SCELTA 4

Developing the Circular Economy by Leveraging Purchasing Trends

2024 Edition

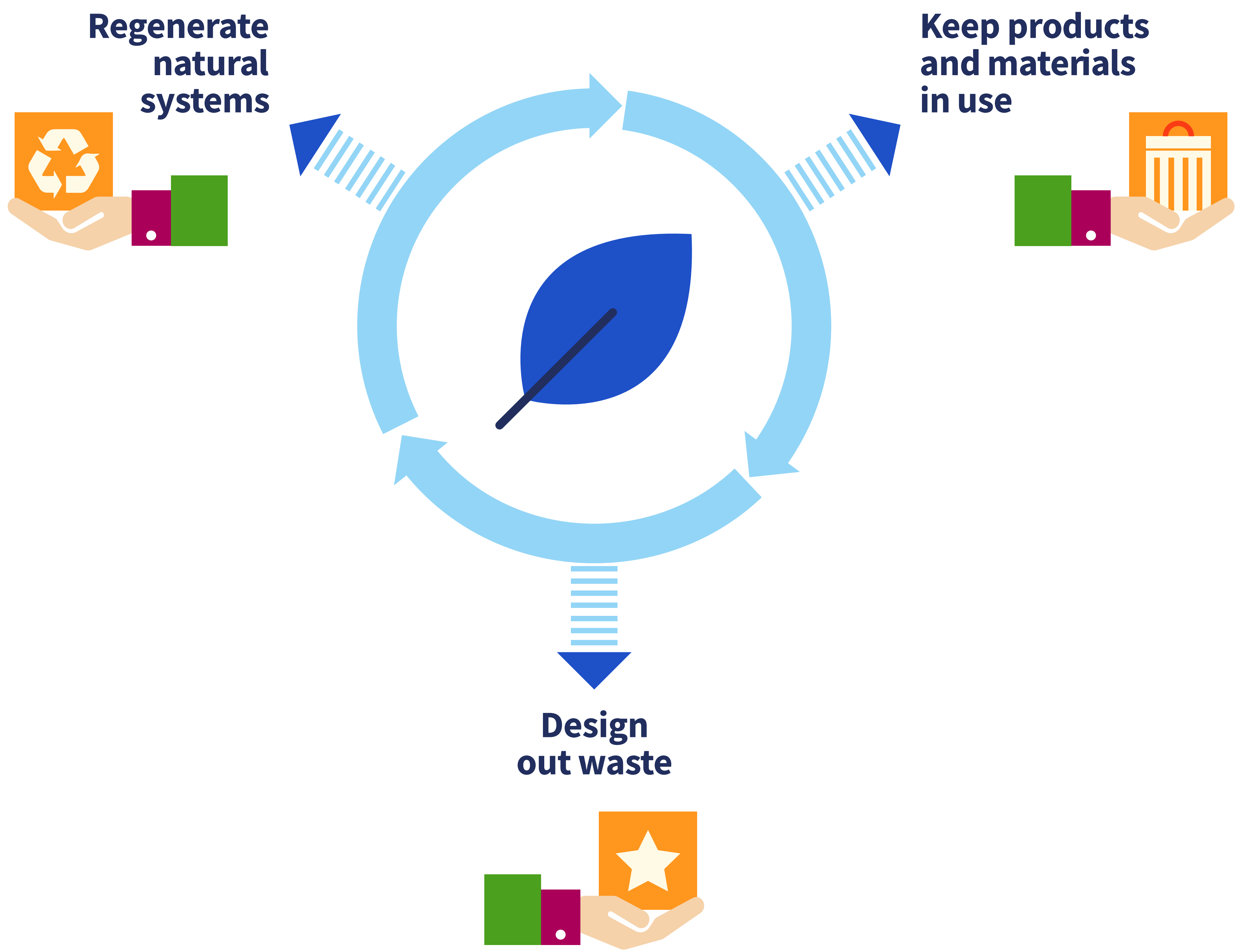
CONAI

ISTITUTO DI MANAGEMENT

Sant'Anna
Scuola Universitaria Superiore Pisa

Circular economy: a systemic process

We are shifting to a system where we:



Source: Ellen MacArthur Foundation, 2021

However, the transition to a circular economy requires **systemic solutions**.

Current business models, design and production of goods must be thought again. Substantial changes must also take place in legislation, financial markets and urban planning.

All actors of the socio-economic system must be involved:

- **GOVERNMENTS**
- **COMPANIES**
- **INDIVIDUALS**

In particular, consumers can influence…

CIRCULAR
value creation

- Purchasing of **products with low environmental impact**, **packaging** made from **recycled materials**, etc.
- **Proper disposal of end-of-life** products/materials

CIRCULAR
value conservation

- Purchasing **durable** and **reusable goods**
- Adopting new models of purchasing and consumption (e.g. **sharing economy and second-hand**)
- **Maintaining** and **reusing** goods during the use phase

CIRCULAR
value optimization

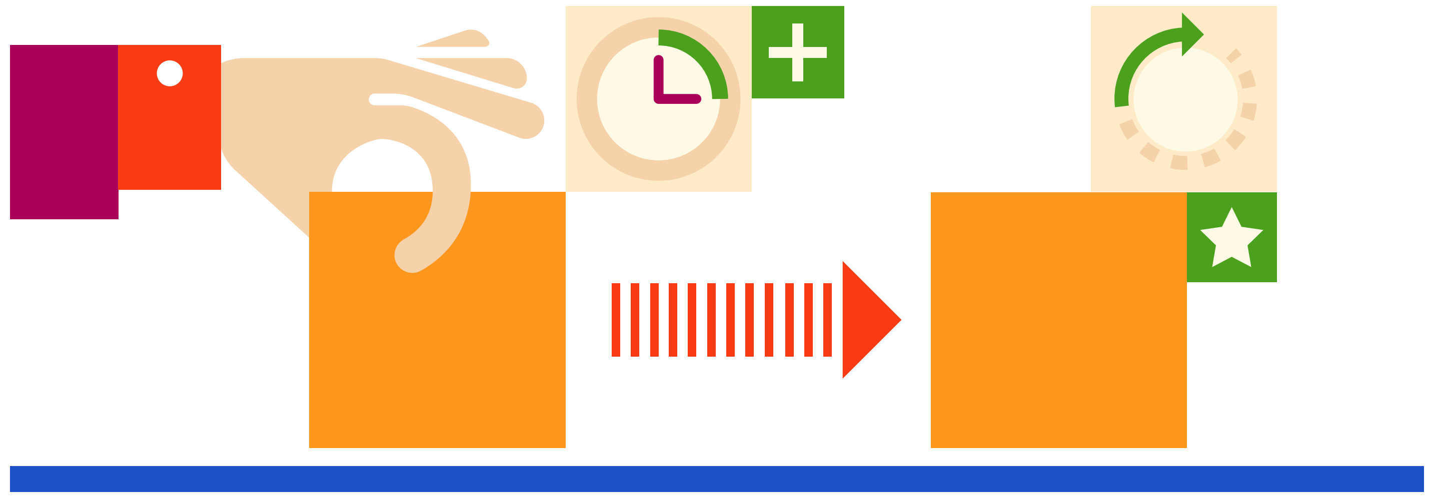
- Making **wise purchasing choices** of products to avoid waste and choose **minimal** and single-material **packaging**
- **Preventing waste** at the consumption stage through **efficient use** of products, water and energy.

What positive behaviours are mostly adopted by Italian consumers?

AT THE TIME OF PURCHASE

CIRCULAR value creation

57% often or always choose **environmentally friendly** products and products with packaging made of **recycled material**



CIRCULAR value conservation

72% often or always buy **durable** products (e.g. clothes) considering their useful life

52% buy products with **reusable** packaging

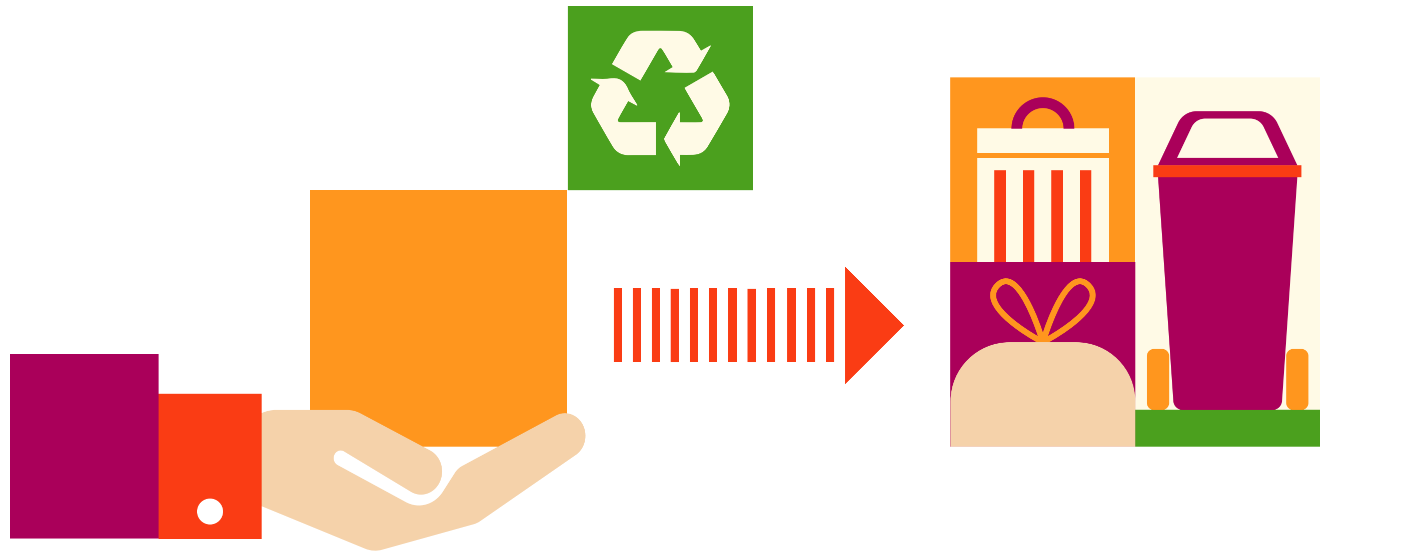
CIRCULAR value optimization

56% often or always buy food with **single-material packaging** or **simple/minimal design**

74% scrupulously check that food packaging is **intact**

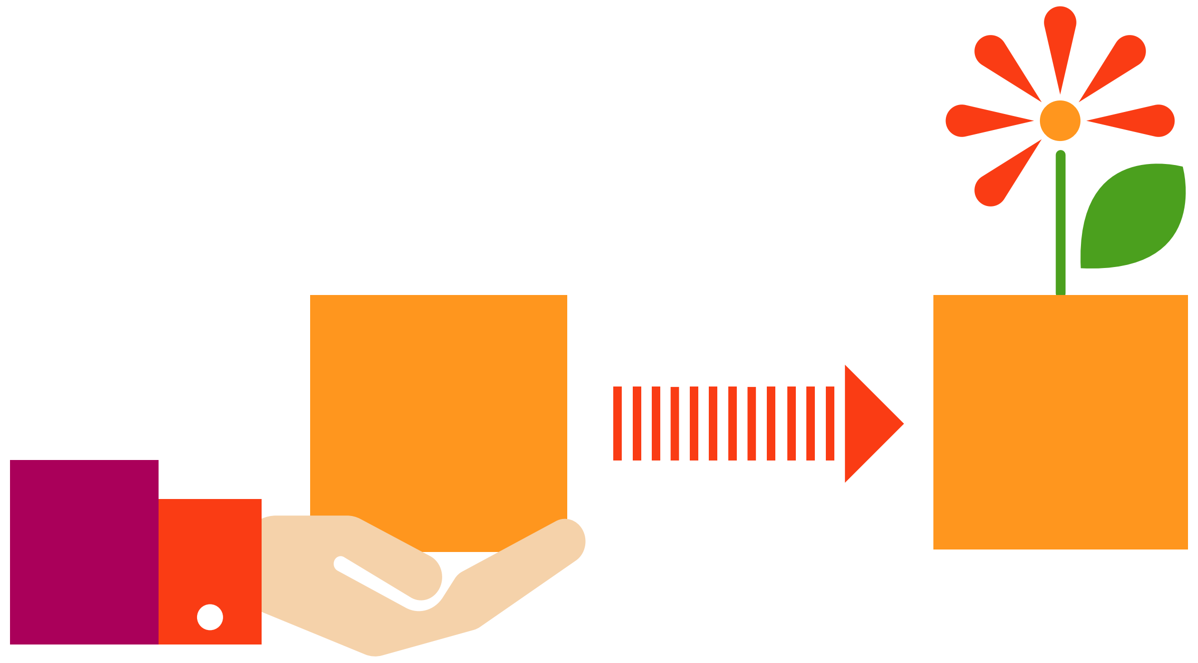
What positive behaviours are mostly adopted by Italian consumers?

DURING USAGE AND END-OF-LIFE



CIRCULAR
value creation

90% make efforts to **separate packaging** often or always



CIRCULAR
value conservation

83% often or always **refill** containers (e.g. soap dispenser)

60% commit to **reuse** of food packaging

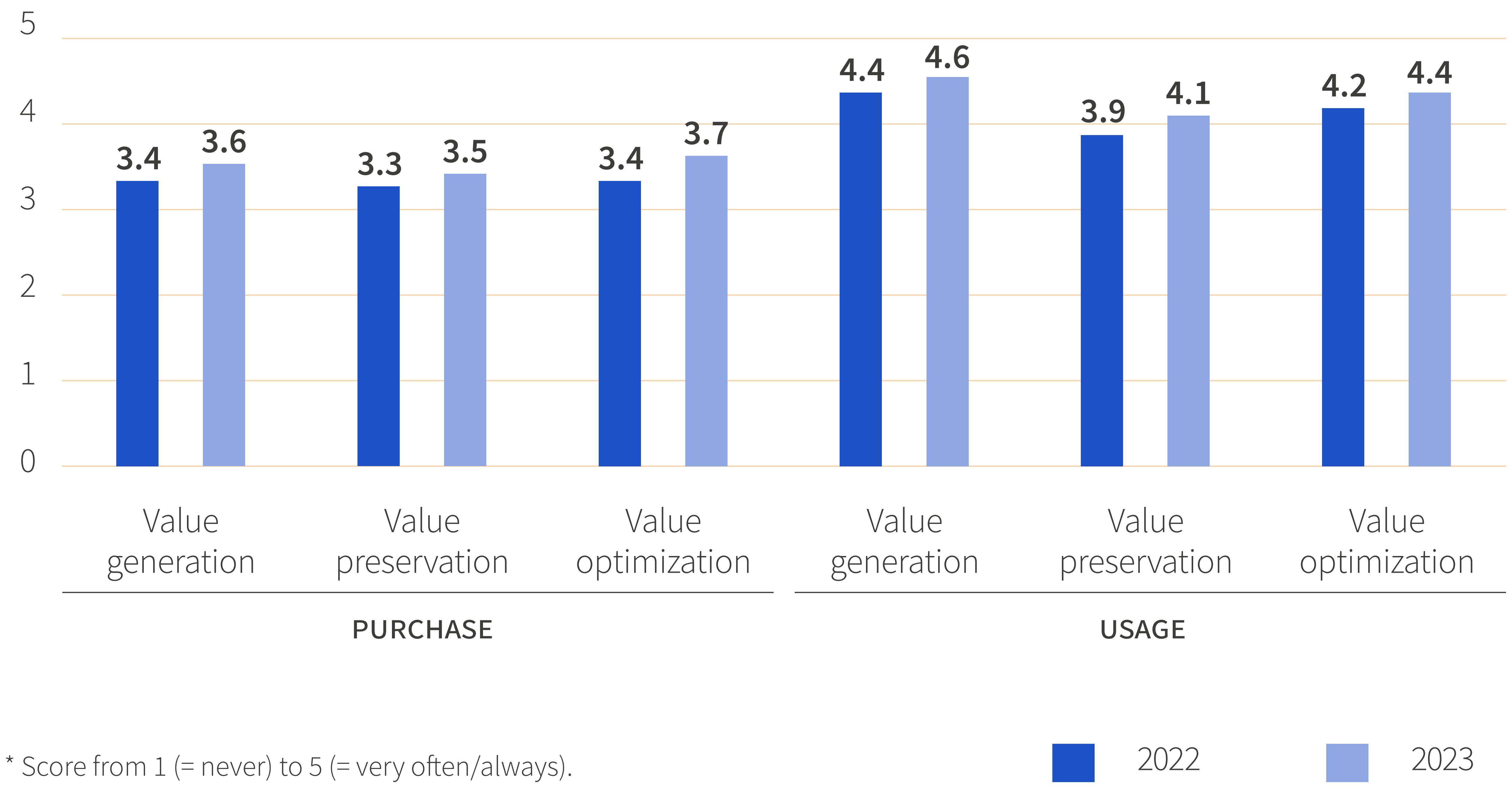
CIRCULAR
value optimization

86% are often or always careful to **avoid waste** when using consumer products

91% are careful to avoid **food waste**

Positive behaviours are overall increasing.

