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**GRINS**  
FOUNDATION

# DELIVERABLE D1.1 Dataset on main enablers and drivers of sustainable consumption

## *Part A – Report on Sustainable Consumption in Three Key Sectors*

*English version*



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# Deliverable D1.1 Dataset on main enablers and drivers of sustainable consumption

## Part A – Report on Sustainable Consumption in Three Key Sectors

This report is part of Deliverable D1, *Dataset on main enablers and drivers of sustainable consumption*, developed within the GRINS project – Growing Resilient, INclusive and Sustainable (Spoke 1 – Firms' sustainability).

Its objective is to provide the research context and an integrated reading of the main results emerging from the data collected through six longitudinal surveys conducted in the period 2024–2025. The surveys focus on consumer behavior in three key sectors for the ecological transition: consumer electronics (smartphones), clothing, and food. This report constitutes the first part of the deliverable (Part A) and is accompanied by the *“Guide to the dataset consultation”* (Part B): while the report, after a brief theoretical framing, describes the main empirical evidence derived from the six surveys conducted, highlighting the main behavioral dynamics across the three sectors analyzed, the guide instead illustrates in detail the variables included in each dataset, reporting for each the conceptual definition, the measurement methods at the individual level (e.g., question, scale, and items), as well as the procedures used to construct aggregated variables at the provincial level.

# Report on Sustainable Consumption in Three Key Sectors

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## Introduction

In recent years, sustainability has become an essential reference point for citizens, businesses, and institutions. According to Eurobarometer data (2024), a growing **propensity toward more sustainable purchases** has emerged: nearly six out of ten citizens report being willing to pay more for products that are easier to repair, recyclable, and/or produced through processes with lower environmental impact. However, the transition toward truly sustainable consumption patterns does not follow a linear path. Although people are increasingly aware of the environmental urgency, they often engage in **behaviors that are inconsistent** with the values they declare.

This **gap between awareness and action** represents one of the central themes of the research conducted within the GRINS project. The objective is to understand how consumers experience, manage, and interpret the **tensions between economic, social, moral, and environmental goals**, and how their **consumption choices evolve over time**.

Exploring the complexity underlying consumers' "green" behaviors is a fundamental step in designing effective **public policies and corporate strategies capable of supporting the transition** toward more sustainable lifestyles.

To achieve this objective, within the framework of the GRINS project, six longitudinal surveys (six "waves") were conducted on a representative sample (n=2000) of the Italian population aged 18–70, between 2024 and 2025.

The surveys focused on **three key sectors** – consumer electronics, clothing, and food – in order to explore the different dimensions of sustainability along the product life cycle.

The first three waves (2024–2025) focused on the theme of **conflicting goals** and the concept of **paradox mindset**, which describes the ability to overcome contradictions and integrate seemingly conflicting motivations in a synergistic way. The subsequent three waves (2025) explored the theme of the **rebound effect**, examining the psychological and moral mechanisms that may lead, after a more environmentally sustainable choice, to **subsequent compensatory behaviors**.

Overall, the six waves make it possible to observe, from a temporal perspective, **how consumers construct their own "green" identity**, oscillating between consistency and contradiction, between adherence to their values and compromises driven by economic or practical factors. Through this process, the research investigates the **cognitive, motivational, and psychological mechanisms** that influence these dynamics, helping to explain why environmental awareness does not always translate into consistent behavior and how this gap can be bridged.

Based on these premises, this report describes the conceptual foundations, the research methodology, and the main empirical evidence derived from the six surveys conducted.

# 1. Conceptual foundations and elements of innovation

## 1.1 Complexity and the Paradox Mindset

Sustainable consumption represents a particularly challenging field of study because it is characterized by a multiplicity of dimensions – economic, social, psychological, and moral – that rarely move in a coherent way. Consumption decisions develop in uncertain and dynamic contexts, where constraints related to time, price, and information intertwine with personal values and beliefs.

**Complexity theory**<sup>1</sup> helps to understand this systemic dimension. From this perspective, consumer behavior cannot be reduced to a linear cause-and-effect process but must be interpreted as a **complex adaptive system**, in which choices emerge from the dynamic interaction of multiple factors.

When consumers aim to contribute to sustainability while, at the same time, satisfying needs that may appear to be in conflict with it – such as economic savings, convenience, or style – tensions inevitably arise.

To understand how consumers manage multiple and sometimes incompatible goals, **Paradox Theory**<sup>2 3</sup> proposes considering them not as contradictions to be eliminated, but as **polarities to be integrated**. The **paradox mindset**<sup>4</sup> – a concept already recognized in the management literature – describes precisely the ability to deal with situations characterized by tensions and contradictions, **transforming conflict into a space for creative adaptation**. This perspective does not eliminate contradiction but allows it to be **accepted and managed constructively**, fostering more flexible and conscious behaviors.

The application of *Paradox Theory* and the *paradox mindset* to **consumer behavior** has represented one of the most innovative aspects of the first part of the research conducted through the GRINS surveys (waves 1–3). Indeed, every purchase decision involves managing multiple and often conflicting goals: the need to save money and the need to respect the environment, the desire for gratification and the necessity to limit consumption, the attraction to novelty and the search for durability. As the number of

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<sup>1</sup> Anderson, P. (1999). Perspective: Complexity theory and organization science. *Organization science*, 10(3), 216-232.

<sup>2</sup> Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of management Review*, 36(2), 381-403.

<sup>3</sup> Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of management Review*, 36(2), 381-403.

<sup>4</sup> Miron-Spektor, E., Gino, F., Argote, L. (2011). Paradoxical frames and creative sparks: Enhancing individual creativity through conflict and integration. *Organizational Behavior and Human Decision Processes*, 116(2), 229-240.

attributes considered increases, the decision becomes increasingly complex, and consumers are required to balance moral aspirations with practical constraints. Consequently, sustainability is not a stable condition but a **permanent tension**: between desire and responsibility, between individual and collective well-being, between convenience and moral commitment<sup>5</sup>.

The **paradox mindset** thus becomes a key concept for understanding – and potentially fostering – more conscious consumption, capable of integrating rather than excluding multiple dimensions.

## 1.2 The Rebound Effect and Compensatory Behaviors

The second part of the GRINS research (waves 3–6) focused on the **rebound effect**<sup>6</sup>, defined as the set of behaviors that **mitigate or offset the environmental benefits** of initially virtuous choices. This phenomenon may occur during the more sustainable action itself—for example, when more units of a product are purchased because it is perceived as “green”—or subsequently, through mechanisms of justification or compensation that unfold over time.

Building on recent literature<sup>6 7 8</sup>, **three main forms of rebound effect** have been identified:

- **Direct rebound**: an increase in consumption within the same domain (e.g., purchasing a larger quantity of a low environmental impact product);
- **Lifecycle rebound**: behavioral inconsistencies that emerge across the different stages of the product life cycle (e.g., more intensive use of a product perceived as sustainable);
- **Indirect rebound**: compensatory behaviors occurring across different domains (e.g., non-sustainable purchases in other categories after making a green choice).

