications by the Commission, the results of which are summarised in the EU Special Report 2024 on non-recycled plastic packaging waste[53].

The formal visit conducted by EUROSTAT to Italy from 13 to 16 May 2025 was an important opportunity to illustrate in detail the articulated reporting methodologies relating to plastic packaging. These methodologies have been documented in the official report Inventory of Italy on Sources and Methods of Non-Recycled Plastic Packaging Waste, sent to EUROSTAT and the competent European bodies. The document was prepared by ISPRA, with the support of CONAI, the Packaging Material Consortia (Corepla and Biorepack) and the Self-compliant EPR Organisations (CONIP,

52 See Plastics own resource on the European Commission website.

53 https://www.eca.europa.eu/ECAPublications/SR-2024-16/SR-2024-16_EN.pdf

Coripet, PARI and Erion Packaging).

Although the official report of the mission has yet to be published (it is expected to be released in the coming months), it is important to note that the Italian system, as a whole, has been evaluated positively. In particular, the combination of a mandatory CONAI EPR Organisation, which ensures coverage of the service as a last resort, and the presence of voluntary Self-compliant EPR Organisations, which obliged parties can join, was appreciated. This structure, together with a comprehensive mechanism of cross-checks and verifications, allows for accurate quantification of national packaging waste flows.

The auditors also expressed their appreciation for the attention paid to data quality during the three days of discussions, for the spirit of cooperation shown by all those involved and, more generally, for the openness and transparency of the Italian system.

7.1 Sustainability Report[54]

Reporting on environmental, social and governance performance is a strategic element for CONAI, not only as a transparency tool for stakeholders, but also as a lever for the continuous improvement of activities and the overall impact on the environment.

The 2025 Sustainability Report, currently being drafted, will report data for the year 2024 and, for the second consecutive year, will include the Environmental Statement validated in accordance with Regulation (EC) No. 1221/2009 (EMAS). In line with previous editions, the performance analysis will be divided into three levels – National System, CONAI System and Organisation – to highlight the contribution of strategies and actions to achieving the objectives defined by the Consortium's Governance.

The new Report will be prepared according to the VSME criteria (Voluntary Standard for non-listed SMEs), adopted as a reference to accompany the transition to the new European regulatory framework on sustainability with a view to the future adoption of ESRS standards.
The drafting of the Report provides for the detailed and documented involvement of the Governing Bodies and Management, and is subject to technical assurance by RINA Services SpA for the entire year 2024, as well as the validation of the Environmental Statement by DNV Business Assurance SpA.

54
https://www.conai.org/download/conai-sustainability-report-2024-english-version/

The System that is good for Italy

SPECIAL WASTE *
161,000,000 tonnes

MUNICIPAL WASTE AND RELATED WASTE *
29,000,000 tonnes

TOTAL WASTE GENERATED *
190,000,000 tonnes

of which

< 8%
PACKAGING WASTE *
13,900,000 tonnes

* Source: Eurostat 2022 data. The figure for packaging waste has been updated based on CONAI's 2023 reporting.

managed by

Self-compliant EPR Organisations

contribute to

NATIONAL **System**

managed by

Market operators

managed by

CONAI System

CONAI
RICREA
CiAl
comieco
Rilegno
COREPLA
biorepack
CoReVe

CONAI **System**

THE CONAI SYSTEM HAS A MULTIPLIER EFFECT ON THE ITALIAN SOCIAL AND ECONOMIC FABRIC.

GENERATED ECONOMY
€3.3 billion
x4.6
Entire passenger air transport sector in Italy

CONTRIBUTION TO GDP
€1.924 billion
x4.4
Total turnover of the national vending sector

EMPLOYMENT
23,199
x3.7
Population of a city the size of Sanremo

DISTRIBUTES ECONOMIC VALUE TO:

MUNICIPALITIES/MANAGERS OF PUBLIC SERVICES (ANCI-CONAI PAYMENTS)
€676 million

OPERATORS FOR C&I PACKAGING COLLECTION
€20 million

OPERATORS FOR SORTING, TRANSPORTATION AND RECYCLING
€494 million

CONAI **System** — **contributes to** — NATIONAL **System**

THE NATIONAL SYSTEM BENEFITS FROM:

EFFECTIVE RECYCLING
10.4 million t
75.3% **effective recycling rate**

RAW MATERIAL SAVED
11.7 million t
800 Towers of Pisa

PRIMARY ENERGY SAVED
50 TWh
50% of the consumption of all Italian households

CO_2 EMISSIONS AVOIDED
10 million tCO_2
8,000 flights around the world

REUSABLE PACKAGING
1.2 million **tonnes**

7.2 Environmental Management System

CONAI has adopted an integrated Environmental Management System, in compliance with the requirements of Regulation (EC) 1221/2009 (EMAS III) and the UNI EN ISO 14001 standard. In line with the functions attributed to CONAI by the reference regulatory framework, the purpose and scope of the System are defined as follows: *"Activities to support member firms and the public administration (IAF 39, 24)".*

The main guiding document of the EMS is CONAI's ESG Policy, approved by senior management, which identifies principles, objectives and actions for monitoring and continuous improvement.

1. Proactive support for the circular economy
2. Services and tools to support local authorities with quality separate collection
3. Connection between firms and Institutions for the circular economy
4. Promotion of circular economy culture
5. Compliance with requirements
6. Accountability
7. Improvements to organisational processes
8. Commitment to gender equality

Priority topics include contributing to the circular transition and environmental protection, strengthening stakeholder relations, skills development, regulatory compliance, accountability and improving organisational processes. Following the renewal of its ESG Policy and EMAS Declaration, CONAI has

defined its new three-year Environmental Programme for 2024-2027, divided into three levels – National System, Consortium System and Organisation – and structured into 14 points of action, focusing on the organisation's significant direct and indirect environmental aspects. The objectives are consistent with the principles defined in the organisation's Policy.
In 2024, CONAI also launched and completed the certification process for gender equality, in accordance with UNI/PdR 125:2022. With an overall KPI value of 76%, CONAI obtained the Gender Equality Certification in December 2024, issued by DNV Business Assurance SpA. This result testifies to the Consortium's concrete commitment to equity, inclusion and promotion of diversity within its organisational structure[55].

55
EMAS | CONAI – Consorzio Nazionale Imballaggi.

7.3 Validation of national recycling and recovery data

National Programme for Data Validation (PNVD) – Packaging

Within the framework of the obligations deriving from European legislation on the recycling and recovery of packaging waste, CONAI, the Packaging Material Consortia and the CONIP Self-compliant EPR Organisation voluntarily participate in the National Programme for Data Validation (PNVD), as a further tool of guarantee and transparency towards the Institutions. Launched in 2006 under the name *"Obiettivo Riciclo"*, the programme provides for a comprehensive management and verification system, which includes independent validation – by a specialist third party – of the procedures adopted for determining data relating to placement on the market, recycling and recovery.

With regard to the 2024 data, the activities envisaged by the PNVD are currently ongoing: to date, on-site verification activities have been completed and "witness" activities have been planned, which will involve plants representing the various packaging materials in the second half of the year. The 2025 activity follows on from that carried out in 2024, referring to 2023 data, which was successfully completed and accompanied by recommendations for improvement that will be taken into account in the new verification cycle.

Since 2023, the programme has been expanded with the introduction of the "Focus Area", an optional module aimed at exploring specific aspects of the procedures adopted by individual consortia and participating entities. Topics already addressed in 2023 and 2024 include, for example, the monitoring of incinerated waste (RICREA), urban sorting systems (CO.N.I.P.), glass sand (CoReVe), the interception rate of cans (CiAl), and the updating of data transmission procedures (CONAI, currently being defined).

Confirming the programme's evolutionary approach, CONAI intends to strengthen its impact through greater involvement of EPR entities for packaging waste, as well as through the launch of a shared standardisation project. This process has led to the definition of the new UNI 11914 standard, which aims to standardise the validation processes for data for placement on the market, recycling and recovery, promoting the dissemination of uniform and reliable technical expertise in the EPR field[56].

PLANTS WHERE "WITNESS" AUDITS HAVE TAKEN PLACE

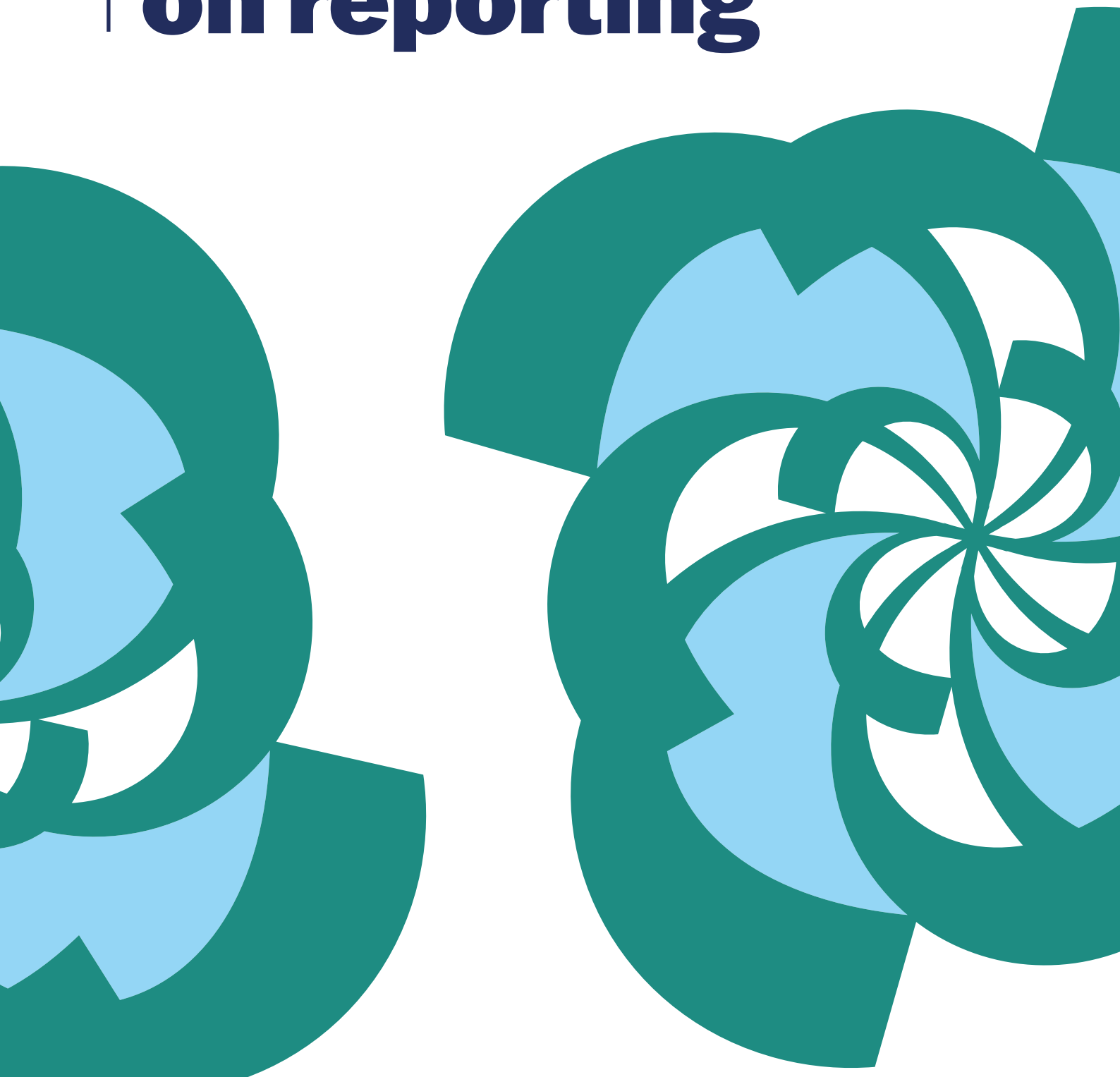
RICREA	GARM Srl
CiAl	Profilglass SpA, Seruso SpA
Comieco	GAIA SpA and Cartiere SACI -PM3
Rilegno	Focacity Pallets
Corepla	IBLU Srl San Giorgio
Biorepack	Compostaggio Cremonese Srl
CoReVe	Vetreria Etrusca SpA Altare
CONAI	Compostaggio Cremonese Srl, A2A SpA Corteolona
CONIP	Altare Agricola Imballaggi

PARTICIPANT	DATE	TOPIC
RICREA	**12/2023**	"Combustion monitoring" determination procedure.
CONIP	**01/2024**	Monitoring systems for quotas intercepted in urban areas based on the new selection agreement.
Biorepack	**02/2024**	Evaluation of the appropriateness of redefining the number and frequency of product analyses for determining the moisture content of packaging.
Comieco	**02/2024**	Definition in progress.
CoReVe	**02/2024**	Monitoring and developments of "glass sand" product.
CiAl	**03/2024**	Validation of interception rate and recycling of beverage cans.
Rilegno	**05/2024**	Evaluation of the appropriateness of redefining the number and frequency of product analyses for determining the moisture content of packaging.
Corepla	**05/2024**	Determination of recycling at the calculation point as defined by EU Decision 665/19, Chemical Recycling and "Secondary Reducing Agent" (SRA).
	10/2024	Monitoring procedure for packaging recycled through market management by MUD (Single Declaration Model).
CONAI	**Definition in progress**	Update to the procedure for determining and transmitting national market placement, recycling and recovery data to the Institutions.

56
https://www.conai.org/chi-siamo/certificazioni/programma-nazionale-validazione-dati-sistemi-epr-imballaggi/pnvd-dichiarazione-di-verifica-progetto-2024/


8

Single Use Plastic: the latest on reporting



The European and national regulatory framework on plastic packaging, with particular reference to PET beverage bottles, aims to reduce their dispersion in the environment, to ensure a certain degree of collection for recycling and to ensure the use of a certain share of recycled plastic in the production of new bottles. In particular, Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment lays down several specific measures to be taken by Member States. The legislator, which provides for specific consumption reduction measures (article 4) and marketing restrictions (article 5) for certain types of single-use plastic products, has set specific recycled content requirements (article 6) and separate collection targets (article 9) for beverage bottles with a capacity of up to 3 litres and their caps and lids. The same directive also provided for timely annual reporting of data (article 13, letter c, e) with respect to these products.

Interception targets, Legislative Decree 196/2021 on the reduction of the impact of certain plastic products on the environment.

Below is a breakdown of the volumes reported in 2025, referring to the base year 2023.
The calculation methodology adopted, the result of a process shared with the institutions, was defined within a joint working group attended by CONAI, Corepla, Coripet, ANCI, ANEA and FederDistribuzione.
In summary, this approach results in a calculation process that takes into account:

- **separate collection flow**, with several measurement points at the sorting plant, mainly determining the gross intercepted quantities of beverage bottles in the SUP target;
- **corrective estimation factor for weight and moisture loss**: this 3% yield is determined from the multi-year mass balances of all national sorting plants. This is important for reflecting any loss of material or residues that arise during sorting and processing;
- **selective collection flow**: these volumes are already in compliance with the calculation point;
- **placement on the market**, which takes two additional correction factors into account:
  - **weight and percentage of off-target CPL PET**, estimated at around 10%;
  - **weight and percentage of CPL PET caps and lids**, estimated at around 8%.

The figure is down compared to the first year of reporting (2022), recording a decrease of -1.5. The main reason for the reduction is the update of the estimate factor of the target CPLs, deriving from the product analyses carried out on the reference year.

YEAR 2023

$$\frac{\text{Selective collection } 5{,}731 + \text{Traditional separate collection in SUP target } 282{,}106 * \text{Weight loss coeff. } 97\%}{\text{CPL PET placed on market in SUP target } 394{,}432 + \text{Caps and labels placed on market } 31{,}555} = 65.5\%$$

YEAR 2022

67.03%

Preliminary results for 2024

YEAR 2024 ESTIMATE

$$\frac{\text{Selective collection } 7{,}420 + \text{Traditional separate collection in SUP target } 289{,}594 * \text{Weight loss coeff. } 97\%}{\text{CPL PET placed on market in SUP target } 390{,}473 + \text{Caps and labels placed on market } 33{,}838} = 68.0\%$$

The preliminary figure for 2024 of 68% shows growth, although it is still below the target set by law (77% by 2025).
In this context, CONAI, Corepla and Coripet are promoting a series of joint and targeted actions, through:

- Strategic coordination and technical committees:
  - A permanent technical committee has been set up, coordinated by CONAI with the active participation of Corepla and Coripet, with the aim of ensuring continuous updating of strategies and operational actions with a view to the 2025 target;
  - The committee also involves the main trade associations, to ensure a shared and structured approach on a national scale.
- Data analysis and monitoring:
  - A joint in-depth study on MUD flows has been launched with the aim of preventing double counting and improving the traceability of PET bottle flows not directly reported to the CONAI EPR Organisation. These volumes, initially estimated by CONAI at around 20,000 tonnes[57], were not included among those officially reportable due to persistent difficulties in quantifying them.
- Preparation of guidelines and operational tools:
  - Guidelines and tools are being developed to support businesses and

57
https://www.conai.org/download/piano-specifico-di-prevenzione-e-gestione-degli-imballaggi-e-dei-rifiuti-di-imballaggio-2025/

operators involved in collection and recycling, with the aim of facilitating the adoption of shared practices and improving the effectiveness of the overall system.

Recycled content

With specific reference to the implementation and management of the recycled content requirement for PET beverage bottles, it should first be noted that this requirement is incorporated into national law. The recycled content is calculated as an overall average, referring to all bottles placed on the market.

In this regard, it should be noted that MASE, in communication No. 0236554 of 23 December 2024[58] on the "Implementation of the recycled content requirement in PET beverage bottles (R-PET)" clarified that *"[...]* ***by 2025, each economic operator shall ensure the use of a minimum of 25% R-PET in the total weight of plastic bottles placed on the market in Italy, in order to make an effective contribution to the binding national average target****, and then support the gradual transition to the calculation per production plant provided for by the PPWR regulation."*

It then asked *"[...] Consortia and Self-compliant EPR Organisations to ensure compliance, in coordination with industrial operators who, for this purpose and to guarantee national reporting obligations, must ensure the timely transmission and completeness of data for subsequent validation by ISPRA".*

In accordance with the above-mentioned regulatory provisions and in compliance with their respective competences, CONAI, Corepla and Coripet signed a specific Memorandum of Understanding in February 2024 aimed at implementing joint initiatives for more accurate reporting of data on the consumption of single-use plastic beverage bottles subject to SUP regulations.