AVERAGE FREQUENCY OF BEHAVIOURS* – Time comparison (2022–2023)

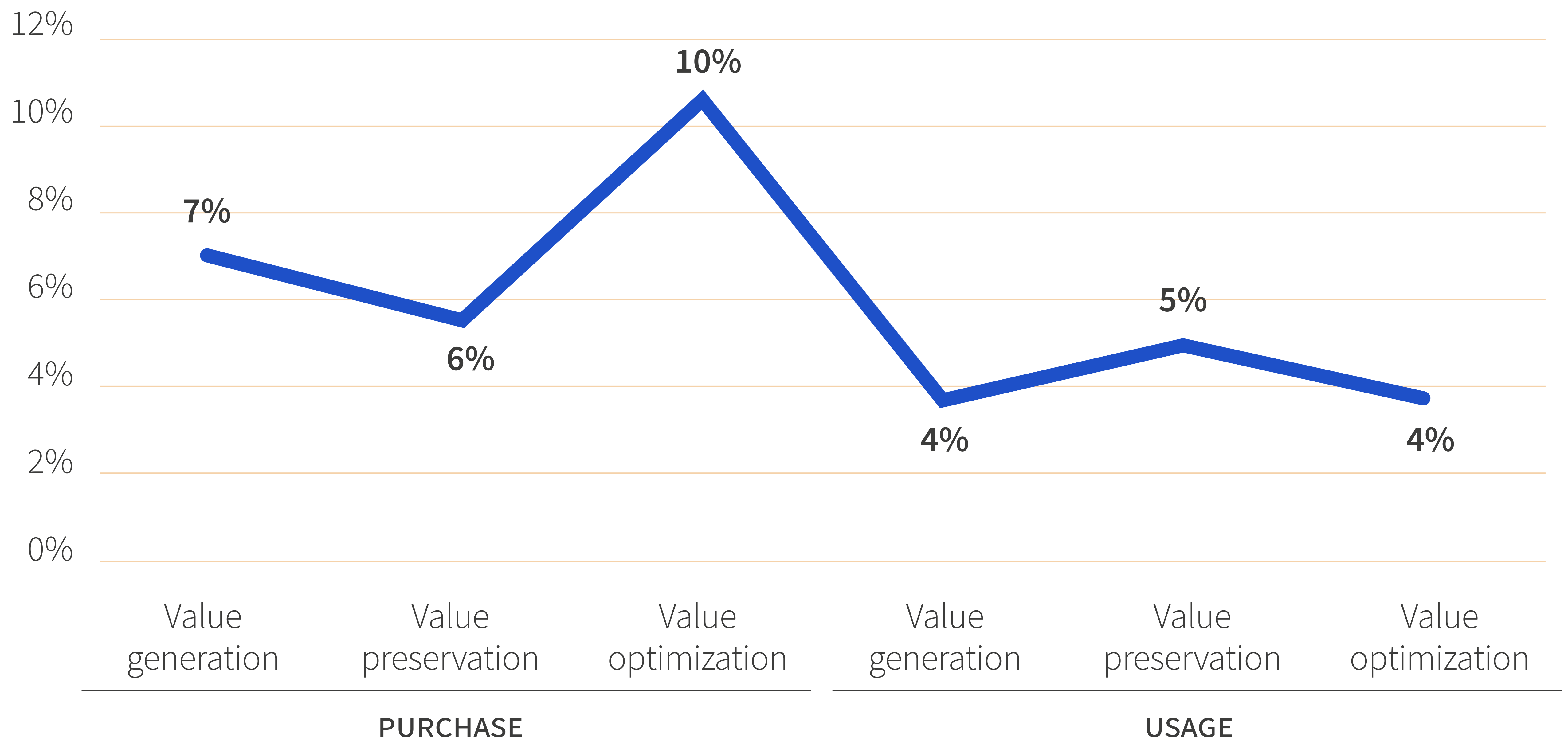


* Score from 1 (= never) to 5 (= very often/always).

- The **average frequency of all actions** to generate, preserve and optimise circular value has **increased since last year** (2022).
- In absolute terms, the **most frequent behaviours** concern the **correct disposal** and **efficient use** of products.
- These results also confirm that, due to the current socio-economic situation and the very high inflation in recent months, consumers have adopted **behaviours with a higher economic benefit** in addition to the environmental one.

Positive behaviours are overall increasing.

AVERAGE % CHANGE (2022 VS 2023)



- Although the **use-phase** behaviours **are more rooted and frequent** among the population, there is a **particularly positive trend for the purchase-phase behaviours**, with a variation of +10% for optimisation, +7% for generation and +6% for preservation.

The aggregated behaviours reveal the existence of four clusters.

1

CIRCULARS par EXCELLENCE

Very frequently adopt circular value generation, conservation and optimisation behaviours both in the purchase phase and in the use and end-of-life phase.

3

CIRCULARS par NECESSITY

Very rarely adopt circular behaviour in the purchasing phase, while they are more engaged in the post-purchasing phase where the benefits are also linked to economic utility (e.g. they avoid waste during consumption and separate waste collection).

3

CIRCULARS in PROGRESS

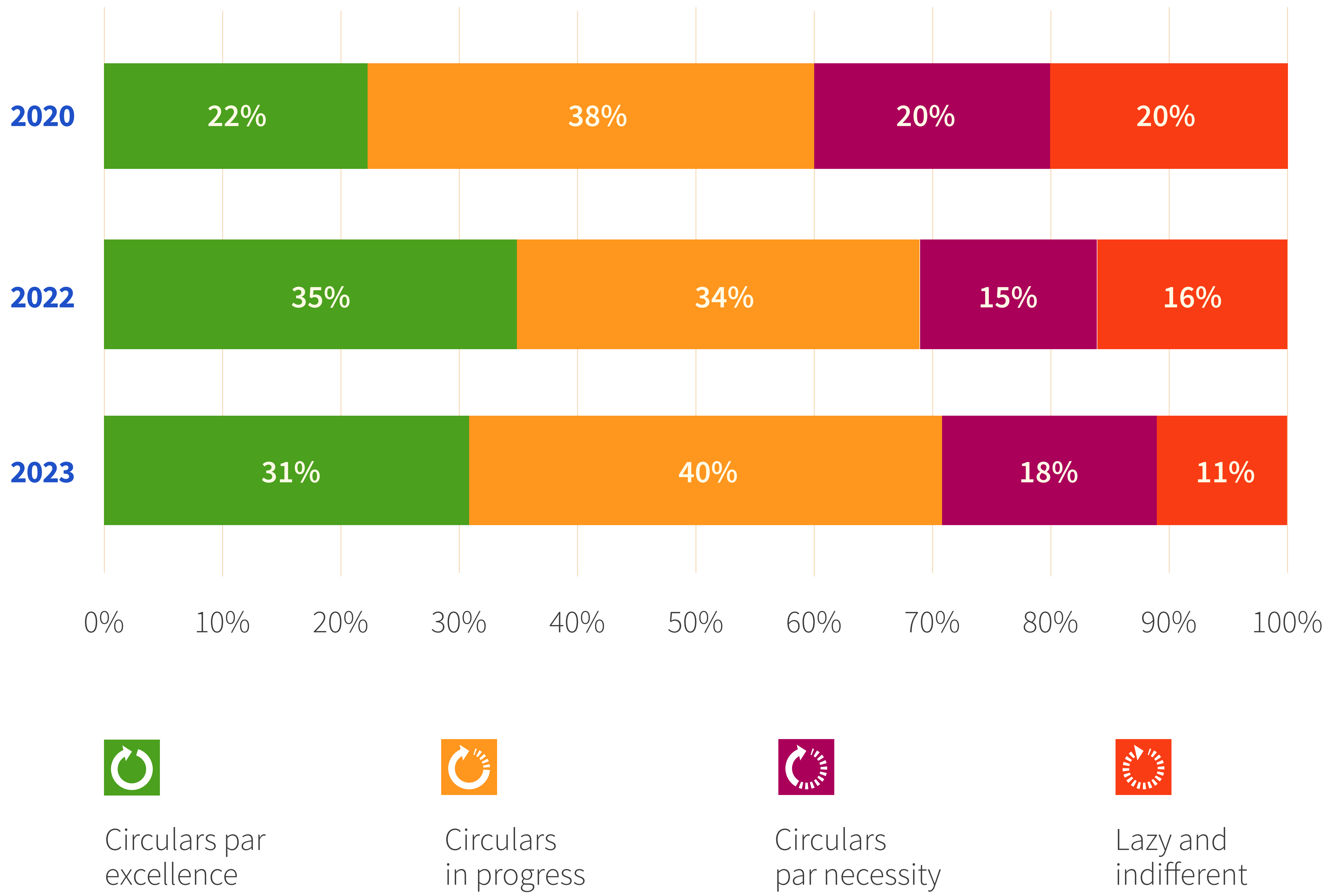
Implement circular value generation, preservation and optimisation actions with a high frequency in the post-purchase phase, while adopt virtuous behaviours with an average frequency in the purchase phase.

4

LAZY and INDIFFERENT

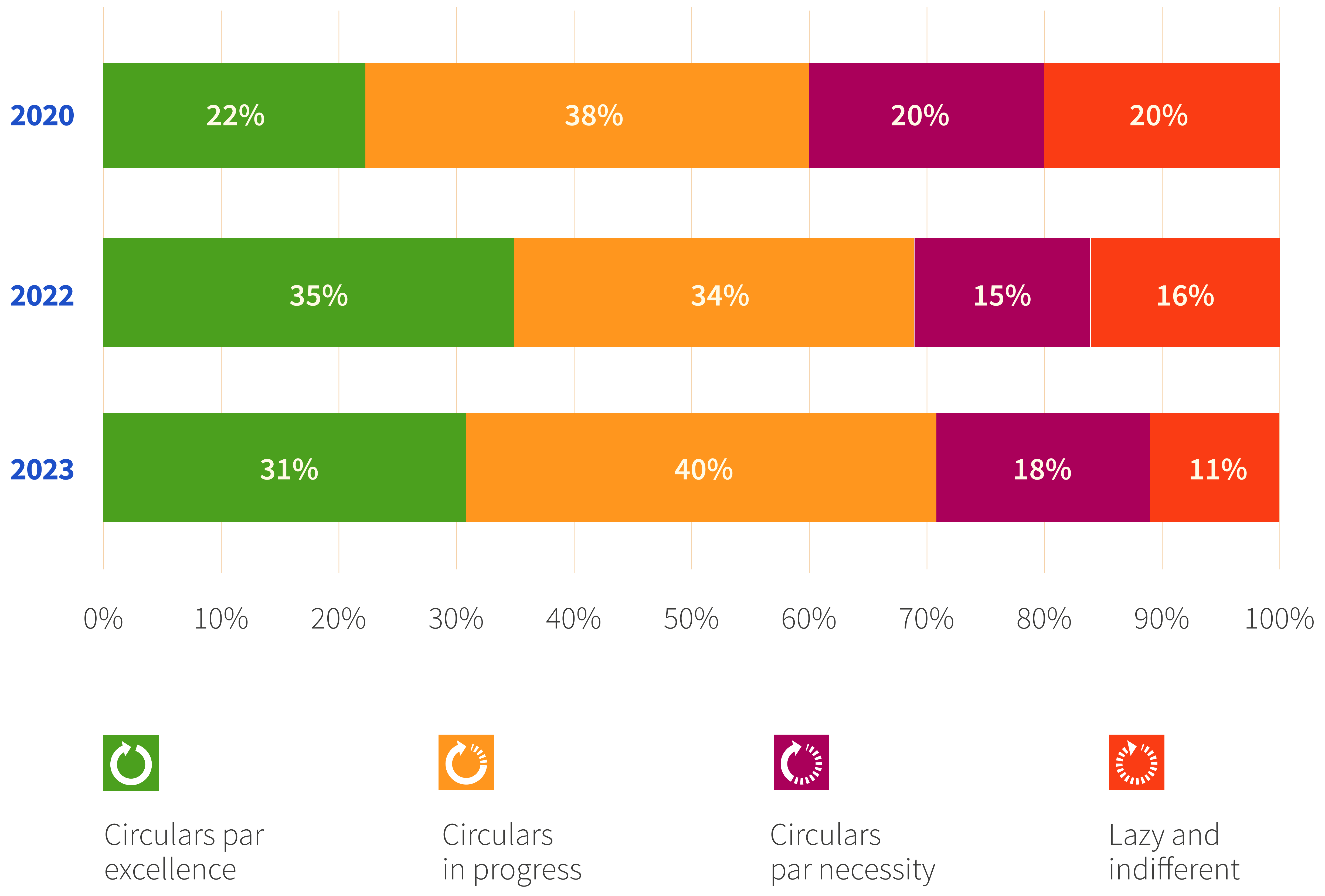
Show a low commitment to adopting circular behaviour, which occurs only occasionally at all stages (purchase, use and end-of-life). It is the only group that does not regularly separate waste (a behaviour that is deeply rooted in the population).

Cluster analysis
Cluster width in time comparison



- As in 2020, the largest consumer group is the **Circulars in Progress** (40%). Compared to last year there is an increase of +6%.
- The share of **Circular par Excellence** consumers - up from 2020 (+10%) - decreased slightly from last year (-3%).

Cluster analysis
Cluster width in time comparison



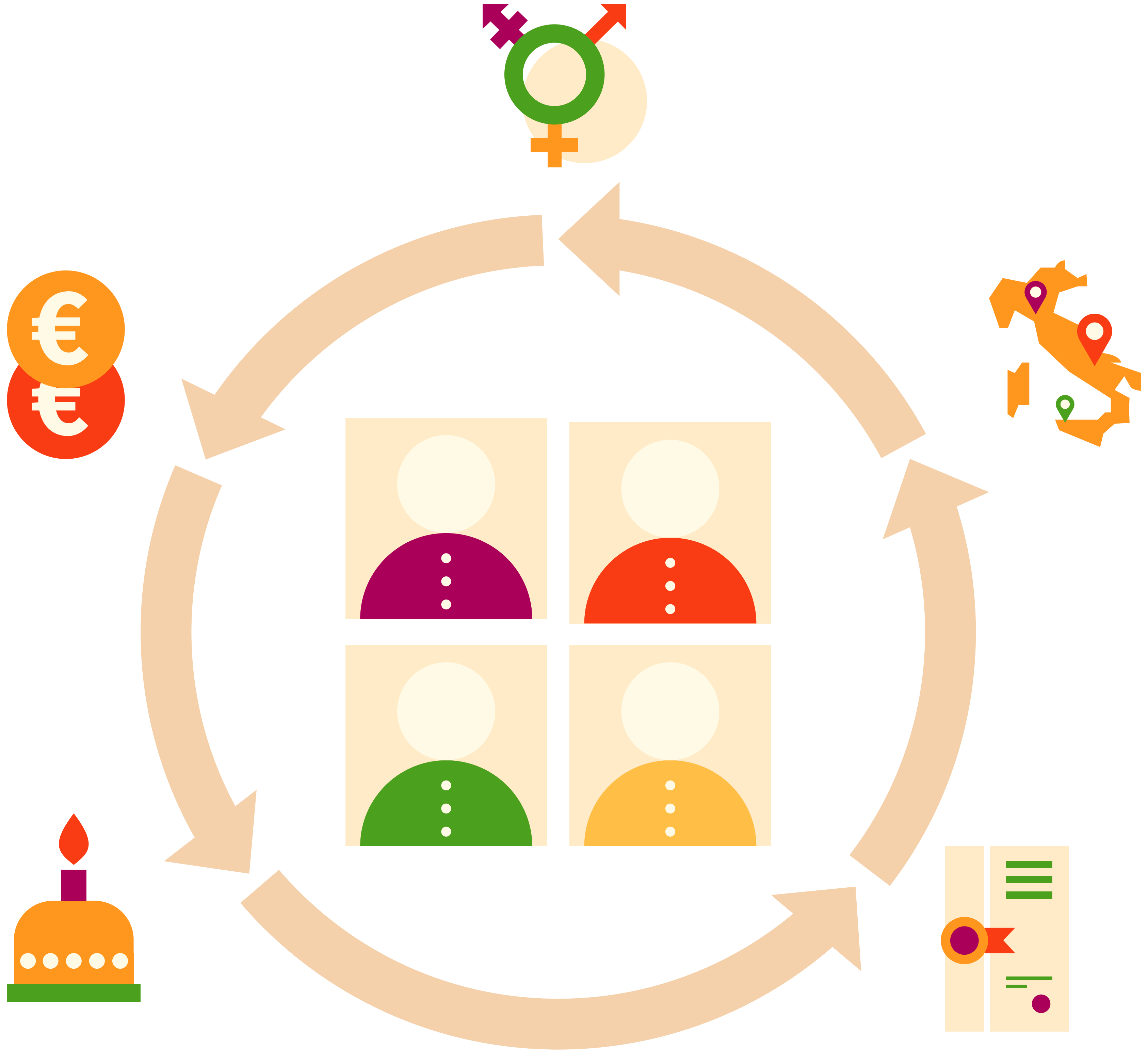
- In contrast, the share of **Circular by Necessity** increased slightly compared to 2022. The members of this cluster very rarely adopt circular behaviour during the purchasing phase, while behaviours also linked to an economic benefit are more frequent - such as waste prevention in the use phase, reuse and proper disposal at the end of life. Therefore, the increase in this cluster (+3%) is in line with the growing inflationary trend that has caused the price increase of many food and FMCG products.

