SCELTA 5

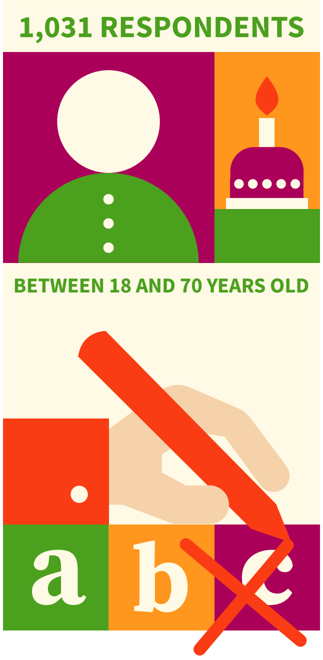
Developing the Circular Economy by Leveraging Purchasing Trends

Extended Abstract 2025

CONAI

ISTITUTO DI MANAGEMENT

Sant'Anna Scuola Universitaria Superiore Pisa



In 2024, the Institute of Management of the Sant'Anna School of Advanced Studies conducted a survey of Italian consumers as part of the SCELTA 5 project – *Developing the Circular Economy by Leveraging Purchasing Trends* – promoted by CONAI. This project, part of a longstanding collaboration, has three main objectives:

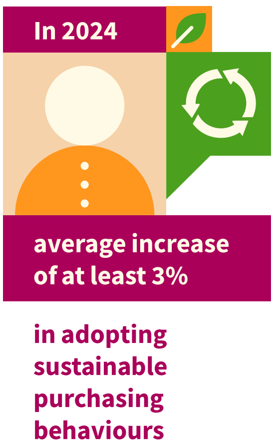
1. To analyze pro-environmental consumption trends aligned with the principles of the circular economy.
2. To understand consumer perceptions regarding recent regulatory developments on green claims and the measures outlined in the proposed packaging regulation.
3. To ensure continuity with previous surveys in terms of themes covered, thus maintaining the "observatory" on environmentally responsible consumption.

The survey

The questionnaire was administered in October 2024 to a sample of **1,031 respondents**, representative of the **Italian population aged 18 to 70**. Demographic characteristics such as gender, age, geographic origin, education, and income were considered to ensure representativeness.

CONSUMER AWARENESS AND BEHAVIOR

The survey reveals a growing orientation toward sustainability, the circular economy, and consumption practices aimed at reducing environmental impact. Italian consumers are increasingly aware of the consequences of human activities on the planet and, in particular, perceive geopolitical challenges—such as terrorist attacks, conflicts between nations, and hunger and poverty—as the greatest risks to humanity. These concerns and increased awareness lead the majority of the population (approximately 90%) to adopt a positive attitude toward circular economy principles and to recognize the effectiveness of individual actions in reducing environmental impact. Consequently, Italian consumers appear ready and willing to contribute to the ecological transition through their daily choices.



A comparison between 2023 and 2024 shows an average increase of at least 3% in the adoption of purchasing behaviors favoring products with reduced environmental impact across all categories. Products certified as having a low environmental impact, as well as those with recycled or recyclable packaging, are being purchased with greater frequency—a trend that has seen strong growth over the past four years.

The most deeply rooted behaviors in Italians' routines include avoiding excessive purchases of food products, preventing waste during meal preparation, favoring local supply chains, choosing durable clothing, and properly sorting waste for recycling. There is also growing interest in products that provide information about corporate activities related to the use of renewable energy, as well as the reduction and offsetting of CO2 eq. emissions. However, some habits remain less widespread, such as purchasing second-hand clothing (though this has shown significant growth in recent years), renting, and other alternative models of consumption. Despite persistent socio-cultural barriers, there is a positive trend toward reuse and a gradual openness to new forms of consumption that can reduce resource use and waste.

PERCEPTION OF GLOBAL RISKS

Among the most pressing challenges perceived, global warming and climate change continue to dominate public awareness, consistent with previous surveys' results. In third place—following hunger and poverty—is environmental pollution caused by human activity. Falling slightly in the ranking of perceived global risks are the scarcity of natural resources, such as water, and extreme weather events, which in 2024 are viewed as less urgent compared to previous years. Conversely, social issues like conflicts between nations have risen in prominence, highlighting growing concern for humanitarian issues. Biodiversity loss, on the other hand, remains one of the least recognized environmental risks, reflecting a persistent underestimation of this critical issue.