CONAI, Corepla and Coripet have therefore commissioned the market research company Plastic Consult Srl to carry out a quarterly survey of the companies concerned, with the aim of collecting data not only on the quantities of beverage bottles placed on the market, but also on the content of recycled plastic (R-PET).

The quarterly survey is therefore the tool identified by CONAI, Corepla and Coripet to ensure the correct reporting of these flows in compliance with MASE requirements.

58 https://www.conai.org/notizie/implementazione-dellobbligo-di-contenuto-di-riciclato-nelle-bottiglie-per-bevande-in-pet-r-pet-chiarimenti-del-mase/

With specific reference to the available data and in accordance with Article 6 of the SUP Directive, which states that “from 1 January 2025, PET bottles must contain at least 25% recycled plastic”, it is estimated that in 2023 (the first reporting year with data transmission scheduled for 2025) the average recycled content rate will be 11.8%.
For 2024, this value is estimated to grow, reaching a level of 15.8%.


9

Skills development: Green Jobs and training projects

To close the circle of the circular economy, it is essential to focus on developing skills in the reuse and recycling of packaging waste. The new challenges of the ecological transition require not only the necessary plant engineering, but also the collaboration of a civil society prepared to manage the life cycle of waste in order to transform it into a new resource.

For this reason, CONAI, Packaging Material Consortia and Self-compliant EPR Organisations have promoted various initiatives aimed at all types of targets: primary and secondary schools, universities, public bodies, businesses and associations, journalists and startups.

ENVIRONMENTAL EDUCATION AND TRAINING IN EPR SYSTEMS FOR PACKAGING

Environmental education in schools

21
active projects in 2024

- 12 projects in primary and secondary schools, including the inter-consortium projects Recycling Class and Gormiti, The New Era Game;
- 9 initiatives for secondary schools, including the inter-consortium projects “Green Game” and “Green Jobs? Green Future”.
- 1 training event at the Liceo di Forlì as part of the ANCI-CONAI Framework Agreement.

Partnerships with universities

12
activities promoted in 2024

- 4 collaborations activated by CONAI for the Green Jobs advanced training courses together with Packaging Material Consortia and recycling companies and 6 for training courses and higher education establishments;
- 1 collaboration activated by CoReVe with the SIM Marketing Award (Italian Marketing Association);
- 1 activity with Rilegno Contest.

Firms and associations

31
educational webinars in 2024

including 6 from CONAI Academy

20 online training courses and 5 in-person seminars held by CONAI for member firms and trade associations on various topics: EPR Fee, environmental labelling, Green Claims, MUD, RENTRI, TARI, etc.

Public authorities

29 regional in-person training sessions on the ANCI-CONAI Framework Agreement and Technical Annexes.

29
ANCI-CONAI training sessions in 2024

IN 2024

1000s
School pupils reached by projects

300
University students reached by projects

68
Recent graduates involved

41
Dissertations on the circular economy rewarded

17
Startups applications submitted

54
Journalists trained

2
Research institutions and collaborations activated with ENEA and SIM

20
Spot training sessions (Masters, university events, company training courses, etc.)

Source: CONAI and institutional documents of Packaging Material Consortia and Self-compliant EPR Organisations – May 2025.

CONAI, in particular, has developed various environmental training and education projects, from primary schools to secondary schools, universities and postgraduate courses, involving the younger generations first and foremost. The aim is to be both witnesses and promoters of the culture of recycling so that it can become a source of green skills and green jobs, as well as contributing to the creation of a permanent, cross-curricular and multi-stakeholder training system that includes schools, universities, businesses, public administration and the media.
A system that is not limited to imparting knowledge, but promotes cultural change, where everyone – students, teachers, civil servants, entrepreneurs, journalists – can become active agents of the circular economy.

School projects

THE SCHOOL PROJECT "CLASS RECYCLING"

The environmental education and citizenship project "Class Recycling", created in collaboration with Buone Notizie and Corriere della Sera, was launched in the 2024/2025 school year in a completely new format, with the distribution of an updated educational kit. This kit was delivered to 2,500 schools nationwide, reaching a total of 3,000 classes. The new educational project centres around the online Recycling Game ("Riciclo Game"), available at https://riciclogame.scuola.net/. The game allows students to play together in class (or even at home with their families) while having fun learning about

the characteristics of the seven materials and the key rules for effective recycling. This type of activity not only promotes the acquisition of knowledge, but also encourages the development of skills such as lateral thinking and problem-solving. The Ministry of Education, moreover, supports the use of gaming and gamification in schools as a way to integrate digital and analogue cultures. For the educational contest, schools are asked to produce and invent new games, including analogue ones, to participate in the final competition. The school kit includes a teacher's guide, a poster with the ten rules for quality separate waste collection and a practical handbook offering teachers practical suggestions and playful, hands-on activities to help classes develop their contest entry. Through the engaging presence of Bin, the main character and mascot of Recycling Game, even younger students can explore the theme of recycling within the broader context of responsibility and care for nature – bearing in mind that environmental education is listed among the mandatory subjects in the Ministry of Education's Guidelines for the Teaching of Civic Education.

The new version of "Class Recycling", featuring the digital Recycling Game, was presented in November at the Triennale di Milano in the presence of schools and teachers. In the previous semester, the 2023-2024 school year's educational contest concluded with nearly 1,300 entries submitted by 384 Italian schools. First prize was awarded to the Marino Moretti Primary School in Gatteo (Forlì-Cesena) and the Primary School attached to the Sacra Famiglia College in Settimo San Pietro (Cagliari).

SECONDARY SCHOOL PROJECT

This project allows CONAI to complete its educational offering by involving secondary school students in a PCTO programme (Pathways for Cross-Curricular Skills and Orientation) for students aged 16-19 years old in a course to discover the circular economy and recycling professions (Green Jobs), including through the voices of experts belonging to the CONAI EPR Organisation.

The training course "Green Future? Green Jobs! – The work of the future begins at school", available on the Scuola.net website, consists of 10 modules and explains the meaning of the circular economy as applied to CONAI and the world of packaging, with a specific focus on the seven Packaging Material Consortia.

Module 2 offers the opportunity to learn about the main skills required in the world of work and the characteristics of professions linked to sustainability, providing an overview of the skills and Green Jobs available.

Finally, the third module takes an in-depth look at the environmental communication campaigns carried out by the Consortium, examining the characteristics that they must have in order to be effective.

The training course can be followed online by students, is certified for 40 hours and provides certificates of participation for students.

During the first edition, which started on 30 November 2023 and ended on 31

August 2024, there were 41 participating schools, 1,053 students enrolled and 701 students who completed the course. The second edition was launched in November 2024.

Training and Research Projects

THE GREEN JOBS TRAINING PROJECT

CONAI is continuing the positive experience of the "Green Jobs" project with educational activities and the transfer of technical and regulatory skills in the circular economy to young recent graduates aged 25-30, particularly in Southern-Central regions, to encourage the development of professional opportunities in the field of sustainability.

March 2024 saw the conclusion of the eighth edition of the Advanced Training Course "Waste Management in the Circular Economy" in collaboration with the Universities of Bergamo and Brescia and with ASA – High Institute for the Environment of the Catholic University of Brescia, involving 68 young people under 35 from Lombardy and Veneto. In April, a technical visit of the students was organised in the province of Bergamo at Montello SpA, a plant for the recovery and recycling of post-consumer plastic packaging and organic waste. On 6 May the final event was held to award certificates to the participants.

In the following months, a new stage of Green Jobs was launched in Puglia and Basilicata, in collaboration with the University of Bari Aldo Moro, leading to the ninth edition of the training course. Previewed in October in Rome at a conference in the press room of Palazzo Montecitorio, on the initiative of the Honourable Patty L'Abbate, the advanced training course saw the participation of 77 students, including recent graduates and professionals, and began on 3 December with live online lessons.

Both courses involved the seven Packaging Material Consortia and seven recycling companies in various product sectors, and the CONAI book "Circular Economy: The Packaging Challenge" was distributed as teaching material.

COLLABORATION ON RESEARCH DISSERTATIONS WITH ENEA

During 2024, the second edition of the CONAI Call for Master's Dissertations was held in collaboration with the ENEA research institute, awarding prizes for three dissertations on topics related to environmental sustainability and protection of the planet, such as strategies for promoting sustainability and circularity of products and packaging, technological innovation in the sectors of recycling and material recovery, corporate decarbonisation strategies and eco-design.

The winners of the second edition of the competition were: Niccolò Cenzato, University of Padua, with the dissertation "Valorisation of biopolymer waste through chemical recycling", Maria Chiara Riccella, University of Salerno, with the dissertation "Improvement of Kraft paper performance by deposition of

biodegradable coatings for food packaging applications" and Davide Sciretta, University of Salerno, with the dissertation "Application of the pay-as-you-throw municipal waste collection system in the municipality of Martina Franca". The awards were presented on 7 November in Rimini, during Ecomondo. Also presented at Ecomondo was the scientific publication: "ENEA-CONAI Master Thesis Award 2023 and 2024. Proceedings of the selected thesis", with more than forty scientific articles, summarising the best dissertations and contributions from the first and second editions of the competition, from universities across Italy, from north to south. The publication is available on the ENEA website: https://www.pubblicazioni.enea.it/. The works examine all aspects of circularity for a collection that not only aims to enhance the creative abilities of young people, but also to serve as an observatory of ideas and possible solutions.

OTHER COLLABORATIONS AND ACTIVITIES WITH UNIVERSITIES AND STARTUP PROJECTS

In 2024, the first edition of the Startup Award was held with the Foundation for Sustainable Development, through the establishment of an ad hoc section within the Foundation's historic Sustainable Development Award, promoted in collaboration with Ecomondo. At the end of the Call, publicised with the support of STEP Tech Park and the InnovUp network, start-up companies were selected that developed business ideas in the field of the circular economy, with an impact on the "CONAI perimeter".

The winners were: 1st prize, Around, a platform offering traceable reuse solutions applicable to the catering and large-scale retail sectors; 2nd prize, SMUSH Materials, design of new bio-based packaging materials derived from mycelium; 3rd prize, Voidless, customised paper packaging solutions with real-time customised boxes, designed to reduce waste, especially for the e-commerce sector. The first prize winner received a six-month acceleration programme in the US, with the opportunity to present their startup to American investors in the sector.

Firms & associations

CONAI ACADEMY WEBINARS

The webinars aim to improve relationships with companies and associations, exploring key topics of interest, promoting the eco-design tools made available by CONAI and presenting new developments and opportunities regarding consortium compliance.

In 2024, the following six webinars were held:

Name	Date	Total registered	Connected live
2024 Guide: News and EPR Fee refunds	15 February 2024	1,354	808
CONAI Call for Eco-design Projects	6 March 2024	331	120
Design for Recycling	28 May 2024	322	137
New simplified declaration method	30 May 2024	117	103
Update on the new simplified declaration method for the CONAI EPR Fee (CAD Service)	4 June 2024	242	192
Green Claims: obligations and prohibitions	11 October 2024	2,373	1,110
Total		**4,739**	**2,470**

CONFINDUSTRIA ROADSHOW WITH LOCAL ASSOCIATIONS

In 2024, the series of webinars for Confindustria's local associations covered: Sicindustria and Confindustria Syracuse; Confindustria Sardinia; Confindustria Calabria; Confindustria Campania (Salerno, Naples, Caserta, Avellino and Benevento) Confindustria BAT, Brindisi, Lecce and Taranto; Unindustria Lazio; Confindustria Abruzzo (L'Aquila, Teramo and Pescara-Chieti); Confindustria Umbria; Confindustria Marche (Macerata, Urbino and Pesaro, Ancona); Confindustria Tuscany (Florence, Northern Tuscany, Livorno) Confindustria Liguria (Genoa, Imperia and La Spezia).

The aim was to provide practical and operational updates and respond to the information needs of businesses. The following topics were covered: EPR Fee, environmental labelling, export of packaging to the EU, MUD 2024, RENTRI, waste classification, TARI in companies, End of waste, ADR and waste, etc.

In 2024, the following were held:

- 20 webinars for the area of Southern-Central Italy with 3,127 participants;
- 5 in-person seminars (Brindisi, Catania, Cagliari,, Ancona/Pesaro/Macerata/Ascoli, Salerno) with 300 participants.

Public authorities

TRAINING UNDER THE ANCI-CONAI FRAMEWORK AGREEMENT

Finally, the Framework Agreement includes a specific commitment to training, which allows for the implementation of a series of specific initiatives funded by CONAI. The aim of the various training tools is to disseminate and explore the fundamental themes of the Framework Agreement, the Technical Annexes, national and European legislation, best practices for waste col-

lection and management and, in general, environmental sustainability with particular reference to packaging waste.

Specifically, four specific tools are envisaged:

- a series of local training seminars dedicated to public administrations and companies in the sector;
- a series of guided tours of intermediate and final recycling plants, aimed specifically at public administration officers;
- experimental initiatives for secondary schools;
- national events on circular economy issues.

The most effective tool remains the seminars, 29 of which have been held throughout the country[59], with an educational programme covering waste and packaging waste management, packaging management and the ANCI-CONAI Framework Agreement, the procedures for awarding municipal waste management services, competences, regional legislation and decision-making centres, the framework and application issues from TARI to TARIP, and the Circular Economy package: state of the art and possible developments.

The seminars are held in the presence of representatives of the municipality, the regional ANCI and local CONAI representatives.

CONAI SEMINAR FOR MEMBERS OF THE ORDER OF JOURNALISTS

The seminar *Recycling and circular economy: the Italian model setting the standard in Europe*, organised by CONAI for members of the Order of Journalists and counting towards compulsory training credits, continued its course. Following editions in Palermo, Milan, Trento and Florence, in 2024 it was organised in Bari (April 2024, for members of the Puglia Association) and Turin (June 2024, for members of the Piedmont Association), with the participation of CONAI experts, journalists and representatives from the institutional and academic world.

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Potenza and Matera, Bari, Lecce, Foggia, Battipaglia, Benevento, Cosenza, Lamezia Terme, Agrigento, Caltagirone, Cefalù, Ragusa, Perugia, Spoleto, Pistoia, Milan, Mantua, Bergamo, Treviso, Vicenza, Novara, Pinerolo, Genoa, Chiavari, Andora, Udine and Gorizia.

AWARD FOR YOUNG ENVIRONMENTAL JOURNALISM

2024 saw the third edition of the CONAI "Phoenix" Award for Young Environmental Journalism, the award dedicated to young journalists who have distinguished themselves in covering sustainability and environmental protection issues.

The award recognised a radio-television report and a written article.

The patronages of the Order of Journalists and the Ministry of the Environment and Energy Security were confirmed. The Urbino Festival of Cultural Journalism, which takes place every year at the beginning of October, was once again the main partner of the award: the Phoenix awards were presented to the two winners in Urbino. The jury (which included personalities from the world of journalism and institutions, as well as two representatives of CONAI) awarded a report by journalist Valentina Panetta published on the visual channel of the newspaper Il Messaggero, which talks about the market for anonymous or lost packages at Caritas (since 2019 it has saved 35,000 parcels a year from being thrown away), and an article by journalist Massimiliano Cassano entitled "Tottenham. Champions of sustainability", published in The Post Internazionale, which explains in detail why the English football club has been awarded for the fourth year running as the most environmentally friendly in the Premier League.

Parallel to these initiatives carried out by CONAI are the activities developed by **Packaging Material Consortia and Self-compliant EPR Organisations**, which work to raise awareness of the recycling of different packaging materials and to promote the fundamental role of high-quality separate collection through fun projects such as competitions and quizzes, the development of educational materials, workshops, contests, etc. for young people, from school pupils to university students, as well as through training activities for teachers. Details of the initiatives can be found in the table below. It should be noted that some of these projects have already been mentioned and described in the section on the development of separate collection, as they are part of local communication and training activities aimed at the continuous improvement of separate collection.

