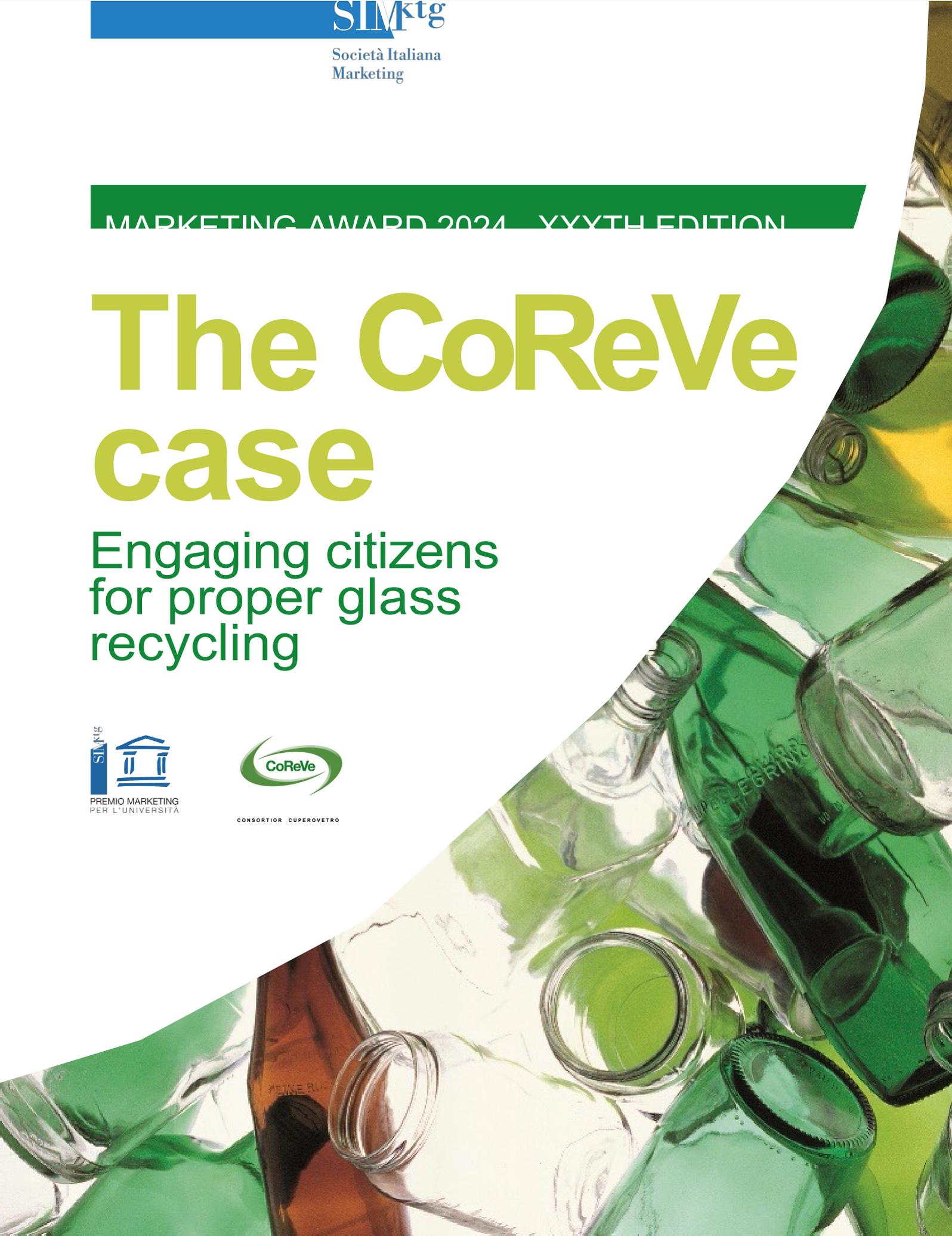


The CoReVe case

Engaging citizens
for proper glass
recycling



CONSORZIO CUPEROVETRO





INTRODUCTION

The invention of glass as a material is traditionally traced back to a fortuitous event.

If primordial forms of this material were already observable in prehistoric times when, as a result of lava spills during volcanic eruptions and their sudden cooling, a real natural glass - obsidian - originated, it was around 4000 B.C. that man discovered the process of making this material. According to the writings of Pliny the Elder, glass was allegedly first made by Phoenician merchants who, using blocks of natural soda ash to support pots during a bivouac on a Syrian beach, saw the supports first melt from heat and then later mix with sand to originate the first glassy compound made by human hands. Before long, this new material was so highly prized that it spread along all the shores of the Mediterranean, eventually reaching Egypt, where glass compositions and techniques were coined that have remained essentially unchanged over time.

The success of glass crosses eras and cultures to the present day. In the first centuries of use, glassware was destined to contain oils and perfumed essences, while during the time of the Roman Empire, glasses and the first geometrically shaped bottles, called precisely Roman, antesignans of modern bottles for transporting liquids, were made. Starting in the mid-16th century, table glassware, ornamental glass, and optical lenses were born, until the 1950s when tempered glass and solar glass for the automotive market were introduced. Today we are seeing a renewed importance of this material in multiple areas of application, from the food industry to the chemical industry, from architecture to power generation. Most of the uses of glass derive from its transparency, its chemical inalterability and its versatility: in fact, thanks to the addition of certain elements, it is possible to create glass with different colors and characteristic chemical and physical properties for different applications.

Glass as a packaging material is therefore increasingly used today as it is able to guarantee a plurality of benefits both for industry, which can avail itself of a material that, thanks to technological advances, lends itself to taking on particular and attractive shapes albeit in the face of increasing lightness and strength, and for the consumer, who has the opportunity to purchase products contained in packaging capable of perfectly preserving food, leaving their odors and flavors unaltered; an unparalleled transparency, allowing their contents to be controlled; and a total recyclability that maximizes their economic and environmental sustainability.

For these reasons, attention to the collection and recycling of hollow glass (packaging glass and household glass) has grown exponentially in recent decades. CoReVe, Consorzio Recupero Vetro, the national consortium for the collection, recycling and recovery of glass packaging waste produced on the Italian territory, is a Non-Profit entity and aims to collect all the packaging glass used in our country and send it for recycling. CoReVe therefore has always been committed not only to supporting municipalities, companies and waste management companies in the optimization of hollow glass collection and recycling processes, but also in the dissemination of those virtuous behaviors that, if correctly implemented by the citizenry, allow maximizing the results of separate collection of glass packaging.

CoReVe - GLASS RECOVERY CONSORTIUM.