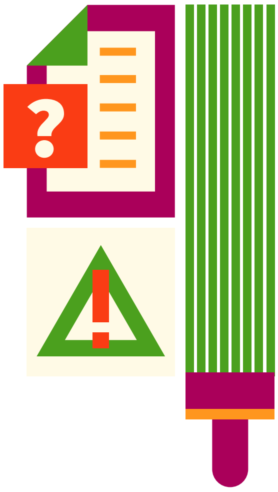
FOCUS ON TRANSPARENCY

Consumers' positive response to products presenting information on their carbon footprint is a clear indicator of growing awareness of these issues. Digitalization and online shopping have emerged as significant factors, with a marked increase in the use of QR codes to access detailed product information, including environmental impact. These behaviors reflect not only a shift in how consumers approach purchasing but also a growing demand for transparency to enable more informed choices.

There is a slight decline in consumers' belief that companies engage in greenwashing. The presence of environmental labels based on third-party certification systems, along with access to additional product information through digital tools (such as QR codes), serves as an important means of building consumer trust and influencing purchasing decisions.

ADDRESSING GREENWASHING

While information and labels positively influence demand for circular and environmentally friendly products, it is equally important that the messages conveyed are clear and easy to understand. Significant challenges remain in this area. The survey reveals that most Italians are confused by terms such as "recycled" and "recyclable", and struggle to understand the meaning or deceptive nature of various environmental claims, making them potential victims of greenwashing. Unable to identify misleading environmental assertions or verify their validity, consumers often opt for products bearing vague and unsupported slogans like "sustainable" or "zero impact" rather than those with legitimate, specific claims backed by widely recognized methodologies or independent third-party certifications.



At the European level, regulatory efforts are underway to make environmental communication more stringent and evidence based. A major step forward was achieved through the adoption of Directive 2024/825/EU, which introduced new definitions, provisions, and restrictions concerning environmental claims, amending the long-standing Directive 2005/29/EC on unfair commercial practices.

The new restriction targets widespread communication practices that consumers currently struggle to recognize as misleading. Combating greenwashing and educating consumers are essential to ensuring informed, conscious, and genuinely environmentally beneficial choices. These efforts must be based on the recognition of methodologically "substantiated" environmental claims that reflect actual virtuous business practices. It will be necessary to focus on enhancing consumers' ability to interpret and evaluate the environmental information available in the market.

THE ROLE OF PACKAGING IN THE CIRCULAR TRANSITION

When it comes to packaging, consumers hold strong beliefs about its essential function in protecting food from pathogens like viruses and bacteria and preserving freshness. At the same time, they recognize the need to take action to reduce its environmental impact, showing openness to various measures aimed at this goal. Overall, there is a growing share of Italians who consistently choose packaging with environmental characteristics, both informational (up to +16% from 2020 to 2024) and physical (up to +12% from 2020 to 2024). However, behaviors related to the purchase of bulk products remain less widespread, though they show slight growth.

Eight out of ten people believe that all packaging should be recyclable or compostable and support standardizing packaging information to facilitate waste sorting. Seventy-eight percent of respondents think that a minimum recycled material content should be mandated for plastic packaging. There is also a growing openness to reusable packaging solutions. Most respondents find it somewhat or very important to allow consumers to bring their own containers when purchasing takeaway food and drinks (66%) and to use reusable and returnable packaging (72%). Experimental findings also highlight a predisposition toward reusable packaging solutions, with consumers implicitly recognizing their environmental benefits.

The value attributed to packaging is further demonstrated by the fact that most consumers believe that packaging made from recycled materials costs more than "virgin" materials. Moreover, a majority (78%) are willing to pay extra for such characteristics. However, the percentage of consumers willing to pay has declined over time (89% in 2022). This trend can be interpreted in light of inflation, which has reduced consumers' purchasing power in recent years, or as the result of a "commoditization" process. This occurs when a feature that was initially innovative and distinctive becomes standard or increasingly common in the market, leading to an expectation of reduced prices. In fact, among the reasons for unwillingness to pay, the most cited is that "recycled packaging should cost less", followed by household budget constraints.