- The **Lazy and Indifferent** are steadily decreasing (-5% compared to 2022 and -8% compared to 2020), showing that consumers are nonetheless engaging in more circular behaviour in recent years.

Cluster analysis
Socio-demographic characteristics.

	CIRCULARS par EXCELLENCE	CIRCULARS in PROGRESS	CIRCULARS par NECESSITY	LAZY and INDIFFERENT
	• **Female** predominance (58%)	• Waek **female** predominance (52%)	• **Male** predominance (64%)	• **Female** predominance (61%)
	• **Generation X** (43-55 years) is more present (+4%) compared to the distribution of the sample	• **Baby Boomers** (56-70 years) are more represented (+4%) compared to the distribution of the sample	• All generations are evenly distributed: **Millennials** (27-42 years) have a slightly higher representation (+2%) than the sample distribution	• **Generation Z** (18-26 years) is over-represented (+10%), while Baby Boomers are under-represented (-8%) compared to the sample distribution
	• More from the **South** and the **Islands** (43%). This result also emerged in the cluster analysis conducted in 2022	• **Even** distribution by geographical area	• Origin predominantly from **Northern Italy** (61%), mainly North-West	• **Even** distribution by geographical area

Cluster analysis
Socio-demographic characteristics.



The **differences** found in the socio-demographic distributions in relation to **gender**, **age** and **geographical origin are slight.**

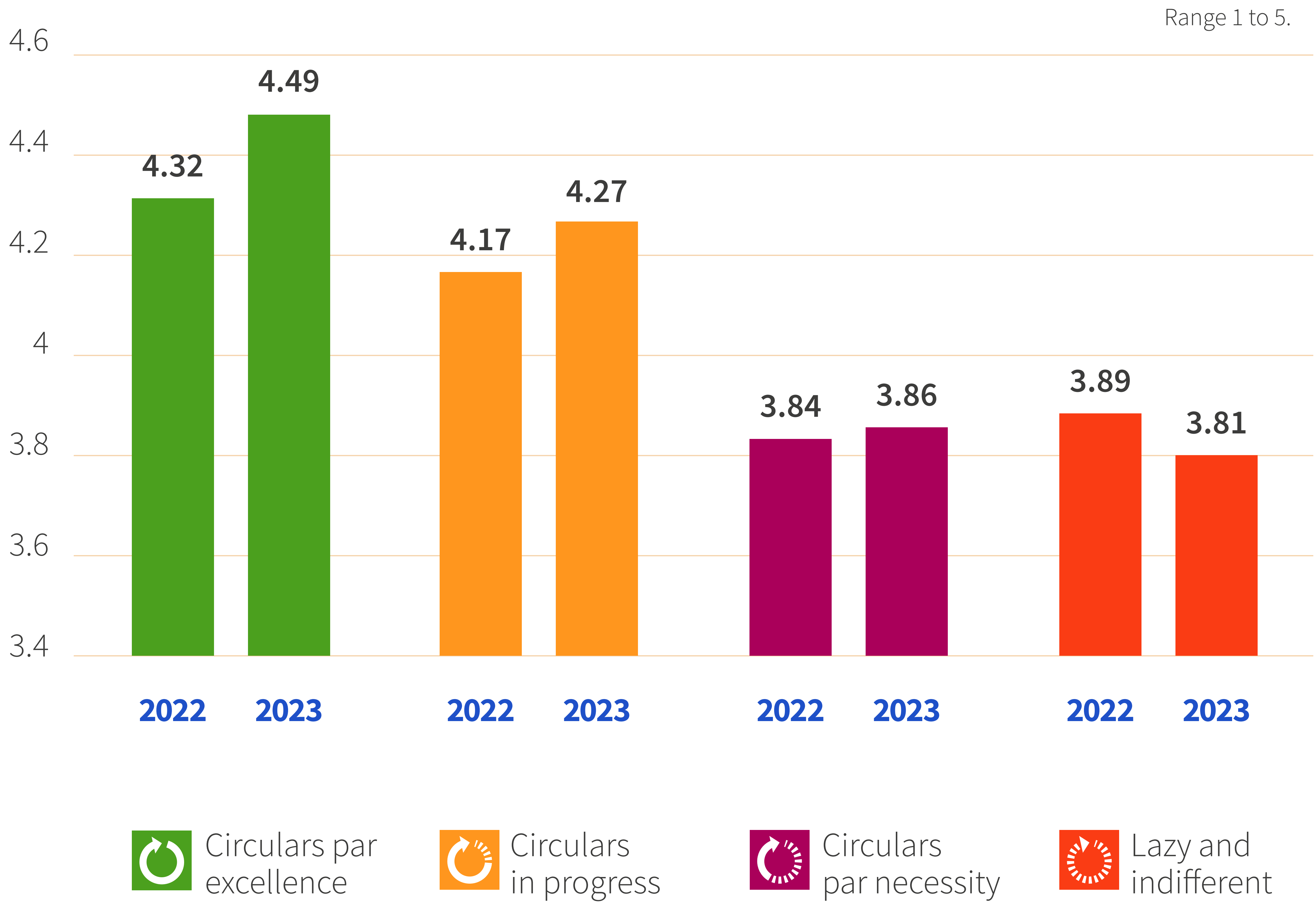
In fact, clusters **tend to cross socio-demographic categories**, which means that circular value generation, preservation and optimisation **behaviours** are not explained by socio-demographic differences but are rather an **expression of personal and value dimensions.**

Cluster analysis: psychographic, cognitive and behavioural variables.

ATTITUDE TOWARDS THE CIRCULAR ECONOMY

Attitudes towards the circular economy characterize a large part of the population. All clusters have high values and attitude was overall increased compared to last year in the 3 most virtuous clusters.

Circulars par excellence and Circulars in progress have higher values: there exists a coherent relationship between personal convictions and actual action.



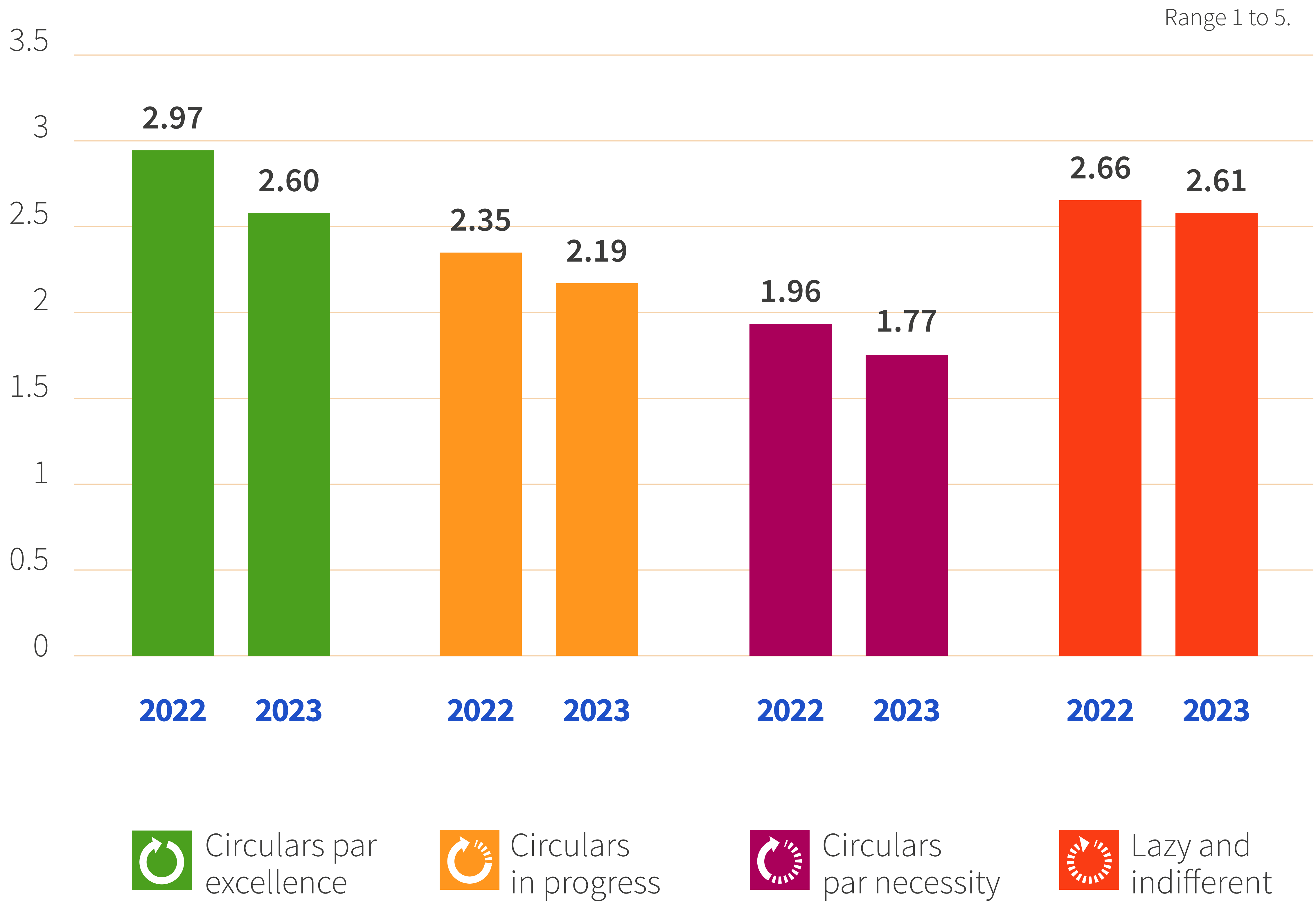
Cluster analysis: psychographic, cognitive and behavioural variables.

FORMS OF ONLINE CONSUMPTION

The use of **online forms of shopping** and **searching for digital information** (via website, app, QR code).

The highest values are found at the extremes, for different motivations:

- Circular par excellence: driven by a desire to find more sustainable products that they cannot find locally;
- Lazy and indifferent: driven by the affordability and less effort required by online shopping. Also explained by the predominance of Gen Z in the cluster: digital natives and therefore more inclined to integrate technology into daily life.

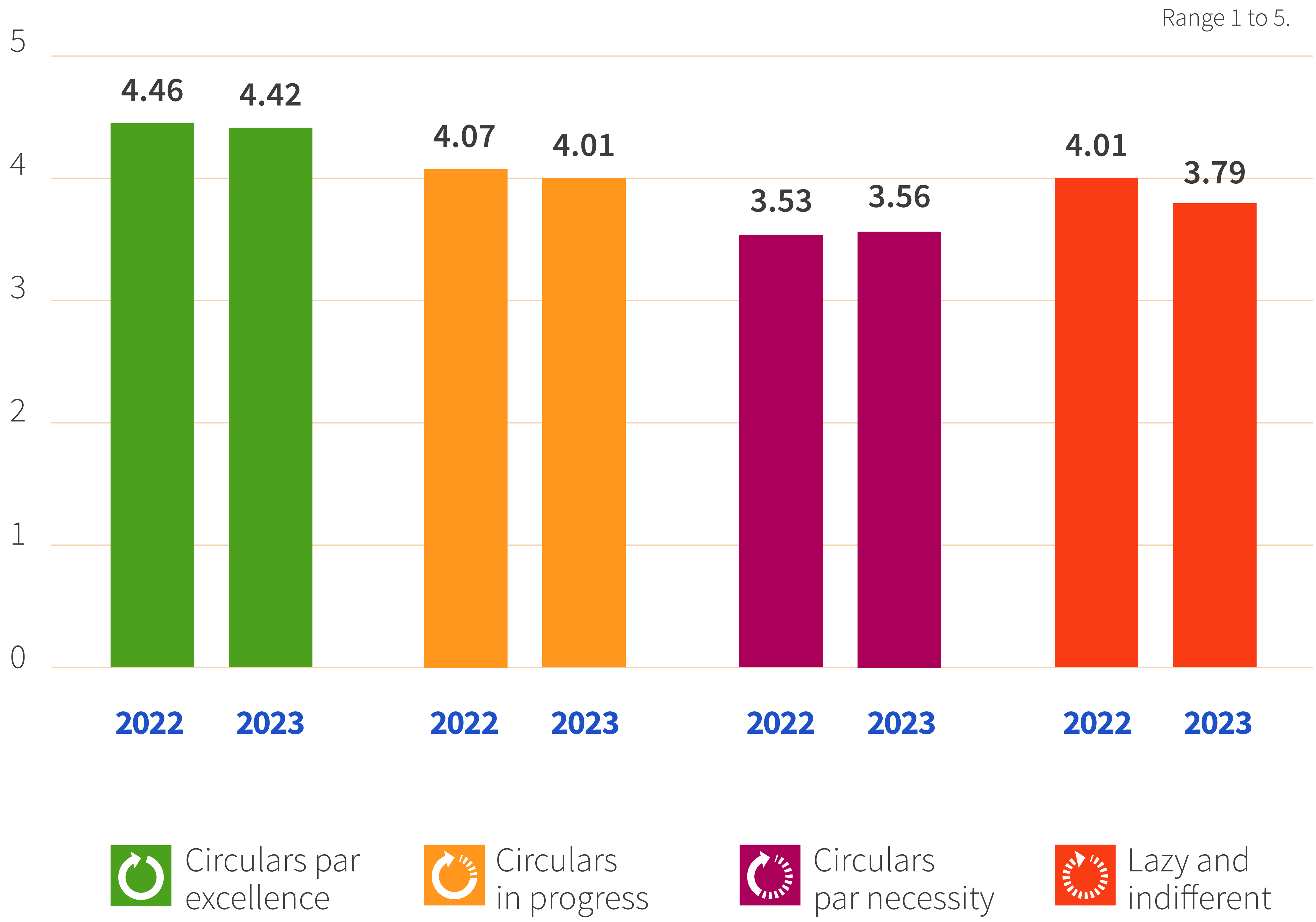


Cluster analysis: psychographic, cognitive and behavioural variables.

APPRECIATION OF INFORMATION

Accessibility to information remains relevant for most consumers: it increases their confidence, reducing scepticism and concern about product quality.

All groups have high scores but strongly the Circulars par excellence.