TRAINING PROJECTS IMPLEMENTED BY PACKAGING MATERIAL CONSORTIA AND SELF-COMPLIANT EPR ORGANISATIONS

Activities for primary and secondary schools	
RICREA	• Ambarabà Riciclòclò® – "Guess what? Clever puzzles on steel recycling" environmental education course with puzzles and positive actions for recycling steel • RiciClick® – photo contest
CiAl	• "Alu Experience" – online game with escape rooms and puzzles on separate collection and aluminium
Comieco	• Educational section on comieco.org website
Corepla	• "Recycle it" kit – sending teaching materials at the request of teachers • "Magically plastic" – online theatre show with magic tricks on plastic recycling • "Generation Up" – developed with Avvenire to understand fake news, particularly regarding plastic, and build critical thinking on current events
Biorepack	• "Recycle, Reflect, Share. Imagine the future with compostable bioplastic" – educational kit and webinar for teachers
Rilegno	• "Voyage to a new world" – manifesto and guidelines for sustainable and transformative education for schools of all levels
CoReVe	• Digital and unplugged educational kits for schools of all levels
CONAI	• "Class Recycling. Environmental citizenship education project" – developed with Corriere della Sera on separate collection and recycling of seven packaging materials
Inter-consortia projects	• "Gormiti – The New Era Game" – Lessons and quiz show on the circular economy • "Giocampus" – a project promoting physical education, nutrition and sustainability in the Province of Parma
Activities for secondary schools	
CiAl	• "Alu Comics" developed in collaboration with Comicon, with a comic series on separate collection and recycling aluminium
Corepla	• "It's a question of plastic" – PCTO with e-learning training, video lessons and project work on the plastic resource
CoReVe	• StartUp Lab – face-to-face lessons to develop innovative ideas and products on the importance of glass recycling
Coripet	• Scientific dissemination in schools • Video-training: creation of a course of 4 educational videos to be used in schools • "Evviva i riPETtenti" ("Hooray for rePETers!") – a pilot project for a collection contest
CONIP	• "Eco-Mind. The Game of Conscious Recycling" – an interactive digital game on topical issues for students

Inter-consortia projects	• "Green Future? Green Jobs! The work of the future begins at school" – PCTO (Pathways for Cross-curricular Skills and Orientation) for young people aged 16 to 19 attending secondary schools and technical institutes
Other inter-consortia projects	• "Green Game – At Recycling School" and "Cooking Quiz" – contests based around games and challenges to teach children to recognise and dispose of different types of materials
Activities with universities	
Rilegno	• Rilegno: contest for students and designers involved in redesigning wood from fruit and vegetable crates
CoReVe	• Marketing award with the Italian Marketing Association – teams from all universities to develop a two-year communication plan on a specific glass case study
CONAI	• CONAI Award for Master's Dissertations in collaboration with ENEA – Recognition for three research and innovation dissertations on circular economy topics • SAFTE – School of Advanced Studies by IEG Expo and the University of Bologna – for students and professionals
Inter-consortia projects	• "Green Jobs" – Advanced training courses for recent graduates on waste management in the circular economy developed in collaboration with universities
Training activities for companies & associations	• CONAI Academy Webinars • Informative presentations to explore the main consortium developments for EPR Fee, eco-design and legislation • Confindustria Local Associations Roadshow • Webinars and seminars at the provincial level on EPR Fee, labelling, MUD, Rentri, TARI, etc. • Startup Award with the Sustainable Development Foundation • New section of the Sustainable Development Award dedicated to startups
Activities for public authorities	**CONAI** • ANCI-CONAI seminars • Series of local training seminars aimed at municipal administrations and municipal waste cycle companies on the Framework Agreement, Technical Annexes, regulations, etc.
Activities for journalists	**CONAI** • Journalists' Association seminars • Training sessions for members of the Order of Journalists on recycling and the circular economy


10

Studies and research

Another typical area of intervention for CONAI is investing in studies and research, conducted in cooperation with universities and experts in the sector. This is aimed at gathering qualitative and quantitative information, which is used for in-depth studies on the sector and for modulation of structural measures, and feeds into wide-ranging discussions on current issues.

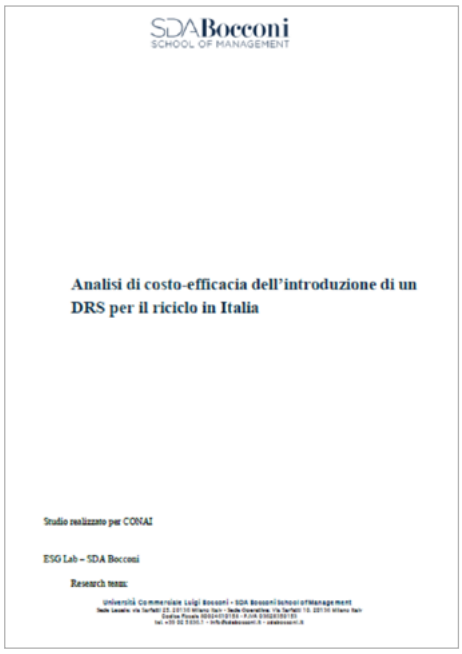
10.1 Europe

During 2024, CONAI continued its studies and research, conducted in collaboration with universities, associations and industry experts, to gather qualitative and quantitative information useful for both in-depth analysis of the sector and the modulation of structural measures.
CONAI promoted cross-border studies and research to support regulatory and advocacy activities, promoting them at international and national events (conferences, seminars and courses) and in bilateral meetings with stakeholders, including European institutions.
The issues addressed were dictated both by the evolution of the regulatory framework, first and foremost the proposed European Regulation on Packaging and Packaging Waste (PPWR), and by the requests received from EPR Organisation members to contextualise CONAI's practices and support cross-border compliance.

The study with Bocconi University – SDA **"Evaluation of the opportunities of *Deposit Return System* (DRS) for packaging waste in Italy"** has been updated to 2024, with greater focus on the costs and benefits of a hypothetical introduction of a deposit system for recycling PET plastic bottles, in compliance with the SUP Directive. This revision concerned in particular:

- updated analysis of the costs of selective collection based on data from Coripet and Corepla;
- integration of the latest estimates on the evolution of placement on the market (CONAI, 2023);
- sensitivity study on economic results linked to technical and performance parameters.

The study will be compared with other similar studies concerning Italy.


SDA Bocconi
SCHOOL OF MANAGEMENT

Analisi di costo-efficacia dell'introduzione di un DRS per il riciclo in Italia

Studio realizzato per CONAI

ESG Lab – SDA Bocconi

Research team:

In mid-2024, CONAI launched a study with SDA Bocconi entitled **"Comparative analysis at a European level of the forms of collaboration between EPR systems and Local Authorities for the management of packaging waste"** with the aim of mapping and investigating the different types of relationships that exist between the various EPR schemes and local authorities in the management of packaging waste in certain countries (France, Germany and Spain), defining the relationships that yield the best results and sharing best practices from the assessment results.

In addition to this study, 2024 also saw the launch of an update to the research study with BOCCONI SDA on the efficiency and effectiveness of **European EPR schemes**, which will provide an up-to-date overview of the data and a comparative assessment of the effectiveness and efficiency of EPR systems for packaging waste in Europe, with reference to both countries and PROs. As a new addition to the previous study, CONAI has decided to also analyse management models at European level other than EPR, such as deposit-refund systems for recycling and taxation systems.

In collaboration with CHR Morris Srl, a specific study is being prepared on deposit systems for the recycling of single-use beverage packaging implemented in Romania, entitled **"Analysing, monitoring and evaluating the impact of the real-time implementation of a DRS system and identifying the fundamental conditions necessary for the optimal implementation of such a model in Italy. Business case: The differences between the estimates of the feasibility studies and the real impact in the case of Romania – the largest centralised mandatory DRS in the world."** The aim of the study is to examine, from a technical, practical, legislative and governance point of view, the steps taken to implement the deposit-refund system in Romania, as well as the data updated one year after the implementation of the DRS. This useful information also serves to study the key points to be analysed in the event of the implementation of a DRS system for recycling in Italy.

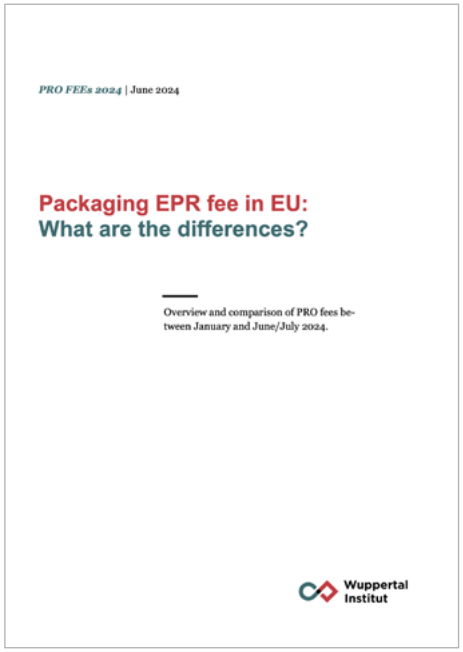
As part of the studies assessing the European impact of the PPWR, the study **"The EU recycling value"** commissioned by CHR Morris Srl highlighted the environmental, economic and social impacts on the recycling chain following the measure to reduce the percentage of waste for all packaging materials. The aim was not only to analyse the baseline reference with respect to the current performance of the European recycling market, but also to estimate the impact of the reduction measures on the market.

As part of the studies on the SUP Directive, DGA Group analysed the transposition of the directive in the main EU countries for CONAI in its **"SUPD transposition assessment"** to highlight the main differences, including with respect to the specifications adopted by Italy.
Verde Research and Consulting, on the other hand, conducted the **"Data survey on the collection of single use plastic beverage bottles for recycling under the SUPD"** for CONAI, a survey of EXPRA members up to 2024 to provide an updated picture of collection performance for recycling and reporting methods for plastic bottles with a capacity of up to 3 litres, including the weight of caps and lids, unless otherwise indicated.
In addition, again with the support of DGA Group, CONAI has drawn up two information notes for companies on the regulatory obligations of the plastic tax[60] and the different transpositions of the SUPD[61].

Still on the subject of the SUPD, at international level, in 2024 CONAI commissioned a study to ascertain the actual collection levels, reported data and measurement points for PET beverage bottles through research conducted by Verde Consulting, in which seven PROs belonging to EXPRA participated. The results were used by CONAI to position itself and understand where other countries stood in terms of collection levels for this particular stream in relation to the SUPD targets.

60
https://www.conai.org/download/nota-informativa-sulla-tassa-sulla-plastica-ue/?tmstv=1740581879

61
https://www.conai.org/download/nota-informativa-sulla-trasposizione-della-direttiva-plastica-mono-uso-supd/?tmstv=1740581929



During 2024, collaboration with the Wuppertal Institute continued through two half-yearly reports from the **"Observatory on EPR Fees in Europe"**.
In particular, the fourth report[62] relating to the first half of 2024 was published recently.

As part of its simplification and reporting work, CONAI continued its collaboration with *Parpounas Sustainability Consultant* (PSC) in 2024, commissioning it to carry out specific surveys, such as the one on the procedures adopted by European Extended Producer Responsibility Organisations for the definition, treatment and recycling of **used coffee capsules**.
Through collaboration with Hyper SRL, a project was launched towards the end of 2024 to develop a digital tool to support companies that export packaging abroad. This tool, called content tree, will be an online tool that, through a decision tree diagram, will guide companies through various sets of useful information such as legislation, management models, prevention and labelling in various European Union countries, so that companies can orient themselves for export abroad.

62
https://www.conai.org/download/report-4-packaging-epr-fee-in-eu-i-semester-2024-eng/

10.2 Italy

Project SCELTA – Observatory on consumer purchasing trends

The fifth edition of the observatory on consumers' purchasing trends and their role in the development of the circular economy was launched in 2024 with the SCELTA Project, in cooperation with the Institute of Management of the Sant'Anna School of Advanced Studies. The study, based on context analyses and questionnaires addressed to a representative sample of the population consisting of 1,031 respondents, investigates consumers' perception of the various dimensions of circularity of products and how this perception influences their purchases.

In particular, the latest edition, in addition to analysing pro-environmental purchasing and consumption trends consistent with the circular economy, focused on **consumer perceptions** regarding:

- the measures contained in the new European Packaging and Packaging Waste Regulation (PPWR);
- the (perceived) environmental impact of packaging throughout its life cycle;
- recent regulatory developments on green claims.

Observatory on prevention initiatives at the local level

The **Observatory on prevention initiatives at the local level** continued to be updated, outlining prevention practices promoted and launched by local authorities through specific programmes. The latest version of the study is available in the Studies and Research area of the CONAI website and the information has also been included on the DifferEnti web platform.

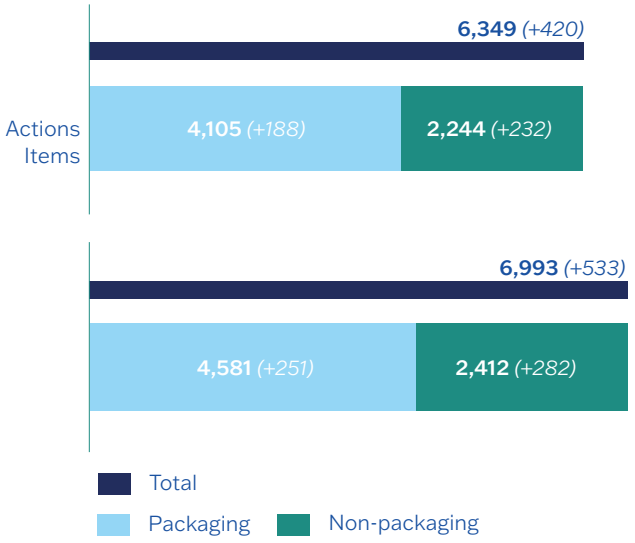
(see page 80)

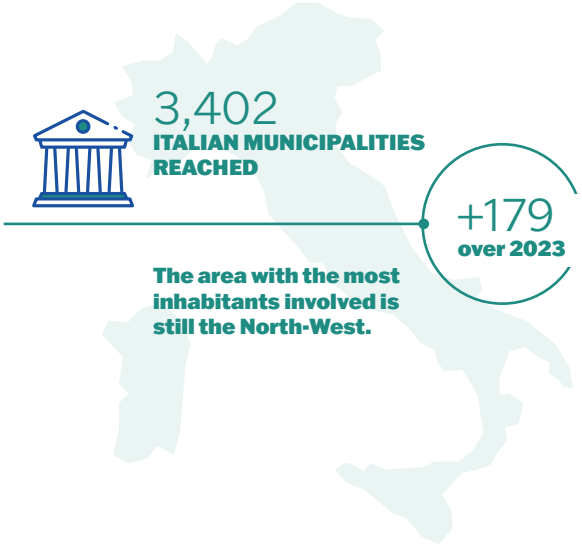
OBSERVATORY ON PREVENTION INITIATIVES AT THE LOCAL LEVEL

An overview of prevention practices

The Observatory on Local Prevention provides a snapshot of prevention actions carried out by public administrations at the local level in Italy, covering packaging and non-packaging.
In 2024, monitoring of actions and items related to packaging increased, with a particular increase in actions relating to water houses, public water dispensers and food products on tap or in bulk, while actions related to biodegradable and compostable tableware and the distribution of bulk detergents decreased. There was also a general increase in actions concerning non-packaging, compared to packaging.

In 2024, 3,402 Italian municipalities were involved in packaging and non-packaging prevention actions with the equivalent of 44.9 million inhabitants involved. This is an increase in terms of numbers (+179 in 2023) and a slight increase in terms of inhabitants involved.





Public water dispensers	Water fountains	Water bottles	Refillable and bulk food products	Refillable and bulk non-food products	Compostable tableware	Reusable tableware	TOTAL ITEMS
2,269	563	88	43	722	443	386	**4,514**
37	26	0	1	1	2	0	**67**
2,306	589	88	44	723	445	386	**4,581**

Green Cities

During 2024, **three studies on Green Cities** were also presented, with the technical/scientific support of the Foundation for Sustainable Development, to take stock of the current state of **waste management** in cities of the three main areas of the country (North, Centre, South). This research represents an important starting point for understanding the main action areas for improving waste management at the local level, promoting the urban circular economy. New for 2024 is the publication of the document *"Regulation of the quality of the municipal waste management service: the challenges for local authorities".* Starting with a summary of the key points of the TQRIF, the document aims to outline an analysis of the quality regulation process undertaken by ARERA, particularly from the point of view of local authorities. At the same time, the document provides some useful points for municipalities that are required to apply the TQRIF in their various roles as "municipal operators" and/or "municipal ETCs", with particular attention to the requirements that fall within the 2024-2025 regulatory period. In this regard, a chapter will be dedicated to the implementation of quality rules in the service contract, as compliance with the standard service contract template is one of the requirements that the competent authorities are currently addressing: two closely interrelated issues, namely quality and the regulation of relations between contracting authorities and operators.

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Communication and press relations

Communication activities are essential for creating and strengthening the role of the circular economy in its various phases and forms: from eco-design to collection, innovation and a widespread culture of circularity. This is why the CONAI Consortium, whose mission is to educate and raise awareness among all stakeholders at the national level, plans specific communication actions to provide businesses with best practices on issues such as recyclability and environmental labelling, and to promote a culture of high-quality separate collection, recycling and circular economy.

11.1 For firms

CONAI Community

The CONAI Community, which now has around 6,180 members, is increasingly becoming a focal point for the provision of information and updates, primarily for firms but also for other audiences. A digital environment has been created where it is possible to get information, engage in discussions and receive answers to questions of interest to firms, such as application of the EPR Fee, environmental labelling of packaging, eco-design tools and regulatory news. 12 different topics are available on the platform, with more than 250 posts published (on average 3 per week). In 2024, the platform's graphics and interface were updated and simplified.

Economia d'Italia ("Economy of Italy")

This is the editorial outlet for showcasing the companies that have won the CONAI Call for Eco-design Projects and directly involves representatives from the winning companies. Over the course of the year there were 10 regional stages involving the whole country, from north to south, with in-person events and exclusive networking opportunities between speakers and the public. The events included not only live streaming but also the creation of a video reportage with stories told by the award-winning firms, a "Business Story" prepared by Corriere TV and launched immediately after the event on Corriere's platforms and on the video platform of L'Economia. The video reports were also promoted within the Community and through the channels of the firms involved.

Economy of the Future RCS – Media Partnership

This is the format used by Corriere della Sera to organise the annual awards ceremony for the winners of the CONAI Call for Eco-design Projects. The event takes place in November at the Triennale di Milano. The panel discussion "Green Transition: nature, resources, rules and governance: a different kind of business is possible" addressed the issues of environmental communication, green claims and consumer protection. At the end, the winning companies of ECOPACK 2024 were awarded on stage.

Pianeta 2030 ("Planet 2030") – Corriere della Sera

At the annual event held at the Triennale di Milano in connection with World Environment Day, CONAI participated with a joint presentation by President Capuano and CERN physicist and researcher Guido Tonelli on the subject of materials and the circular economy. In the morning, at the Triennale theatre, the last performance of the show "It depends on us" was held, the centrepiece of the previous edition of the CONAI school project "Class Recycling", for several schools in Milan.

Tempo delle donne ("Women's Time")

On the occasion of the appointment of the new General Manager of CONAI, Simona Fontana, participation in an all-female panel was finalised as part of a historic event organised by Corriere della Sera dedicated to women. The discussion focused on CONAI, training activities and career prospects in the world of sustainability within a relevant context and within a panel that also included Cristina Scocchia, CEO of Illy Caffè, and Ilaria Borletti Buitoni, Vice-President of FAI.

Radio RAI media partnership

The collaboration with Radio RAI, in addition to acting as a sounding board for the main topics discussed during the Ecomondo fair and the presentation of the results of the Sustainability Report, has been enriched with a new opportunity: the involvement of the companies that won the CONAI Call for Eco-design Projects. The usual 45-second formats with messages related to eco-design recorded by Simona Fontana were scheduled, as well as four Infactory programmes featuring the voices of the protagonists of some relevant successful case histories that won the 2024 Call for Proposals.