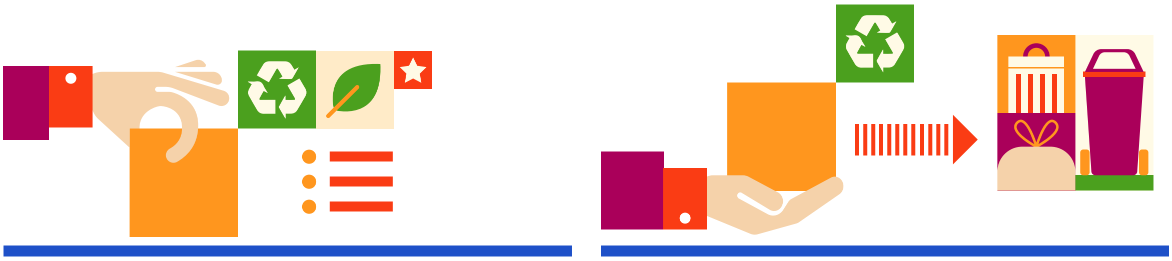
In this context, policymakers play a crucial role in economically supporting more circular, innovative, and environmentally friendly products and packaging. Measures such as differentiated taxation can shift environmental costs to the most polluting products or packaging that do not align with circular economy principles.

CLUSTER ANALYSIS

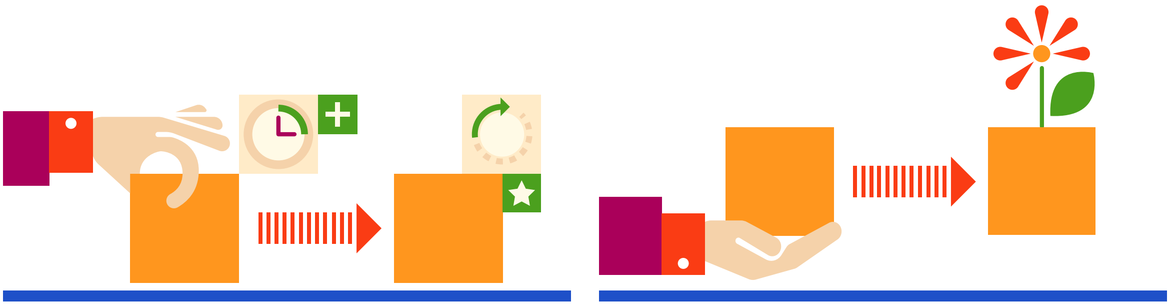
Despite current challenges, the analysis shows a positive and continuous trend toward more environmentally conscious ways of purchasing and consuming, providing a solid foundation for further development. To delve deeper into these aspects and evaluate how consumers favor certain circular behaviors during the purchasing and post-purchasing phases, a cluster analysis was conducted.

Cluster analysis enables the identification of homogeneous and comprehensive groups of consumers. In other words, each cluster consists of members who share similar characteristics, while differing significantly from members of other clusters.

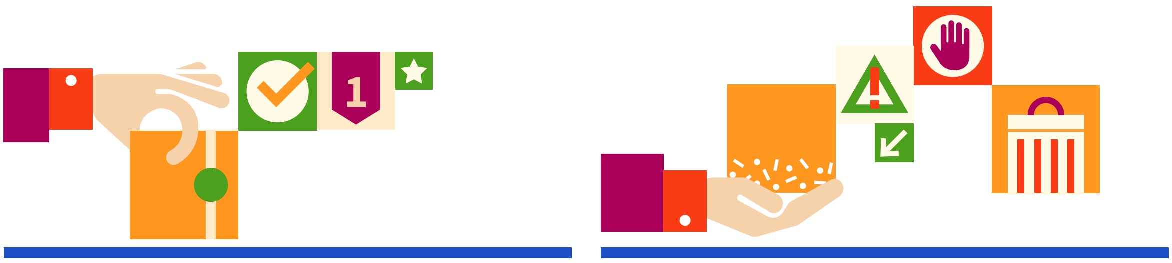
This analytical technique allowed for the identification of a group of “Circular Consumers”, characterized by their ability to combine behaviors aimed at:



- **Creating Circular Value:** Purchasing products with low environmental impact and made from recycled materials, properly disposing of materials at the end of their life cycle and contributing to circular value creation by reducing their ecological footprint.