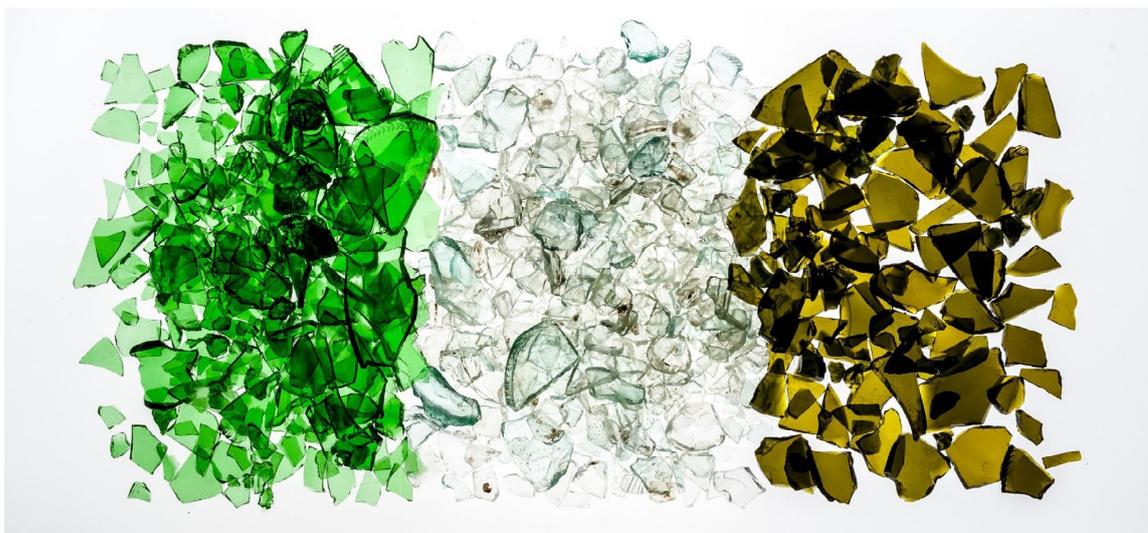
CoReVe was established in 1997 in compliance with Legislative Decree 22/97, the so-called Ronchi Decree, later supplemented by the Consolidated Environmental Text, Legislative Decree 152/96, which implemented European Directive 94/62. CoReVe is a juridical entity under private law that operates on a nonprofit basis and is responsible for the recycling and recovery targets of glass packaging waste deriving from national separate collection, within the CONAI - Consorzio Nazionale Imballaggi system. The Consortium promotes and supports the separate collection of glass packaging waste, guaranteeing the recycling of the material delivered and promoting a path of improvement of glass collection at the level of the Italian system. Glass packaging manufacturers and importers, both bottlers and wholesalers, as well as processors, are members of CoReVe.

The Consortium was formed to ensure proper and effective environmental management of glass packaging waste at the end of its life and to achieve the recycling targets set by law. Over 97 percent of the Italian population is involved in the system managed by CoReVe and more than 7,500 municipalities distributed throughout the country benefit from the activities carried out by the Consortium. To guarantee the collection and recycling of glass packaging waste from the national separate urban collection, CoReVe signs agreements with the municipalities, or their delegated Managers, that discipline the collection methods and the economic fees that are paid to them for the higher charges that separate glass collection entails compared to undifferentiated collection. The value of the

economic fees for collection and their modulation are agreed, every five years, with a National Agreement signed between CONAI (Consorzio Nazionale Imballaggi) and ANCI (Associazione Nazionale Comuni Italiani), while the amount of this fee, disbursed directly by CoReVe to municipalities or collection managers, is proportional to the quantity collected and the "quality" of the same. In 2022, CoReVe disbursed 111 million euros in fees to municipalities. The lower the amount of impurity contained within the collected material, the higher the recognized fee will be because the presence of improper materials in glass packaging collected after consumption leads to serious waste. This is because the machinery used in glass treatment plants, in order to remove the pollutants present downstream of collection, also discards much of that glassy material that would otherwise be perfectly recyclable. CoReVe's financial sustainability, i.e., the possibility of disbursing fees to municipalities and guaranteeing that the collected packaging waste is sent for recycling, is ensured by the Environmental Contribution paid by producers and users to CONAI (National Packaging Consortium), which sets the value, and by the proceeds from the sale, through competitive auctions, of the packaging waste collected by the Communications and contracted Managers.



[CoReVe Company Profile](#)



GLASS: AN IMMORTAL MATERIAL IN A CIRCULAR ECONOMY PERSPECTIVE

Glass, a 100 percent recyclable material without any integration of material, can take any form and can be reborn infinite times giving birth to new products. Among its peculiarities, this material has the ability to maintain its chemical and physical characteristics unchanged over time and, therefore, is potentially infinitely recyclable. To perfect safety and protection of food and taste, it combines unparalleled sustainability features. With the recycling route, glass can thus return to life indefinitely in new containers ready to be used by manufacturers, re-entering our homes with everyday groceries. Because of its peculiarities and sustainability, glass can be recovered and, once the recycling process is concluded, can be reused to make new bottles and jars used for wine, beer, liquor, soft drinks, juices, condiments, homogenized foods, jams, water and milk. Once

consumed the products they contain, glass packaging potentially represents a resource that, if properly separated from other waste and collected, can be processed and transformed into second raw material (MPS), suitable for producing new packaging that can be used a potentially infinite number of times.

In addition to being recyclable without limit, glass im- portages also boast other important peculiarities that make them extremely advantageous, including for the consumer. These include, first and foremost, the perfect chemical inertness, a peculiarity that allows food to be preserved by pre-serving unaltered odors and flavors. In addition, glass as packaging also ensures excellent insulation of the material it contains and hygiene of the product inside; moreover, its inadequate transparency allows the consumer to control its contents.



COREVE institutional video 2023

GLASS CYCLE AND RECYCLING

Over the past few years, there has been a major increase in glass collection and recycling activities in Italy and Europe. Recycling of this material represents a particular form of waste reuse because, potentially, the glass recovery cycle can occur indefinitely. The

agendas of global institutions have placed increasing emphasis on the theme of the circular economy understood as a production and consumption model of a regenerative nature that can contribute radically to waste reduction on the one hand and waste minimization on the other.