The analysis of *lifecycle rebound*—that is, what occurs along the entire product life cycle—represents an innovative element of this research. In addition to observing

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<sup>5</sup> Testa, F., et al. (2021). Drivers to Green Consumption: A Systematic Review. *Environment, Development and Sustainability*, 23: 4826-4880.

<sup>6</sup> Reimers, H., Lasarov, W., & Hoffmann, S. (2022). Moral-psychological mechanisms of rebound effects from a consumer-centered perspective: A conceptualization and research directions. *Frontiers in Psychology*, 13, 886384.

<sup>7</sup> Reimers, H., Jacksohn, A., Appenfeller, D., Lasarov, W., Hüttel, A., Rehdanz, K., ... & Hoffmann, S. (2021). Indirect rebound effects on the consumer level: A state-of-the-art literature review. *Cleaner and Responsible Consumption*, 3, 100032.

<sup>8</sup> Seebauer, S. (2018). The psychology of rebound effects: Explaining energy efficiency rebound behaviours with electric vehicles and building insulation in Austria. *Energy research & social science*, 46, 311-320.

behaviors, the study aims to understand the psychological and moral dynamics that drive them<sup>9,10</sup>, including:

- **moral licensing**, namely the tendency to justify less sustainable behaviors after a virtuous action;
- **moral cleansing**, the tendency to compensate for a negative behavior with a positive one;
- **moral consistency**, which reflects the desire to maintain consistency in one's actions over time.

Based on **Construal Level Theory**<sup>11</sup>, the research also introduces a distinction between **behavioral (in)consistency** and **identity (in)consistency**, which represents one of the key interpretative lenses of the project. The former concerns the continuity of concrete actions over time, while the latter refers to the coherence between behavior and personal identity. This latter dimension is **deeper and more stable**, as it links individual choices to the construction of the self and one's values.

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<sup>9</sup> Ding, W., Xie, R., Sun, B., Li, W., Wang, D., & Zhen, R. (2016). Why does the "sinner" act prosocially? The mediating role of guilt and the moderating role of moral identity in motivating moral cleansing. *Frontiers in psychology*, 7, 1317.

<sup>10</sup> Mullen, E., & Monin, B. (2016). Consistency versus licensing effects of past moral behavior. *Annual review of psychology*, 67(1), 363-385.

<sup>11</sup> Conway, P., & Peetz, J. (2012). When does feeling moral actually make you a better person? Conceptual abstraction moderates whether past moral deeds motivate consistency or compensatory behavior. *Personality and Social Psychology Bulletin*, 38(7), 907-919.

## 2. Research Methodology and Dataset Structure

Data collection was carried out through six questionnaires administered using the **CAWI** (Computer-Assisted Web Interview) methodology between **2024 and 2025**. Each survey involved a **panel of approximately 2,000 participants**, representative of the **Italian population aged 18 to 70**, ensuring representativeness in terms of gender, age, and geographical area of origin. The sample was reached through an external provider (SWG), which ensured a longitudinal design by encouraging the participation of the same individuals over time and replacing any non-respondents with subjects with similar socio-demographic characteristics.

The six surveys explored consumer behaviors and propensities across **three key sectors** selected for their environmental and social relevance, as well as their centrality within European strategies and policies: **consumer electronics, clothing, and the food sector**.

Consumer behavior in each of the three sectors was explored along the entire product life cycle using two main interpretative lenses:

1. **in the first part of the research (waves 1–3)**, particular attention was devoted to **tensions and conflicting goals that may emerge during purchasing decisions**, with a focus on the consumer's **paradox mindset** in dealing with potential conflicts within each product category;
2. **in the second part (waves 4–6)**, the focus shifted to **potential rebound effects** within the three sectors.

The questionnaires administered across the six waves were designed in a harmonized way, following a **consistent structure that is also reflected in the datasets available on AMELIA**.

In particular, each survey/dataset includes:

- a **socio-demographic block**, common to all waves, which includes profiling variables aggregated at the provincial level (e.g., gender, average age, education level, household size, presence of minors and individuals over 65, perception of economic hardship);
- **several wave- and sector-specific blocks**, which collect variables related to the analyzed context (electronics, clothing, or food) and the theoretical focus of the survey. These include, depending on the wave, variables on product choices, usage and end-of-life behaviors, behavioral probabilities, and specific psychological constructs (e.g., *paradox mindset* in waves 1–3; rebound

mechanisms such as *moral licensing*, behavioral consistency, and myopia in waves 4–6);

- **a block of pro-environmental variables**, replicated across all waves, which includes psychological and behavioral indicators comparable over time (e.g., environmental concern across different dimensions, perceived consumer effectiveness – PCE, personal and social norms, attitudes toward circular behaviors, green purchasing behaviors, and other pro-environmental actions).

In the six datasets available on AMELIA, variables are aggregated at the provincial level and report summary indicators (counts, percentages, means, and standard deviations).

Table 1 reports, for each wave, the period of administration, the sector analyzed, and the related thematic focus.

**Table 1.** Description of the waves by sector, period, and thematic focus

Wave	Data collection period	Sector of analysis	Thematic focus
<b>Wave 1</b>	February 2024	Consumer electronics	Conflicting goals and management of decision-making tensions
<b>Wave 2</b>	October 2024	Clothing	Conflicting goals and management of decision-making tensions
<b>Wave 3</b>	February 2025	Food	Conflicting goals and management of decision-making tensions
<b>Wave 4</b>	July 2025	Consumer electronics	Compensation mechanisms and behavioral consistency
<b>Wave 5</b>	October 2025	Clothing	Compensation mechanisms and behavioral consistency
<b>Wave 6</b>	November 2025	Food	Compensation mechanisms and behavioral consistency

For a detailed description of the variables measured in the surveys and included in the six datasets, please refer to the **“Guide to the dataset consultation”** (D1.1 – Part B).

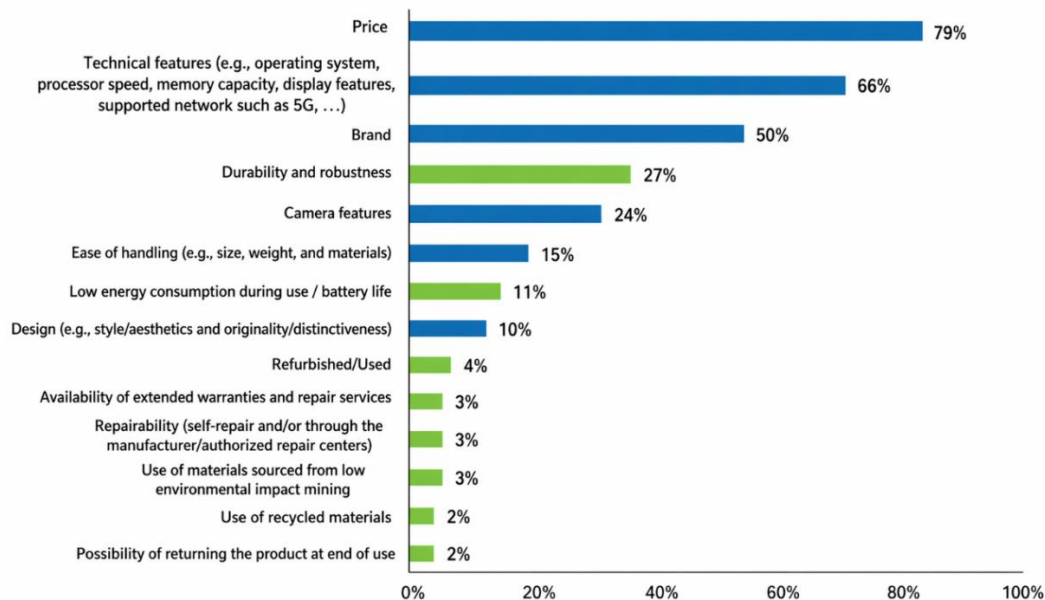
### 3. Behavioral Dynamics in Sustainable Consumption: A Comparative Analysis of the Three Sectors