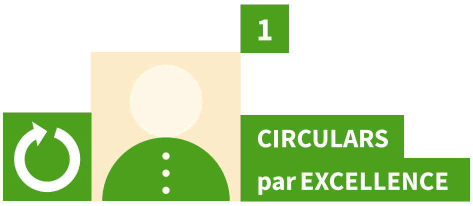


- **Preserving Circular Value:** Favoring durable and reusable goods, utilizing shared economy models, and keeping items in use for as long as possible, thus extending their lifecycle and promoting responsible consumption.

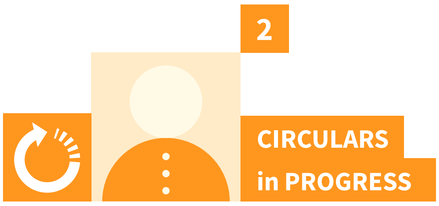


- **Optimizing Circular Value:** Making conscious choices to avoid waste, opting for minimal and mono-material packaging, and using products efficiently to minimize waste during consumption.

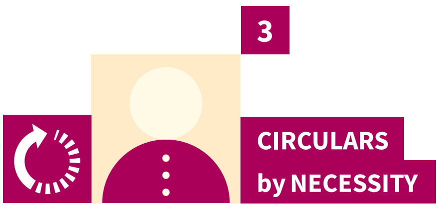
Through clustering techniques, consumers were grouped into four segments (consumer types) based on the frequency with which they adopt various circular behaviors:



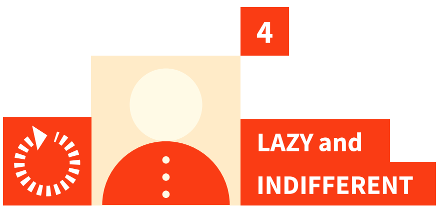
They very frequently adopt behaviours related to the creation, preservation, and optimization of circular value, both in the purchasing phase and in the usage and end-of-life phases.



In the post-purchase phases, they implement actions of generation, preservation, and optimization with high frequency, while in the purchasing phase, virtuous behaviours are adopted with a medium frequency.



They rarely adopt circular behaviours in the purchasing phase, but are more engaged in the post-purchase phase, where the benefits are also linked to economic utility (e.g., they avoid waste during consumption and perform recycling).



They show low commitment to adopting circular behaviours, which occur only occasionally in all phases (purchase, use, and end-of-life). This is the only group that does not regularly perform recycling – a behaviour now very ingrained in the population.

CLUSTER EVOLUTION compared to 2023

The implementation of cluster analysis in previous surveys, from 2020 to 2023, has made it possible to perform intertemporal comparisons and track the evolution of consumer groups over time.

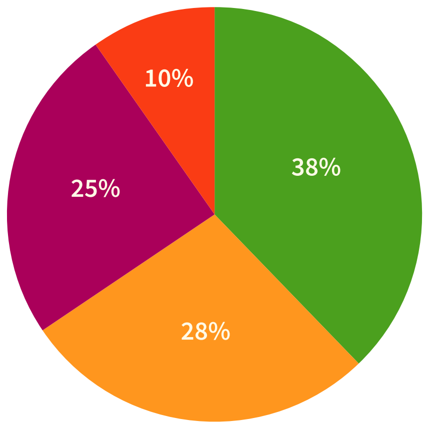
The share of **“Circulars par excellence”** has significantly increased compared to 2020 (+16%) and shows a slight increase over the past year (+7%).

Surprisingly, the group of **“Circular in progress”** (28%) has decreased significantly compared to both 2020 (-10%) and 2023 (-12%). The decline in this group, which was particularly responsive to generating, preserving, and optimizing circular value during the post-purchase phase, coincides with the increase in “Circular par excellence” and “Circular by necessity”. Some individuals previously categorized as “Circular in progress” have transitioned by extending their adoption of circular practices to the purchasing phase, thereby becoming fully circular consumers. Others, however, have reduced their focus on circular practices, prioritizing economic convenience instead.