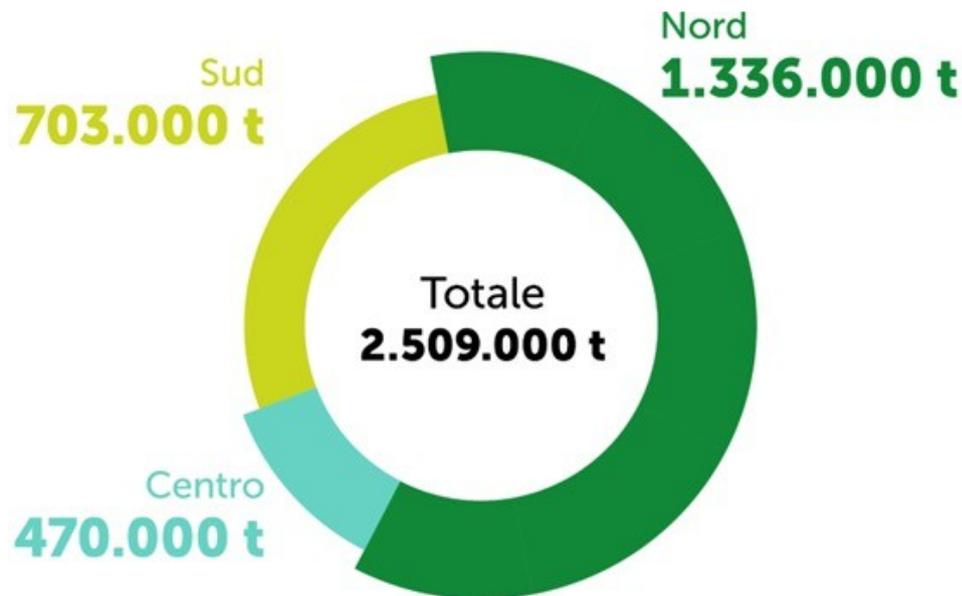


Figure 1 - Recycling 2022 (MPS) by management system types.

The waste generated during the waste treatment activities of glass packaging was approximately 216,000 tons, with the percentage of material actually recycled amounting to 91.4 percent of what was collected (or approximately 2,293,000 tons). This waste is mainly represented by extraneous fractions and, to a residual extent, by glass that, although recyclable, was sent to the landfill because it was contaminated by pollutant material present in the bins at the time of collection. Regarding waste, an important fact to reflect on is that the average quality is pegged and despite the secondary recovery of waste (sand and glass) and technological improvement we still lose, in 2022, 8.6 percent of the total

harvest compared to a European average of 3 to 4 percent. The 2,293,000 tons of glass packaging waste sent for recycling come from the separate collection carried out on the national territory between two different channels: consor- tial management, which includes all the glass packaging waste collected and recycled through the conventions sub- scribed by CoReVe with municipalities or delegated operators, and independent management, which includes both the quantities that glassworks buy directly from processors, without CoReVe carrying out any mediation, and the quantities that are used in sectors other than glassmaking, such as, for example, construction.

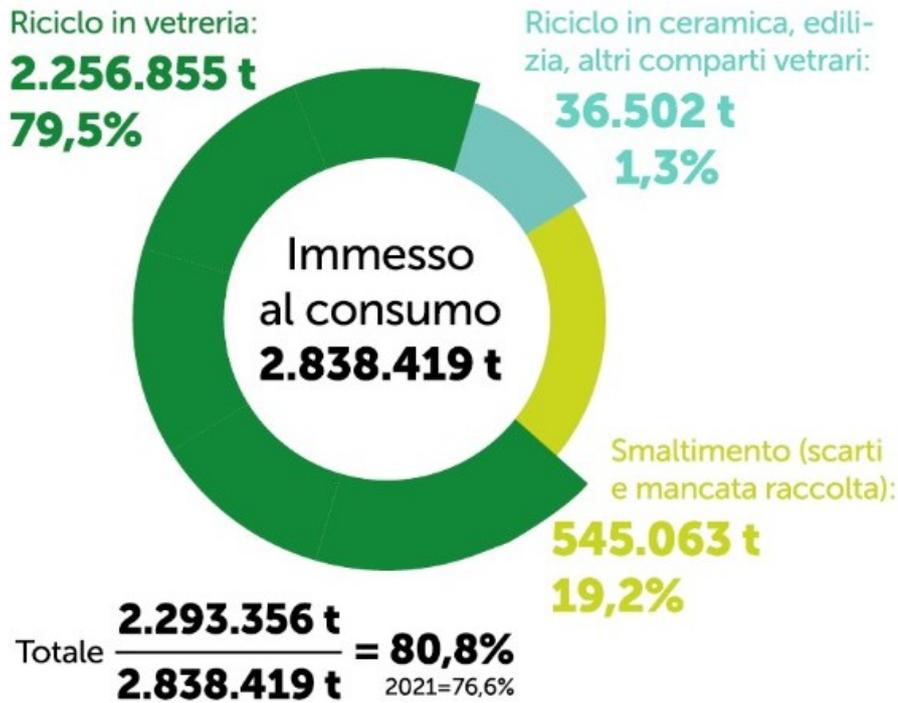


Figure 2 - Recycling rate 2022

Even with reference to recycling activities, the most recent data indicate a progressive improvement for our country. In fact, a significant improvement in glass recycling in Italy was found in 2022, amounting to a 4.2 percent year-on-year increase from a recycling rate of 76.6 percent in 2021 to 80.8 percent in 2022. This is an extremely positive result, especially considering that the target set by the European Union to 2030 for member countries is a glass recycling rate of 75 percent.

The excellent result achieved in 2022 in terms

of recycling rates suffer, as was the case in the previous year, a downward correction that became necessary due to the large quantities of MPS glass scrap imported from other nations, such as Austria, France, Switzerland and Germany. In fact, while on the one hand our country has proven capable of sending to recycling significant amounts of MPS glass recovered from foreign countries, on the other hand the relevant European regulations require that the recuperation of material from other nations does not contribute to determining the results related to recycling activities.

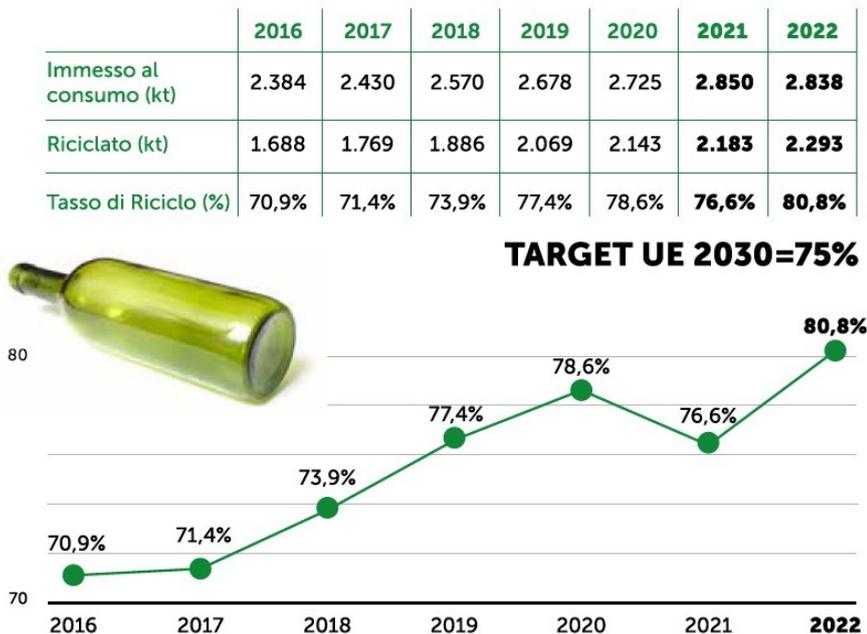


Figure 3 - Recycling results of glass packaging waste in the period 2016- 2022 (000/t)

Italy is the world's third largest producer, after China and the U.S., of glass packaging, and thanks to our celebrated food and beverage half of the production

annual of such packaging is exported all over the world.