Noi per Voi ("Here for You") – Radio 24

This partnership involves a series of short radio broadcasts in November, with the task of explaining the functioning of the CONAI System and Packaging Material Consortia, the EPR Fee, the results achieved, and the main ways of joining. For more than a month, a CONAI column was broadcast with mini-episodes that updated companies on the latest reporting methods in terms of simplification, self-certification procedures, fee band, etc.

Green & Blue – La Repubblica media partnership

An online hub dedicated to content on the environment, sustainability and businesses. It is the ideal forum for raising awareness through in-depth editorial coverage of the Call for Eco-design Projects (from March until the closing date) and the tools made available by the Consortium to support companies in creating increasingly eco-sustainable packaging. The monthly print edition is carried by La Repubblica and is in addition to the traditional editorial formats (Dossier and Focus, as well as native articles on repubblica.it and huffingtonpost.it, La Stampa, A&F).

11.2 For the Institutions

Green Med Symposium

The third edition was held from 12 to 14 May 2024, where CONAI was present as main sponsor with its own stand at the Mostra d'Oltremare in Naples – the sustainability event organised by Ecomondo and Ricicla TV. There were many events of interest to the Consortium, from the opening conference with the special project of the 7 Metropolitan Cities, "The Naples Pact for the South", to the conference "Waste towards new regulations" and the conference dedicated to pay-as-you-throw pricing in the South.

Innovation for Sustainability Summit

On 10 and 11 April, CONAI partnered with the second edition of the European Innovation for Sustainability Summit at Palazzo Taverna in Rome. The event was organised by EIIS, in collaboration with IFAD (International Fund for Agricultural Development) and the European Parliament. The event included presentations, round tables, workshops and an exhibition area showcasing concrete and unique products and projects from companies and organisations committed to sustainability.
In 2024, the theme of the Summit was "The Link between Climate, Health and Nutrition". CONAI took part in the first panel, "Partnerships for Impact", to talk about its commitment to supporting companies' sustainability initiatives.

Trento Economy Festival

The festival, organised by the Sole 24 Ore Group, took place in Trento from 23 to 26 May. CONAI was an official partner of the nineteenth edition, entitled "Quo vadis? Quandaries of our time", participating in the two panels "PNRR Observatory, financial statement and prospects" and "The circular economy, the new frontier of competitiveness", featuring Andrea Bombardi, Global Market Development Executive Vice President of RINA, Diana Bracco, CEO of Bracco, Nello Musumeci, Minister for Civil Protection and Maritime Policy, Simone Pompili, Partner at Intellera Consulting, and Ermete Realacci, President of the Symbola Foundation.

Rimini Meeting

From 20 to 25 August CONAI took part in the Rimini Meeting for friendship among peoples, sponsoring and attending the conferences. The meeting proved to be an excellent opportunity for institutional relations.

ECO – Festival for Sustainable Transport and the Circular Economy

On 17 and 18 September, Rome hosted the first national event aimed at analysing the issue of sustainable transport and smart cities, organised in collaboration with ANCI. It brought together all the players in the sector to understand the current state of the ecological transition and to discuss its strengths and weaknesses with national and local institutions. During the Festival, best practices in the field of environmental education were also discussed, with a presentation on the circular economy and decarbonisation by Simona Fontana, General Manager of CONAI, interviewed by Ludovica Marafini of RTL 102.5. This was followed by the "CONAI Award", with CONAI presenting the two winning dissertations from the 1st edition of the CONAI Call for Dissertations on the Circular Economy, in collaboration with ENEA.

Ecomondo

The Rimini Trade Fair, taking place from 5 to 8 November, is key to the CONAI EPR Organisation's continued positioning as a player in the circular economy at the national level. This year, the CONAI and Packaging Material Consortia stand was enriched by the works of the Circular Art Award, exhibited inside the Agora, and by an area dedicated to the Remade Foundation, which was presented to the public for the first time. Also in the Agora, this year numerous streaming events were organised by CONAI and the Packaging Material Consortia, broadcast live and moderated by Ricicla TV. As usual, media part-

nerships with Radio24 and Radio Rai were also confirmed.

G7 Environment

In April, MASE involved us in the organisation of the G7 Environment Summit held at the Reggia di Venaria. In addition to setting up the Circular Art Exhibition in the spaces frequented by the heads of state and representatives of the individual countries participating in the proceedings, the third edition of the Circular Art Award ceremony was organised at the Pistoletto Foundation, attended by the Minister of the Environment and Michelangelo Pistoletto himself. During the G7 summit, a side event was also organised at the Castello del Valentino, dedicated to the circular economy and carbon neutrality. The activities concluded with a final event organised at the Petruzzelli Theatre in Bari, with a panel dedicated to the opportunities offered by the Mattei Plan to the Italian industrial system and Packaging Material Consortia.

Brussels events

At the beginning of December, to mark the inauguration of the new MEPs, a networking dinner was organised at the Italian ambassador's residence, along with a presentation at the European Parliament on the Italian EPR system and the results of the TEHA Ambrosetti research. Panel participants included Elena Donazzan, MEP, Vice-Chair of the ITRE Parliamentary Committee, Roberta Rossi, Purchasing Director at Gruppo Lactalis Italia, Fiorenza Pascazio, President of ANCI Puglia and Mayor of Bitetto, and Vincenzo Gente, DGENV Unit B3, European Commission.

Sustainability Report presentation

The CONAI 2024 Sustainability Report was presented in a new setting that elevated its standing and made it one of the most significant events organised by the Consortium. From the Ecomondo stand, the location moved to Rome, to the Palazzo Doria Pamphily, where a stage was set up for live broadcasts on ADNKronos and RiciclaTV. Among the speeches moderated by Laura Chimenti of TG1, special attention should be drawn to those given by the Minister for the Environment Pichetto Fratin, Deputy Minister Gava, CERN researcher Guido Tonelli, Edo Ronchi, Stefania Dota of ANCI, Annalisa Corrado of the European Parliament, and Claudia Brunori of ENEA.

National Conference for the Recycling Industry

On 13 December in Milan, the annual presentation of the L'Italia del Riciclo ("Italy of Recycling") report was held, entitled "Europe and the recycling industry". It was produced in collaboration with the 19 supply chains and all of the Packaging Material Consortia. The media partnership was finalised between CONAI, the Foundation for Sustainable Development and RCS, setting up collaboration with the editorial staff of Pianeta 2030 and involving journalists Edoardo Vigna and Nicola Saldutti.
CONAI played a leading role in the meeting on "The new European legislature" and the afternoon meeting "Investing in the future of recycling: the Startup Packaging Award", in which the three startups that won the Sustainable Development Award in the same category were presented with their awards.

ANCI National Assembly

From 20 to 22 November, the National Assembly of Italian Municipalities was held in Turin Lingotto, an important event aimed at enhancing and promoting activities related to the national agreement for the development of separate collection and recycling of packaging waste. The event also featured an exhibition space for the Consortium, which underwent a restyling in 2024, allowing it to host various events and presentations by CONAI, Comieco, Corepla and Biorepack, linked to the Framework Agreement and the various local projects carried out by the System.

11.3 For citizens

Circular Art Award

Camilla Alberti from Milan won the third edition of the CONAI Circular Art Award. She was presented with the award by the Minister for the Environment and Energy Security, Gilberto Pichetto Fratin, Michelangelo Pistoletto and CONAI President Ignazio Capuano at the Pistoletto Foundation during Planet Week, which accompanied the G7 summit on climate, energy and the environment in Turin.

Giffoni Film Festival

CONAI supported the Giffoni Valle Piana Film Festival, selecting and awarding the CONAI Special Award for best environmental film to the animated short film “Gravity”, an Italian-Mexican co-production. The award, dedicated to the best film at the festival dealing with issues related to sustainability and the environment, was presented during the closing ceremony to directors Sara Taigher and Yassmin Yaghmai, founders of the Robotina animation studio.

Waste Watcher Observatory

The collaboration includes participation in Environment Days and institutional events to communicate sustainability, circularity and the role of packaging in combating waste. The events, organised by Last Minute Market, are an opportunity to present the results of surveys of interest to the Consortium.

Bird Festival

The oldest festival in Europe welcomes over 60,000 visitors to Sacile over three days. We worked alongside Proloco and Ambiente e Servizi ("Environment and Services") to organise and optimise the separate collection service, as well as develop a dedicated communication project.

Cortina 2026

The workshop, organised in collaboration with PoliDesign in Milan, has begun to develop projects for the construction of equipment to be used at the Cortina 2026 venues. Fifty students have been working for over a month on eight different projects, thanks also to the collaboration of the Fondazione Cortina sustainability team and CONAI staff. Only one of the projects will be chosen and will go into production, once it has been engineered.

CONAI adopts a strategic and value-based approach to communication, oriented towards a "high-level" narrative that reflects its evolution from a regulatory compliance entity to a strategic driver of innovation, competitiveness and sustainability for the national production system. This positioning allows it to engage in dialogue with various stakeholders – institutions, citizens, businesses – focusing on the principles of sustainable innovation and shared responsibility.

As mentioned in the introduction to this chapter, its communication focuses on broad, cross-cutting concepts such as the circular economy, eco-design and prevention, the promotion of sustainability from the point of view of education and business competitiveness, environmental protection and the intrinsic value of materials – all with the aim of raising awareness and inspiring profound cultural change, as well as building a systemic vision that takes into account the entire life cycle of products and promotes conscious behaviour upstream of the supply chain.

At the same time, Packaging Material Consortia and Self-compliant EPR Organisations, which adopt a more technical and operational language, focus on specific materials and specific types of packaging.
Below is a summary of the main campaigns and communication activities carried out in 2024 by Packaging Material Consortia and Self-compliant EPR Organisations. Some of these have already been mentioned in previous texts, given the vertical nature of these initiatives on issues ranging from the development of skills in the packaging design phase to raising awareness/education on the correct disposal of packaging waste in separate collection, good recycling practices and circularity.

Biorepack

- **Multi-channel advertising campaign entitled "I buttadentro" ("The Bouncers").**
  - **TV** – The television advertisement aired on the television channels Rai, Mediaset, La7, Sky and Discovery, as well as their on-demand platforms. The television advertisement was also broadcast before the kick-off of the matches of the Italian national football team during the European Championships.
  - **Cinema** – A special version of the advertisement was created and broadcast during screenings of the films "Inside Out 2" and "Oceania 2".
  - **Radio** – A radio version of the advertisement was broadcast on the Manzoni group's radio stations.
- **Restyling of the institutional website** – to make it easier for users to access content.
- **Bimonthly newsletter** – aimed at the local public administration.
- **1st Italian Forum on Compostable Bioplastics** – held on 12 June 2024 at the Ara Pacis Auditorium in Rome and streamed on the Consortium's YouTube channel.
- **Participation in trade fairs/conferences/events** – Ecomondo, Biorepack organised the seminar "The circular economy between myth and reality" and the conference "Effects on the soil-plant system of composted organic materials in the presence of compostable bioplastics".
- **Collaboration with CIC on communication** – launch of the Bioriciclo Observatory to collect news, studies and publications on compostable bioplastics and organic recycling.

CiAl

- **Advertising campaign "Senti com'è Green" ("Feel How Green It Is").**
- **Short video clips "5 rules for good aluminium separate collection"** – to reinforce key messages and raise public awareness of the importance of proper separate collection.
- **Communication campaign "Tenga il Resto" ("Keep the Leftovers")** – with the aim of avoiding food waste, thanks to aluminium trays provided by CiAl, customers can take leftover food home, reducing waste.

Comieco

- **Publications & website** – News, insights, regulatory updates and other services.
- **Seminars/conferences and research projects.**
- **Paper Week** – In-person and online events: seminars, exhibitions, workshops, educational projects, public events, conferences and local initiatives to inform, educate, engage and explain how the separate collection of paper and cardboard leads to an effective and efficient industrial process.
- **National campaign "CARTVARD UNIVERSITY – paper and cardboard recycling sets the standard"** – to raise awareness and communicate the correct rules for separate collection and the benefits of paper and cardboard recycling.
- **"RIMPIATTINO" ("take-away box") project** – Making the most of it – Combating food waste.

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- **Trade fairs, conferences and webinars** – Meetings, conferences, local and national events:
  - 12 events in the 2024 AGESCI National Route;
  - Ecomondo: 4 events organised directly or as a guest;
  - Fà la cosa giusta ("Do the right thing");
  - Circular Rome – For a new economy: the capital makes the difference;
  - Exhibition, UPTO during Design Week – Milan;
  - Packaging Première;
  - Civil Week with presentation of the survey "Italians and the Constitution" (Ipsos for Comieco) in conjunction with the President of the Republic Sergio Mattarella;
  - The Green Symposium;
  - World Children's Day;
  - Courtyard of Francis – Assisi (Perugia);
  - Carta è cultura ("Paper is culture"): Fabriano UNESCO Creative City for Crafts and Folk Art;
  - Viscom;
  - Ecomondo;
  - Golosaria.

- **Exhibitions and cultural initiatives**
  - Soul Festival of Spirituality;
  - Exhibition/workshop "Fà e Rifà" ("Do and Redo") – From Reuse of Paper to the Rules of Art;
  - Carta che va, carta che viene ("Paper that comes, paper that goes"): series of meetings at the "Kasa dei Libri";
  - Demetra Award, Elba Book;
  - Bookcity: meeting on reading and writing on paper;
  - Festival "Ti porto al Parri" ("I'll take you to the Parri");
  - "Chi scrive a mano coltiva sogni" ("Those who write by hand cultivate dreams") event to celebrate the beauty of writing on paper, structured in two parts: calligraphy course and talk on the value of handwriting.

CONIP

- **Participation in trade fairs and events:**
  - **MACFRUT:**CONIP held a conference entitled "Sustainable packaging in the fruit and vegetable distribution chain" to present its study on "Quantification and assessment of the environmental impacts related to the use phase, and 2024 Management Report – regeneration of reusable fruit and vegetable crates compared to the impact of the entire life cycle of 100% recycled 'Use and Recover' crates made by CONIP consortium members".
  - **Ecomondo:**
    - Created a digital game for schools called "Eco-mind: the game of conscious recycling", an interactive digital game that lets students test themselves while having fun on topics such as recycling of plastic packaging and the environmental impact linked to a product's life cycle.
    - Presented CONIP's first environmental sustainability report for the year 2023.
  - **Festambiente**, the national festival of Legambiente.
  - **Middle Ages Festival.**

Corepla

- **Updated corporate image and new logo.**
- **Corepla House** in Rieti, Messina and Palermo.
- **"Magically plastic"**, springtime magic show at Cinecittà World.
- **"Recopet"** – 25 events organised for the installations/launch.
- **Vatican event.**
- **EIIS.**
- **"Italy in a frame"** in Scicli, Marina di Ragusa, Agrigento.
- **AMSA campaign** to improve quality.
- **Various collaborations** – CICAP, "The Construction Sites of the Ecological Transition" with Legambiente, Sustainabol (Bologna), Futuramente, Circonomia, EWWR.
- **Baku presentation.**

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CoReVe

- **Integrated communication campaign** based on Gianni Morandi's song "Fattimandare dalla mamma" ("Let Mum Send You") to bridge the knowledge gap on the rules for proper glass collection, raising public awareness through music about the importance of following a few simple rules.
- **Outdoor campaign "False friends of glass"** ("Glass Imposters") on buses, trams and subways.
- **Campaign in the main large-scale retail chains** throughout Italy with two advertisements on the consumption of glass packaging during the festive season and its correct disposal.
- **Restyling of the institutional website** – simplification of content, introduction of new tools such as "where to throw it" and a section dedicated to the glass blog.
- **Participation in trade fairs/events/conferences:**
  - **Ecomondo** with various organised events and the launch of the project to donate 1,000 aesthetically pleasing bins to Rome Capital on the occasion of the Catholic Church Jubilee.
  - **European Week for Waste Reduction (EWWR)**.
  - **Comuni Ricicloni ("Municipality Recycling Champions")**.
  - **"CoReVe Bottles for Spring Water" project** to convey positive messages about recyclability, reusability and circularity in the use of resources.
  - **Venice Glass Week with the "Glass Bateo"** – a travelling experience that showcases the art of glassmaking all around the Venetian Lagoon.
  - **Creation and distribution of information material** (postcards, posters, videos) to municipalities and affiliates.

Coripet

- **Radio campaigns** – Radio Lombardia and Radio Marte to promote the Coripet project and the concept of selective collection and recycling.
- **Leaflet campaign** to promote the use of digital recycling stations in the areas surrounding the installation sites.
- **Trade fairs and conferences:**
  - **Missione Italia** conference on PNRR and the circular economy;
  - **Ecomondo:** exhibition stand with a digital recycling station to promote the Coripet project
    and the concept of selective collection and recycling.
- **Activities to encourage green behaviour** – reward points collection scheme.

Erion Packaging

- **Communication campaigns** on the website, ErionPerVoi ("ErionForYou") platform, newsletters and social channels to disseminate information on the correct and proper recycling of waste associated with electronic products.
- **Technical events, institutional round tables, public meetings and conventions** to promote a culture of sustainability in packaging waste management and propose innovative solutions for the improvement of the entire sector.
- **Sustainability Report presentation event.**
- **Ecomondo Fair.**

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RICREA

- **“Recycled Steel Improves our World” campaign** to raise awareness and provide information on the importance and environmental benefits of correctly disposing of steel packaging. Broadcast on Radio 24 and Radio Rai (Radio 1, Radio 2, Radio 3 and Isoradio) and in cinemas belonging to the Rai Pubblicità circuit.

- **Keep Clean and Run event** to raise awareness in local areas about issues related to waste disposal and, in particular, the phenomenon of littering.

- **Open Book Festival** to highlight the importance of raising awareness in education about separate collection as a means of recycling steel packaging.

- **Capitan Acciaio (“Captain Steel”)** to teach the importance of separate collection and the circular economy.