The proportion of **“Circulars by necessity”** has also risen compared to both 2020 and last year. Members of this cluster rarely adopt circular behaviors during the purchasing phase, but they more frequently engage in behaviors that also provide economic benefits—such as waste prevention during the usage phase, reuse, and proper end-of-life disposal. Therefore, the increase in this cluster (+7%) may also be linked to the rising inflation trend, which has driven up the prices of many foods and consumer goods.

The **“Lazy and Indifferent”** group continues to reduce (-6% compared to 2022 and -10% compared to 2020), demonstrating that consumers have increasingly embraced circular behaviors over the past few years.

THE FOUR CLUSTERS in 2024*

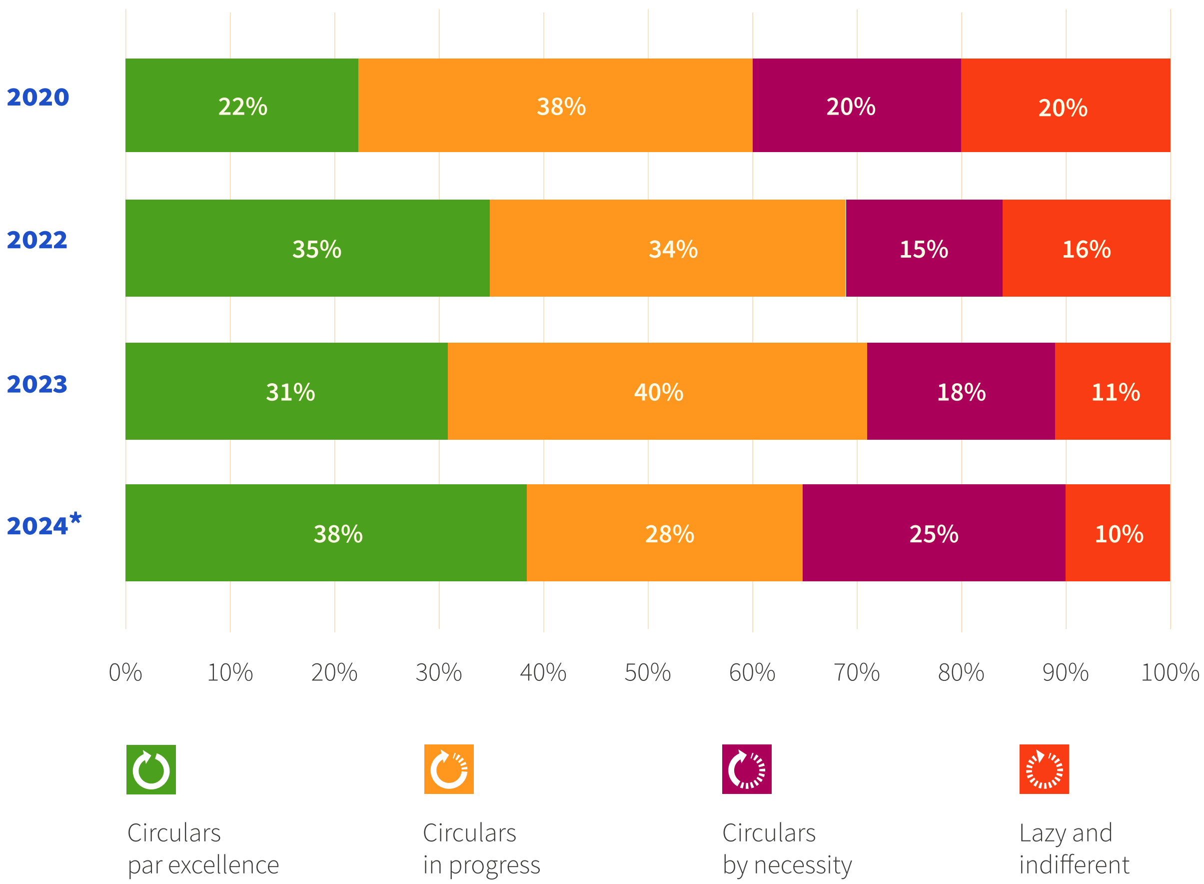


Analyzing the behaviors of all clusters, the average frequency of all actions related to the generation, preservation, and optimization of circular value has increased over the past three years but slightly declined in the past year. Consistent with previous years, the most frequent behaviors overall involve the generation and optimization of value during usage (i.e., proper disposal and efficient use of products).