The analysis of the three sectors investigated – **consumer electronics, clothing, and food** – provides a comparative overview of the dynamics influencing consumer choices and reveals significant divergences between **awareness, intentions, and actual behaviors**. Although the sectors differ in terms of purchase frequency, environmental implications, and decision drivers, cross-cutting patterns emerge that are useful for understanding the **complexity of consumption** in Italy.

#### 3.1 Consumer Electronics (Smartphones)

In the smartphone sector, purchases are mainly driven by **economic and functional factors** (Figure 1). **79%** of consumers place **price** among their top three priorities, followed by **technical features (66%)** and **brand (50%)**. Environmental attributes are less influential: only 27% prioritize durability and resistance, while variables such as **repairability, extended warranty, or low-impact materials** all remain **below 10%**.

**Figure 1.** Attributes considered priorities when purchasing a smartphone<sup>12</sup>



<sup>12</sup> The percentage in Figure 1 indicates the share of respondents who included each attribute among the first three selection criteria. Attributes in green are associated with environmental sustainability.

Despite it emerges that the majority of consumers has a **high environmental concern** and is **aware of the problems generated by the electronics sector**, actual behaviors appear to be driven by other factors – highlighting a **discrepancy between declared values and observable behaviors**.

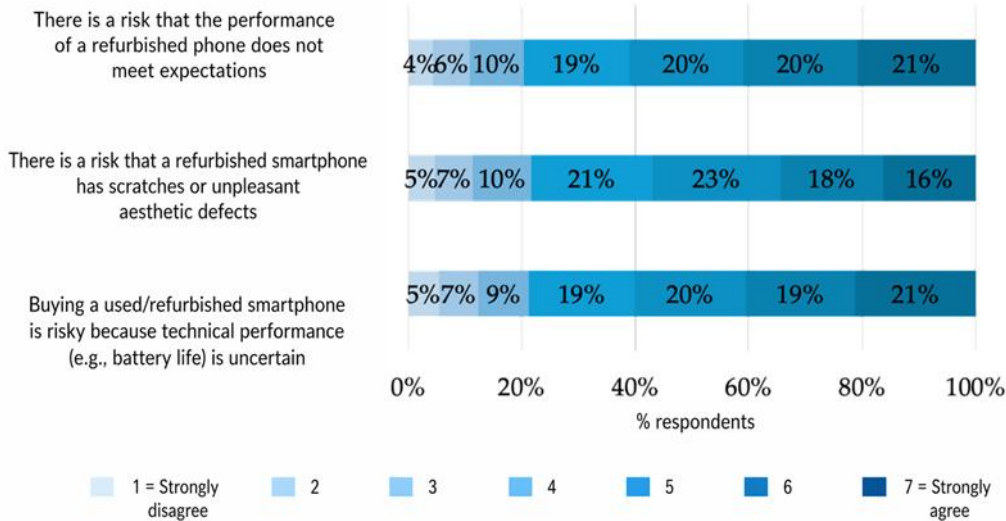
This discrepancy can be interpreted in light of the **tensions** that consumers perceive between sustainability and other **purchase priorities**. The data indeed highlight the presence of relevant trade-offs: **43%** of consumers perceive a **conflict between price and sustainability**, indicating that greener options are often associated with higher costs. Sustainability also competes with functional and aesthetic attributes: **41%** of consumers report a conflict between **sustainability and design**, while **39%** highlight tensions with **technical performance**. These data suggest that consumers struggle to reconcile environmental impact with needs related to quality, style and product functionality.

At the same time, **45% of consumers report a high ability to recognize and manage tensions between conflicting priorities**. Although the *paradox mindset* in the smartphone sector shows the highest levels among those analyzed, this trait appears mainly cognitive rather than experiential and the decision-making process is not particularly engaging: **trade-offs are perceived as demanding** rather than stimulating.

Overall, the smartphone sector highlights strong tensions that represent a structural element of the decision-making process, contributing to explain the difficulty in translating intentions into consistent behaviors. In this sense, such tensions are concretely reflected in the **limited diffusion of more sustainable solutions**, as in the case of refurbished smartphones. For example, **only 4% uses a refurbished smartphone**. A relevant share (**39%**) declares to be **willing to purchase** it in the future, while **32%** remains undecided. This evidence suggests that a wide segment of the population could be sensitized through clearer information on product **performance and reliability**. **Risk perception** remains indeed a determining factor: a substantial share of consumers fears **aesthetic defects, low-performing batteries** and shows **low trust** in the fact that refurbished phones meet desired performance (Figure 2).

Also, **end-of-life management** represents a critical area. **49%** of consumers **keep the old smartphone** in a drawer, subtracting it from critical materials recovery circuits and reducing the circular potential of the product. On the other hand, positive indications emerge: consumers more inclined to consider greener alternatives such as refurbished models are also more likely to return unused devices, activating a virtuous behavior along the entire product life cycle.

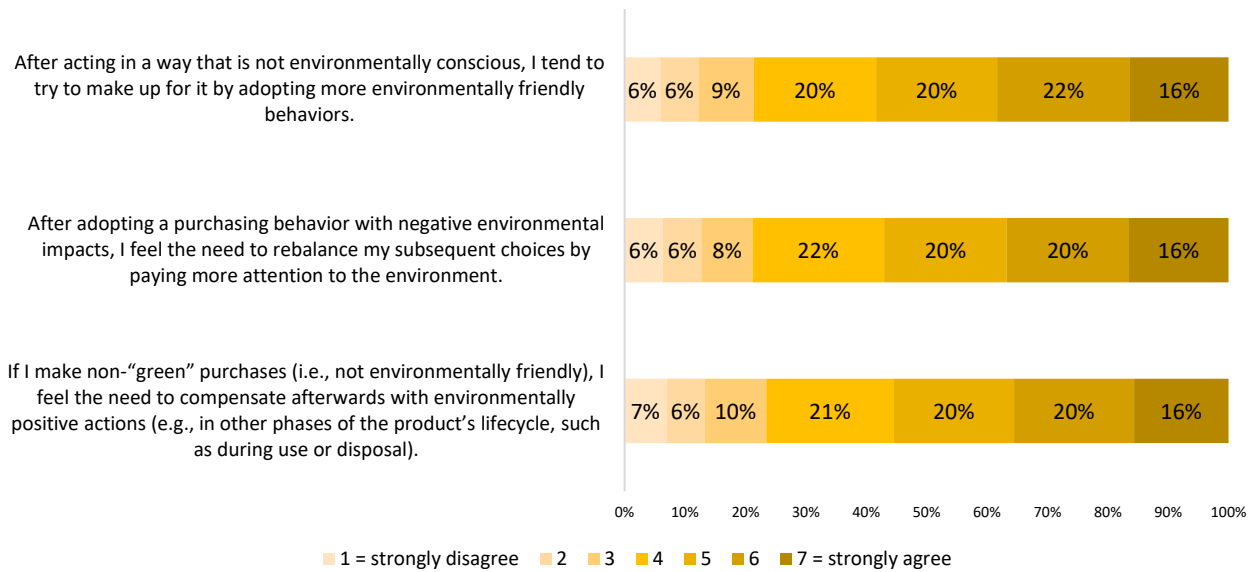
**Figure 2.** Refurbished smartphone: risk perception