- **Participation in conferences:**
  - **Circonomia** (festival of circular economy and ecological transition);
  - **Cuore Mediterraneo (“Mediterranean Heart”) travelling campaign** to inform beachgoers and boaters about the many properties of steel packaging and the separate collection regulations of the holiday resort municipality;
  - **Giffoni Film Festival;**
  - **Green Steel Grest** to raise awareness among the younger generation of the importance of proper separate collection and the sustainability characteristics of steel packaging. Timed quiz with multiple-choice questions, preceded by a short dynamic online lesson, with a gift card awarded to the winning group each week;
  - **Book “Cucina crea e RICREA” (“Cook, create and RICREAte”)** to show how steel packaging can become the star ingredient in delicious dishes, reducing environmental impact;

- **RESTART TIMORIA** – A project based on the concept of upcycling. An exhibition featuring works and installations made from recycled materials, entirely dedicated to Restart and the spaces of the Complesso San Michele in Salerno. To promote the exhibition, a steel installation was created in Piazza Portanova with the symbol of infinity, representing the concept of continuous recycling.

Rilegno

- **Redefinition of the brand book.**

- **“We are Walden” community** – workshop with six free meetings for design students.

- **Publications** – Walden Magazine and Annual Report.

- **“Rilegno contest” award ceremony** for the redesign of wood in fruit and vegetable crates.

- **Participation in fairs and festivals** – Ecomondo, Social Responsibility Exhibition at Bocconi University, Green Week of the Municipality of Milan, 42 Gradi (“42 Degrees”) Festival.

- **Advertising campaign** published in all major national newspapers to promote the work of consortium companies.

11.4 Development of social media activity

The promotion of activities and messages related to CONAI's mission continued steadily on the main social media channels. Facebook, X (formerly Twitter), Instagram, LinkedIn and YouTube continued to be used regularly.

LinkedIn remains the most institutional channel, useful for communicating the Consortium's activities, particularly with regard to direct initiatives or events organised by third parties, remaining in alongside media relations communications.
X, despite experiencing a decline in terms of attention, remains a very popular medium for information professionals, offering the opportunity to amplify messages thanks to its concise and immediate nature.
Instagram maintains its popular and aspirational positioning, conveying the message of sustainability in a visually engaging format, with entertaining and creative content. Where possible, Instagram Stories have accompanied the coverage of events involving the Consortium.
Facebook continues to be the channel dedicated to edutainment, with a focus on separate collection and recycling, aimed at a wide audience that is generally attentive to environmental issues.
The YouTube channel has continued in its role as CONAI-TV, hosting both social campaign videos and recordings of CONAI Academy webinars.

11.5 Press and media relations

Press office and media relations activities continued to promote networking opportunities and consolidate CONAI's ties with the main media and news outlets (press, web, radio and TV) at national and local level, with the aim of protecting its reputation and promoting its activities.

The promotion of interviews with the President, General Manager and Deputy Manager, as well as other CONAI figures, continued on a regular basis. In addition to the usual dissemination of press releases and press notes, a channel of dialogue was established with the editors of newspapers and radio and television programmes in order to stimulate new ideas and opportunities to address issues related to recycling and environmental protection.

The topics that facilitated the work of CONAI's press office were once again the national recycling figures, released as almost every year in the first few days of July, and those of the Sustainability Report, which for the first time was the subject of a press preview in the boardroom of CONAI's Milan headquarters, exclusively for agencies and newspapers. In addition to these, there were the forecasts contained in the Specific Plan for Prevention, released through the media, as every year, on World Recycling Day (18 March).

In 2024, the debate on the proposed Packaging Regulation continued to be given extensive coverage in the media.
In 2024, topics related to eco-design were also presented to the media through the promotion of ECOPACK, as well as art, with several opportunities for visibility for the *Circular Art* exhibition.

The partnership with the Giffoni Film Festival in July generated significant media coverage, thanks in part (but not only) to the award for best film with environmental themes, which went to the short film Gravity. Media coverage was higher than in 2023.

Attention continued to be focused on communicating regional data to local media, with targeted interventions to raise awareness among journalists in individual regions about contributions to the CONAI System by the area in question.
This press office work was spread throughout the year, according to the varying degree of attention demonstrated by local journalists.

Also noteworthy were the activities carried out in partnership with ANCI, such as the launch of the ANCI-CONAI Database Report, and other extraordinary initiatives related to current events.

Media relations were supported by the creation of infographics that reinforced the launch of media messages.

There were also contacts with external press offices, in particular with IEG, but also with other bodies such as ANCI and SUSDEF, to support media relations relating to their annual recycling event held in Milan.

Internal reporting and information activities continued regularly throughout the year.

While CONAI's media relations focus on data, results and system information related to the circular economy of packaging and its impact on the environment and society, the media relations and social media management activities of the Packaging Material Consortia and Self-compliant EPR Organisations focus mainly on the packaging and packaging materials managed and the results achieved through their proper end-of-life management.

The most important activities and actions include the following:

RICREA
Social media continues to be a strong point of the Consortium's communication strategy, with 10 profiles across Facebook, Twitter, YouTube, LinkedIn and Instagram. In addition to its institutional channels and "Un Rompiscatole in Cucina" ("Can-Do in the Kitchen"), RICREA also manages Facebook and Instagram pages dedicated to the "Capitan Acciaio" ("Captain Steel"), "Cuore Mediterraneo" ("Mediterranean Heart") and "Ricrea Edu" initiatives.

CiAl

For much of 2024, the campaign was accompanied by editorial and press office activities that allowed for the exploration of key messages or a more in-depth examination of topics that required more specific discussion. Similarly, more general messages aimed at the public were also disseminated digitally, covering topics such as separate collection and the rules to follow for the correct recycling of aluminium packaging. The well-known "5 rules for good aluminium separate collection" were relaunched in the form of short videos explaining some simple tips to the public to make the daily task of separate collection easier. The digital sphere, particularly social media, has become CiAl's most natural field of action. The network of channels – specifically Facebook, Instagram, TikTok and YouTube for the general public; the various institutional and educational websites; as well as the X and LinkedIn channels for more sector-specific audiences – continues to grow, ranking among the most followed and most capable of generating interaction in Italy in the fields of environment and sustainability.

Comieco

Media relations were actively nurtured throughout the year with ongoing press office activity, developed primarily in support of the events and initiatives organized over the twelve months.

The Consortium's flagship communication activities were those that gained the greatest visibility in the national media: the presentation of national data on the progress of separate collection and recycling of paper and cardboard; Paper Week, held for the first time with a designated "capital"; a new institutional meeting on the progress of the Flagship Paper and Cardboard Projects for the PNRR at Ecomondo; and the Civicness event, the biennial observatory on civic sense carried out by Ipsos in collaboration with Symbola. To these must be added the fourth edition of the Demetra Award, in collaboration with the Elba Book Festival, which also attracted the interest of the national press, as well as the numerous information campaigns launched in different regions to promote the proper disposal of beverage cartons. Remaining on the subject of local communication campaigns, wide media coverage was given to the initiative "Amacartaecartone" ("Amapaperandcard"), organised in collaboration with Ama SpA and the Municipality of Rome. Not to be overlooked are the activities carried out again this year in partnership with other Packaging Material Consortia, such as GreenGame and Cooking Quiz, which provided further opportunities to highlight our themes, particularly in schools.

It is clear that all these initiatives had a significant impact also on the local press: from press releases disseminating regional data on separate collection and recycling results, to coverage of the individual Paper Week events, to the award ceremony on Elba Island for the Demetra literary contest, and other events supported by media relations. Particular attention has also been devoted to relations with the specialised economic press on our issues,

through dedicated communications linked to key events and developments in the sector. Some of the most representative examples include updates on the CONAI Environmental EPR Fee for paper and the study on ecological transition conducted with the Sustainable Development Foundation.

Corepla

Over the last year, communication has focused on strengthening initiatives aimed at local authorities and businesses, and has promoted a more informative and factual approach to social media and the media in general, with the primary aim of raising public awareness of best practices in separate collection and recycling. The Consortium has also paid close attention to the issue of fake news, in an attempt to limit the impact of false information, often driven by misinformation and indifference.
Without pursuing this false narrative, and precisely in order not to fuel it, the Consortium has constantly updated a section on its social media channels with the aim of disseminating accurate data and refuting fake news.

Biorepack

Biorepack's official social media channels continued to be managed on Meta platforms (Facebook and Instagram), LinkedIn and YouTube with the aim of communicating the Consortium, its activities and the world of compostable bioplastics. As with the advertising campaign, the focus on social media was also on the correct methods of separate collection of compostable bioplastics and organic waste, with an educational approach.

CoReVe

In October 2024, the award ceremony for the second edition of the Journalism Award, established to support quality journalism in the field of sustainability and environmental issues, was held at the Ca' del Bosco headquarters. More than 50 journalists took part in the second edition. Among them, the following were awarded:

- Alberto Giuffrè, face of SkyTG24, won the title of Journalist of the Year with a report entitled "Amazonia, how to save a forest", a report from one of the most biodiverse places on the planet;
- Vito Tartamella (Focus) won the award for the print media category;
- Simone Fant (ilPost.it) and Marco Dell'Aguzzo (Linkiesta.it) tied for the award for the web category.

CONIP

Between March 2024 and January 2025, social media strategy, social media management and social media advertising activities were carried out to promote the Consortium's activities to a B2B and B2C audience via Facebook and LinkedIn. The first type of audience, mainly engaged via LinkedIn, included both users and consortium members, with campaigns aimed at consolidating brand reputation and disseminating technical insights on the

activities of the circuit's stakeholders, the environmental report and the incentive system. For the B2C audience – mainly engaged through Facebook – communications were designed to focus on the characteristics of the crates, ranging from functionality to environmental impact. The Facebook editorial plan, the LinkedIn editorial plan and the Facebook Ads and LinkedIn Ads activities included visuals coordinated with other online and offline promotional activities (publications in magazines, trade fairs, etc.), visuals designed from scratch for social networks, the relaunch of industry news and live social media coverage of the trade fairs in which CONIP participated in 2024.

Coripet

Activity	Platform	Short description	Parties involved	Number of people impacted
Information activity on social media	Facebook and Instagram	Information campaigns for dissemination of the selective collection model	Facebook and Instagram social media users	6 million citizens with over 80 million impressions
Informational activity through influencers	TikTok and Instagram	Implementation of 28 actions with local micro-influencers to encourage sustainable behaviour	Citizens who follow the micro-influencers involved	9 million views of the videos made
Informational activity through video	YouTube	Promotion of a video to encourage selective collection	Users of YouTube	3 million impressions of the video made for YouTube channel
Informational activity through digital radio	Spotify	Broadcasting an audio clip to encourage selective collection	Users of Spotify	4.6 million plays

Erion Packaging

During 2024, Erion Packaging issued three press releases, detailed as follows:

- **4 June 2024: press release** issued by the Erion Compliance Organisation in collaboration with Erion Packaging, covering Erion's 2023 Sustainability Report, reporting on collection data and the environmental, social and economic benefits associated with the 2023 financial year of the System and its member Consortia.
- **21 June 2024: press release** covering the publication of the Study "Erion Vision 2050: Past, Present and Future of Extended Producer Responsibility Systems" created by dss+ for Erion.
- **25 September 2024: press release** covering the signing of the Memorandum of Understanding with UNIRIMA, the National Union of Companies for the Collection, Recovery, Recycling and Trade of Waste Paper and other Materials. The note announced the two organisations' intention to implement a sustainable programme to optimise the packaging supply chain for electrical and electronic equipment and batteries, with a view to improving environmental performance and in line with the development of the circular economy.

During the year, activities related to Erion Packaging were shared on the social channels of Erion System through 23 posts, which had 13,686 views and 770 total interactions.


12

Other tools for achieving targets

12.1 International activity

CONAI's international activities in 2024 were characterised, on the one hand, by working groups and networks consolidated in previous years and continued with monthly interactions and, on the other hand, by numerous European round tables that were created, particularly concerning the implementation of regulations that had been published or were in the process of being published.

Throughout the year, CONAI continued to provide feedback and contributions to the working groups of the Joint Research Centre (JRC), which prepares technical studies for the European Commission in support of the regulations in the pipeline. In particular, work focused on packaging labelling and waste collection infrastructure, packaging recyclability, and end-of-waste criteria.

As part of the work of our Extended Producer Responsibility Alliance, CONAI, in addition to being a member of the Board of Directors, contributed to the task force set up to analyse and draft comments on the then proposed European regulation on packaging and packaging waste, and to the projects requested by the EXPRA Board. These included the EXPRA 2.0 project, an information portal for internal use by the 32 members of EXPRA, which consolidates useful data on the respective EPR systems, and a data repository for the development of an annual Early Warning Report and a CO_2 Emission Saving Report. CONAI's work within EXPRA also involves the drafting and dissemination of position papers, which the organisation has made available to political stakeholders and the entire supply chain, with particular focus on:

- 30 Years of Optimum EPR: How to Make the Best Out of It
- Manifesto: Empowering Packaging in a Circular Economy;
- Joint Industry Statement on "State-Run PRO".

In parallel, CONAI participated in the network of conferences and seminars organised throughout the year by EXPRA and its members to illustrate the best practices of our CONAI System, most recently to stakeholders on the topic of EPR:

- in the Balkan, Nordic and Middle Eastern regions;
- on commercial and industrial packaging waste;
- for fee modulation and related coverage costs;
- for collection and recycling;
- in competition and competitiveness.

CONAI's international network also extends beyond EXPRA, with panel discussions around the world, where the Italian model is taught, including interviews for studies commissioned by international stakeholders and their consultants. CONAI has also been present as a speaker at various seminars, workshops and panels throughout Europe, where it has had the opportunity to talk about the Italian system and best practices and to discuss various issues with other international stakeholders in the supply chain, such as the Packaging and Packaging Waste Regulation (PPWR), environmental labelling of packaging, DRS systems, EPR schemes, the commercial and industrial channel and other topics.

Packaging Waste and Sustainability Forum

In March 2024, CONAI participated as a speaker at the Packaging Waste and Sustainability Forum in Brussels, where the Bariche eco-station project was presented for the first time to an international audience. The project involves a reward mechanism for the selective collection of different types of packaging, highlighting its importance for the city and its citizens.

At the end of April 2024, CONAI hosted a Korean delegation from the Korea Environment Corporation at its headquarters in Milan. During this meeting, which was also attended by EXPRA (Extended Producer Responsibility Alliance), the CONAI System and Consorzi was illustrated from both an operational and financial point of view. Similarly, the Korean PRO illustrated the key points of its organisation and its strategy for the future, consolidating the relationship between the two PROs for further collaboration in the coming years. In addition, a visit was organised to a sorting plant on the outskirts of Milan, so that our guests could see the technological level of the plants and how to improve their activities at home.

In October 2024, CONAI spoke at *"Sustainability in Packaging Europe"* in Barcelona, where it participated as a speaker, sharing its best practices in relation to the eco-modulation of the EPR Fee.

In November 2024, CONAI participated in the ALL4PACK conference in Paris, together with representatives from PRO Citeo (France) and Fostplus (Belgium), describing the EPR tools that CONAI makes available to companies to improve the environmental impact of their packaging.

ALL4PACK EMBALLAGE PARIS
4-7 NOV. 2024 Paris Nord Villepinte France

On 2 December 2024, CONAI was invited to speak at the Hungarian Chamber of Commerce in Montenegro, on the initiative of the Hungarian Presidency of the EU. In this setting, and in front of the country's institutions and industrial players, CONAI had the opportunity to share its many years of experience in packaging waste management, as well as to explain the Italian entrepreneurial perspective and experience in waste management as an area for the creation of new opportunities and business initiatives.


Crna Gora
Ministarstvo ekologije, održivog razvoja i razvoja sjevera
HU24EU
PRIVREDNA KOMORA CRNE GORE

WASTE MANAGEMENT EXAMPLES AND PRACTICES FOR MONTENEGRO ON ITS WAY TO THE EUROPEAN UNION

HUNGARIAN EU PRESIDENCY CONFERENCE INITIATIVE

Podgorica, Chamber of Economy of Montenegro

2 December 2024

This activity, supported by studies conducted by the international observatory, has enabled the publication of information notes, papers and specific insights[63] to support CONAI EPR Organisation members on the management of packaging and packaging waste abroad, including through the international@conai.org email address and special webinars. It has also enabled speeches and lectures to be given at the national level on international issues.

63 https://www.conai.org/?dlm_download_category=pubblicazioni-e-note

Activities with the Italian Packaging Institute

At the same time, at the national level, in 2024 CONAI continued its collaboration with the Italian Packaging Institute through the work of the Environment Commission and teaching on the "Green Packaging Expert" course, which took place on three occasions during the year.
Within the work of the "Packaging and Environment" Commission chaired by CONAI, 2024 was mainly dedicated to qualitative and impact analysis of the then proposed European Commission Regulation on packaging and packaging waste (PPWR). In addition to these activities, the update of Volume 1 of the Handbook on Packaging Management in Europe, now in its third edition, was completed based on the latest developments in the transposition of regulations in each country.

Still on the subject of analysing the PPWR text, which in 2024 was still being finalised, CONAI's internal Task Force, made up of the areas concerned, analysed the articles of the proposal in detail. This coordination work by the International Activities Area with the rest of the CONAI structure proved very useful in gathering all the critical issues and suggestions from other CONAI areas during the final stages of the PPWR legislative process.

Finally, the CONAI "International" Working Group confirmed its fundamental role in 2024 in providing updates on European developments, legislation and work in progress in Europe, in order to gather feedback and draw up proposals for positions and amendments to be submitted to the CONAI Board of Directors. The CONAI "International" Working Group met six times throughout 2024.

12.2 Support for EPR Organisation member- and protection of fair competition

Services for businesses and associations

Among the established support activities for EPR Organisation members, the following are particularly noteworthy:

- **Training seminars**, conducted via videoconferencing systems, which saw widespread participation by companies and associations. The topics covered included the latest developments in the CONAI Guide, consortium obligations and opportunities for companies in terms of CONAI EPR Fee, as well as the simplified declaration procedure through the CAD (CONAI Automatic Declaration) service, launched in 2023;
- **Update, awareness and information campaigns** on new developments and consortium obligations, with **around 228,000 information packs** sent to member firms;
- **Approximately 49,000 telephone contacts handled** through the **dedicated toll-free number**;
- **Approximately 2,300 written replies to requests for clarification** on consortium procedures;
- The customary end-of-year campaign through **radio advertisements**, in cooperation with Radio 24;
- **Timely accounting responses** to companies (consortium members and non-members) – also at their request – where, from cross-referencing the available databases, any errors or inconsistencies are found with regard to consortium procedures for the application, exemption or declaration of the EPR Fee, so as to act promptly to resolve the issue.