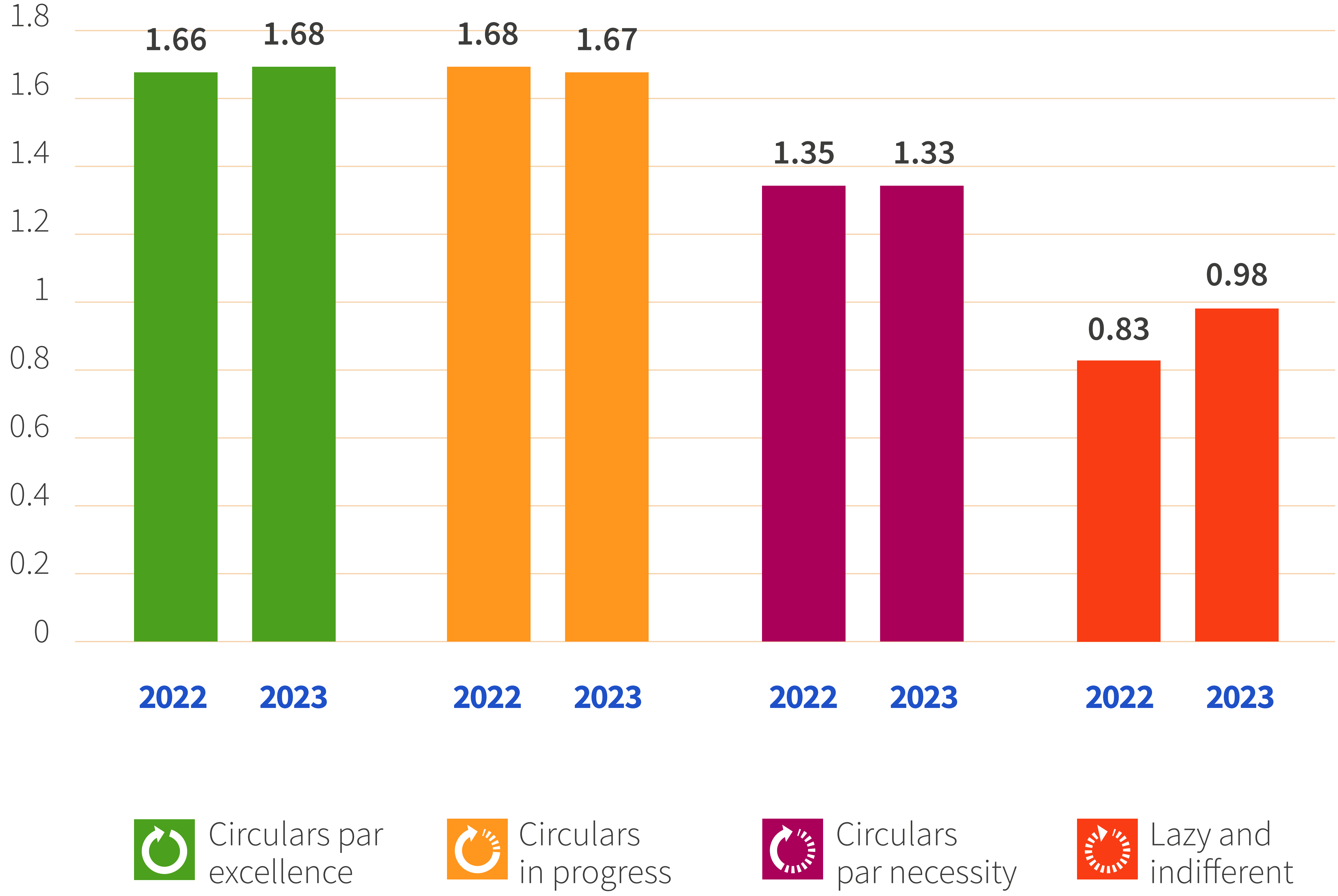


Cluster analysis: psychographic, cognitive and behavioural variables.

KNOWLEDGE ABOUT CARBON CLAIMS

Circulars par excellence and Circulars in progress understand on average more about the **meaning of carbon claims***.

Lazy and indifferent have increased their knowledge compared to last year: even groups less inclined to circular practices are becoming more informed about the impact of products on climate change.



* Declarations about corporate climate action: offsetting and emission reduction strategies to combat climate change.

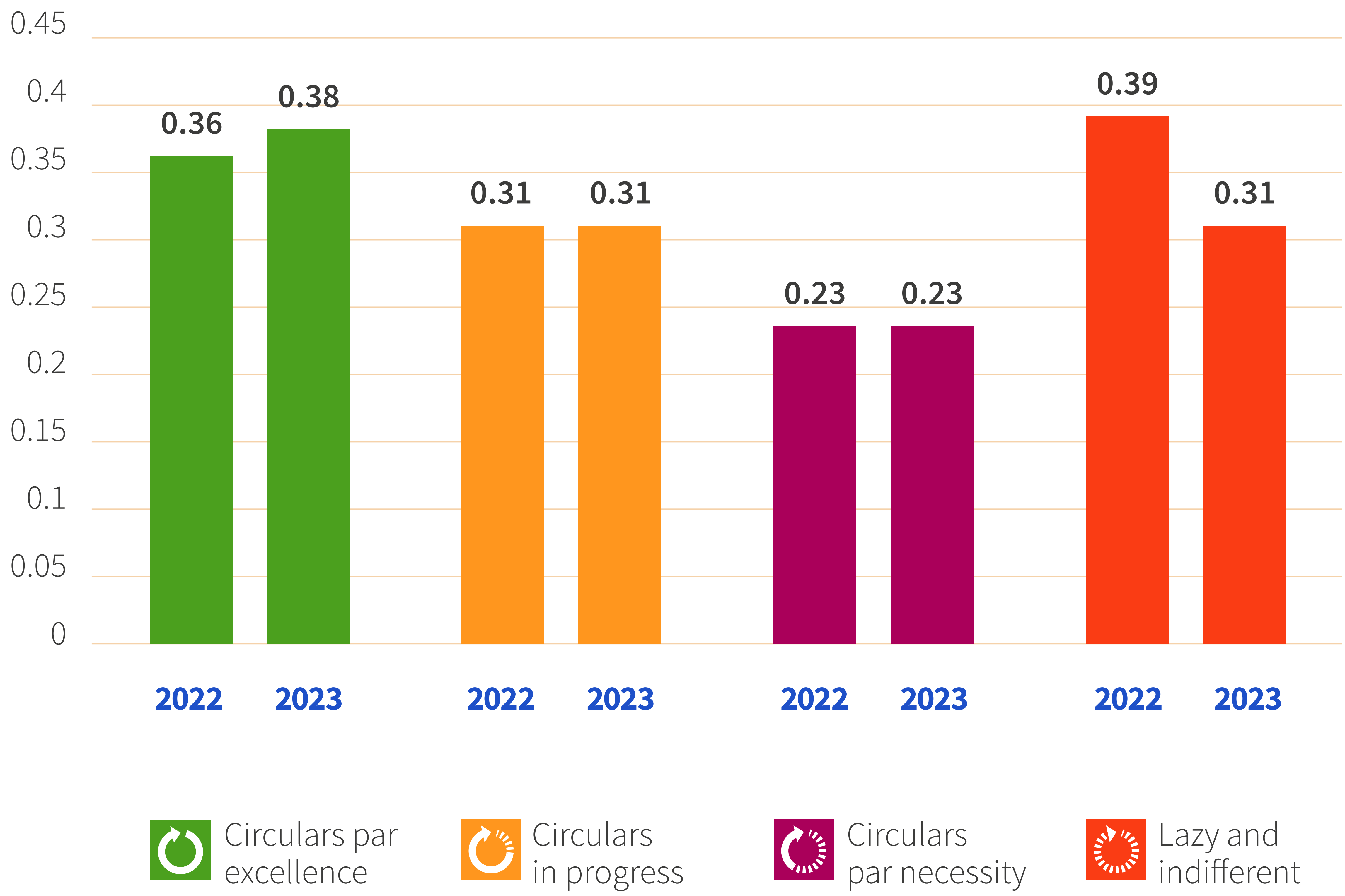
Analisi dei cluster: le variabili psicografiche, cognitive e comportamentali.

WILLINGNESS TO PAY FOR RECYCLED PACKAGING

Willingness to pay was measured by presenting participants with a product worth € 3.00 and investigating their willingness to pay an extra amount to have the same product with recycled packaging.

Circulars par excellence are increasingly willing to invest in sustainable options.

Lazy and indifferent have reduced their willingness to incur additional costs: greater alignment with their consumption priorities, exacerbated by the effects of inflation.



POSSIBLE BARRIERS to CIRCULAR BEHAVIOURS

Possible barriers

Many factors affect individual behaviours and choices, generating a gap between personal beliefs (positive attitudes) and the actual implementation of concrete virtuous actions.

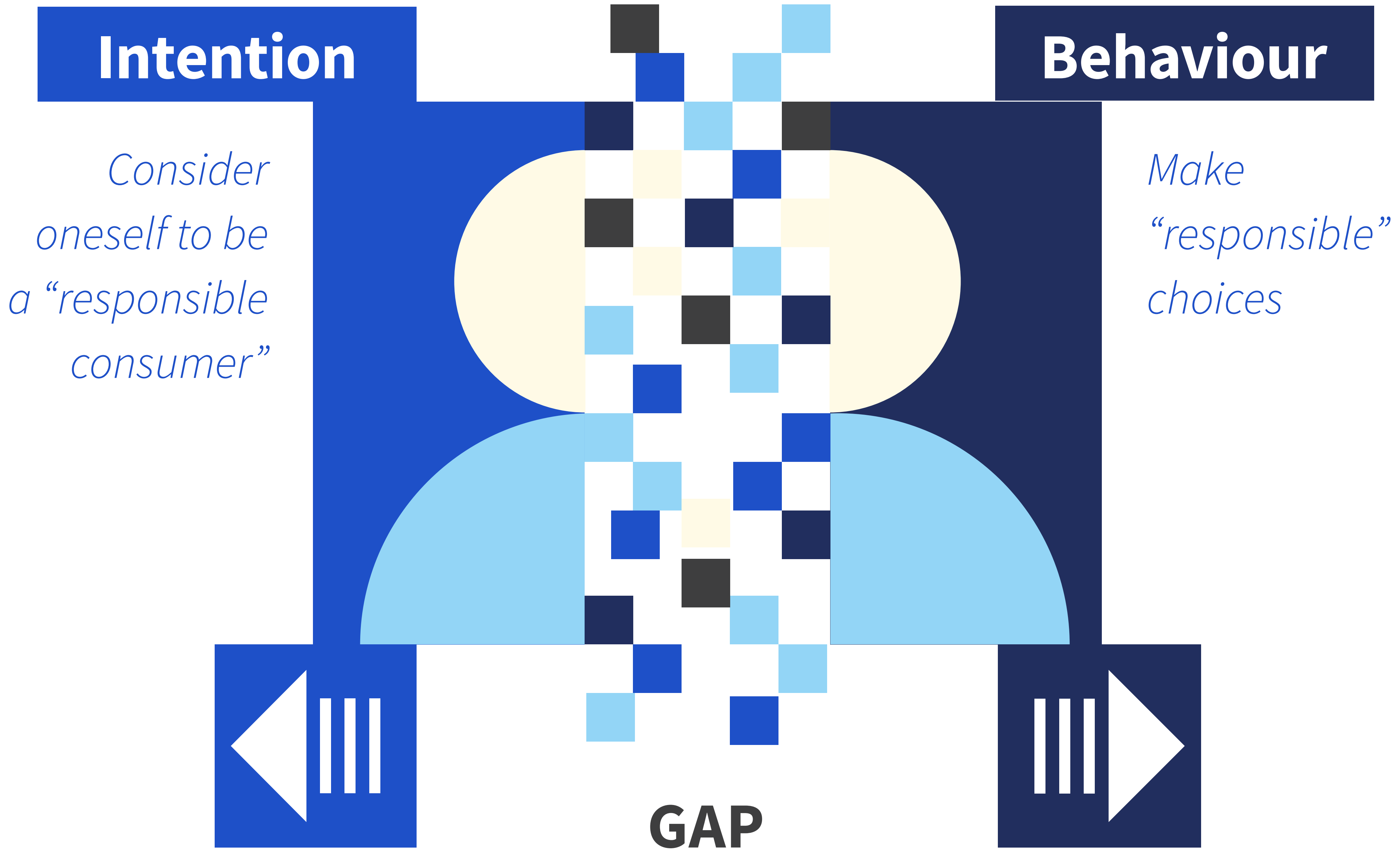
1. Lack of **information** or poor understanding of existing information

2. Lack of **trust** in company declarations

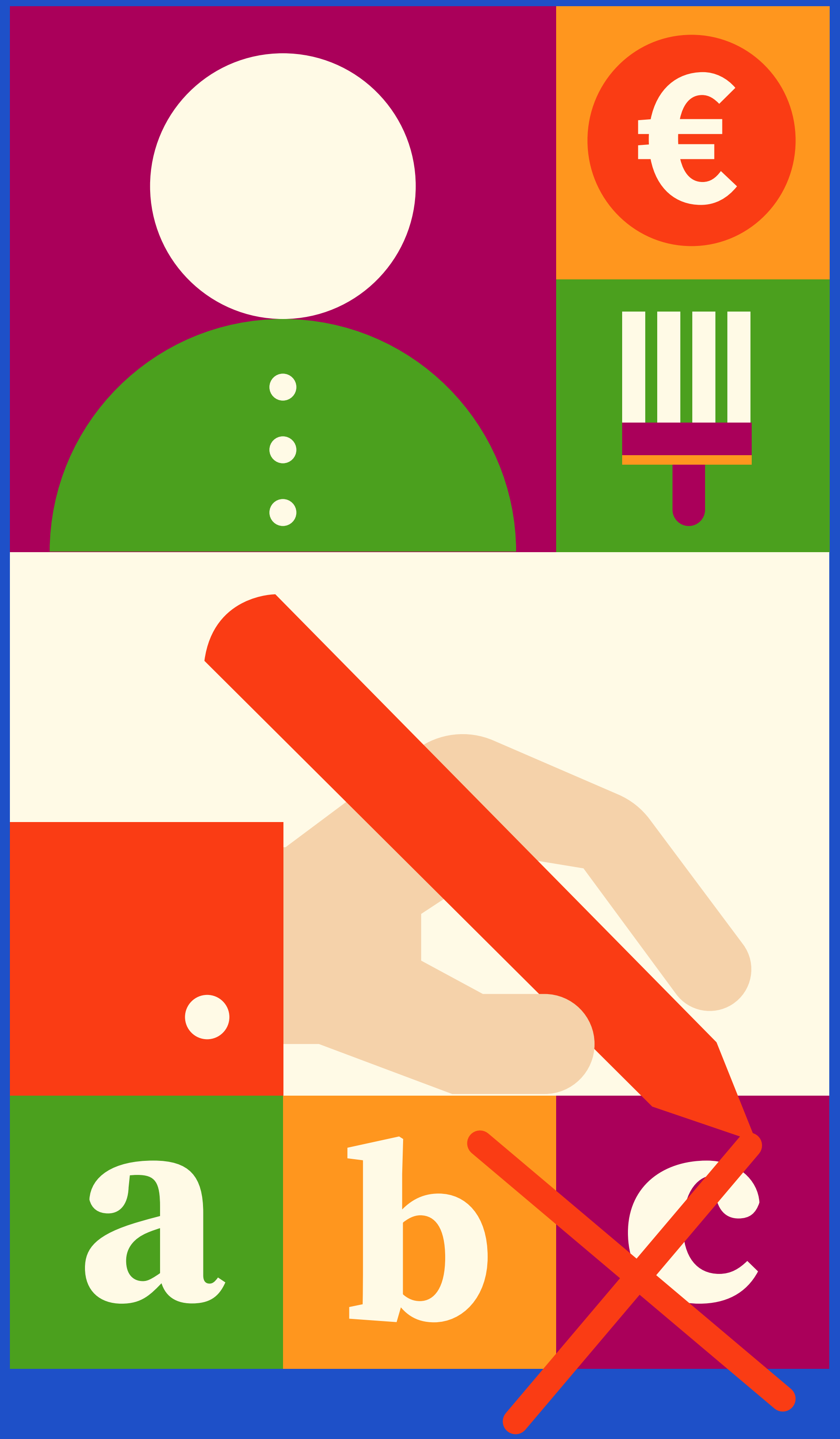
3. Reduced **willingness to pay**

4. Availability/Accessibility of products/services

5. Conflicting objectives that a specific product must fulfil simultaneously *(environmental vs. functional, hedonic, symbolic, economic)*



PROGETTO SCELTA



investigates the impacts of

- Economic factors
- Greenwashing

on purchasing behaviour
by repeating two experiments
over time.