In this context, the study of psychological dimensions characterizing decisions over time allows to observe how they may be reflected in behaviors of maintenance, deviation or rebalancing. The results highlight a decision system characterized by **high declared consistency**, which however does not necessarily translate into sustainability-oriented choices. Indeed, this perception may refer, for example, to consistency among saving-oriented behaviors or between behaviors and a “non-green” identity. About **37–45%** of consumers declare high levels of **behavioral consistency**, as well as a comparable share (about 37–43%) expresses strong **consistency between behaviors and identity**.

This consistency is, however, accompanied by **compensatory dynamics**, largely of a corrective nature, emerging from the analysis of underlying psychological mechanisms. The results indeed show a **strong diffusion of moral cleansing** dynamics (Figure 3): **36–38%** of consumers show a strong propensity to act more virtuously to compensate for previous environmentally negative behaviors. Considering also those moderately inclined, this share reaches almost 80%. Conversely, **moral licensing** mechanisms – which legitimize **environmentally negative behaviors** following “green” choices – are significantly more limited: only **13–18%** declare to be inclined to such justification mechanisms, while about **38–48% place themselves at very low levels**. Overall, a greater diffusion of corrective dynamics emerges compared to justification logics of non-sustainable behaviors.

**Figure 3. Moral cleansing in the smartphone sector**



The analysis of purchase/repurchase simulations of a smartphone after about 17 months confirms that a relevant share of consumers maintains a **certain stability in their choices** (62% of the sample), although with articulated dynamics (Table 2). Among these: 19% maintain the low environmental impact choice, 28% confirm the economic option, while 15% remain loyal to the refurbished smartphone. An additional share (15%) of **stability emerges in the environmental dimension**, including transitions between the two sustainable options (i.e., from low impact to refurbished and vice versa), while renegotiating the trade-off with price or other product characteristics (e.g., new vs. used).

**Changes in choices over time** concern overall 22% of the sample and are consistent with what observed at the level of psychological dynamics. **Upgrade behaviors** – where consumers initially oriented to price shift toward more sustainable options – concern **about 15%**, while **rebound** – defined as the shift from sustainable options to economic alternatives – occurs in **about 7%** of cases.

These results suggest that, in the specific context of smartphone repurchase, consistency dynamics prevail over compensatory ones. This result can be traced back to the nature of the product: the smartphone is for many a **highly identity-relevant object**, used daily and closely associated with self-representation. In this context, renegotiation dynamics over time do not predominantly take a regressive form but more often translate into adjustments that realign choices toward **greener options**.

**Table 2.** Smartphone purchase choices ( $t_0 \rightarrow t_1$ )

		Second choice ( $t_1$ )		
		Low environmental impact	Cheaper	Refurbished
First choice ( $t_0$ )	Low environmental impact	19%	6%	13%
	Cheaper	5%	28%	10%
	Refurbished	2%	1%	15%

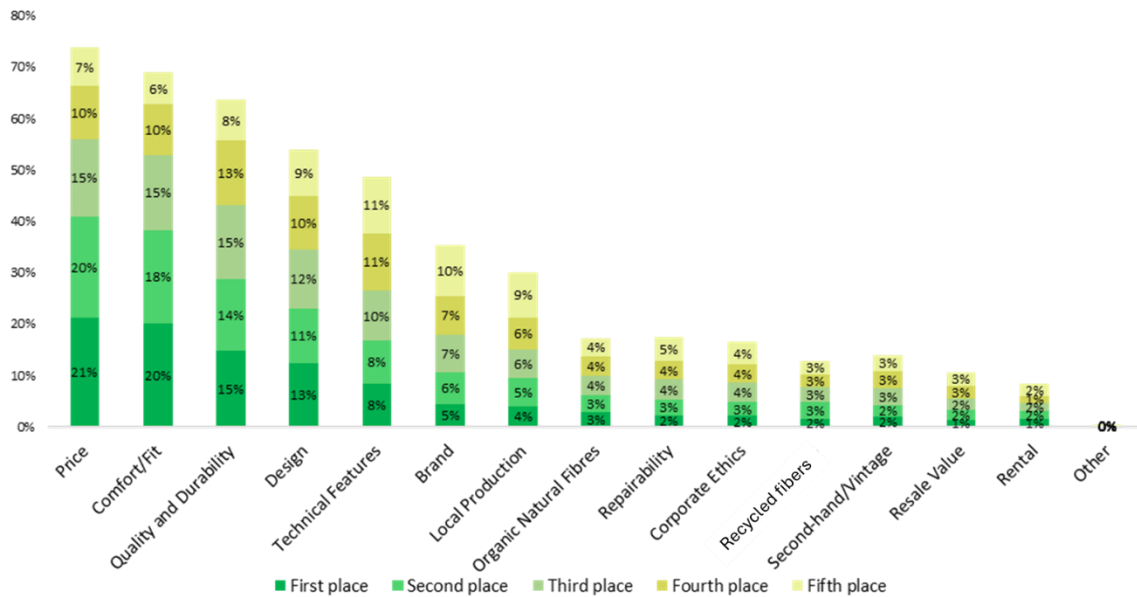
LEGEND:  Rebound  Upgrade  Same choice

### 3.2 Clothing

The clothing sector presents **faster consumption dynamics** and **higher volumes** compared to electronics, but with strong differences across product categories. Lighter and more replaceable items – such as t-shirts, sweaters, shirts and tops – show very high purchase frequencies, with **32%** of Italians purchasing **3–5 per year** and a further **25%** exceeding this threshold, reaching **6 or more items**. Conversely, for more structured products, such as jackets and coats, slower replacement rhythms prevail: 54% purchase **less than one item per year** or **about one every two years**.

Also in this sector, sustainability struggles to become a priority criterion. For an item such as a coat, **74%** of Italians indicate **price** among the main decision factors, followed by **fit/comfort (69%)** and **durability/quality (64%)** (Figure 4). Environmental aspects – use of recycled materials, low-impact production processes, repairability – matter for **15–30%** of consumers, again highlighting a **gap between declared environmental concern and actual behavior**.