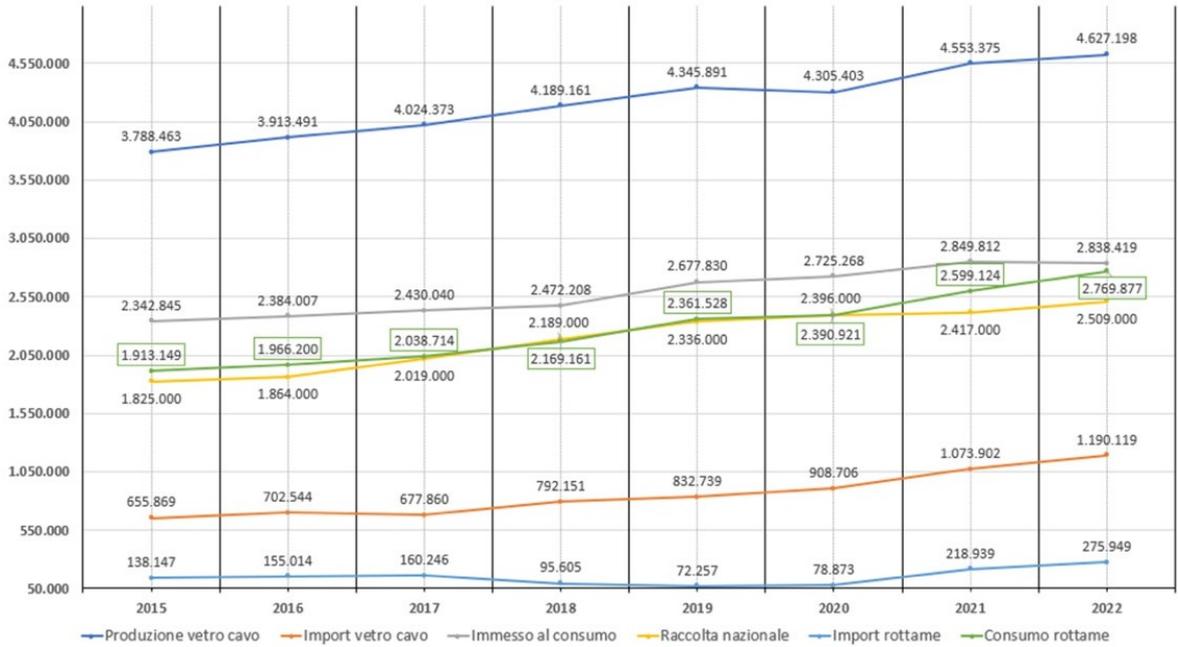


Figure 4 - Domestic hollow glass production excluding housewares - Assovetro



Thanks in part to the many actions put in place by CoReVe, in the last year each Italian recycled an average of 1.6 kg more glass than in the last survey, rising from an average of 41 kg in 2021 to 42.6 kg in 2022. Overall, the amount of glass that ends up in landfills has been reduced by 100 thousand tons which, considering the landfill costs that have been avoided, translates into savings of 18 million euros and almost 4 million m³ of gas (which become about 7 million m³ if indirect savings are also considered). The contribution made by CoReVe to glass recycling becomes even more significant when looking at the savings in absolute terms, considering the environmental accounting of recycling as a whole: in 2022, scrap recycled by glassworks saved energy for more than 436 million m³ of gas, equal to the domestic methane gas consumption of a city of about 1.6 million inhabitants. The availability of scrap glass to be used as a substitute for raw materials also ensured that important results were achieved in terms of carbon dioxide not released into the environment. In fact, if one sums up the savings associated with glass production with those associated with the production of traditional raw materials, it turns out that 2.5 million tons of greenhouse gas emissions into the atmosphere were avoided in 2022, an amount assimilable to the emissions resulting from driving more than 1,600,000 Euro 5 small cars (FIAT 500) for one year with an average mileage of 15,000 km (CO₂ emission 105 g/km). To conclude the analysis of the environmental benefits associated with the recycling of packaging glass, one last interesting fact to take into consideration concerns the saving of raw materials. In fact, the scrap glass used in 2021 by Italian glassworks to produce new packaging has allowed a reduction in the use of traditional raw materials (sand, soda ash, carbonates, etc.) by more than

4,185,000 tons, a quantity the size of which would occupy just under two times the volume of the Colosseum. Overall, glass recovery and recycling has saved an estimated 450 million euros, costs saved by not sending and disposing of glass packaging waste to landfills.



Figure 5 - Environmental and economic benefits 2022 from the correct separate collection of glass



Sustainability Report



Read more
the journey of the bottle

THE GLASS RECYCLING MARKET

Despite the brilliant results in 2022 and a trend that shows a gradual improvement in the amount of glass collected and sent to the recycling process, it is clear that there is ample room for mitigation. However, in order to achieve good recycling of glass collection and prevent some of it from going unused, it is essential to separate glass from other polluting materials. In fact, the higher the percentage of pollutant materials present, the less value the material that is collected has, and once the tolerance values of pollutant materials are exceeded, the glass delivered cannot be recycled. This happens because the sorting machines of the collected glass treatment plants have an industrial efficiency limit, so the more pollutants there are at the origin, the higher the probability that the pollutant will reach the glassworks. For most of the collection carried out to be of a good standard, it is fundamental that only bottles and jars are placed in the glass collection bins and bins. Bad habits, such as placing glass inside the bags or introducing polluting material such as metal, crystal or ceramic caps, frustrate all the efforts made to develop separate collection. The development of separate collection of packaging glass represents an important opportunity for economic and environmental growth, which, to be fully grasped, requires increasingly active and participatory involvement of citizens. Dissatisfaction and lack of correct information are among the main obstacles to improving the results achieved so far: it therefore becomes fundamental-

mental understanding of the peculiarities of differentiated glass collection in Italy in order to outline the lines of action to be taken in the near future to improve and continue to nurture the important successes achieved so far. The research commissioned by CoReVe to better understand the phenomenon of glass collection and the directions in which to direct efforts in the coming years provide interesting insights. Currently, in fact, Italian women (92 percent) show a greater propensity to regularly carry out separate glass collection than male citizens (86 percent). The inclination to consistently comply with the correct principles of separate collection increases as age increases: while among those aged between 18 and 24 only 82% say they regularly carry out separate collection, this percentage increases to 94% among those aged between 55 and 70. Some differences are also found when analyzing the residence of citizens: at the geographic level, the data indicate different levels of attention to separate glass collection, with the Triveneto region leading the ranking of areas in our country with as many as 92 percent of respondents claiming to implement separate glass collection regularly. Citizens who reside in cities with more than 250,000 inhabitants are the least likely to implement separate glass collection consistently (87 percent), while persons residing in towns with less than 10,000 inhabitants and towns with 30-250,000 inhabitants are the most likely to observe the principles of proper glass collection regularly (90 percent).