ECONOMIC FACTORS

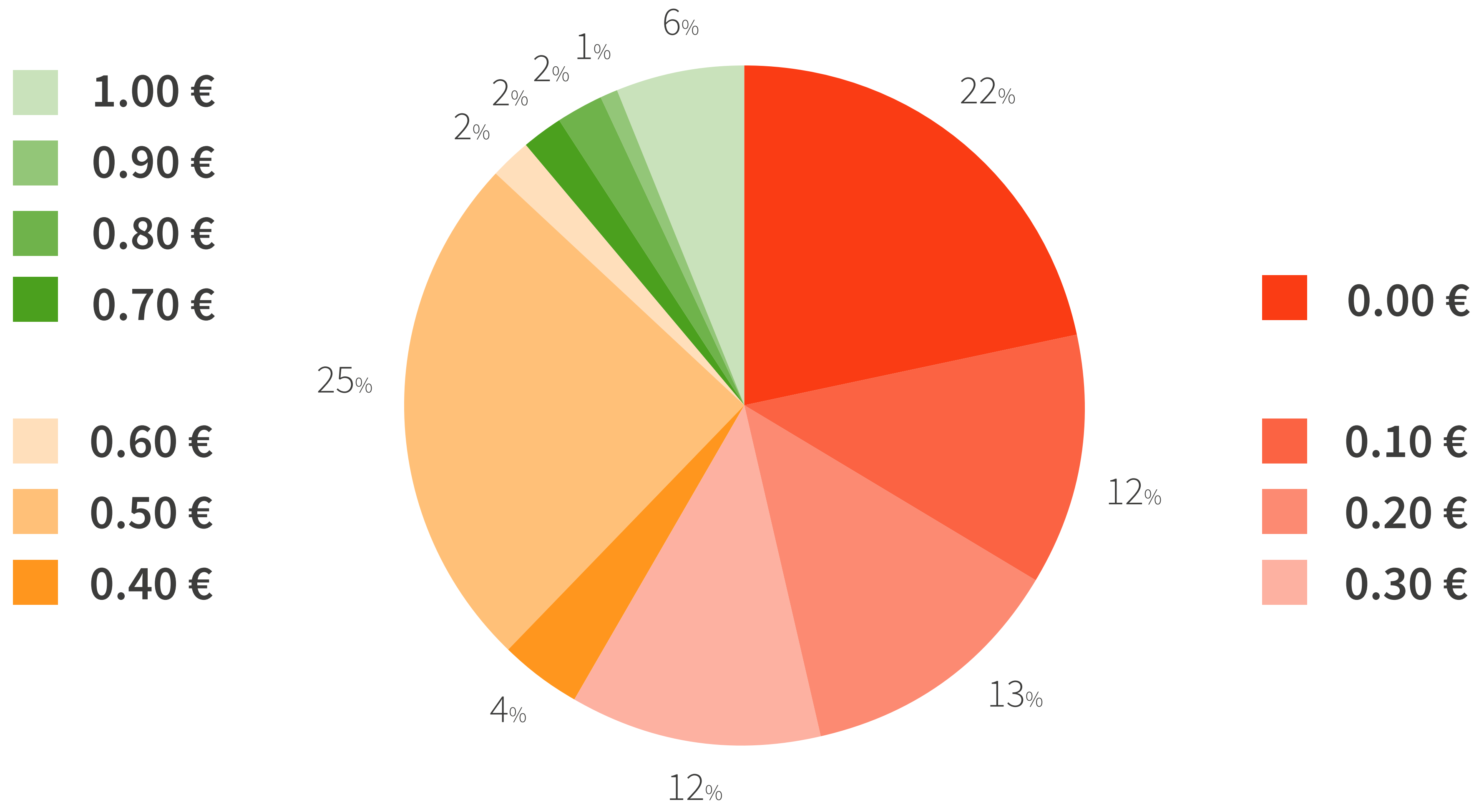
Introduction

Economic factors:
Price and inflation

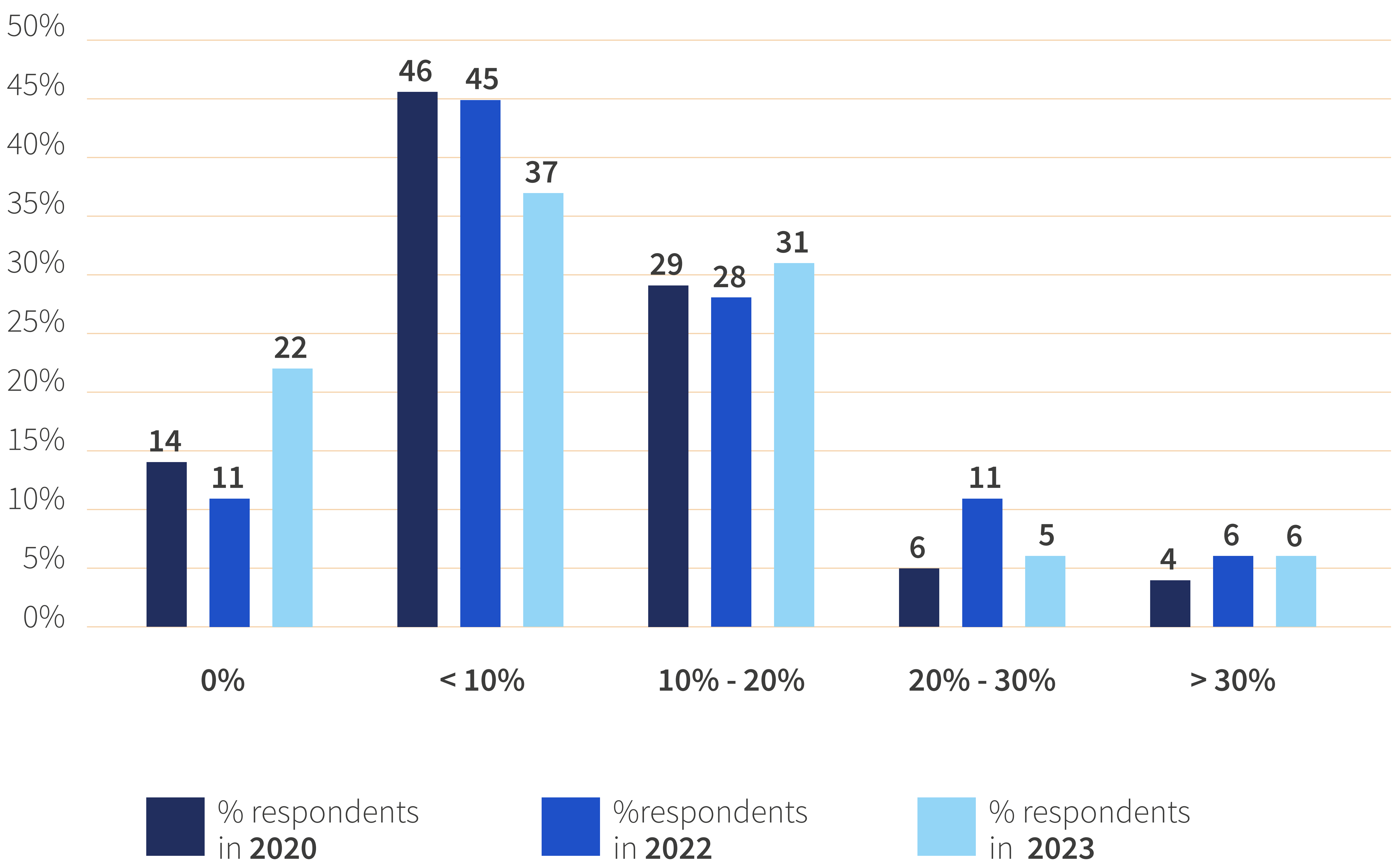
In 2023 the willingness to pay for a fast-moving consumer good with a reclycled packaging has decreased.

QUESTION:
Consider a household detergent that you frequently buy at the supermarket worth about 3€.
How much would you pay *to buy the same product in packaging made from recycled material?*

ANSWERS IN 2023

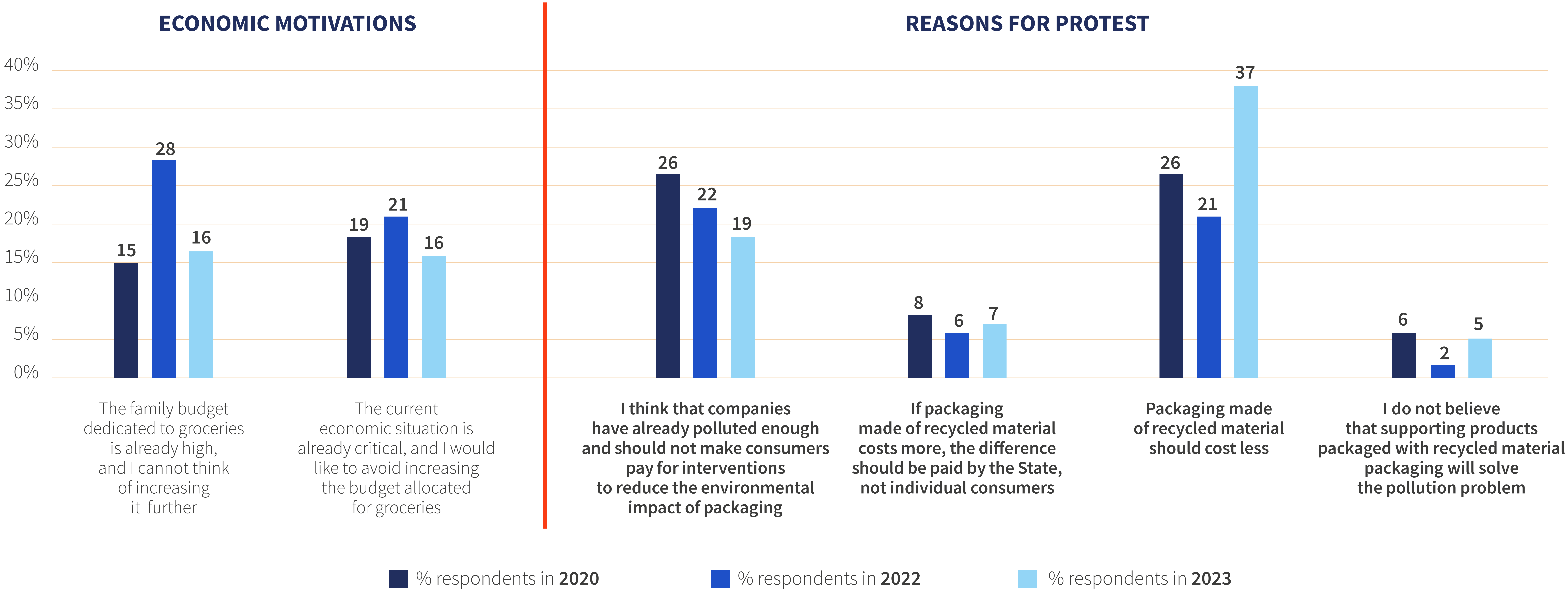


WILLINGNESS TIME COMPARISON



Economic factors:
Price and inflation

As main motivation for those who are not willing to pay more, the REASONS FOR PROTEST are rising.



ECONOMIC FACTORS

EXPERIMENT 1

- What is the impact of **price** on the choice of a recycled packaging?
- What is the impact of **inflation** on the choice of a recycled packaging?

THE EXPERIMENT

Respondents were divided in THREE GROUPS. Each group was made the SAME QUESTION, each with a DIFFERENT PRICE for the circular option.

QUESTION:

Imagine you are in the supermarket.
You are looking for your favourite shower gel.
You find it in three different packagings.

The two shower gels made from recycled materials cost <10/20/30%> more.

WHICH PRODUCT WOULD YOU CHOOSE?

	GROUP 1	GROUP 2	GROUP 3
Bottle made of non-recycled material	3.00 €	3.00 €	3.00 €
Bottle made of 65% recycled materials (self-declared by the manufacturer)	3.30 € (+10%)	3.60 € (+20%)	3.90 € (+30%)
Bottle made of 65% recycled materials and certified by Remade in Italy	3.30 € (+10%)	3.60 € (+20%)	3.90 € (+30%)

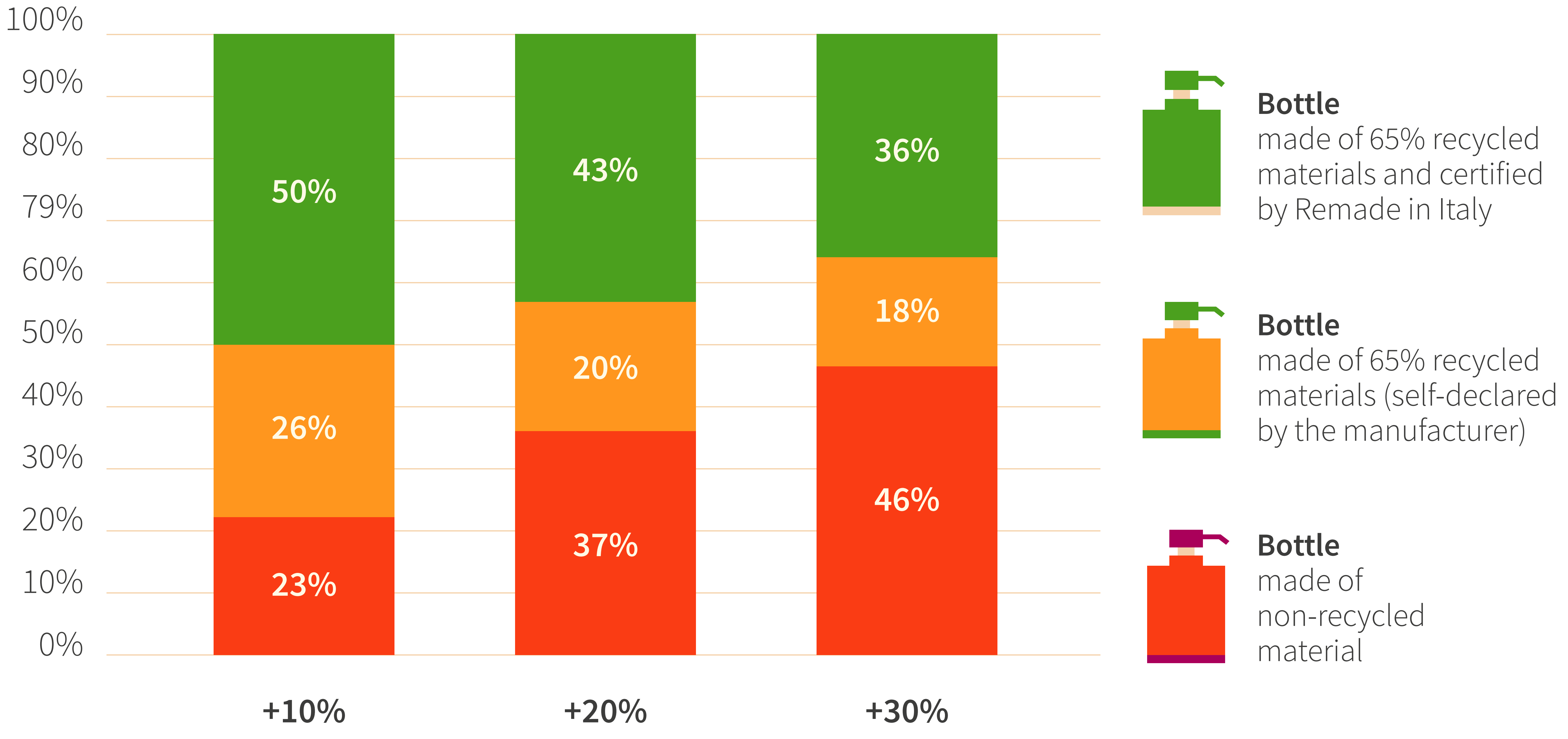
PRICE
How does it impact on packaging choices?

ANSWERS

- The share of respondents choosing the recycled and certified recycled bottle decreases as the price increases.

- Most respondents who choose the circular option prefer the Remade in Italy certified bottle (about 66% of those who choose recycled packaging).

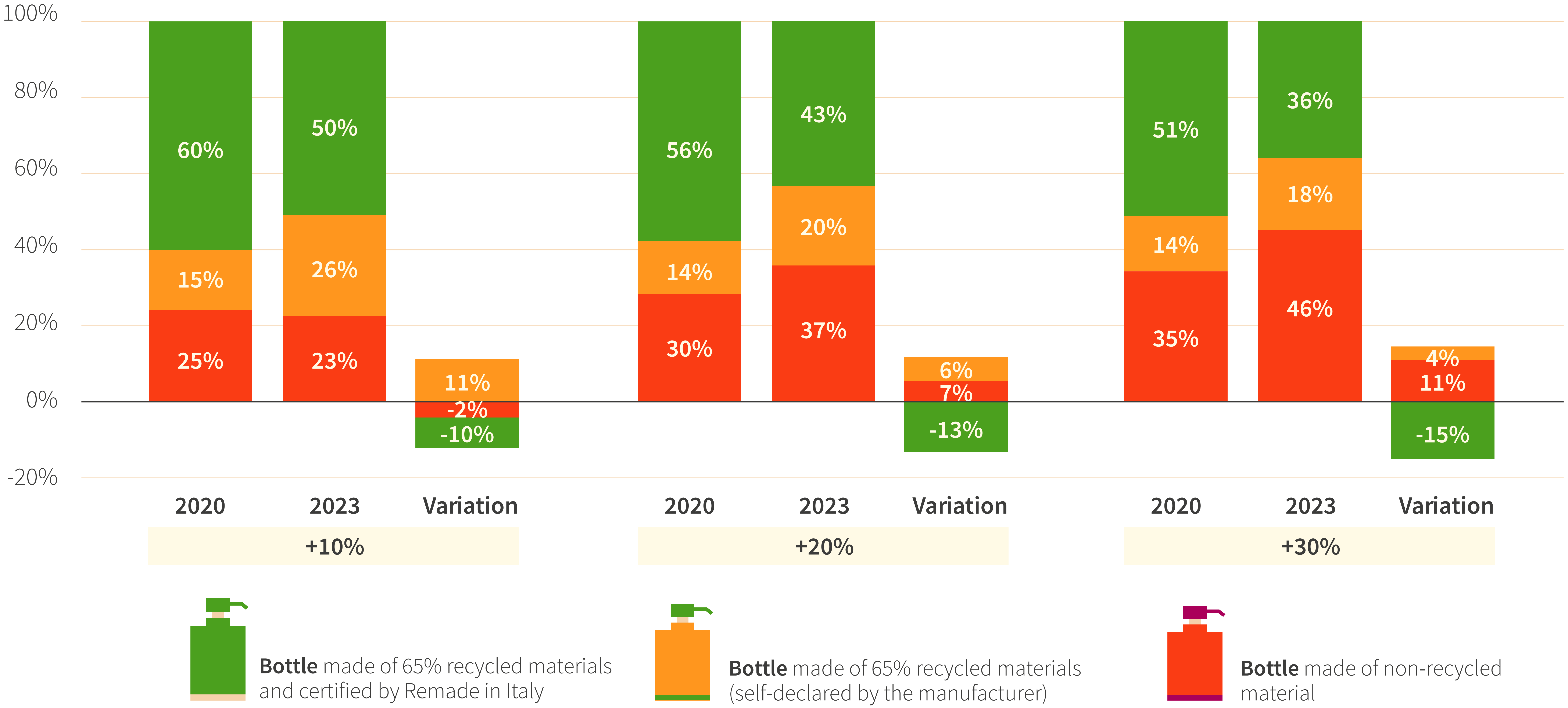
RESPONDENTS %



INFLATION
How does it impact on packaging choices?