**Figure 4.** Which of the following attributes do you prioritize when purchasing a coat?



Also in the clothing context, this gap can be interpreted in light of the **tensions perceived** by consumers. In particular, **42%** perceive a conflict between **price and sustainability**, a value very similar to that observed in the smartphone sector (43%), confirming the cross-cutting role of price as the main barrier. Tensions are particularly marked with respect to aesthetic and practical aspects: 31% of consumers report a conflict between fashion and sustainability, while 34% highlight tensions between **e-commerce (convenience and speed of purchase) and sustainability**.

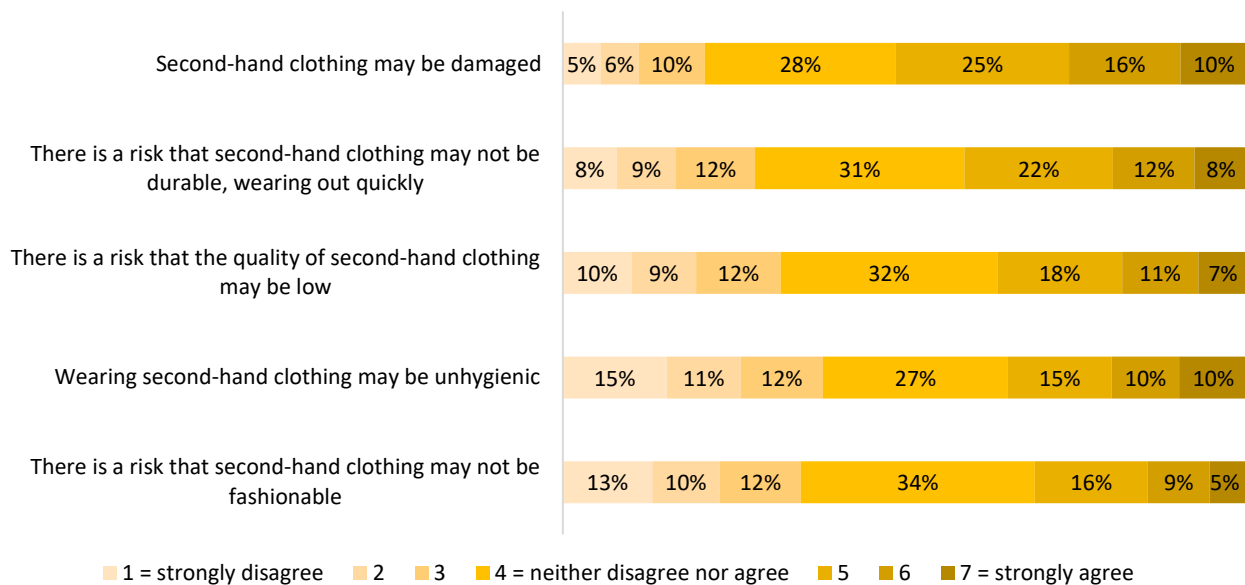
With regard to the **paradox mindset**, the clothing sector shows **lower levels compared to smartphones (36% vs 45%)**, indicating a lower ability to manage tensions between conflicting goals. This is also reflected in the distribution of responses, with a particularly high share of **neutral positions (43%**, compared to 29% for smartphones), suggesting a more passive or less structured approach in managing trade-offs, consistent with **more frequent and routine decisions**, which tend to be less explicitly elaborated. Overall, in the clothing sector tensions are widespread but weakly integrated, **translating into a more automatic and less reflective decision-making process**.

This difficulty in managing tensions is also reflected in the subsequent phases of the product life cycle, contributing to the **difficulty of adopting circular practices** and to the **limited development of alternative consumption models**, such as second-hand.

At the same time, **second-hand** is recognized as a **solution capable of reconciling economic and environmental benefits** by **30–40%** of consumers. For many, the

purchase of used clothing represents an opportunity to access **quality products** – sometimes even high-end – **at a lower cost**, while at the same time supporting the circularity of the fashion system. However, this potential is limited by **widespread concerns related to quality, durability and hygiene**, mentioned by **40–50% of Italians** (Figure 5). These concerns suggest that, although second-hand is perceived as a convenient option, a significant **trust gap** remains that hinders the actual adoption of more circular practices and slows down the diffusion of more mature reuse models.

**Figure 5.** Second-hand: perceived risk

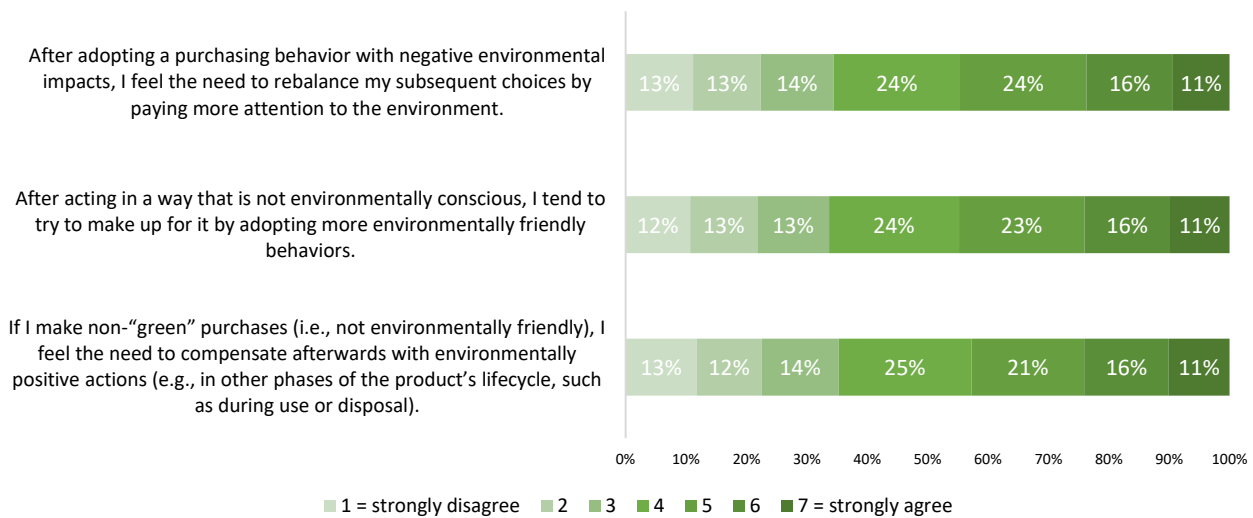


The **analysis of decision dynamics over time** shows the evolution of behaviors between consistency and compensation, highlighting patterns only partially overlapping with those observed in the smartphone sector. Levels of **behavioral consistency** are more moderate and less polarized: the majority of consumers (about 47%) is concentrated at intermediate levels, while **positions of strong consistency** are less widespread (about **28%** of the sample), with 14 percentage points less compared to the electronics sector. This suggests lower stability of choices over time and a more fluid management of trade-offs. **Consistency between behaviors and identity** is at relatively high levels (about **35%** expresses high values) but remains lower than that observed in the smartphone sector (about 5 percentage points less), consistently with the **lower identity relevance of the product**.

Observing **compensatory psychological mechanisms**, also in this sector **moral licensing dynamics emerge** as not very widespread: about **50%** of consumers declare **not to be at all inclined to justify environmentally negative behaviors** following

previous virtuous actions (compared to 43% observed in the smartphone sector), while only 14% declare themselves strongly inclined. **Moral cleansing mechanisms**, instead, are **more widespread** (Figure 6): 27% show high levels, a share that reaches 74% also considering intermediate levels. Similarly to what observed in the electronics sector, a **prevalence of corrective dynamics** emerges compared to justificatory ones, although with lower intensity.