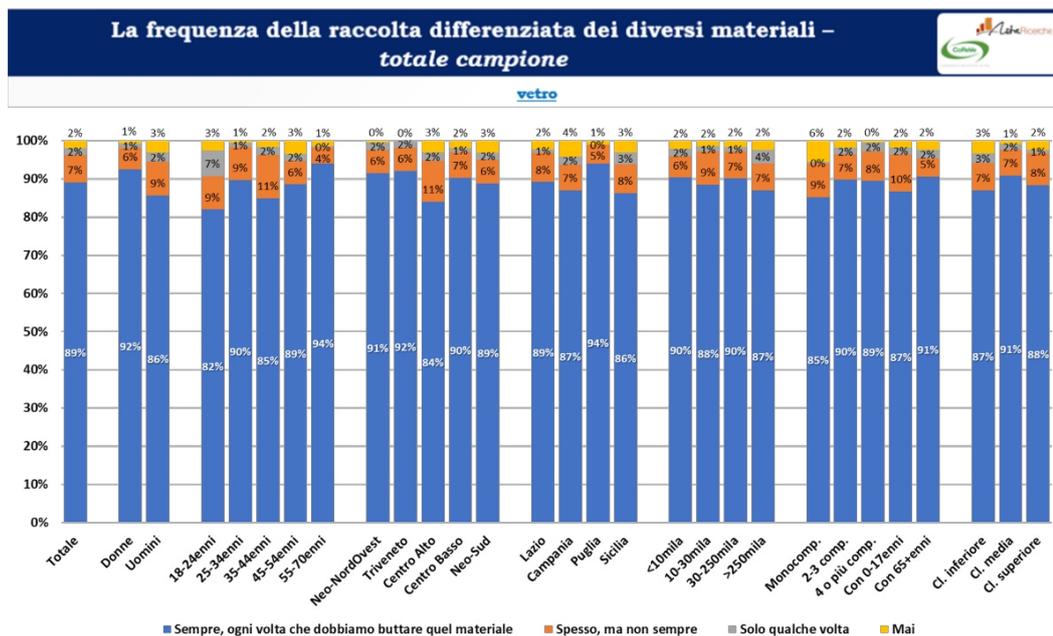


Figure 6 - Respondents and separate glass collection. CoReVe survey - AstraRicerche, August 2023

Virtuous behaviors and attention to separate collection help to maximize the recycling of glass packaging waste while also reducing, thanks to avoided landfill disposal charges, the management costs of all urban waste. However, surveys have shown that only 81.5 percent of Italians are aware that perfect recycling requires that only bottles and jars be placed in separate glass collection.

The survey also revealed that there are still some widespread misconceptions among Italians about what to give in difference glass collection, a symptom of how much more needs to be done and communicated to improve awareness.

le-cacy and correct habits even among those who make daily efforts to sort their waste. Although CoReVe has long launched numerous initiatives to communicate to citizens that proper glass disposal occurs only when glass bottles and jars are exclusively delivered, still nearly seven out of 10 respondents believe it is correct to deliver window glass to the bins designated for glass collection, 5 out of 10 are certain that they are acting correctly by disposing of eyeglass lenses along with packaging glass, and more than 3 out of 10 Italians think it is correct to recycle light bulbs in the glass collection.

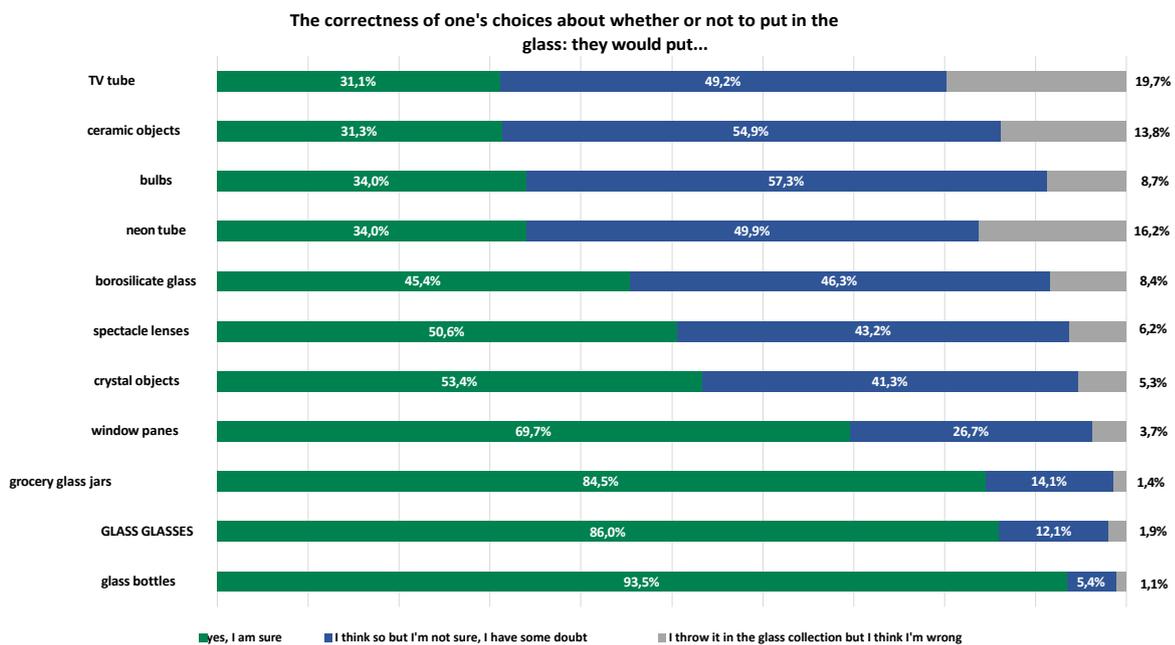


Figure 7 - Perception of the correct delivery of different materials in glass collection
CoReVe survey - AstraRicerche, 2022