ANSWERS

In order to calculate the impact of inflation on circular purchasing, the results were compared with those obtained in 2020.



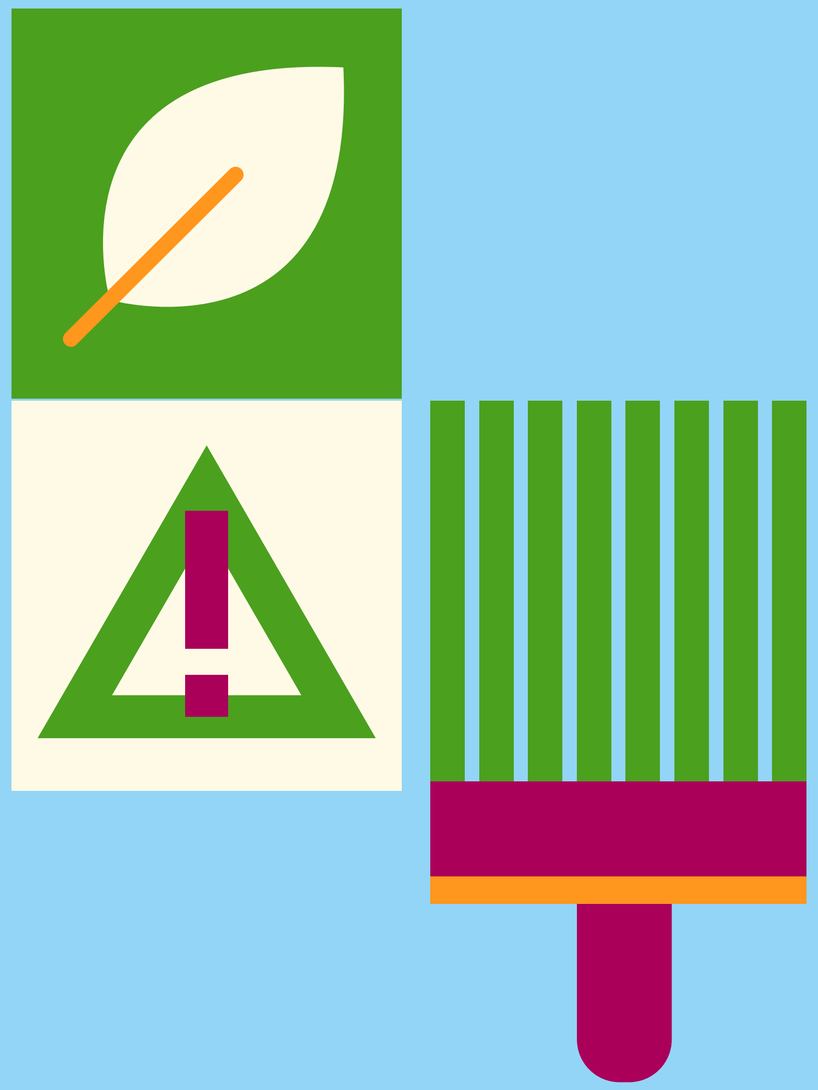
EXPERIMENT 1
Conclusion

Compared to 2020, the share of consumers **choosing to buy the recycled (and more expensive) bottle decreased by** 7% and 11% for price increases of +20% and +30% respectively.

This result is in **line with the increase in inflation**: +5.4% (Aug-23) but with even greater variations previously (Dec-22 peak of +11.8%). Purchasing decisions (Aug-23) may therefore have been affected by the inflationary increase in previous months.

IN CONCLUSION:
The **effect of inflation** is reflected in the purchase when the **price gap is largest** (+20% and +30%).

Conversely, when the **price increase is smaller** (+10%), the inflationary effect is more than compensated by the increasing focus on sustainability (+2% of consumers **choosing recycled packaging**).



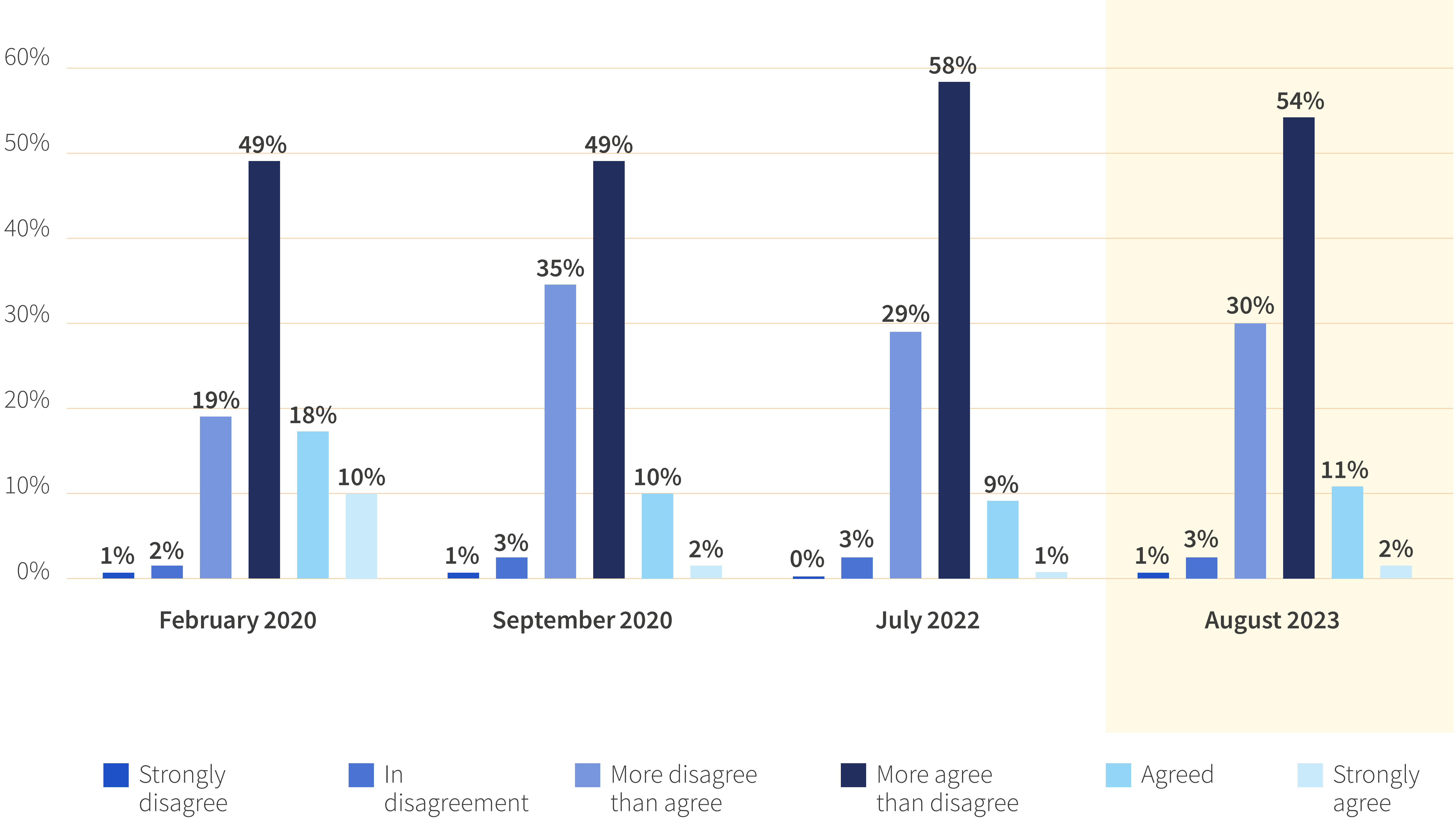
GREENWASHING

Introduction

Greenwashing

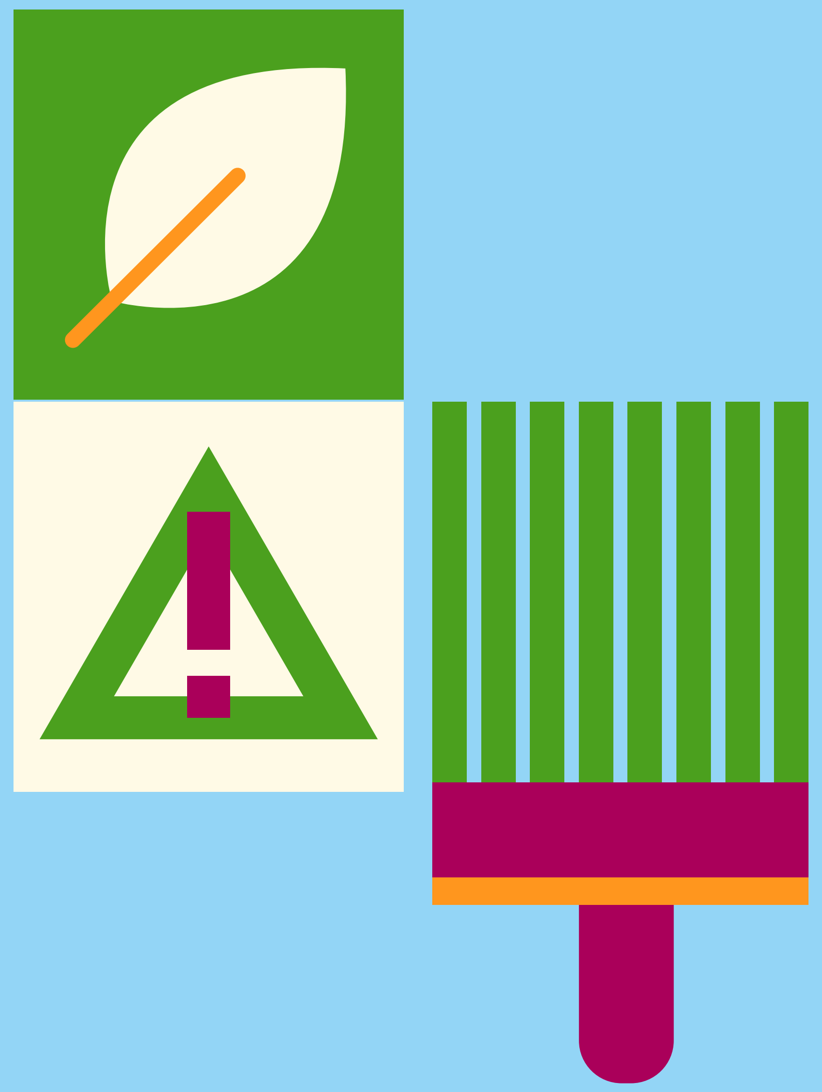
In 2023, consumers convinced that companies adopt misleading green communication practices represent 67% of the sample, a figure that has been decreasing since 2020.

QUESTION:
Do companies adopt misleading green communication practices?



GREENWASHING

EXPERIMENT 2



- What is the **impact of greenwashing** on the choice of a recycled packaging?

THE EXPERIMENT

AIM:
Identify which attributes are most influential in the choice of a non-branded bottle of fruit juice.

METHODOLOGY
1001 consumers participated in the experiment (representative sample of the Italian population 18-70).

Each respondent was asked to perform 6 consecutive choice tasks. For each task, respondents were asked to indicate their purchase choice among 4 product profiles (characterised by different levels of attributes).

4 choice tasks were used to cover all possible product profiles resulting from the combinations of attribute levels. Two more tasks were added to ensure sufficient data to correctly reveal preferences.

Profiles were included in the different tasks trying to minimise the overlapping of very similar profiles and the presence of "easy" choices caused by the presence of dominant profiles (i.e. better in all attributes).

THE EXPERIMENT

ANALYSED ATTRIBUTES

The four attributes (conservation, price, packaging characteristics and impact on climate change) can take two levels: basic and focal (improving).

In particular, the last two attributes can take a base level representing a misleading statement (greenwashing) and a focal level representing a legitimate statement because it is correct and accurate.

	BASIC	FOCAL
Shelf life after opening the package	2 days	5 days
Price	1.65 €	1.03 €

	GREENWASHING	LEGITIMATE
Packaging features	100% sustainable because it is recyclable	100% recycled and recyclable
Impact of the product on climate change	Zero impact because we only use renewable energy in our factories	Carbon-neutral because we reduce and offset CO_2 emissions along the entire supply chain

THE EXPERIMENT: Example of a selection task

	a PRODUCT 1	b PRODUCT 2	c PRODUCT 3	d PRODUCT 4
Conservation	**5 days**	**5 days**	2 days	**5 days**
Price	**1.03 €**	1.65 €	**1.03 €**	**1.03 €**
Packaging features	100% sustainable because it is recyclable	**100% recycled and recyclable**	**100% recycled and recyclable**	**100% recycled and recyclable**
Impact of the product on climate change	**Carbon-neutral because we reduce and offset CO_2 emissions along the entire supply chain**	**Carbon-neutral because we reduce and offset CO_2 emissions along the entire supply chain**	**Carbon-neutral because we reduce and offset CO_2 emissions along the entire supply chain**	Zero impact because we only use renewable energy in our factories

EXPERIMENT 2
Results

One of the results of conjoint analysis is the calculation of the **Average Marginal Component Effect (AMCE)** associated with each attribute. In other words, the impact of each attribute on the probability of purchasing of a product.

The attribute that showed the highest AMCE was **CONSERVATION**. In fact, going from the basic level (2 days) to the focal level (5 days), the **probability of** a profile being selected **increases by 20.71%**.

PRICE has slightly lower values than Preservation. When it goes from the base level (EUR 1.65) to the focal level (EUR 1.03), the **probability** of a profile being selected **increases by 20.43%**.

		BASIC	FOCAL
	Shelf life after opening the package	2 days	5 days **+20.71%**
	Price	1.65 €	1.03 € **+20.43%**

EXPERIMENT 2
Results

One of the results of conjoint analysis is the calculation of the **Average Marginal Component Effect (AMCE)** associated with each attribute. In other words, the impact of each attribute on the probability of purchasing of a product.

With regard to **PACKAGING FEATURES** and **PRODUCT IMPACT ON CLIMATE CHANGE**, when both attributes move from the basic level (greenwashing) to the focal level (legitimate), the **probability of** a profile being selected **decreases by 2.35%** and **15.26%** respectively. This means that consumers **fail to recognise when a message is misleading** and their **purchasing choices lean** towards products with **unsubstantiated slogans** such as ‘100% sustainable’ or ‘zero impact’.