**Figure 6.** Moral cleansing in the clothing sector



The analysis of **purchase/repurchase simulations** of a pair of jeans after one year shows a **high stability of choices** (Table 3): **73%** of the sample maintains the same initial option, a value higher than that observed for smartphones (62%). In detail, **16%** confirm the **low environmental impact choice**, **33%** the **economic one** and **24%** the **second-hand model**.

**Changes in repurchase choices** concern about **20%** of the sample, a share similar to the electronics sector but with a different articulation: **rebound reaches about 11%** (compared to 7% for smartphones), while virtuous **upgrade behaviors are around 9%** (compared to 15%).

These results highlight a dynamic partially divergent from what observed at the psychological level. Although psychological dimensions suggest a prevalence of corrective dynamics (moral cleansing) over justificatory ones (moral licensing), at the behavioral level a greater incidence of regressive outcomes emerges compared to improvement ones. This misalignment confirms the presence of a **gap between**

**declared orientations and actual behaviors**, indicating that corrective intentions do not always translate into consistent behaviors.

Overall, despite a **high stability of choices**, also the **repurchase of jeans is exposed to compensatory dynamics**. Differences compared to the electronics sector are not marked in absolute terms but indicate a shift in the direction of such dynamics: in the case of smartphones upgrade behaviors prevail, while in the clothing sector **a greater relative incidence of rebound effects is observed**. This result is consistent with a decision context characterized by generally less binding purchases: these are **more frequent, less expensive and less irreversible decisions**, which involve a **lower level of commitment**. These characteristics reduce the urgency to immediately correct environmentally negative choices, making it more likely that **renegotiations translate into regressive rather than corrective behaviors**.

**Table 3.** Jeans purchase choices ( $t_0 \rightarrow t_1$ )

		Second choice ( $t_1$ )		
		Low environmental impact	Cheaper	Second-hand
First choice ( $t_0$ )	Low environmental impact	16%	4%	3%
	Cheaper	5%	33%	4%
	Second-hand	5%	7%	24%

LEGEND:   Rebound   Upgrade   Same choice

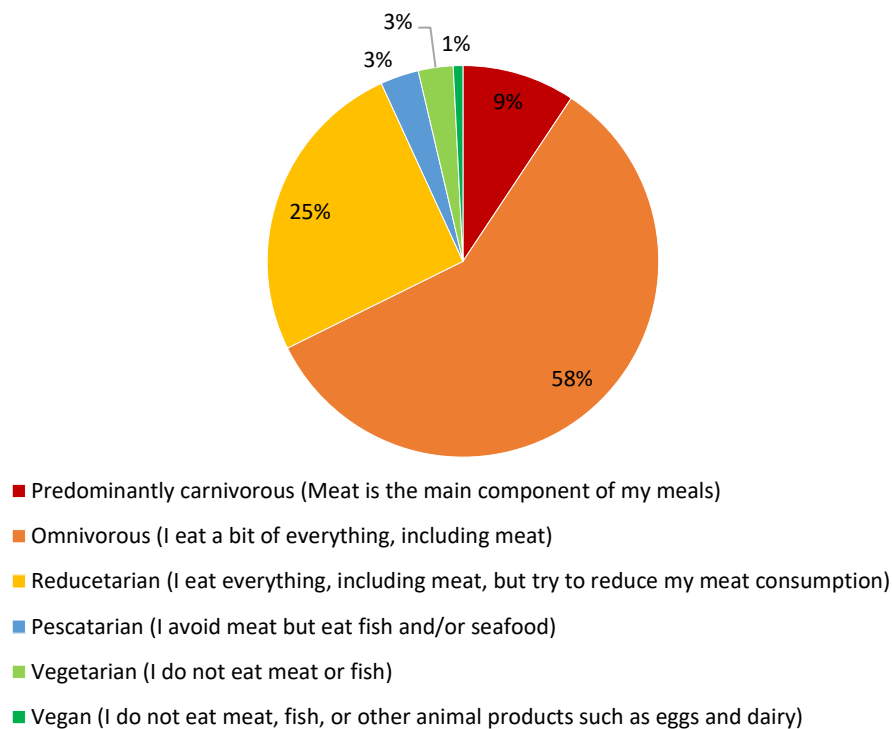
### 3.3 Food

The food sector presents a distinct decision structure, characterized by a strong attention to **perceived quality, taste** and **product safety**. Although price remains relevant (**47%**), its weight is lower compared to what observed in clothing (74%) and electronics (79%). In this context, criteria such as **origin, seasonality and naturalness** of food take on a central role and **sustainability appears more integrated** into choices compared to the other two sectors analyzed.

These dynamics are also reflected in the **food identities** declared by respondents: **58%** define themselves as **omnivores**, **25% as reductionists** and **only 4% follow vegetarian or vegan diets** (Figure 7). Despite these differences, overall, food practices show a certain

openness toward lower environmental impact solutions: **54% choose fully plant-based meals once or twice a week and 37% consume vegetarian meals a couple of times a week.** These data suggest that, even in the presence of heterogeneous food identities, a significant share of consumers integrates more sustainable choices into everyday life, although with varying intensity and continuity. Overall, compared to other sectors, **low environmental impact behaviors appear more widespread but also more fragmented and non-systematic.**

**Figure 7.** Food identity



However, also in this context a **gap emerges between intentions and actual behaviors.** In particular, with regard to foods that can substitute meat consumption, **plant-based alternatives** show a relevant gap between intentions and behaviors (Table 4). Only traditional **legumes** show almost perfect consistency between intention and consumption, while for other types **significant gaps are observed**, suggesting non-negligible margins for growth. For example, **8–10% of Italians are willing or curious to try legume-based burgers and foods that mimic meat**, despite not having done so yet.

The perception of **more innovative alternatives** often remains polarized: while one third of consumers considers **tofu, tempeh and cultured meat** sustainable or healthy, **more than 40% express doubts related to taste, safety or price.** **Insects result to be the least accepted category**, with only 16% of positive judgments on taste.

**Table 4.** Current consumption vs. intention to consume substitute foods

Meat substitutes	% of consumers already consuming (at least once a week)	% of consumers with high/medium/low intention to consume the product in the near future			Growth potential <sup>13</sup>
		High	Medium	Low	
Legumes	78%	79%	9%	12%	+1%
Legume-based products (e.g., burgers, falafel, etc.)	44%	54%	14%	31%	+10%
Plant-based meat analogues	29%	37%	13%	50%	+8%
Soy (tofu/tempeh)	28%	35%	15%	50%	+7%
Seitan	27%	32%	14%	54%	+5%

These differences reflect a decision context in which food choices are driven by a continuous **balancing between sustainability and other daily priorities**. In particular, **40%** of consumers perceive a **conflict between price and sustainability**, a value slightly lower but still comparable to that recorded for smartphones (43%) and clothing (42%). Alongside price, tensions related to practical and experiential dimensions emerge: **34%** of consumers report a **conflict between sustainability and preparation speed**, while 31% highlight **tensions with taste**. Unlike the smartphone and clothing sectors, in which **trade-offs** mainly concern product attributes, in the food sector they are located directly in the **experiential sphere**, involving **immediate gratifications, practical needs** but also consolidated habits. This results in a widespread and situational management of tensions, which manifests itself in **everyday practices** rather than in isolated decisions.