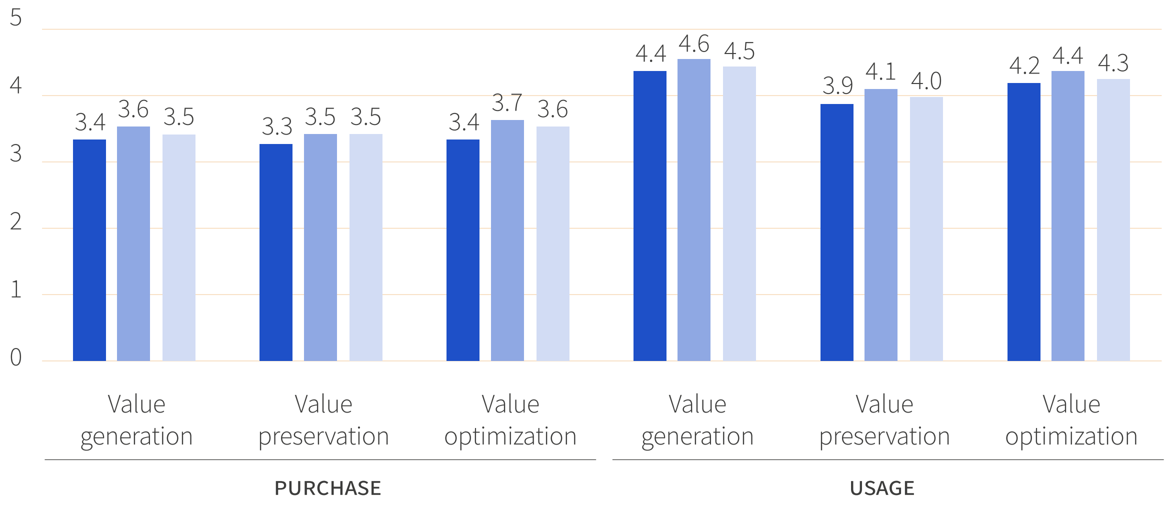
These results further confirm that, due to the current socioeconomic situation and high inflation, consumers have increasingly adopted behaviors that provide both economic and environmental benefits.

* *Due to rounding, the percentages in these charts do not total 100%. The decision to present numbers without decimals is intended to facilitate a clearer and more immediate reading of the results.*

CLUSTER COMPOSITION – Temporal variation



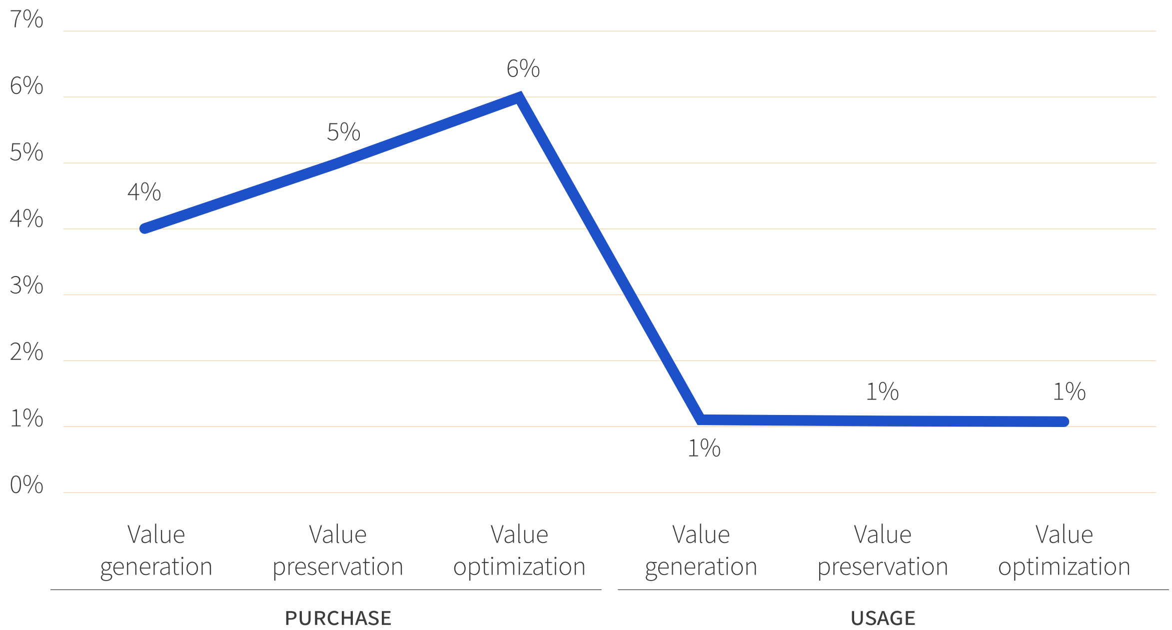
AVERAGE FREQUENCY OF BEHAVIOURS* – Temporal comparison (2022-2024)