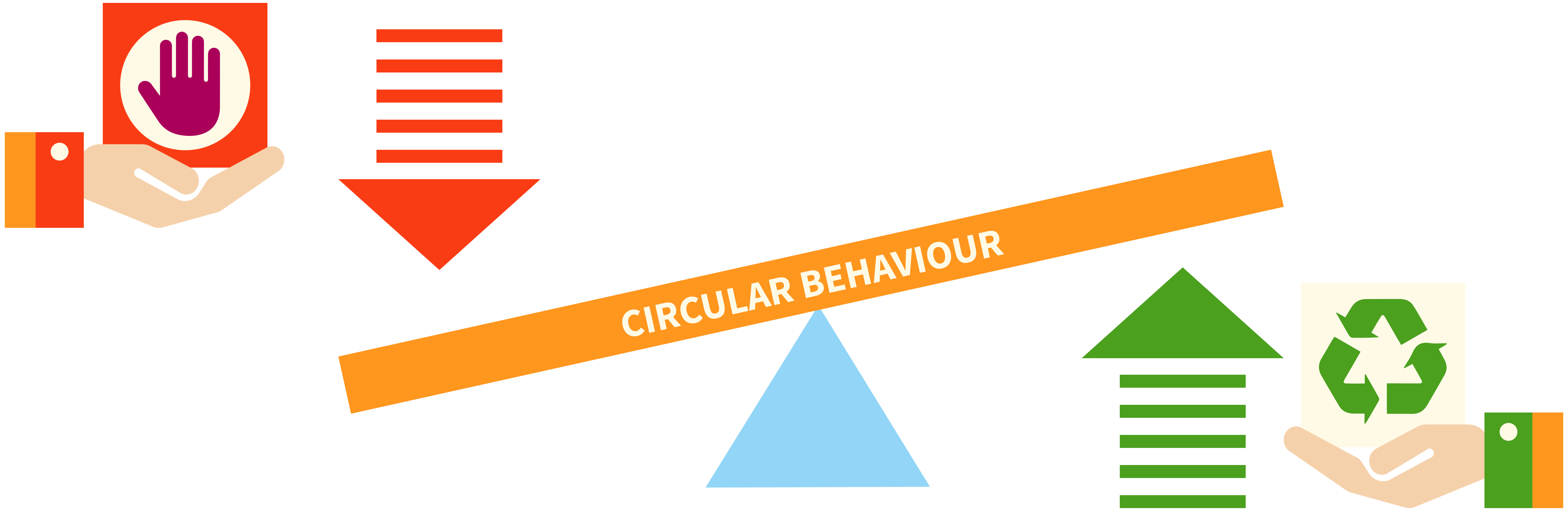
	GREENWASHING	LEGITIMATE
Packaging features	100% sustainable because it is recyclable	100% recycled and recyclable **-2.35%**
Impact of the product on climate change	Zero impact because we only use renewable energy in our factories	Carbon-neutral because we reduce and offset CO_2 emissions along the entire supply chain **-15.26%**

CONCLUDING REMARKKS

KEY TAKEAWAYS

OBSTACLES

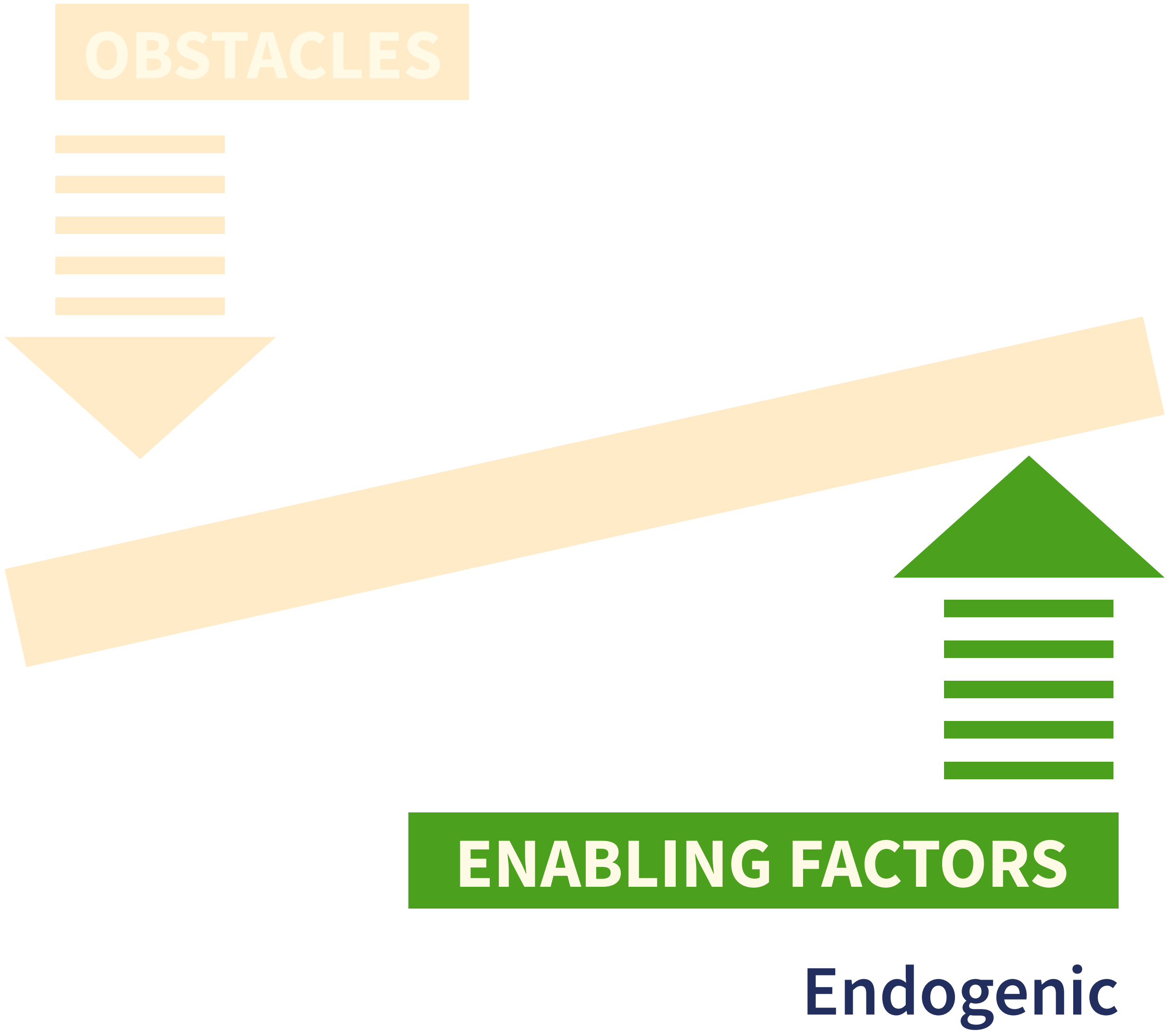
Economic factors
Greenwashing



ENABLERS

Endogenous (personal beliefs)
Exogens (information and education)

KEY TAKEAWAYS
Personal Convictions as circularity drivers

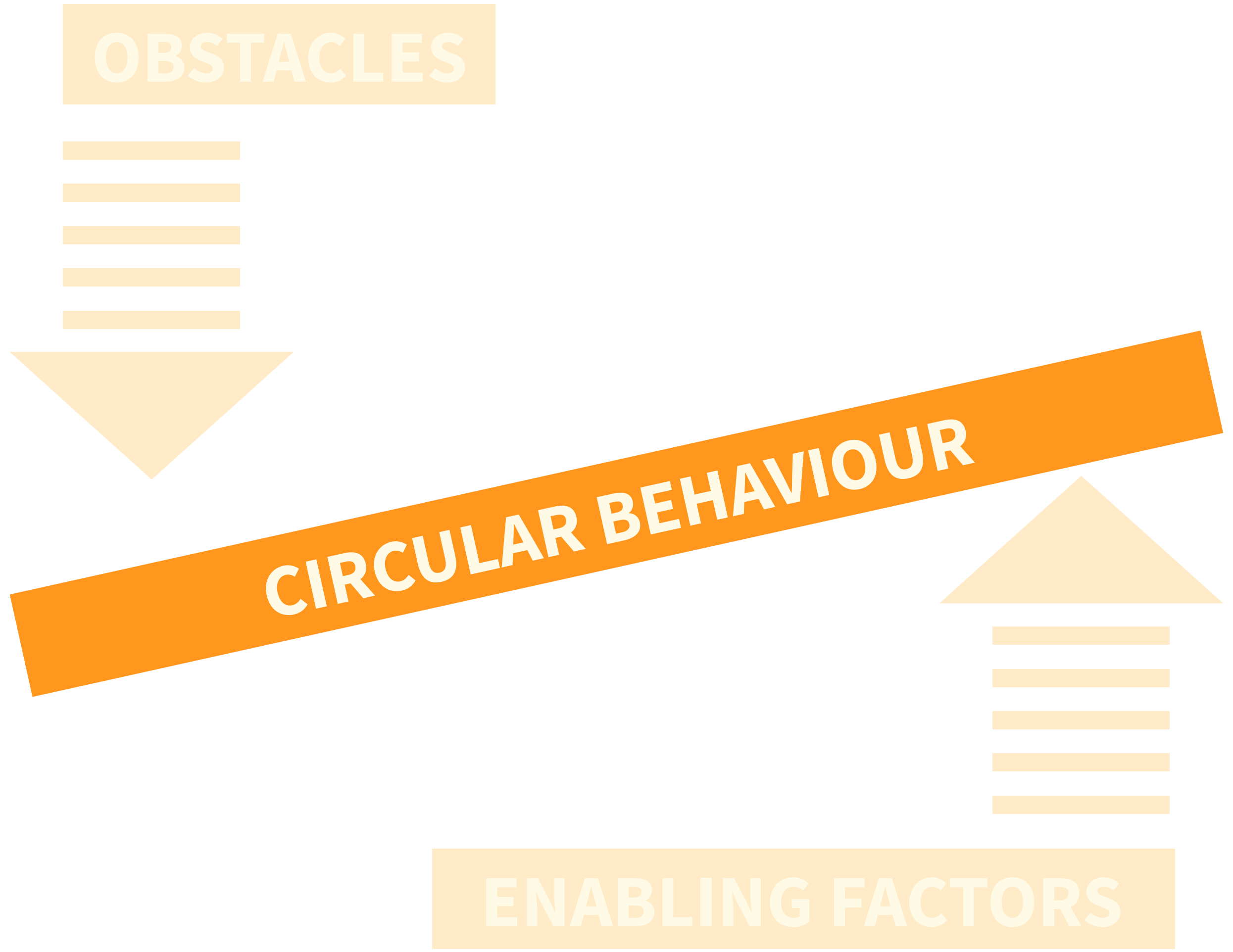


Personal beliefs are an **important driver** that moves individual action towards the adoption of sustainable behaviour consistent with the logic of the circular economy.

ENVIRONMENTAL CONCERN AND AWARENESS
Comparing the current results (August 2023) with the ones of previous surveys, there is a positive trend toward the **increasing awareness** of the **consequences of human activities on the Planet** and the **depletion of natural resources** (such as water) to the detriment of future generations.

ATTITUDE AND PERCEIVED SELF-EFFICACY
As a result of this concern and awareness, the majority of the population (approximately 90%) has a **positive attitude toward the circular economy** and is highly aware of the **effectiveness of its actions** in the fight against climate change.

KEY TAKEAWAYS
Purchasing and post-purchasing behaviour



Some of the **most ingrained behaviours** in the routines of Italians include:

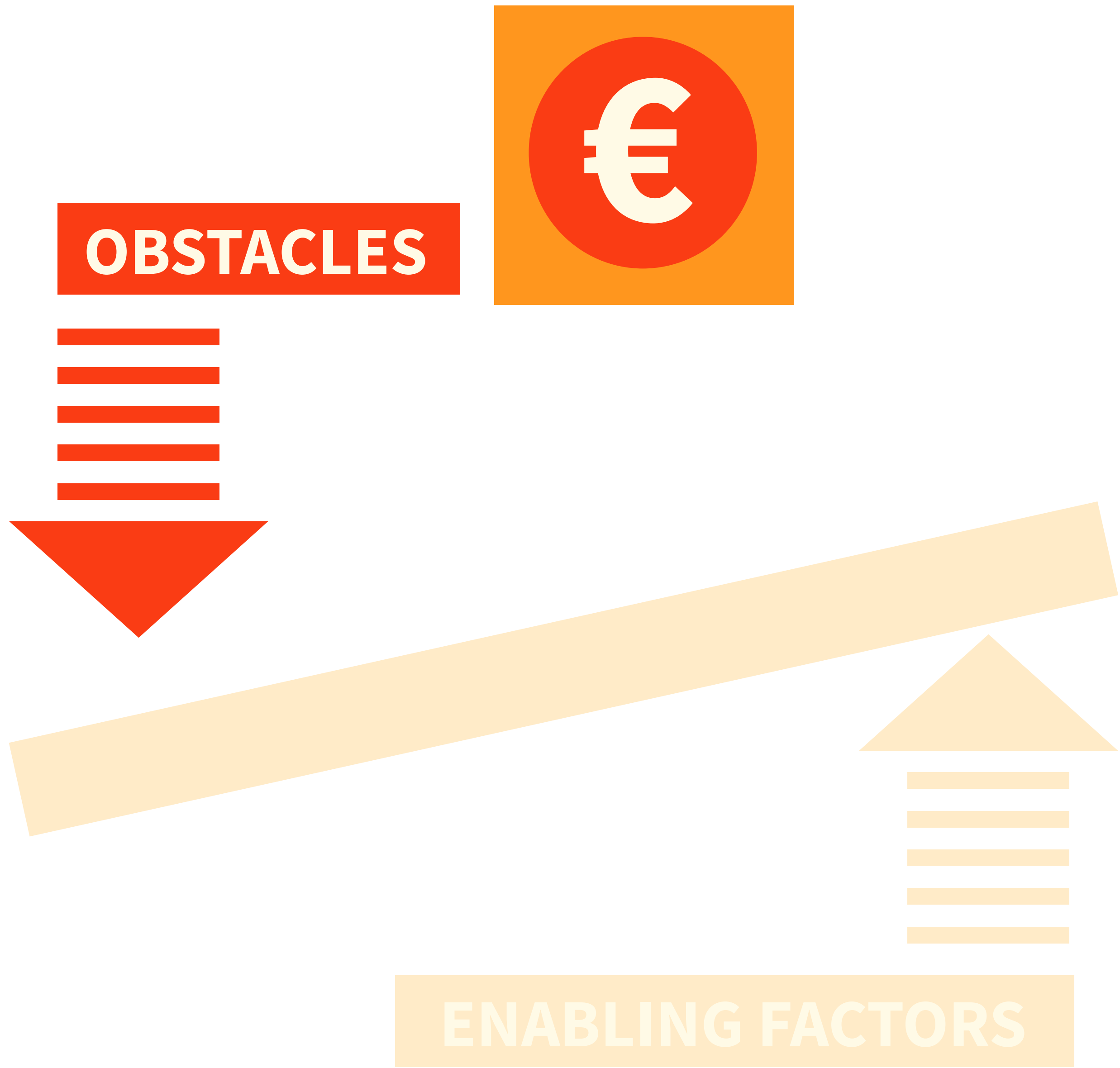
- correctly **sorting waste**,
- **avoiding buying excessive amounts of food**,
- **preventing waste** when preparing meals or when using consumer goods,
- **favouring local supply chains**,
- **choosing durable clothes**.

Behaviours aimed at purchasing **products with a low environmental impact** as well as **recycled and recyclable packaging** are also being **adopted with good frequency** (a trend that has grown strongly over the past four years).

There is also a **growing focus** on products that display information on company activities related to the use of **renewable energy** and the **reduction and offsetting of CO_2 emissions.**

On the other hand, **some habits** – such as buying **second-hand** clothes, **renting** and other new purchase and consumption patterns – **are still uncommon.**

KEY TAKEAWAYS
Barriers to circular behaviour



ECONOMIC FACTORS

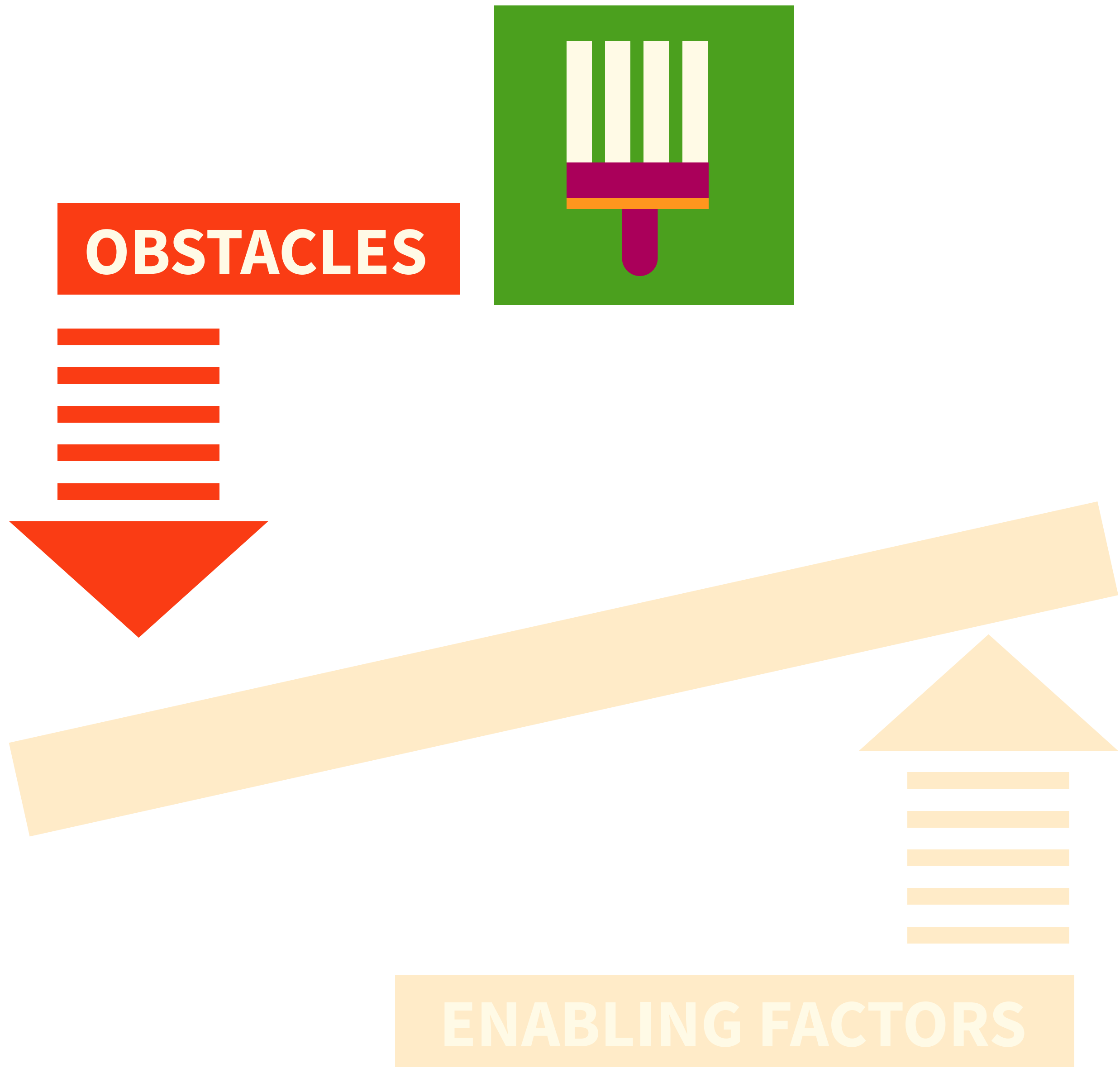
- **Excessively high prices** of some products, compared to traditional alternatives, and **rising inflation** may hinder circular purchasing choices and behaviours.