With regard to the **paradox mindset**, the food sector is at an intermediate level (**41%**), lower than smartphones but higher than clothing. In this context, **cognitive components** are relatively more developed, such as **awareness of one's choices (49%)** and the **ability to identify integrative solutions (47%)**, while **more affective dimensions appear**

<sup>13</sup> The growth potential represents the difference between the % of consumers who have a high intention to consume the substitute food in the immediate future ("in the next month") and the % of consumers who are already used to consuming the food (at least once a week).

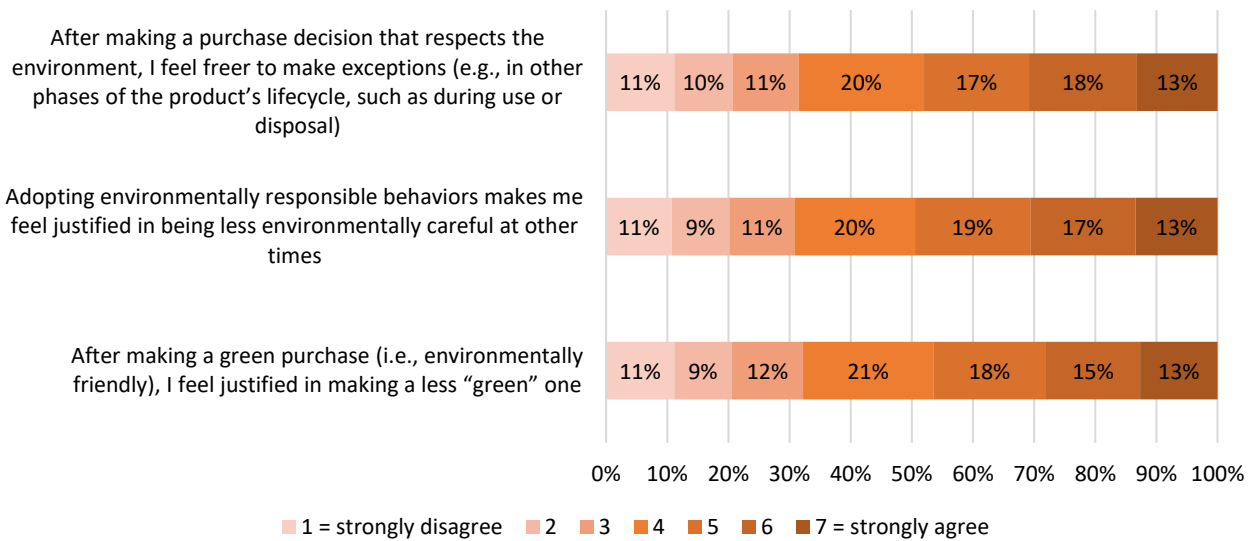
**less relevant**, with lower levels of enthusiasm (29%) and enjoyment (42%) in managing tensions.

The joint analysis of multiple behaviors allows to identify specific patterns of consistency and compensation, showing how tensions are reflected in the **sequence and interdependence of food choices**. The results highlight levels of **behavioral consistency** overall aligned with those of the clothing sector, with a significant share of consumers (about **40% on average**) at intermediate levels and a slightly lower share (**about 33% on average**) at the highest levels. Consistency appears more marked in dimensions related to continuity between similar choices and within the life cycle of the same product, while it is less intense in maintaining stable choice criteria over time. **Consistency** between behaviors and personal identity is instead more limited: only 13% of consumers are at the highest levels (the lowest share among the three sectors analyzed), while, including also intermediate levels, the share reaches about 40%.

The analysis of **compensatory psychological mechanisms** highlights a **significantly different configuration compared to the other sectors. Moral licensing is particularly widespread** (Figure 8): on average, **30%** of consumers declare themselves strongly inclined to justify less sustainable behaviors following virtuous choices, a value about double compared to electronics and clothing sectors (around 15%). Including also intermediate levels, these dynamics concern 68% of the sample, a share clearly higher than previous results. **Moral cleansing** mechanisms are also very widespread (about **40%** at high levels and up to 85% including intermediate ones) but more in line with the levels observed in other product categories.

Overall, these findings suggest that the food context is characterized by a **strong diffusion of compensatory mechanisms**, in the presence of a **lower declared consistency** between behaviors and between behavior and identity. In particular, the **identity dimension** appears **less stable** and **less systematically translated into concrete behaviors**.

**Figure 8. Moral licensing in the food sector**



This diffusion of compensatory mechanisms is also observed in the choices made within the same consumption occasion. In particular, in the context of a dinner at a restaurant, **consistent or compensatory behaviors** also manifest in an almost **simultaneous way** (although in sequence). On the contrary, in the electronics and clothing sectors, purchase decisions have been analyzed over longer time horizons, consistent with the nature of the product (about 17 and 12 months after the first choice, respectively). In the food context, these dynamics therefore emerge **within the same meal**: the choice of the first course (plant-based vs animal-based) clearly influences the probability of selecting a second course with similar or different characteristics.

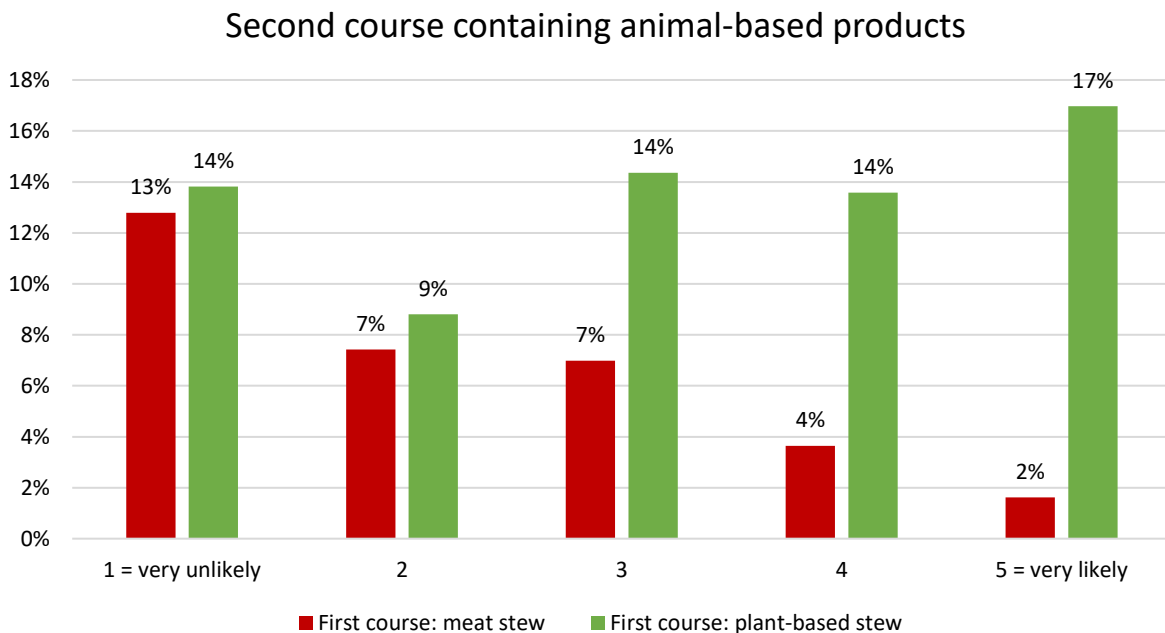
In the case of the second course containing animal products, a clear difference is observed between the two groups (Figure 9): those who ordered a plant-based first course are more likely to choose an animal-based second course (**31%**), suggesting the presence of **rebound effects**, while among those who initially ordered an animal-based first course it is much less likely to choose another similar one (**6%**), indicating a lower propensity to **maintain non-sustainable choices over time**. This pattern suggests a logic of balancing within the meal and the **presence of compensatory behaviors**.