* Score from 1 (= never) to 5 (= very often/always).

Although behaviors related to the usage phase are more deeply ingrained and frequent among the population, the past three years have shown a particularly positive trend for purchase-related behaviors. Specifically, there has been a +6% increase in optimization behaviors, a +4% increase in generation behaviors, and a +5% increase in preservation behaviors.

% VARIATION (2022–2024) IN THE AVERAGE FREQUENCY OF BEHAVIOURS



CONSUMER PROFILING

After grouping consumers into clusters, each group can be profiled based on other relevant variables (sociodemographic, psychographic, cognitive, and behavioral) to investigate the main characteristics that distinguish each group.

The clusters tend to cut across sociodemographic categories, meaning that behaviors related to the generation, preservation, and optimization of circular value are not explained by sociodemographic differences but are rather an expression of personal and value-based dimensions. However, some slight differences (statistically significant with $p<0.05$) were observed with respect to gender, age, and geographic origin.

CIRCULARS par EXCELLENCE	CIRCULARS in PROGRESS
• Female prevalence (56%).	• Female prevalence (52%).
• Compared to the sample distribution, Generation X (ages 43-55) is more represented (+3%).	• Compared to the sampled distribution, the Baby Boomer generation (ages 56-70) is more represented (+9%).
• Greater origin from the South and the Island (41%). *This result also emerged in the cluster analysis conducted in 2022 and 2023.*	• Homogeneous distribution by geographic area.
• There are no substantial differences in education level.	• Slight prevalence above the average of consumers with a lower secondary school diploma (+4%).

CIRCULARS by NECESSITY	LAZY and INDIFFERENT
• Male prevalence (56%).	• Male prevalence (63%), *in contrast with the strong female presence of 2023.*
• All generations are evenly distributed: Millennials (ages 27-42) and Gen Z (ages 18-26) show a higher but slight representation (+2% and +7%, respectively) compared to the sample distribution.	• Compared to the sample distribution, Generation Z (ages 18-26) is overrepresented (+6%), while the Baby Boomer generation in underrepresented (-9%).
• Origin predominantly from Northern Italy (51%), especially North-West.	• Origin prendominantly from Northern Italy (53%).
	• No substantial distinction by education level.

The **“Circular par excellence”** cluster shows a female predominance, representing 56% of the group, and a higher representation of individuals from Generation X (aged 43–55). Additionally, there is a prevalence of individuals from the South and the Islands, comprising 41% of this cluster—consistent with the cluster analysis conducted over the past two years.

The **“Circular in progress”** cluster also shows a slight female predominance (52%). Notably, Baby Boomers (aged 56–70) are more represented in this cluster compared to the overall sample (+9%). The geographic distribution of this cluster is homogeneous, suggesting its presence across all areas of the country. Additionally, there is a slight overrepresentation of consumers with only a middle school education.

The **“Circular by necessity”** cluster has a male predominance (56%) and a relatively uniform distribution across generations, with a slight overrepresentation of Millennials (+2%) and Gen Z (+7%). Geographically, the majority of this group comes from Northern Italy.