Tools for businesses and associations

The *"Guide to membership and application of the CONAI EPR Fee"*, published on the CONAI website in digital format in January 2025, incorporated:

- Update of the year-end statistical survey (2024) with the aim of collecting data of interest also for the purpose of determining the national placement on the market of imported packaged products subject to the EPR Fee declaration;
- Changes – effective from 1 July 2025 – to the unit EPR Fee per material and the flat-rate fees relating to simplified procedures for the import of full packaging.

In 2024, the experimental trial also continued for the simplified method of EPR Fee declaration, based on XML data from electronic invoices issued by consortium members for the "first transfer" of packaging **(CAD Service – CONAI Automatic Declaration)**. Participation in the trial is voluntary and requires using invoices containing information that allows the packaging to be correctly classified, which is assigned a **"Packaging Code"** by CONAI that can be identified through an online tool (codiceimballaggio-conai.org), freely available to all users.

WORKING GROUP FOR SIMPLIFICATION

Activities

During 2024, the Council's Working Group for Simplification addressed the following main topics, some of which will take effect from 2025:

- acquisition (through online questionnaires sent to reporting EPR Organisation members) and processing of data and information concerning the main product categories of imported packaged goods for the updating of the year-end statistics (2024);
- increase in the threshold for requesting an EPR Fee refund (in 2025) using form 6.6-bis for exports of packaged goods in 2024, which effectively extends the number of eligible companies;
- revision of the simplified procedure for aluminium, paper and plastic labels (with form 6.14), and determination of the new flat-rate EPR Fees by turnover band (for 2025);
- the long-standing issue of packaging/non-packaging on plastic pots for flowers and plants, which led to a revision of the CONAI circular of 14 December 2022.


13

Profit and loss account

13.1 CONAI financial results

The following provides the profit and loss account, the balance sheet for the year, and an analysis of the main deviations from the previous year's figures. All figures are shown net of the former separate operations under Replastic.
The financial statement for 31 December 2024 closed with a surplus for the year of €1,319,799, against a deficit of €2,482,151 for the previous year. Revenues and costs are classified according to article 15 paragraph 2 of the CONAI Statute. The CONAI Statute, approved by the Members' Assembly, incorporated the requests for changes made by MASE including the new article 15 paragraph 2, which provides: *"The Consortium shall adopt an accounting system capable of providing evidence, in the financial statements referred to in paragraphs 3 and 4, of the cost items for each initiative financed with its share of the EPR Fee not allocated to ordinary operating expenses, including with reference to study and research activities intended to facilitate the prevention of the formation of packaging waste".*
Revenues are split between revenues from the EPR Fee and other revenues. Costs are subdivided between ordinary management, which includes costs incurred in the performance of CONAI's core functions, other costs, and costs for study and research activities to facilitate the prevention of the formation of packaging waste. This includes initiatives directed towards EPR Organisation members and aimed at promoting eco-design and design for recycling, those addressed to local authorities to promote quality separate collection, as a means of increasing the value of packaging materials by preventing their disposal in landfills, and those aimed directly at citizens to raise awareness of environmental sustainability issues. Alongside these are activities to promote research in these areas.

CONAI PROFIT AND LOSS ACCOUNT

VALUES IN €

	Final results 2024	Final results 2023
Revenues from EPR Fee		
Revenues from flat-rate EPR Fees for imports for the current year	14,055,141	10,878,753
Revenues from flat-rate EPR Fees for imports for previous years	518,666	493,647
Share of EPR Fee of Consortia for CONAI operations	15,000,000	13,500,000
Total revenues from EPR Fee	**29,573,807**	**24,872,400**
Other revenues		
Revenues from penalties	688,475	741,905
Revenues from reversal of provision for impairment of receivables on penalties	-	321,048
Revenues from miscellaneous	418,202	611,227
Interest income	1,538,108	790,536
Total other revenues	**2,644,785**	**2,464,716**
TOTAL REVENUES	**32,218,592**	**27,337,116**
Costs of ordinary management		
Costs of operation of corporate bodies	1,036,425	1,154,401
Costs of personnel	5,972,405	5,795,182
Communication	1,353,723	1,405,154
Consultancy	380,020	617,070
Provision of services by third parties	4,221,893	4,132,006
Control activities	826,477	877,064
General and administrative expenses	2,812,755	2,587,553
Research centre	310,017	291,167
International activity	447,432	431,206
Lease of third parties and other charges	887,690	762,930
Depreciation	1,100,362	1,166,943
Remade costs	300,000	-
Total costs of ordinary management	**19,649,199**	**19,220,676**

	Final results 2024	Final results 2023
Costs for development of recycling		
Management costs of the ANCI-CONAI Framework Agreement	4,202,922	4,336,326
Communication	1,507,320	1,464,069
Skills development	374,620	389,451
Provision of services	-	-
Participation in the circular economy study	30,000	30,000
Prevention	1,368,072	1,269,480
Research centre	646,882	607,337
Environment and sustainability	278,253	353,826
Other costs for local projects	342,360	320,400
Total costs for development of recycling	**8,750,429**	**8,770,889**
Other costs		
Costs for MATTM supervisory and control functions	1,400,000	1,400,000
Impairment of receivables and credit losses	623,665	427,702
IRAP and IRES	475,500	-
Total other costs	**2,499,165**	**1,827,702**
TOTAL COSTS	**30,898,793**	**29,819,267**
SURPLUS (DEFICIT) FOR THE YEAR	**1,319,799**	**(2,482,151)**

13.1.1 | Revenues

The Consortium's total revenues, up 18% from the previous year, consisted of EPR Fee revenues and other revenues. The former include revenues on flat-rate procedures relating to declarations for the current year and those for previous years, and the portion of ordinary EPR Fee pertaining to the Consortia, withheld by CONAI to finance its activities. Revenues from the EPR Fee increased by 19% due to higher revenues from the EPR Fee on flat-rate procedures for the current year and previous years, and the higher share of the EPR Fee retained by CONAI and the Consortia to cover their operating costs. Other revenues include revenues from penalties, miscellaneous revenues, and financial income. They increased by 7% compared to the previous year.

Revenues from EPR Fee (€29,573,807)

Revenues from EPR Fee on flat-rate procedures for the current year (€14,055,141)

These relate to the EPR Fee declarations of simplified procedures and are shown net of the fee paid to Packaging Material Consortia and the fee reimbursed to exporting EPR Organisation members.

The following relate to EPR Fee declarations:

- for imports of full packaging, food and non-food, in which the consortium member declares an amount based on the total value of the imports made of packaged products and a percentage rate;
- calculated on the weight of only the packaging of the goods.

Revenues from these procedures increased by 29% compared to the previous year, due to the average change in rates (+30%) and lower quantities declared (-1%).

Revenues from EPR Fee on flat-rate procedures for previous years (€518,666)

These result from the control activities carried out by the Consortium and are 5% higher than the previous year.

Share of EPR Fee for coverage of CONAI operation costs (€15,000,000)

This allocation is regulated by the combined provisions of article 14 paragraph 4 of the CONAI Statute and article 6 paragraph 1 of the CONAI Rules, which establish that the Consortium shall acquire a share of the EPR Fee, in order to perform its functions, in compliance with the criteria of management containment and efficiency and to the maximum extent of 20% of the EPR Fee paid by EPR Organisation members. The share has increased compared to the previous year in order to cover the higher costs incurred.

Other revenues (€2,644,785)

Other revenues include revenues from penalties, revenues from reversal of provision for impairment of receivables on penalties, miscellaneous revenues, and interest income.

Revenues from penalties (€688,475)

These refer to the charges issued against those EPR Organisation members who failed to submit the EPR Fee declaration or obstructed the assessment activity, and who were sanctioned as provided for in article 13 of the CONAI Regulation. The amount decreased by 7% compared to the previous year, as the Consortium is giving preference to on-demand inspections in support of EPR Organisation members over audits: these activities certainly have a positive impact on fee recoveries, but do not entail the imposition of penalties. It should be noted that these revenues are posted net of the portion deemed congruous to cover the risk associated with the possible remodulation of penalties issued for obstruction of assessment activities, amounting to €95,468.

Revenues from miscellaneous (€418,202)

These consist mainly of reimbursement to EPR Organisation members of legal fees for credit recovery activities, rental income, and other revenues. They decreased by 8% due to lower revenues from the reimbursement of legal fees related to credit recovery activities.

Interest income (€1,538,108)

This relates to interest accrued on CONAI's cash and cash equivalents (around €437,000), on fixed-term deposits (around €272,000), and on portfolio management in government bonds (around €616,000). Additionally, this item includes interest on arrears accrued as of the date of the financial statements on receivables for EPR Fee overdue and not yet collected as of 31 December 2024, on payments made late by EPR Organisation members up to 31 December 2024, and on late submission of declarations, adding up to a total of around €212,000. The increase is due to the rate dynamics recorded during the year.

13.1.2 | Costs

The Consortium's total costs increased by 4% compared to the previous year, solely due to higher costs of ordinary management and other costs. These include ordinary management costs (€19,649,199), recycling development costs (€8,750,429) and other costs (€2,499,165).

Costs of ordinary management (€19,649,199)

They increased by 2% due to higher personnel costs, general and administrative expenses, and miscellaneous operating expenses, partly offset by other lower costs for corporate bodies, consultancy and depreciation. The items comprising these costs are illustrated below.

Costs of operation of corporate bodies (€1,036,425)
These account for the operating costs of the Board of Directors, the Board of Auditors, and the Members' Assembly. They decreased by 10% compared to the previous year due to the lower number of meetings held and lower Members' Assembly costs.

Costs of personnel (€5,972,405)
increased by 3% due to the increase in the average number of employees, which increased by 2, and due to the effect of salary dynamics.

Costs of communication (€1,353,723)
These include media activities, trade fairs, giveaways, printed matter and other costs of minor initiatives. They decreased by about 4% due to lower media costs.

Costs of consultancy (€380,020)
These relate to advice on legal, corporate and tax matters. They decreased by 38% due to lower costs for consultancy services relating to antitrust compliance, EU packaging law and Model 231.

Costs of provision of services (€4,221,968)
These comprise a variety of items, including costs of managing the EPR Fee (around €1,730,000), costs of managing debt collection activities (around €1,354,000), costs of managing IT system services (around €234,000), and costs of legal representation (around €336,000). They increased by 2% due to the higher costs of credit recovery.

Costs of control activities (€826,477)

These include the costs of audits carried out by third parties at the premises of EPR Organisation members, to ensure the EPR Fee is being correctly applied. They decreased by 6% due to the lower average cost of these audits.

General and administrative expenses (€2,812,755)

These costs are for insurance, stationery, certification of financial statements, Supervisory Board, software and hardware maintenance fees, connectivity, restaurant coupons, utilities, and employee travel expenses. They increased by 9% compared to the previous year due to higher costs for software, employee travel expenses and other costs.

Research Centre (€310,017)

These include validation activities for the procedures used to determine placement on the market, recycling and recovery data for packaging ("Obiettivo Riciclo" project around €86,000) and other support activities in preparation for audits of own resource plastic (around €170,000).

International activity (€447,432)

This includes the costs of the EXPRA membership fee, Advocacy, the Observatory on International Waste Management Systems, and other costs. Costs increased by 4% due to higher costs related to the Observatory on International Systems.

Rent and other operating charges (€887,690)

These include operating leases and rentals (around €314,000) and miscellaneous operating expenses (around €573,000). They increased by 16% due to higher costs in previous years.

Depreciation (€1,100,362)

These mainly comprise the depreciation of the Consortium's operational headquarters in Milan and purchases of licences and software used in the Consortium's operations. They decreased by 6% due to lower investments made.

Remade (€300,000)

This consists of the contribution provided for the startup phase of the "Re-Made Foundation-Social Enterprise Third Sector Entity", of which CONAI is a founding member. The Foundation pursues civic and social utility goals aimed at promoting awareness and use, within the scope and as a driver of the circular economy, of environmentally sustainable materials and products made from recycled materials, as well as materials and products made from the reuse of other materials and/or products (eco-sustainable goods).

Costs for development of recycling (€8,750,429)

Costs for development of recycling include costs related to a variety of initiatives as illustrated below.

Costs of management of the ANCI-CONAI Framework Agreement (€4,202,922)

These include the costs of the ANCI-CONAI Call for Local Communication Projects (around €1,540,000), the costs of local projects (around €1,512,000) relating to support to local authorities for projects for the integrated management of new separate collection systems, costs of support for PNRR projects (around €103,000), costs of managing the National Observatory (€200,000), the Database (€200,000) and the ANCI technical structure (€250,000), the costs of the Coordination and Verification Committees (around €137,000), and other costs. They decreased by 3% due to the lower costs of the Call for Local Communication Projects.

Costs of communication (€1,507,320)

These include initiatives aimed at citizens, including the media partnership with national radio stations (around €285,000), the Rimini Meeting (€50,000), major events (€267,000) and initiatives aimed at businesses, including the Radio-24 Campaign (around €79,000), L'Economia d'Italia (around €80,000), Economy of the Future (around €50,000), Pianeta 2030 (around €54,000), the Trento Festival of Economics (around €75,000). They increased by 3%.

Costs of skills development (€374,620)

These include the costs related to the School Project (around €301,000) and Green Jobs (around €59,000).

Participation in the circular economy study (€30,000)

This includes membership fees to third-party organisations conducting research on the circular economy.

Prevention for firms and eco-sustainability (€1,368,072)

These include the costs of various initiatives such as the Call for Eco-design Projects aimed at companies that design, produce and use eco-sustainable packaging (around €610,000), the "CONAI EcoTool" initiative (around €409,000) which enables member companies to carry out a simplified LCA analysis and measure the effectiveness of interventions made on prevention, and the "Tools and Guidelines for Companies and Associations" initiative (around €285,000). They increased by 8% due to the higher costs of the "CONAI EcoTool" initiative.

Research Centre (€646,882)
These include the costs of the Cycle Industry Observatory, in-depth studies on placement on the market of packaging, waste Regulation, energy recovery and other initiatives, and increased by about 7% due to the higher costs of the Placement on the Market of Packaging study.

Environment and sustainability €278,253)
These include the costs of the Sustainability Report, studies and research on the circular economy; they decreased by 21% compared to the previous year.

Other costs for local projects (€342,360)
These concern the costs of training events held locally for companies on aspects of prevention and exemptions on packaging management and other initiatives.

Other costs (€2,499,165)

These include **costs for the supervisory and control functions in the field of waste exercised by MASE (€1,400,000)**, **impairments and losses on receivables for penalties and EPR Fee (€623,665)** and **taxes (€475,000)**. They increased mainly as a result of higher impairments of receivables from the EPR Fee, as a result of higher receivables and higher taxes.

13.2 Profit and loss account of the CONAI EPR Organisation

PROFIT AND LOSS ACCOUNT OF THE CONAI EPR ORGANISATION

Values in thousands of €

	Final results 31 December 2024	Final results 31 December 2023
REVENUES		
From CONAI EPR Fee	1,050,714	718,447
Sale of materials – Delivery services	360,380	290,745
Other revenues	57,952	50,657
Total revenues	**1,469,046**	**1,059,849**
COSTS		
Delivery costs	(808,960)	(695,850)
Recycling costs	(433,354)	(406,276)
Energy recovery costs	(87,433)	(88,182)
Structural operating costs	(56,319)	(52,481)
Costs of R&D, communication and local projects	(29,005)	(28,688)
Total costs	**(1,415,071)**	**(1,271,477)**
Financial management, extraordinary, depreciation/impairments and taxes	4,723	7,666
SURPLUS (DEFICIT) FOR THE YEAR	**(49,252)**	**(219,294)**
Capital reserve	517,180	467,928

Unlike last year, the year 2024 closed with an operating surplus, bringing the CONAI EPR Organisation's reserves at the end of the year to €517 million, amounting to 36% of the year's total costs.

Total revenues (€1,469,046,000)

Total revenues consisted of EPR Fee, sale of materials and other revenues, making for a total of €1,469,046,000, an increase of 39% compared to the previous year.

EPR Fee revenues (€1,050,714,000)

They increased by €332,267,000 and accounted for 72% of total revenues. The increase is attributable to the increase in the average annual EPR Fee for the aluminium, paper and plastic consortia. The aluminium supply chain, whose average annual fee increased from €7/tonne to €10.75/tonne, recorded higher revenues of €314,000; the paper supply chain, whose average annual fee increased from €14.66/tonne to €59.22/tonne, recorded higher revenues of €197,591,000; the plastic supply chain, whose average annual fee increased from €285.38/tonne to €364.75/tonne, recorded higher revenues of €145,256,000. On the other hand, the average annual fees for wood, bioplastics and glass have decreased. The wood supply chain, whose average annual fee decreased from €8.00/tonne to €7.00/tonne, recorded lower revenues of €2,100,000. The bioplastic supply chain, whose average annual fee decreased from €170.00/tonne to €140.00/tonne, recorded lower revenues of €1,956,000. The steel supply chain, whose fee remained constant at €5/tonne, recorded higher revenues of €32,000. The total declared quantities increased by about 2%. *(see next page)*

Revenues from sale of materials (€360,380,000)

These increased by €69,635,000 and accounted for 25% of total revenues. This trend is mainly due to the increase in revenue from material sales recorded by the paper and plastic supply chains, partly reduced by the decrease in revenue from the steel and glass supply chains. Paper posted higher revenues of €71,729,000, mainly due to the sharp increase in pulp sale prices (+60%). The plastic supply chain also reported higher revenues of €24,477,000 due to the substantial increase in material sales prices (+40%), which was only slightly offset by the lower quantities sold (-5%). The steel and glass supply chains both recorded lower revenues, albeit for different reasons. Steel recorded a decrease in revenue of €1,287,000 due to lower quantities sold (-11%), with prices up 4%. The glass supply chain recorded lower revenues of €26,897,000 due to lower sales prices (-59%), partly offset by higher quantities sold (+55%).