CoReVe Research Summary - AstraRicerche 2022



GLASS COLLECTION: CONSORTIUM CHALLENGES AND RESPONSES

Good-quality glass collection requires two fundamental components: on the one hand, it is necessary to act on the efficiency of the organizational and logistical system chosen by each municipality to carry out collection; on the other hand, it is important to continue to improve the effectiveness of the collection system adopted, which, in turn, is the result of a combination of factors such as the punctuality of the service, the capillary control of deliveries, and user awareness. In particular, making citizens aware of the importance of the quality of glass collection in order to be able to recycle the material delivered to the appropriate collection areas in the best possible way is a fundamental point and one in which to invest in the coming years in order to achieve the ambitious goals set for 2030. In fact, although there are currently available waste treatment technologies that are of great help in the stages following different collection and before recycling in glassworks, they still have limitations that result in significant-

tive material losses. Citizens must therefore become more knowledgeable about the process of glass sorting, collection, and recycling. When one considers that it only takes one mistaken contribution in glass collection to invalidate the efforts of other citizens and nullify the virtuous path generated by their efforts, informing citizens, the real protagonists of separate collection, on how to correctly confer glass for disposal assumes vital importance. The so-called "false friends" of glass collection are numerous and often mislead the consumer who approaches sorting waste for disposal: crystal glasses and objects, ceramics, including porcelain, borosilicate glass (and vetroceramics), lamps and light bulbs, neon tubes, mirrors, TV and PC monitors, screened sheets, and various inert materials, which at first analysis might seem to be assimilated to packaging glass, are in fact contaminating materials.

FAKE FRIENDS.

Among the "false friends of glass," a definition that accumulates all materials that seem to be packaging glass and are not, the most insidious are: ceramic, cry- stall and borosilicate glass. Each of them for specific reasons.

CERAMICS

Ceramics have a higher melting temperature than packaging glass. Therefore, when in the furnace the glass is now liquid and on its way to becoming a glowing "drop" from which the new packaging will take shape, the ceramic remains in the glass mass in the form of a solid pebble, thus creating a defect to the container which, consequently, has a high probability of breaking.

CRYSTAL

Crystal is glass with a high lead content, a heavy metal that is dangerous if dispersed in the environment. Although the Glass Experimental Station and the scientific community have established that there is no transfer problem between container and contents, given the high "segregating" power of glass that makes it an inerting agent par excellence, European Union legislation imposes: on the one hand, a limit of 200 parts per million to the presence of lead in packaging intended for beverages and food, as part of a policy to contain heavy metals potentially dispersible in the environment; on the other hand, a specific regulation for the recycling of glass scrap (EU Regulation also known as "End of Waste") prescribes that, in order for glass packaging waste to be transformed into a suitable secondary raw material for re-melting in glassworks, any mixing with crystal and other waste streams (e.g. sanitary) that are not suitable. Given the high lead content, even a few crystal fragments can jeopardize large quantities of recyclable scrap; therefore, the presence of crystal objects in the separate collection of packaging glass should be avoided at all costs.

BOROSILICATE GLASS

Borosilicate glass, like ceramics, has a higher melting temperature than packaging glass; therefore, any fragment of this material imprisoned in the melt will compromise the mechanical strength of the future packaging formed from it, even more insidiously than ceramics, since being transparent it is more difficult to distinguish and separate.



Alongside these materials, whose confer- ment into the bell or glass bins for "door-to-door" collection may be dictated by a lack of consumer attention to the issue of recycling, there are also behaviors that represent "bad habits" that may also be adopted by those who pay great attention to sorting their waste due to distraction or lack of knowledge. First and foremost, it should be emphasized that in order to make the sorting and treatment process that precedes the arrival of the material at the glassworks more effective, efficient, and economical, only bottles and jars should be delivered in the separate collection of glass. It would also be appropriate to

That citizens, before discarding bottles and jars, check that they are free of any food residue and that all packaging accessories made of materials other than glass and easily removable (e.g., metal tap- pi, collars, sleeves) have been removed. This greatly reduces the loss of otherwise per- fectly recyclable glass, which is discarded at treatment facilities in the removal of these pollutants. Finally, before glass packaging is placed in the bell or condominium recycling collection bin dedicated to it, it is fon- essential to remove glass bottles and jars from any bags used to transport them.





Figure 8 - How to make the collection? GLASS BOTTLES AND JARS ONLY.

Every year in the sorting operations of false friends and other pollutants during the scrap treatment process about 220,000 tons collected are discarded and disposed of in landfills. Considering, on the one hand, the excellent results of glass collection and recycling recorded in recent years and, on the other hand, CoReVe's ambitions to reach a glass recycling rate touching 83 percent in 2023 and breaking through 86 percent in 2025, it is clear how crucial it is to involve and engage citizens. This is an ambitious challenge, supported by CoReVe with a plurality of initiatives aimed at Italian municipalities and intended to

To offer concrete and substantial support to the involvement of the process of collecting packaging glass in Italy. In 2022-2023 alone, CoReVe, in collaboration with ANCI - Associazione Nazionale Comuni Italiani, published calls for proposals worth a total of nearly 8 million euros and with which 122 projects in 351 municipalities were financed, generating positive effects from which more than 7 million citizens were able to benefit.

Given the success of the Calls, CoReVe together with AnCI launched the new edition 2023-2024 with an allocation of 8 million euros.



Figure 9 - The main results of the CoReVe-ANCI 2022 calls for Italian municipalities.

THE MANAGEMENT OF GLASS COLLECTION: DIFFERENT MODES FOR A SINGLE GOAL

The modes of collection of glass packaging waste must be identified in relation to the needs of recycling activities, but also in respect of the principles of effectiveness, efficiency and economicity of the service. There are currently two different modes of collection in Italy. The best known system, which is economical and effective, is represented by roadside bells. A second collection system is the one commonly identified as "door-to-door." When used, the proper functioning of door-to-door glass collection depends, in addition to the frequency of emptying and punctual control activities, on the addition of containers appropriate to the characteristics of the context. Each Italian municipality can choose which mode of glass packaging collection to adopt: we find municipalities that adopt street collection, with bells, others that prefer door-to-door, and still others that additionally use mixed modes depending on neighborhoods or user type (domestic or non-domestic collection). In addition, municipalities are also left free to choose whether to resort to a single-material glass collection or to adopt a multi-material glass collection such as, for example, glass-metal, which involves the delivery of the two materials in the same container. It should be noted, however, that in order to achieve a percentage and a

higher quality of glass collection, single-material collection would be appropriate. Among the modes of glass collection, some municipalities have also introduced new ad hoc designed tools such as, for example, collection of glass separated by color. In any case, whatever the mode and model of selective collection, only careful and punctual management of the service can make it possible to achieve quantitative and qualitative results of excellence.