The **“Lazy and Indifferent”** cluster is characterized by a female predominance and a strong representation of Gen Z (aged 18–26), while Baby Boomers are underrepresented (-9%). This group also shows a geographically homogeneous distribution.

Overall, the analysis demonstrates that circular economy-related behaviors are present across all age groups and geographic areas, albeit with slight variations.

CONCLUSIONS

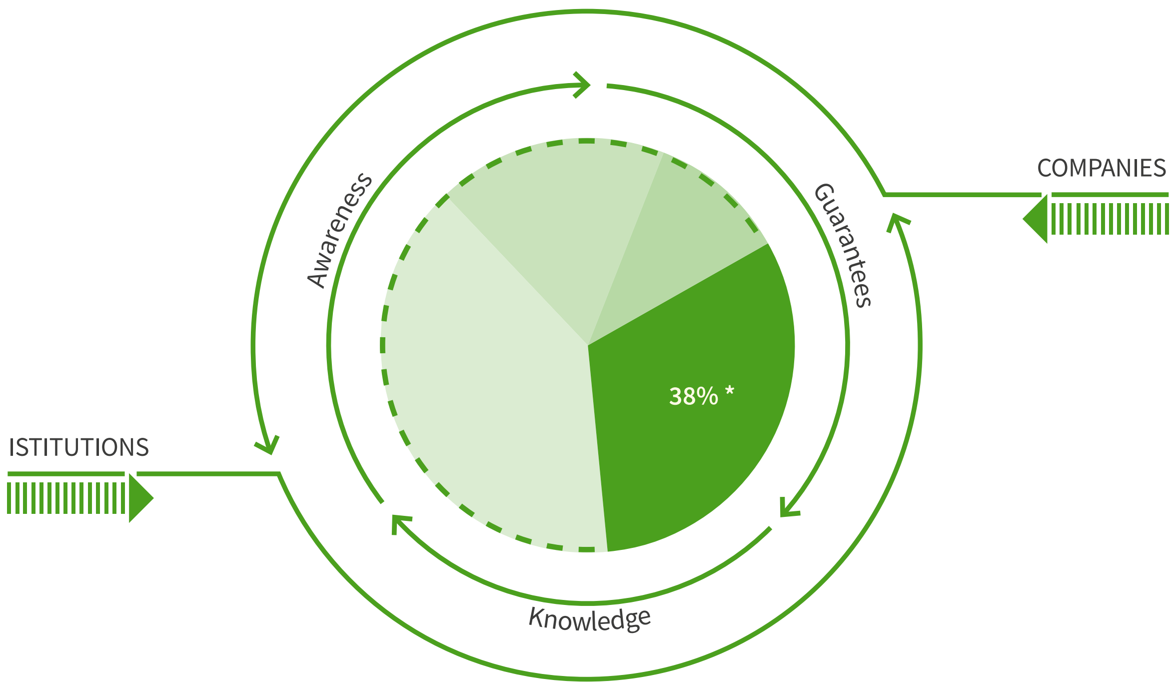
A significant segment of the Italian population, accounting for over one-third of consumers, can be defined as “Circular par excellence”. This group has the potential to grow further through tools and strategies that encourage more sustainable practices.

During this period of regulatory changes, it is essential for businesses to communicate the environmental attributes of their products transparently and reliably, thereby strengthening consumer trust and awareness. Equally important is the need to raise awareness and educate the public through large-scale educational initiatives. These should highlight both the urgency of transforming current consumption patterns and the ability to recognize trustworthy environmental claims and labels.

To further promote circular consumption models, businesses should also focus on ensuring the quality and reliability of refurbished and second-hand goods, as well as services related to sharing and rental. Emphasizing the environmental benefits of these approaches can drive greater consumer acceptance.

Only by adopting a comprehensive vision that considers all factors influencing consumption choices can the growing interest in sustainability be translated into concrete and lasting actions.

A HOLISTIC APPROACH TO INCREASE THE SHARE OF “CIRCULAR CONSUMERS PAR EXCELLENCE” IN ITALY



*Circulars par excellence in 2024

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