CONAI EPR FEE 2024

VALUES IN €/TONNE

Steel	Aluminium	Paper	Wood	Plastic	Biodegradable and compostable plastic	Glass
5.00	**7.00/ 12.00**[1]	*Band 1:* **35.00/65.00** *Band 2:* **55.00/85.00** *Band 3:* **145.00/175.00** *Band 4:* **275.00/ 305.00** [2]	**7.00**	*Band A1.1:* **20.00/24.00** *Band A1.2:* 90.00 *Band A2:* 220.00 *Band B1.1:* **20.00/224.00** *Band B1.2:* **20.00/233.00** *Band B2.1:* **350.00/441.00** *Band B2.2:* **477.00/589.00** *Band B2.3:* **555.00/650.00** *Band C:* **560.00/655.00** [3]	**170.00/ 130.00**[4]	15.00

1
As of 1 April 2024, the **Aluminium** Fee increased from €7.00/t to €12.00/t.

2
As of 1 April 2024, the **Paper** Fee increased from €35.00/t to €65.00/t for Band 1, from €55.00/t to €85.00/t for Band 2, from €145.00/t to €175.00/t for Band 3 and from €275.00/t to €305.00/t for Band 4.

3
As of 1 April 2024, the **Plastic** Fee increased from €20.00/t to €24.00/t for Band A1.2, from €20.00/t to €224.00/t for Band B1.1, from €20.00/t to €233.00/t for Band B1.2, from €350.00/t to €441.00/t for Band B2.1, from €477.00/t to €589.00/t for Band B2.2, from €555.00/t to €650.00/t for Band B2.3, and from €560.00/t to €655.00/t for Band C.

4
As of 1 April 2024, the **Biodegradable and Compostable Plastic** Fee decreased from €170.00/t to €130.00/t.

Total costs (€1,415,071,000)

Total costs include delivery, recycling, energy recovery and facility operation, adding up to a total of €1,415,071,000, an increase of around 11% compared to the previous year.

Delivery costs (€808,960,000)

These represent 56% of total costs and increased by €113,110,000 due to higher quantities delivered (+8%) and higher unit costs (+8%). The paper, plastic and glass supply chains recorded higher costs of €42,068,000 for paper, €40,123,000 for plastic, and €27,464,000 for glass. Paper recorded higher costs due to the increase in quantities delivered (+5%) and unit costs (+16%). Plastic also recorded higher costs, due to the increase in quantities delivered (+4%) and unit costs (+6%). It was a similar story for glass, with higher costs due to higher quantities delivered (+17%) and higher unit costs (+6%). The delivery costs include ANCI-CONAI payments to municipalities amount-

ing to €788,728,000, equal to 98% of total delivery costs.

Recycling costs
(€433,354,000, accounting for 30% of total costs)
These increased by €27,078,000, mainly due to higher costs for sorting (+€14,987,000), recycling fees (+€12,591,000), logistics (+€1,573,000) and product analyses (+€2,103,000). The largest variances are attributable to the paper supply chain (+€6,222,000), the wood supply chain (+€4,353,000) and the plastic supply chain (+€15,000,000).

Energy recovery costs
(€87,433,000, accounting for 6% of total costs)
These decreased by 1% mainly due to a reduction in unit costs (-12%) as volumes increased.

Structural operating costs
(€56,319,000, accounting for 4% of total costs)
These include general and personnel costs and increased by €3,838,000, mainly due to higher general costs. Personnel costs, which are part of this item, amounted to €22,774,000 and accounted for only 1.6% of total costs.

The costs of R&D, communication and local projects (€29,005,000, accounting for 2% of total costs) increased by only 1%.

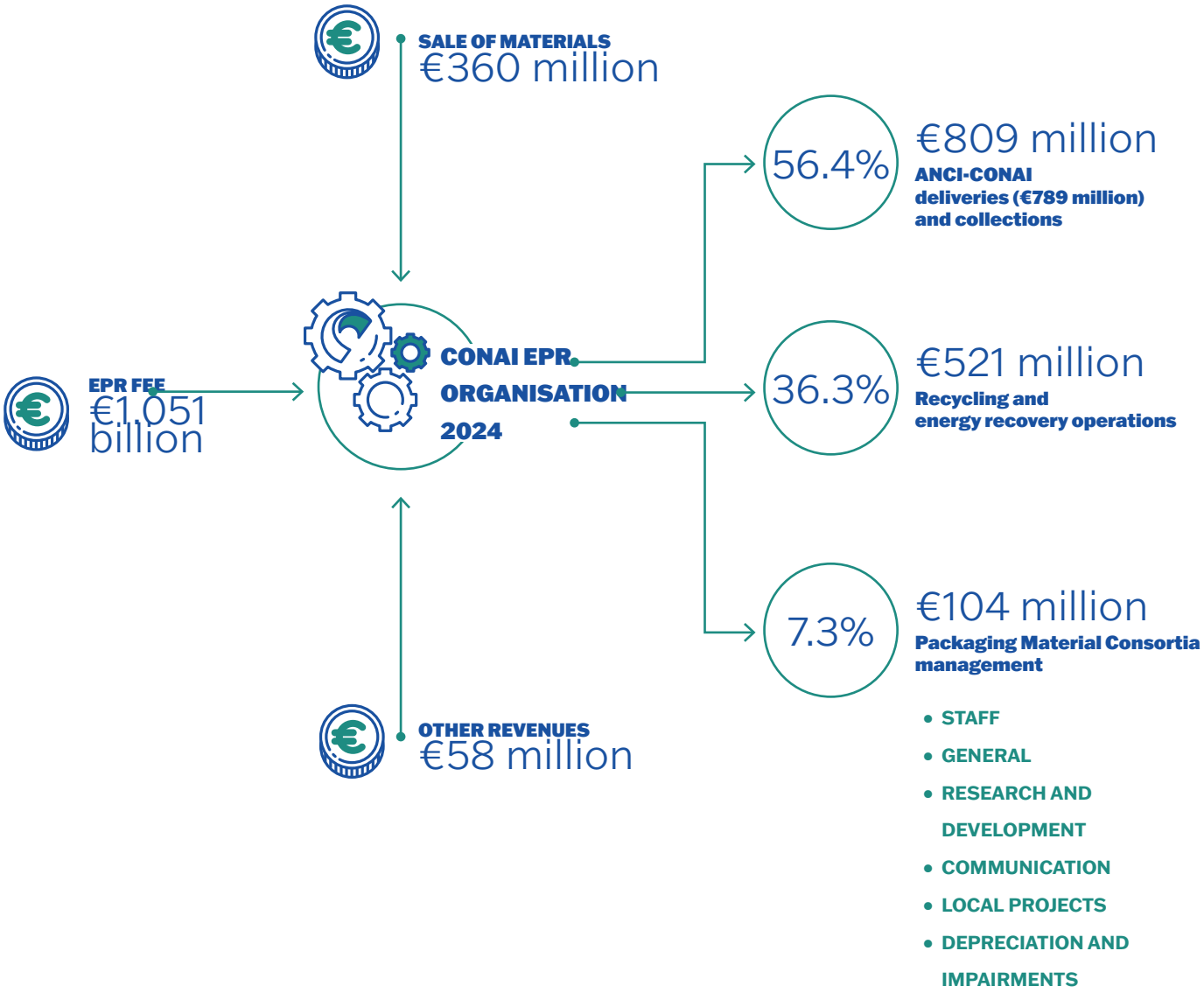
The group of items "Financial management, extraordinary, depreciation/impairments and taxes" made a negative contribution of €4,723,000 to the result for the year, down from the previous year due to higher financial income. The costs necessary to ensure the system's operation were covered 74% by EPR Fee revenues, 25% by revenues from the sale of materials, and 4% by other revenues. Total revenues were sufficient to cover costs, generating a deficit for the year of €49,252,000 with a consequent increase in the capital reserve. Following the forecasts for the 2025-2026 two-year period, the Board of Directors approved an increase in the EPR Fee for the wood, plastic and glass supply chains, taking effect from the second half of 2025.

Economic and financial balance of the CONAI EPR Organisation

Finally, with regard to the economic balance of the CONAI EPR Organisation, i.e. CONAI and Packaging Material Consortia, thanks to the EPR Fee paid by member companies and revenues from the sale of recycled materials for those fractions that have a positive economic return, the system has supported the national supply chains, from collection to recycling, with around

€1.3 billion. The reserves at the end of the year total were sufficient to cover 3-4 months of costs and were therefore in line with the consortium's self-regulation process for reserves.

ECONOMIC RESULTS OF SYSTEM



The year 2024 closed with an operating surplus, bringing the CONAI EPR Organisation's reserves at the end of the year to €517 million, amounting to 36% of the year's total costs.
Given the positive trend in the sales prices of secondary raw materials and the increase in average annual fees, total revenues were more than sufficient to cover costs, generating an operating surplus with a consequent increase in the capital reserve.

14

Appendix

Circulars on reusable packaging – Summary of current incentive procedures

CIRCULARS OF 5 APRIL AND 2 JULY 2012	
Incentivised formulas reserved for reusable packaging used within particular circuits	**Reusable packaging used within a production cycle or commercial network (not subject to EPR Fee) – Circular 5 April 2012, letter a)** Exclusion from the EPR Fee for reusable packaging used as part of a production cycle or commercial network and, specifically, to move products within companies and not to contain goods for sale. This refers to reusable packaging, structurally designed for a generally multi-year use (according to the most common cases: plastic crates of various sizes and wooden or plastic pallets) used for movement of goods (from raw materials to finished products) within the same industrial site or logistics hub (belonging to the same legal entity) or between several local units (production sites, logistics hubs, sales outlets) belonging to the same legal entity or industrial or commercial group/network). **Reusable packaging used in particularly environmentally favourable circuits (subject to EPR Fee at the end of the packaging's life) – Circular 5 April 2012, letter b) and Circular 2 July 2012, point 2.** For all reusable packaging used in strictly controlled, certified/verifiable return systems (such as rental or through similar commercial forms with non-transfer of ownership). The procedure provides for: • application of the EPR Fee at the moment when the packaging, forming part of the entire circulating stock, effectively completes its reuse cycle or is otherwise dispersed or out of the circuit. Consequently, the owner of the reusable packaging does not have to pay the EPR Fee at the time of release for consumption, but undertakes to declare and pay it directly to CONAI when the packaging has completed its reuse cycle; • declaration and payment of the fee must also include the packaging disposed of or recycled at the owner's own expense, if the owner is not able to suitably document use of the raw material (obtained from the recycling of the packaging) for the production of other packaging re-introduced into the same circuit. **Reusable glass bottles and plastic crates/baskets used in particularly environmentally favourable circuits (reduction of the weight subject to EPR Fee compared to the ordinary procedure) – Circular 2 July 2012, point 1.** • for glass bottles: percentage subject: 15% (85% abatement by weight); • for plastic crates/baskets: percentage subject: 7% (93% abatement by weight).

CIRCULAR OF 31 MARCH 2022
(supplementing and replacing the Circular of 2 December 2021, 14 June 2019 and 10 December 2012)

Application of the CONAI EPR Fee on wooden pallets, with reference to:
- **pallets made from used wood, repaired or simply selected,**
- **pallets made from new wood if produced in conformity with codified specifications and used in controlled circuits.**

1. PALLETS MADE FROM USED WOOD, REPAIRED OR SIMPLY SELECTED

For these types of pallets, there are different incentivised formulas for operators in the sector, as detailed in the circular and summarised in the following table:

Cases	From 2013 to 2018	From 2019 to 2021	From 1 January 2022
Case 1: irrespective of the activity actually performed on them (repair on all or part of them, mere sorting/screening or no action at all) as well as of their origin (with form or transport document).	PERCENTAGE OF WEIGHT SUBJECT TO EPR FEE		
	60%	60%	60%
	PERCENTAGE ABATEMENT OF WEIGHT		
	40%	40%	40%
Case 2: if produced in compliance with codified specifications within known "controlled" production circuits, for which certain requirements are met. *	PERCENTAGE OF WEIGHT SUBJECT TO EPR FEE		
	40%	20%	10%
	PERCENTAGE ABATEMENT OF WEIGHT		
	60%	80%	90%

2. PALLETS MADE FROM NEW WOOD IF PRODUCED IN CONFORMITY WITH CODIFIED SPECIFICATIONS AND USED IN CONTROLLED CIRCUITS

For the pallets referred to in case 2 above but newly manufactured, similar incentives are offered, as summarised in the following table:

Cases	From 2013 to 2018	From 2019 to 2021	From 1 January 2022
If produced in compliance with codified specifications within known "controlled" production circuits, for which certain requirements are met. *	PERCENTAGE OF WEIGHT SUBJECT TO EPR FEE		
	40%	20%	10%
	PERCENTAGE ABATEMENT OF WEIGHT		
	60%	80%	90%

As of 1 January 2022, a new simplified application formula for the EPR Fee was introduced for operators in the wooden pallet repair sector that comply with codified specifications and are owned by third parties (paragraph c, point 4 of the Circular).

* Minimum requirements, essential for access to the incentive, valid for both new and used pallets (further details in the circular):
- establishment of a monitored prevention and reuse system, managed by a subject specifically identified and recognised by CONAI and Rilegno, which ensures and takes responsibility for the functioning of the system itself;
- the aforementioned system and its management are subject to the coordinated control of CONAI and Rilegno as well as an independent third party;
- express adherence to the system by EPR Organisation members operating in the sector who demonstrate that they meet the requirements;
- compliance with defined specifications, specifically validated by CONAI and Rilegno, which identify the characteristics of the pallets (e.g. dimensions, capacity, identifying elements such as brand, staple, nail, irremovable label).

CIRCULAR OF 19 MARCH 2014 AS AMENDED	
Regenerated steel drums	**Simplified procedure for the application and declaration of the EPR Fee reserved for steel drum regenerators** This procedure, which is an alternative to the ordinary one, provides for the possibility of applying a unitary EPR Fee on the number of regenerated steel drums, subject to "first transfer", determined based on a standard weight attributed to the drum.

CIRCULAR OF 22 DECEMBER 2014	
Refillable gas containers of various types (excluding fire extinguishers)	**EPR Fee exemption for refillable gas containers of various types (excluding fire extinguishers)** The following are excluded from the CONAI EPR Fee, without prejudice to their nature as packaging: transportable, refillable and reusable containers, and related accessories (such as valves and protective caps), intended to contain compressed, liquefied and dissolved gases, with specific reference to technical, special and medical gases, liquefied petroleum gas (LPG) and natural gas.

CIRCULAR OF 5 DECEMBER 2017 AS AMENDED	
Multi-material tanks and plastic drums that are regenerated and returned to the market within Italy	**Simplified procedure for application, declaration, exemption and payment of the EPR Fee reserved for regenerators of multi-material tanks and plastic drums regenerated and returned to the market** This procedure, which is an alternative to the ordinary one, provides for the possibility of applying the EPR Fee on the amount of regenerated packaging, determined based on a standard weight attributed to it.

Main data from the Reuse Observatory study

Type	Useful life	Rotations	Average weight	Repairs / Reuses during useful life	General information about regeneration processes
	YEARS	No. / YEAR	KG	No.	
STEEL					
Drums (with variable capacity; from 210 to 220 litres)	10	/	16 **64**	10	The main steps are: **Restoring the shape** of the drum, **cleaning**, **checking the tightness** and internal surfaces, and finally **brushing** the exterior and **painting**. On average, about 37% of washed drums do not pass inspection and have to be discarded.
ALUMINIUM					
Gas canisters for water (the most common have a 425 g format)	10	3	/	/	The main steps are: **sterilisation** of the container after complete removal of all residual gas, **replacement/repair of damaged valves**, **testing** to ensure that the cylinder is perfectly gas-tight, and **labelling** the cylinder to show the expiry date of the gas.
WOOD					

→

64
See CONAI Circular for regenerated steel drums at www.CONAI.org, Downloads section.

Pallets (generally 800 x 1,200 mm or 1,000 x 1,200 mm in size)	/	3 to 5	Weight less than or equal to 12 kg	2.2 for light-weight pallets	The main stages are: **stripping** broken tops or blocks, **replacing** defective elements with new or undamaged semi-finished products.
			Weight between 13 and 23 kg	3.4 for medium-weight pallets	
			Weight greater than 23 kg	Up to 4.5	
Type	**Useful life**	**Rotations**	**Average weight**	**Repairs / Reuses during useful life**	**General information about regeneration processes**
	YEARS	No. / YEAR	KG	No.	
PLASTIC					
Interlayers (the most common are 1,000 x 1,200)	7	5	1.2	7	The interlayers are washed in **industrial washing machines** with hot water, usually with the addition of detergents. The percentage of interlayers discarded during this process is around 4%.
Collapsible crates (mostly made of PP; typical dimensions of 60 cm x 40 cm and different heights)	5 to 20	6-7	/	/	Crates in direct contact with the foodstuff are washed every time they are reused, those used for fourth range products (i.e. packaged) undergo more sporadic washing.
GLASS					
Returnable (There are different formats: 1 l, 0.75 l and 0.5 l)	/	3-5	The weight can be the same as that of a disposable glass bottle or more (+28-48%)	5 to 40 (depending on the characteristics of the bottle and the willingness of customers to receive bottles showing signs of wear and tear)	The bottle is initially **decapsulated**. It then undergoes several **pre-washing stages** in series with water at 40-50 °C. It is **washed in a bottle-washing machine** which washes it in several successive steps consisting of caustic baths at 75-80 °C, which aim to remove labels, glue and pollutants that may have contaminated the bottle during vacuum storage (which usually takes place outdoors). Afterwards, the bottle is **rinsed** first with peracetic acid and then with mineral water. Finally, it is subjected to **automatic checks**.