- Most consumers believe that **packaging made from recycled materials is more expensive** than others, and their **willingness to pay** for such packaging **has decreased** compared to previous years.

- This trend aligns with **the increase in inflation in recent months** (peak in Dec-2022 of +11.8%). About half of Italians have faced **reduced incomes, cut back on non-essential purchases** (travel, hobbies, restaurants, etc.) and **experienced anxiety in covering expenses** for utilities, transport, housing or healthcare.

- However, in the case of moderate price increases, **the effect of inflation is more than counterbalanced by the increasing focus on sustainability.** This means that, even though the country's socio-economic picture is not flourishing, the **urgency to adopt sustainable behaviours** persists undiminished.

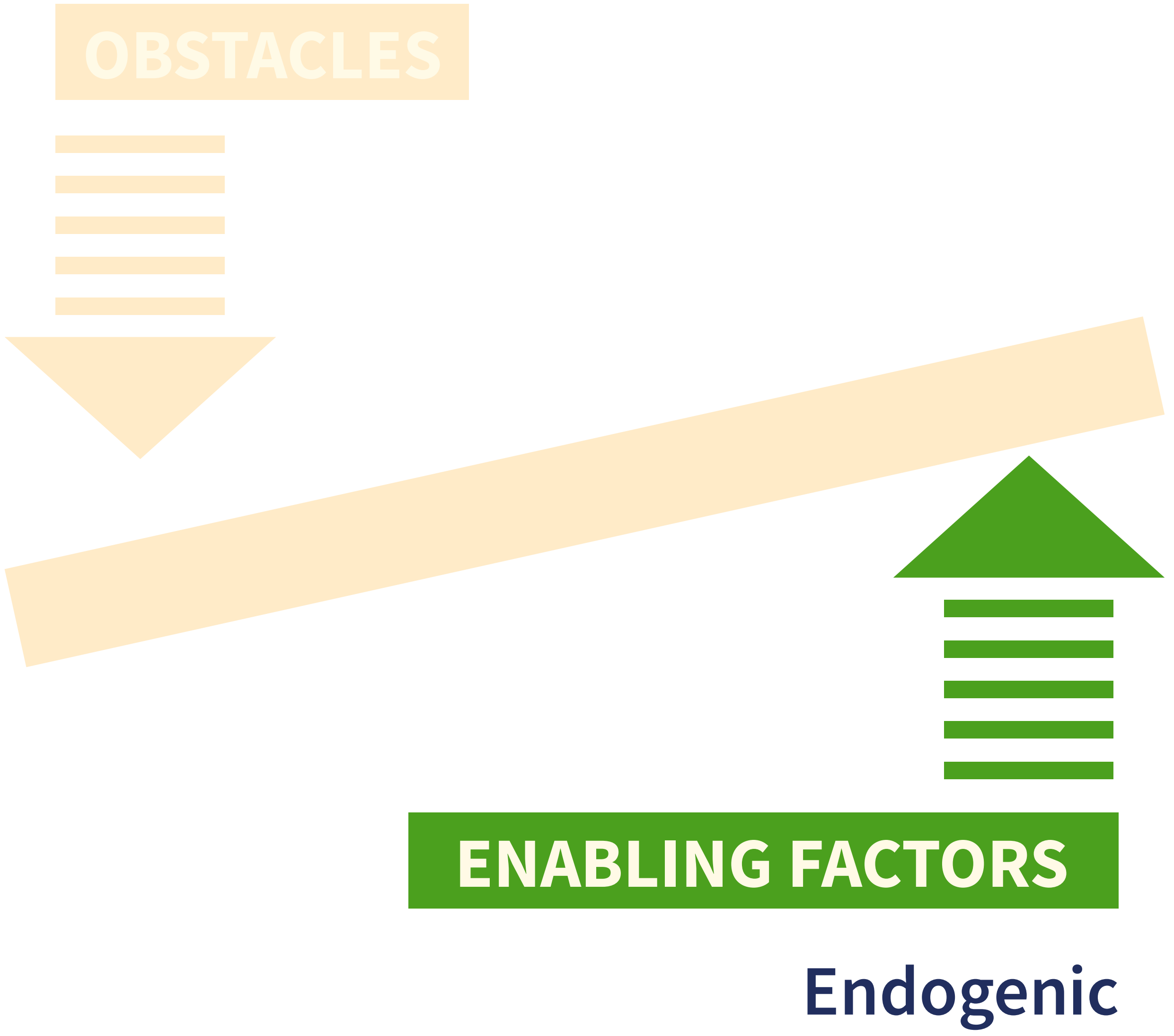
KEY TAKEAWAYS
Barriers to circular behaviour



GREENWASHING

- Consumers often **fail to recognize misleading green claims** regarding packaging features or the product's impact on climate change.
- **Purchasing choices** are inclined toward products with **unsubstantiated slogans**, such as '100% sustainable' or 'zero impact', rather than legitimate claims with explanatory statements about a company's action to foster a circular and sustainable economy

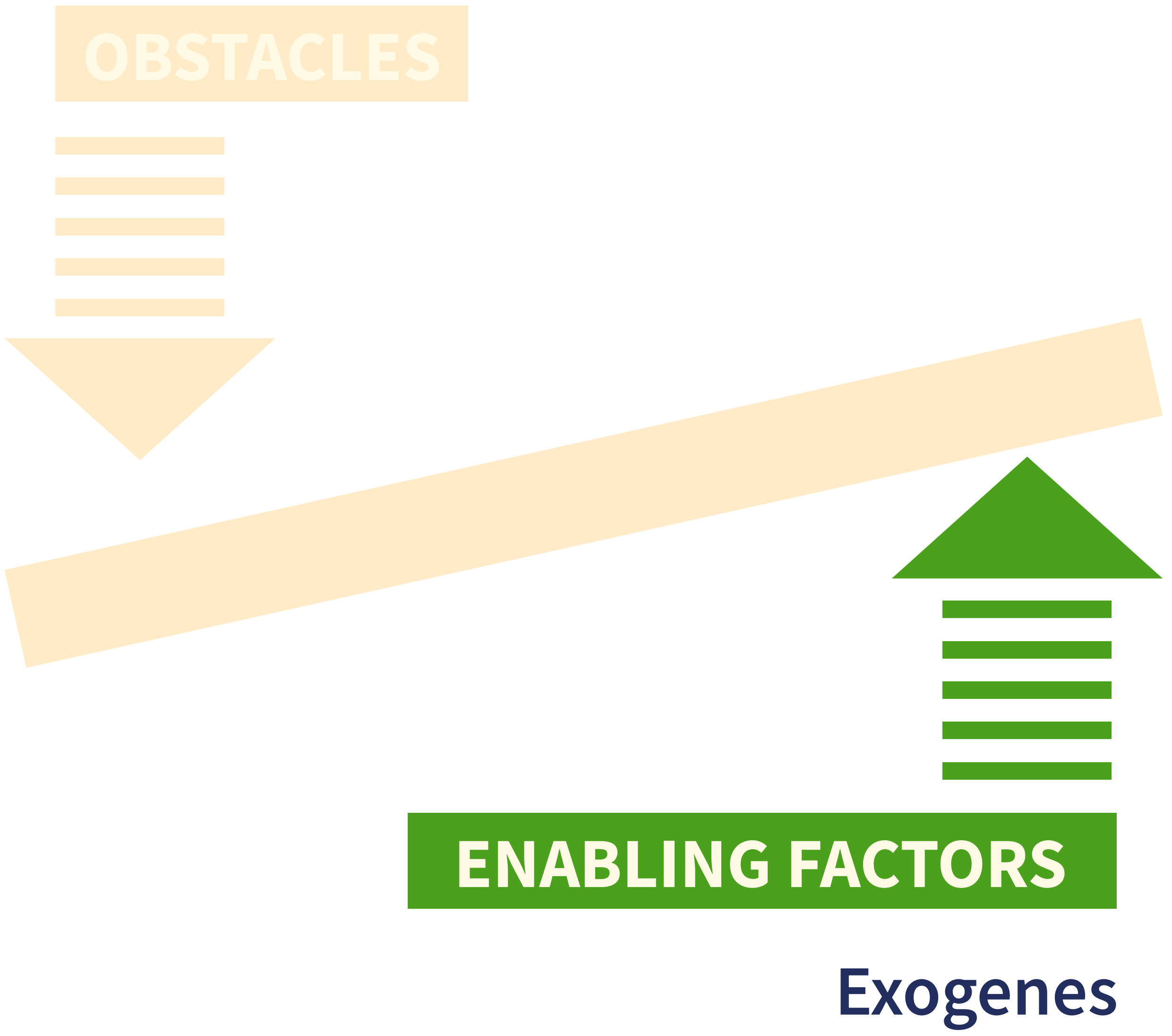
KEY TAKEAWAYS
What can be done?



Information and Environmental Labels to Increase TRUST

- Consumers **mainly trust** information from **universities/research centres**, **consumer associations** and **NGOs**.
- **Less than half of** consumers **trust** the claims made by **private companies**. However, **the belief** in companies practising **greenwashing is diminishing**.
- The presence of **certified environmental labels** (i.e., ecolabels) and access to additional **product information** through digital tools (e.g., QR codes) are important **mechanisms that can bolster** consumer **trust** and guide purchasing choices.

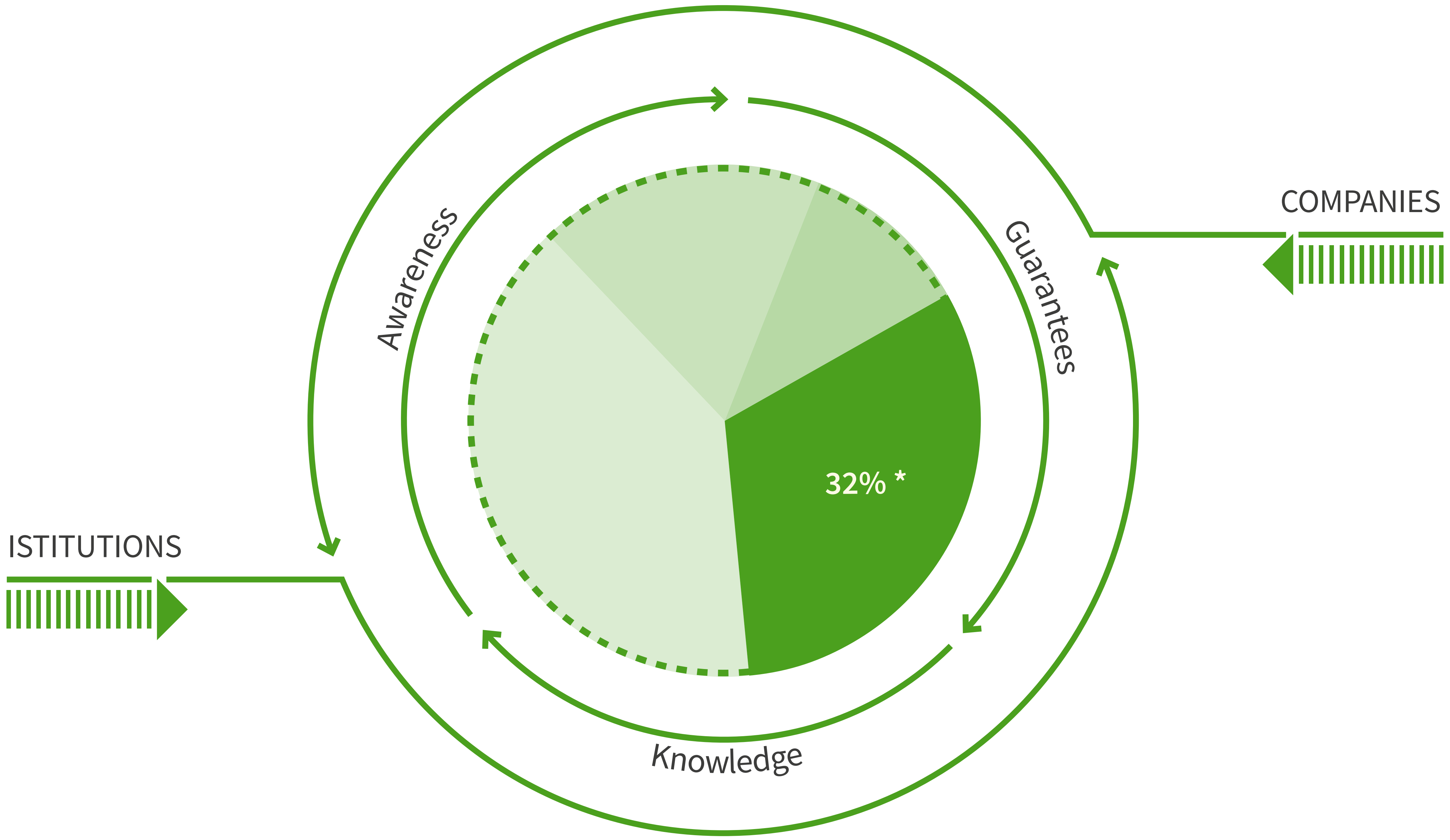
KEY TAKEAWAYS
What can be done?



Educational Campaigns and Clear Messages to increase KNOWLEDGE

- If, on one hand, **information and labels have a positive impact** in shifting demand towards circular and sustainable products, on the other hand, the **messages** conveyed **must be clear and easily understood**.
- Most Italians find definitions such as **'recycled', 'recyclable', 'carbon neutral' confusing** and **do not understand the meaning** of **ecolabels**, thus becoming **potential victims of greenwashing.**
- **Consumers need better education** to understand the meaning of different environmental claims and recognise the methodologically 'substantiated' ones that imply more virtuous practices. This will help them to make **properly informed and conscious choices.**

SUMMARY AND CONCLUDING REMARKS



*Circulars par excellence in 2023

The **'circular consumer par excellence'** exists and represents **one third of the** Italian **population**.

This share can be increased **by leveraging enabling factors** that can stimulate consumer behaviour:

- **raising** awareness of the **need for a radical change** from the current **consumption model** to support the transition to a more circular and sustainable economy;
- providing **clear, specific, truthful and verifiable information** on the environmental performance of products, developing **effective and credible tools** to **guide** consumer **choice** and **increase** business **confidence**.

Institutional actors can play a key role in **mitigating the factors that hinder** the adoption of circular behaviour by:

- **regulating** environmental communication more stringently through **unambiguous and consistent standards** to eradicate **greenwashing practices**;
- **economically supporting** the most sustainable products and **shifting environmental costs** to those that are more polluting and not in line with the principles of the circular economy (e.g., through differentiated taxation).

CONAI

CONAI
Consorzio Nazionale Imballaggi

Via Pompeo Litta, 5 - 20122 Milano
Tel 02.540441 - Fax 02.54122648

www.conai.org