Great attention in terms of sensibilization activities is devoted to the HoReCa sector, which consumes large quantities of hollow glass and yet has the worst collection quality overall. Much of the glass from HoReCa follows the vacuum returnable (VAR) circuit, but that which is delivered to the glass recycling has high percentages of extraneous fractions i.e. false friends, especially crystal and ceramics. In the material collected from Hotels, Bars and Restaurants, the presence of improper material, such as ceramics, is, in fact, about 2.5 times higher than in domestic users.

Also related to HoReCa is the abandonment of glass packaging in nightlife areas, which especially involves younger segments of the population.



HoReCa

The HoReCa circuit (Hotels, Bars and Restaurants) produces large amounts of glass waste, which is about 2.5 times higher than that of domestic users. Some research carried out by CoReVe in cooperation with the Collection Service Managers in municipalities has revealed incorrect glass disposal behaviors from non-household users in the HoReCa circuit due to the presence of ceramics.

In order to spread the culture and rules of proper glass recycling, since 2016 Co- ReVe has launched a series of programs dedicated to the HoReCa circuit in order to increase merchants' awareness of the correct behaviors to adopt when they are called upon to dispose of packaging glass. The peculiarity of these programs is represented not only by the creation and distribution of ad hoc communication materials and gadgets, but also by the active involvement of the collection operators who, in charge of the material takes and/or informing and reporting anomalies to the users, become the main point of reference for the merchants.

"Are You Shard? Glass is something else" now represents the Consortium's main project aimed at HoReCa. The project includes the organization of training meetings for bar and restaurant operators, as well as the creation and distribution of ad hoc information materials (stickers, window decals, aprons, multilingual brochures). In addition, the project includes a "continuous" monitoring activity to understand the progress of the quality of the collection before, during and after the campaign with the aim of also assessing the "permanence" of the message over time.



COMMUNICATION FOR EFFECTIVE GLASS COLLECTION: OUTREACH AND SERVICE ACTIVITIES

CoReVe's ambition is to establish and develop relationships of trust and cooperation with the territories in which it operates, with the aim of being an important point of reference for local municipalities. The involvement of citizens inevitably requires continuous listening and active involvement in co-creation processes that allow, on the one hand, to spread the culture of recycling and awareness of its importance for a sustainable future of the country system and, on the other hand, to communicate and raise awareness of the importance of adopting virtuous behaviors with respect to the proper recalculation of different materials.

The Consortium's communication activities in support of separate glass collection can be classified into service activities and awareness-raising activities.

In order to develop effective service communication, the Consortium is constantly committed to the development of activities and projects aimed at promoting sustainability within local communities and disseminating proper waste collection practices throughout the territory. In particular, CoReVe contributes to the implementation and diffusion of sponsorship activities, awareness campaigns, awards and recognitions. Moreover, in order to contribute to the welfare of the inhabitants of the municipalities and local communities, the Consortium is committed not only to making its knowledge and expertise available in various ways and occasions, but also to promoting co-financing activities with local administrations, establishing value-added relationships. Among the tools activated to support these activities, CoReVe makes available to administrations, businesses and citizens information materials such as postcards, foldable posters and videos in which good habits are described to recycle glass correctly without making mistakes. Ad hoc initiatives have also been carried out for Communities in an attempt to involve them and recognize the merits of those Local Administrations that have distinguished themselves for their ability to correctly collect glass and send it for recycling.

Awareness-raising activities aim as a priority to increase the awareness of all Italian citizens about the importance of proper separate collection of glass packaging, emphasizing the ways in which it should be delivered when it is to be disposed of. Alongside countless projects spread widely at the local level, for years the Consortium has been carrying out national campaigns through TV, radio, and digital media to convey more direct communication messages through increased dissemination of content on the importance of exclusively conferring bottles and jars in the appropriate containers dedicated to glass, also avoiding their mixture with "false friends." In addition to this, 2023 saw the launch of a new radio and TV communication campaign, reinforced by increased activities on social media thanks to a Digital PR plan, and the launch of an award to support quality newspaper on recycling and environmental issues. The awareness-raising activities carried out by the Consortium also take into account the importance of engaging new generations toward sustainable development. To achieve the ambitious goals set, CoReVe has therefore undertaken a series of initiatives aimed at schools, the educational offerings in fact ranging from a cartoon dedicated to sustainability issues for kindergarten to 7 educational kits, for primary and secondary schools, comprehensive with a one-hour lesson, support materials and a digital activity to consolidate what was presented in the lesson as well as a PCTO - Pathways for Transversal Skills and Orientation for high schools, a training course for teachers certified on the S.O.F.I.A. and finally a Startup Lab.



CoReVe's Commercial



CoReVe Spot 2022 - Glass is immortal!

THE 2024 CHALLENGE - THE COREVE CASE

The efforts made to date by CoReVe and many of the players in the packaging glass supply chain have enabled our country to achieve important results in the process of collecting and sending this material for recycling. Nevertheless, CoReVe's main objective is to continue to improve the quality and quantity of glass collection, as the environmental accounting of recycling clearly shows that the use of recycled glass brings a number of benefits, both in terms of savings in raw materials consumed, energy consumed and CO_2 released into the environment. In order to continue in the path traced in recent years and achieve the ambitious goals set by the Consortium for the coming years, it is necessary to outline a communication plan aimed at citizens, enabling them to be educated on the correct practices for delivering important glass for disposal and to involve them in the importance of recycling.

In this context, the challenge of the 36th SIM Marketing Award is as follows:

- To inform citizens, HoReCa merchants, and their employees to increase their consideration of and engagement with proper glass recycling collection in order to improve its quality for the good of society.

In more detail, dressing as CoReVe's Marketing Team, each team will have to:

- Analyze the market for selective collection of packaging glass to understand the context of the 2024 challenge, attitudes, and orientation of citizens and HoReCa business operators.

Please note: Analysis or data collection activities through the preparation of questionnaires may be developed at the discretion of the teams.

- Segment the market and identify the target "consumer" and target "business" audience. The choice of targets is at the discretion of individual teams, but should be properly mentioned and supported in the paper.

Please note: For the "consumer" (city) target, teams should look at both the entire national territory and a local context of their choice. For the national territory, the critical variable is to communicate the correct rules of recycling in an innovative and engaging way; while for the local context, teams are required to elaborate a communication plan to reduce the abandonment of glass packaging in nightlife areas and/or historic centers.

For the "business" target (HoReCa merchants and employees), the teams are asked to prepare a plan targeting the managers of public venues in the cities where they reside, carrying out local field analyses and developing a strategy that contains concrete solutions that can es-

be replicated nationwide to improve the quality of glass collection, helping to reduce the presence of "false friends" and thus waste.