Declaration of Verification of the procedure for the operation of the CONAI EcoTool and selection of cases admitted and not admitted to the CONAI Call for Prevention Projects – 2024 edition

DNV

CONAI - Consorzio Nazionale Imballaggi

Dichiarazione di Verifica della procedura di funzionamento dell'Eco Tool CONAI e della metodologia di selezione dei casi ammessi e non ammessi al "Bando CONAI per l'ecodesign degli imballaggi nell'economia circolare" - Edizione 2024

INTRODUZIONE

La prevenzione è una delle principali attività con cui CONAI ai sensi del D.Lgs. 152/2006 e s.m.i. svolge un ruolo di supporto alle imprese sia per favorire e diffondere una cultura di sostenibilità ambientale, che per valorizzare interventi di progettazione e produzione di imballaggi a ridotto impatto ambientale con il coinvolgimento di tutte le fasi del ciclo di vita.

Uno degli strumenti, a tal fine utilizzati fin dal 2013, è il bando per la prevenzione e la valorizzazione della sostenibilità ambientale degli imballaggi che raccoglie e premia le soluzioni sostenibili degli imballaggi immessi sul mercato valorizzandone il contenuto di innovazione a favore dell'ambiente, come indicato nel regolamento di partecipazione.

CONAI ha richiesto a DNV di verificare la corretta applicazione del Regolamento "BANDO CONAI PER L'ECODESIGN DEGLI IMBALLAGGI NELL'ECONOMIA CIRCOLARE, Valorizzare la sostenibilità ambientale degli imballaggi Edizione 2024" del 22 febbraio 2024 ("Regolamento bando ecodesign 2024") e del corretto funzionamento dell'"Eco Tool CONAI" utilizzato per la selezione e la valutazione dei casi presentati dai consorziati con l'assegnazione del punteggio e dei relativi premi.

SCOPO DELL'ATTIVITÀ E PERCORSO METODOLOGICO

L'obiettivo della verifica, condiviso e concordato con CONAI, è stato quello di analizzare le modalità utilizzate dal Consorzio per l'applicazione del "Regolamento Bando ecodesign 2024" e quindi delle modalità di selezione e valutazione dei casi presentati dai consorziati e dei relativi punteggi e premi assegnati. L'attività si è svolta presso gli uffici di Milano di CONAI, nel mese di Ottobre 2024 attraverso un'analisi documentale ed una "operativa".

Nella fase operativa è stato esaminato un campione rappresentativo (37 su 414 pari al 8,94%) di casi inviati dai consorziati che hanno aderito al "BANDO CONAI PER L'ECODESIGN DEGLI IMBALLAGGI NELL'ECONOMIA CIRCOLARE - Valorizzare la sostenibilità ambientale degli imballaggi - Edizione 2024", come illustrato nella seguente tabella:

Selezione casi presentati di consorziati	Casi totali	Casi campionati in valore assoluto	% Casi campionati
Casi ammessi e premiati	248	20	8,06%
Casi non ammessi e non premiati	166	17	10,24%
TOTALE	**414**	**37**	**8,94%**

L'attività svolta si è basata sulla verifica, ai sensi del "Regolamento bando ecodesign 2024" e del corretto funzionamento del webtool "Eco Tool CONAI" della:

- corretta selezione dei casi "non ammessi" rispetto a quelli "ammessi";
- corretta selezione dei casi "ammessi" rispetto a quelli "non ammessi";
- corretta attribuzione, per i casi "ammessi", del punteggio e dell'assegnazione dei relativi premi.

Per quanto riguarda la validazione del webtool "Eco Tool CONAI", il Consorzio ne verifica l'efficacia di funzionamento tramite il fornitore Life Cycle Engineering Srl (LCE) che lo ha sviluppato e ne gestisce gli upgrade.

La versione utilizzata nel "BANDO CONAI PER L'ECODESIGN DEGLI IMBALLAGGI NELL'ECONOMIA CIRCOLARE - Valorizzare la sostenibilità ambientale degli imballaggi - Edizione 2024" è la Versione 6.0 del 14.10.2024.

CONCLUSIONI

L'Assessment ha consentito di apprezzare l'impegno del team che opera nella divisione "Centro Studi per l'economia circolare" nel promuovere strategie fortemente orientate ad incentivare i propri consorziati allo sviluppo di processi di economia circolare e, nel caso in esame, dell'ecodesign sull'intero ciclo di vita dell'imballaggio considerato che tale processo, oltre a favorire e diffondere una cultura di sostenibilità ambientale, rappresenta un elemento di differenziazione e di vantaggio competitivo.

Dall'attività di verifica svolta emerge che il Regolamento "BANDO CONAI PER L'ECODESIGN DEGLI IMBALLAGGI NELL'ECONOMIA CIRCOLARE - Valorizzare la sostenibilità ambientale degli imballaggi - Edizione 2024" rappresenta uno strumento strutturato ed efficace per la diffusione tra i consorziati di una cultura di sostenibilità ambientale e di valorizzazione degli interventi di progettazione, ecodesign e produzione di imballaggi a ridotto impatto ambientale.

Le informazioni, i dati, le relative elaborazioni ed i risultati della selezione e valutazione dei casi verificati a campione per l'assegnazione dei premi e dei cinque superpremi, sono risultati correttamente gestiti, documentati e coerenti con quanto indicato nel "Regolamento bando ecodesign 2024" e nell'"Eco Tool CONAI – Manuale tecnico (LCE)" Versione V06". Essi sono adeguatamente archiviati al fine di garantirne la rintracciabilità.

Sulla base dell'attività di audit svolta, CONAI può utilizzare la dicitura "Verificato da DNV" nel proprio sito internet www.ecotoolconai.org, nelle informazioni documentate cartacee e in quelle di carattere istituzionale presenti nei siti WEB.

Nei siti web dove tale dicitura sarà utilizzata, è necessario riportare un collegamento ipertestuale alla "Dichiarazione di Verifica" al fine di rendere pubblico e trasparente il campo di applicazione e gli esiti dell'attività di audit.

Qualsiasi comunicazione e/o pubblicazione di CONAI riportante la dichiarazione "Verificato da DNV" dovrà essere preventivamente sottoposta all'approvazione di DNV.

DICHIARAZIONE DI INDIPENDENZA

DNV non è stata coinvolta nella preparazione di alcun documento, nella raccolta dati e nella interpretazione dei dati e delle conclusioni presenti nel "BANDO CONAI PER L'ECODESIGN DEGLI IMBALLAGGI NELL'ECONOMIA CIRCOLARE - Valorizzare la sostenibilità ambientale degli imballaggi - Edizione 2024" e nella graduatoria ad esso associata. DNV mantiene pertanto la completa imparzialità nei confronti della parte committente la verifica e dei soggetti che hanno realizzato il webtool "Eco Tool CONAI".

DNV declina qualsiasi responsabilità o corresponsabilità per qualunque decisione presa basandosi su questa Dichiarazione di Verifica.

Vimercate, 12 Novembre 2024

Per DNV Business Assurance Italia S.r.l.

Marco Tognazzi	Riccardo Arena
Lead Verifier	*Reviewer*

Analysis and determination of placement on the market of packaging

For six supply chains (steel, aluminium, paper, wood, plastic and biodegradable and compostable plastic), the reported data is mainly the result of analyses and calculations based on what has been declared by the EPR Organisation members to CONAI with the periodic declaration procedures of the CONAI EPR Fee in the years 2023 and 2024 ("equivalent applicable quantities")[65].

For the purposes of determining the placement on the market, corrective measures have been applied, including **de minimis and free riding**. New to the **2024 preliminary figures** for the aluminium and plastic supply chain under Corepla's remit is the introduction of the **new "composites" corrective measure**, the quantity value of which was determined through a CAWI survey administered to companies declaring paper and aluminium-based composite packaging. For the plastic, wood and paper supply chains, the figure for placement on the market is supplemented with the quantities declared by the recognised Self-compliant EPR Organisations to the extent of their respective competences. Finally, the glass chain has defined its own procedure for determining the figure for placement on the market, which is based on sales in Italy (from the various distribution channels) of glass-packaged goods, and then provides a comparison with the figures derived from analyses of the amounts declared to CONAI and from other sources.

It is worth emphasising that the quantities placed on the market are directly affected by regulatory decisions on the definition of packaging and, at times, present quite a few interpretative difficulties since they envisage distinctions, even within the same product category, between goods that are considered "packaging" and others that are not, depending, for example, on their use (e.g. disposable crockery that is "packaging" if used to serve food at the point of sale, but not if it is purchased stand-alone by the consumer). This is a distinction that cannot be made once such a good becomes waste and disposed of in separate collections.

CONAI has set up a special procedure for determining the data on equivalent applicable quantities[66] in order to determine the figure for placement on the market *(see next page)*.

This information is compared with what is reported by specific sector surveys carried out for CONAI by the Italian Packaging Institute[67], by market surveys carried out by AC Nielsen and by other specific sources available to Packag-

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"Equivalent applicable quantities" the packaging quantities periodically declared by EPR Organisation members for the different materials, supplemented by the results of the calculation of the simplified value declarations to obtain the weight equivalent of the different materials.

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The analysis conducted by the Italian Packaging Institute for CONAI is based on a calculation model that determines the total amount of full packaging used in Italy by determining the overall consumption of packaging material starting from qualified and representative samples of the main user sectors and from data available from various statistical sources (ISTAT, trade associations, firms) on the flows of packaged goods produced, consumed, imported and exported, using specific sectoral packaging mixes.

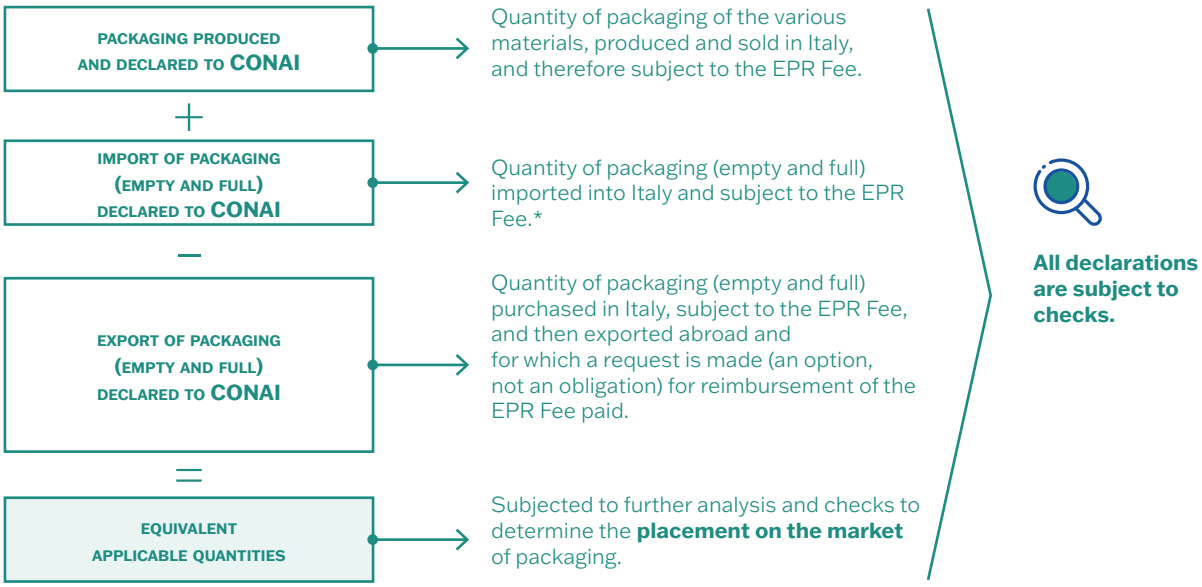
DETERMINATION OF EQUIVALENT APPLICABLE QUANTITIES

For simplified or flat-rate declarations

The CONAI EPR Fee is applied to the "first transfer", i.e. at the time of transfer, even temporarily and for whatever reason, within Italy, of the finished packaging made by the last producer or trader of empty packaging to the first user, other than the trader of empty packaging, or of packaging material made by a producer of raw material or semi-finished products to a self-manufacturer who is or declares itself as such.[68]

Furthermore, the procedure provides for the application – for certain specific cases indicated in the CONAI EPR Fee Guide[49] – of simplified methods of calculating and paying the EPR Fee, making it possible to carry out flat-rate calculations to determine the EPR Fee. "Equivalent quantities" refer precisely to the calculations that are carried out to determine the quantities subject to simplified or flat-rate declarations.

The export data for empty and/or full packaging is then subtracted from the declared quantities. There is no obligation to declare these flows, but export EPR Organisation members may apply to CONAI for a refund of EPR Fee paid for packaging destined for export abroad. In view of the lack of requests for reimbursement of EPR Fee paid for full packaging sold abroad (a common practice among small users, particularly in the wine and quality oil sectors, and difficult to quantify), the CoReVe consortium has chosen to adopt a different determination procedure for the glass supply chain.



* Declared by ordinary and simplified procedure.

68
https://www.conai.org/download/guida-al-contributo-ambientale-2025/?tmstv=1750155026

69
https://www.conai.org/download/guida-al-contributo-ambientale-2025/

ing Material Consortia, in order to accurately determine the placement on the market of packaging for the various materials.
Lastly, we should also mention the development of e-commerce, especially for online sales between private citizens abroad, which are therefore excluded from the import declaration obligation for full packaging. This is a flow on which in-depth studies are underway at the European level to understand which common methods should be used, while recognising that it is still a marginal flow at present. The national reporting system, on the other hand, tracks ordinary online sales flows well, thanks to the choice of upstream application of the EPR Fee. Indeed, since the figure for placement on the market is derived from the quantities subject to the EPR Fee, the figure is recorded upstream in the value chain of goods consumed in Italy. While this method makes the assessments of the placement on the market more robust, it is also influenced by the purchasing policies and warehouse dynamics of firms, linked, for example, to the price trend of raw materials, as well as forecasts for how demand will develop.

Methodology and analysis of packaging waste recycling data

Recovery for recycling of packaging waste involves recycling through material recovery (chemical, mechanical, organic) and regeneration or repair (preparation for reuse). This applies when packaging becomes waste and can only perform its original function again once it has been reclaimed/repaired (a typical example of this is IBC tanks).

Before reviewing the results, we should remember that overall recycling is determined by the coexistence of two streams, which can be classified according to the origin of packaging for recycling from the public sector and the private sector.

Public sector refers to the quantities of packaging waste sent to recycling from municipal and related waste, i.e. from separate collection organised by the municipalities. *Private sector*, on the other hand, refers to the quantities of packaging waste sent to recycling mainly from the industrial and commercial circuit, i.e. mainly secondary and tertiary packaging waste.

Reclassification between the two flows is directly affected by assimilation of special waste to municipal waste, which differs to a great extent at the local level. This is particularly relevant for the cellulose packaging chain, but not only.

Suffice it to say that, according to the latest available ISPRA data[70], the production per capita of municipal solid waste in Italy varies from 372 kg (in Basilicata) to 639 kg (in Emilia-Romagna) per inhabitant per year. These differences cannot only be explained by real consumption per capita, but demonstrate the existence of very different municipal collection perimeters throughout the country.

In addition, new online shopping patterns also lead to increasing quantities of typically secondary and tertiary packaging becoming waste within households, and this is once again a phenomenon that mainly impacts the cellulose packaging chain.

The data is also presented with reference to the distinction between the systems managing their recovery for recycling: recycling directly managed by Packaging Material Consortia, recycling managed on the market by independent operators, and recycling managed by Self-compliant EPR Organisations.

This aspect deserves a preliminary remark. In the remainder of the document, the different forms of management will be noted and commented on separately, with the contribution of the individual management models ad-

70 ISPRA, Municipal Waste Report 2024.

opted and, for the plastic packaging chain, the contributions of the various EPR systems being detailed in the graphs shown.

Managed recycling is represented by packaging waste accepted by Packaging Material Consortia and sent to recovery. Typically, these flows come from separate collection managed within the framework of the ANCI-CONAI agreements signed with municipalities/collection managers at the local level. Then there are quantities from the recovery of packaging waste from the private sector – typically commercial and industrial waste. These flows arise from specific agreements/conventions entered into by Packaging Material Consortia with operators in the sector, especially for the wood packaging supply chain.

The recycling data managed by the Consortia can be documented and verified via waste forms ("FIR") or transport documents ("DTT"). Over the years, consortium management has also been a driving force for recycling of similar fractions – meaning goods (non-packaging) made from the reference materials (e.g. paper and wood) – especially for some supply chains. This will also be discussed below.

Recycling not managed by Packaging Material Consortia includes:

- Recycling by the market: packaging waste for recovery by independent for-profit operators. This therefore typically consists of commercial and industrial packaging waste streams that are recovered on the market for recycling, and a portion of packaging waste present in municipal waste where the municipality/manager has chosen not to adhere to the ANCI-CONAI Framework Agreement or to withdraw from it;
- Recycling operated by Self-compliant EPR Organisations: the share of packaging waste managed by PARI and CONIP for commercial and industrial streams, by Coripet for the relevant share of packaging waste present in municipal waste (since 2019), and by Erion Packaging (since 2023) as the first multi-material consortium managing certain types of packaging relating to electrical and electronic equipment.

Note on methodology

PROVISIONAL DATA AND ADJUSTMENTS

Data contained in previous publications that are not consistent with those in this volume shall be deemed corrected.

ROUNDING

Due to rounding thousands or millions during data processing, the data in tables may differ by a few units (of thousands or millions) higher or lower. For the same reason, vertical or horizontal alignment within the same table is not always possible.

RELATIVE FIGURES

Relative figures (percentages, percentage points, etc.) are generally calculated on unrounded absolute figures, whereas many figures in this volume are rounded (to the nearest thousand, million, etc.).
Reworking the calculations on the basis of these absolute figures can therefore result in relative figures that differ slightly from those shown in the text.

ABBREVIATIONS

EPR Fee = CONAI environmental contribution ("CAC")
signatory = party to ANCI-CONAI agreement
kg = kilogrammes
ktonnes = thousands of tonnes; t = tonnes
MASE = Ministry of the Environment and Energy Security
MATTM = Ministry of the Environment and Protection of Land and Sea
MIMIT = Ministry of Enterprises and Made in Italy
MITE = Ministry of Ecological Transition
K = thousand
€K = thousands of euros
M = million
B = billion
No. = number
n/applic. = not applicable
n/a = not available
TUA = Legislative Decree 152/2006 as amended (Consolidated Environmental Act)
UoM = unit of measure

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