- Develop a two-year communication plan to achieve the goal of the 2024 challenge, including identifying innovative approaches to the chosen targets.
- Define all strategic and operational necessary aspects to make your idea a reality.

For the marketing plan, covering the two-year period October 2024 - October 2026, each team will have an annual budget of 2,000,000 euros at its disposal. All kinds of activities in TV programs can be imagined, but no portion of the budget should be allocated for the creation and airing of TV commercials. Finally, the available budget should be used to cover marketing costs only, and all other costs should be excluded from the valuation.

FAQ

What activities has CoReVe already implemented to promote the culture of glass packaging recycling among citizens?

CoReVe has long been committed to promoting educational projects that, starting with the youngest citizens, enable the promotion of a proper culture of glass packaging recycling. The main initiatives carried out by the Consortium in recent years in this direction can be found at the following links:

<https://coreve.it/progetti-per-le-scuole/>

You can find a summary of all communication, outreach and service initiatives, CoReVe on the Marketing Award APP

How can I learn more about the correct behaviors that citizens must have when called upon to dispose of packaging glass?

The quality of the collection of packaging glass is strongly influenced by the behaviors citizens adopt when disposing of glass products. The main practices to be followed are presented by the Consortium at the following links:

<https://coreve.it/le-regole-del-riciclo/>

<https://coreve.it/come-fare-la-raccolta-differenziata/>

What can be some messages to convey to citizens in communication to incentivize them to adopt proper behaviors for disposing of packaging glass?

A citizen who is aware of the impact of his or her actions is certainly a citizen who is more likely to decide to adopt correct behavior when called upon to dispose of glass products. CoReVe outlines the main benefits of recycling packaging glass at the following link: <https://coreve.it/benefici-del-riciclo/>

Please note: the critical variable to be communicated is not the CoReVe brand, but the correct rules of recycling in an innovative and engaging way.

verallia verallia verallia

VETRI

LEGO



GLOSSARY FOR GLASS

Conventions and conventions

Contracts signed by CoReVe, with municipalities or their delegated Collection Service Managers, for the collection and recycling of glass packaging waste from separate collection carried out on public surface.

Manager

Entity entrusted by the municipality or area authority with the functions of municipal waste management, including collection, transport, recovery, and disposal. Can be organized in an integrated manner for the entire cycle (including management and construction of facilities) or by entrusting individual segments (collection, separate collection, marketing, disposal).

Packaging

Anything used to contain, preserve, transport, embellish, or present goods. Glass packaging is suitable for containing beverages or food, cosmetics and perfumes, or medicines.

Released for consumption

In the meaning of interest here, it means the amount of full glass packaging (bottles and jars) sold and consumed each year in Italy. The amount released for consumption is equivalent to the amount of glass packaging waste generated in the national territory that must be guaranteed to be sent for recycling.

MPS (Materia Prima Seconda)

Legislative Decree 152/06 (as amended and supplemented) contains the provisions and conditions for which certain types of waste materials are not classified as waste, but rather as: Secondary Raw Material (PSM), By-product or Recovery Product. For scrap glass suitable for re-melting in glassworks, as a substitute for virgin raw materials, the status of waste (End Of Waste) ceases and the qualification of MPS takes over if it is produced by a recovery operation, its origin, type and characteristics of origin are known; once the environmental quality criteria, commodity requirements and other conditions necessary for placing it on the market are specified and it has a real economic exchange value in the market.

Recycling

All operations necessary for the separate management of glass packaging from other waste.

Recovery

All operations envisaged to transform, in accordance with the European Regulation (1179/2012) known as "End of Waste" and current regulations in material (ex-DM 5.2.98 and ss.mm.ii), glass packaging waste into "furnace-ready" scrap glass destined for re-melting in glassworks, i.e., as a new MPS (Materia Prima Seconda) complying with the technical specifications of the sector.

Recycling

It is the use of "oven-ready" scrap obtained from the recovery of glass packaging waste in the production process of new glass containers ("closed" recycling) or the use of glass scrap as MPS for new products in alternative industries to the original one ("open" recycling).

Refusal

"Waste" is defined as any substance or object the holder wants or needs to dispose of, which falls into the categories listed in Annex A Part Four of Legislative Decree 152/06.

"Glass Sand"

MPS produced in a second recovery cycle, designed to avert the landfilling of process waste from the primary recovery intended to produce "furnace-ready" scrap, in which the "fine fraction" (smaller than 10 mm in size discarded in the treatment plants) and the part of the waste produced by the optical infusible sorting machines (ceramics, porcelain, stones, etc.) is specifically treated. "Glass sand" is recyclable in part in the glass industry, or in other sectors (such as construction), and is the ultimate alternative to landfill disposal of waste glass.

Tractors

These are the companies that have licensed plants capable of transforming glass packaging waste into a suitable MPS (Secondary Raw Material) that can be recycled for the production of new glass containers (bottles and jars). The scrap leaving the treatment plants, having thus lost its status as waste (End of Waste), is finally ready for the melting furnaces of glassworks that produce new bottles and jars (packaging).

Domestic utility

These are the places used or intended for civil habitation: the waste produced here is called municipal waste.

Non-domestic users

This includes all rooms and areas other than residential use, classified on the basis of Annex A the remaining areas, including communities, commercial, craft, industrial, professional and general manufacturing activities.

Users

Beverage and food packaging companies that purchase glass packaging and use it to package their products.

Glassworks

This is what is meant by the companies producing the glass packaging (bottles and jars) that, once filled and released for consumption in Italy, at the "end of life" are waste generated on the national territory to be ensured for recycling. Glass factories adhere to CoReVe and according to the principle of shared responsibility guarantee the recycling of glass packaging waste according to a model of perfect circular economy. It is in the production of new glass containers (bottles and jars), an industrial sector also known as "Hollow Glass," that packaging waste transformed into MPS in the treatment plants finds a new life, indefinitely and without any loss of material.

THANKS

Case compiled by:

Roberto CHIERICI, University of Milan-Bicocca Alice
MAZZUCHELLI, University of Milan-Bicocca Angelo DI
GREGORIO, University of Milan-Bicocca

Scientific Coordination:

Roberto CHIERICI, University of Milan-Bicocca Alice
MAZZUCHELLI, University of Milan-Bicocca Angelo DI
GREGORIO, University of Milan-Bicocca

We thank the CoReVe team and especially the President,
Dr. Gianni SCOTTI and Marketing and Communications Manager, Dr.
Elena FERRARI, for immediately embracing the project with
enthusiasm and joining the XXXVI Edition of the Marketing Prize.

Finally, thanks to Prof. Gennaro IASEVOLI and Prof. Enrico BONETTI
for their unceasing support of all the activities of the Prize.

September 2023

ISBN: 978-88-943918-9-3