With regard to the second course containing only plant-based products, a greater probability of **maintaining stable behaviors emerges when the first choice is already oriented toward sustainable options** (Figure 10). Among those who chose a plant-based first course, the probability of ordering a plant-based second course is equal to **30%**, while among those who chose an animal-based first course the probability is lower (**22%**), still indicating the presence of **upgrade behaviors**.

Overall, the results highlight the **coexistence of two dynamics**. On the one hand, a logic of compensation that reflects a **balancing between plant-based and animal-based**

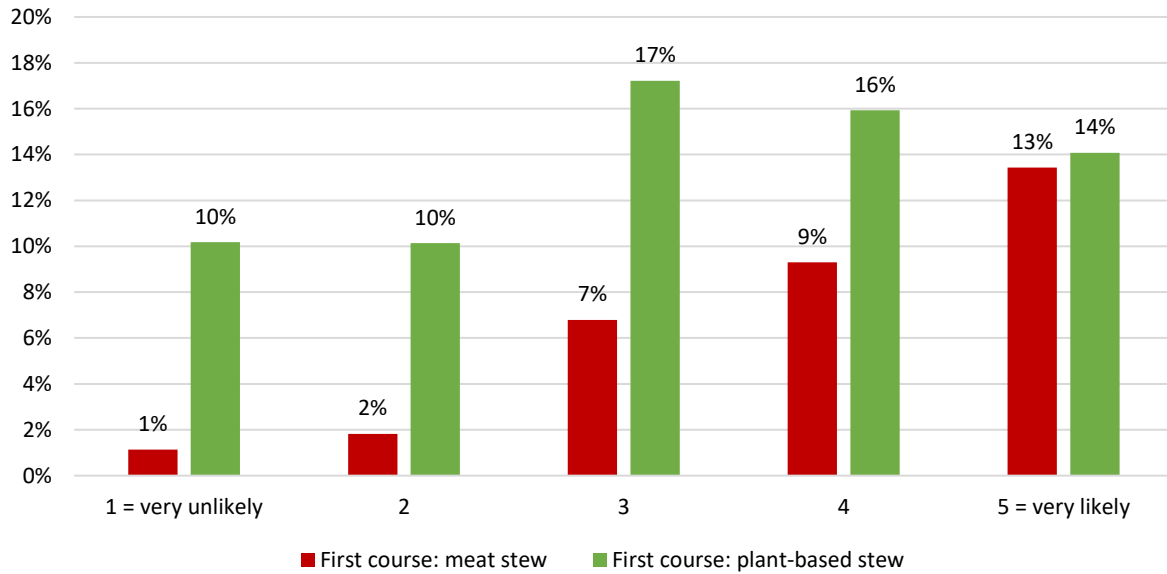
options within the meal. In particular, an initial plant-based choice may be followed by a less sustainable choice, while an initial animal-based choice tends to be rebalanced through a more sustainable option. On the other hand, a **tendency toward stability between plant-based choices emerges**. After an initial plant-based choice, consumers are relatively evenly distributed between green stability and rebound, while after an initial animal-based choice a greater concentration toward upgrade behaviors is observed. This asymmetry suggests that **plant-based options are more strongly associated with consistent pathways**, while **animal-based options are more frequently embedded in a flexible and compensatory management** of food behavior.

**Figure 9.** Probability of choosing an animal-based second course depending on the first choice



**Figure 10.** Probability of choosing a plant-based second course depending on the first choice

## Second course containing only plant-based ingredients



### 3.4 Cross-sectoral synthesis

Overall, the results emerging in the three sectors show how sustainable consumption is characterized by **increasing complexity** and by **deep tensions** between **values, purchase preferences, consolidated habits and practical constraints**. These tensions do not represent a marginal element but a structural component of the decision-making process, which directly affects the translation of intentions into behaviors.

In the case of **smartphones**, considerations related to **performance, price and reliability** prevail, which orient the purchase choice and **reduce attention toward more circular alternatives** such as refurbished models. Difficulties in adopting sustainable behaviors also emerge in subsequent phases: many consumers tend to keep unused devices, renouncing return or recycling, often due to **lack of information, privacy concerns or simple habit**.

**Clothing** shows equally complex dynamics. The **high purchase frequency, the low costs of fast fashion and the rapid replacement of garments** make it more difficult to integrate environmental criteria into purchase choices, despite a **growing interest toward more green and circular materials and processes**. Also, subsequent practices along the life cycle are less consolidated: repair, donation or disposal in collection centers are adopted less regularly compared to the past, signaling a weakening of circular actions and a **structural difficulty in extending product life**.

**In the food sector**, logics related to **perceived quality, taste and safety** prevail but at the same time a greater openness toward lower-impact choices emerges. **A growing share of consumers integrates vegetarian meals into their diet** on a recurring basis, even among those who define themselves as omnivores or reductionists, indicating a gradual change that reflects a **more widespread environmental sensitivity**, although still uneven in daily practices.

Across sectors, **price emerges as the main source of tension with sustainability** (about 40–43% in all sectors), confirming the widespread perception that greener options imply higher costs. This is accompanied by specific tensions related to the nature of consumption: performance and design in smartphones, fashion and practicality in clothing, taste and preparation time in the food sector. The ability to manage these tensions (paradox mindset) appears overall limited and heterogeneous, often implicit and weakly structured, configuring itself more as recognition of trade-offs than as a real ability to effectively integrate them.

The analysis of purchase and consumption **behaviors over time** highlights how tensions translate into **patterns of consistency and compensation**, whose **configuration varies depending on the decision context**. When **choices are more binding and identity-related** (electronics and clothing), dynamics of greater stability tend to emerge – even if not necessarily oriented toward sustainability – although in the presence of renegotiations and deviations over time. **In more frequent and less structured purchase contexts (food)**, stable behaviors and compensations can coexist within the same consumption sequence, reflecting a situational management of tensions. Moreover, while in electronics and clothing sectors moral cleansing dynamics prevail, in the **food sector** a **greater presence of moral licensing emerges**, indicating a more frequent tendency to legitimize deviations following a green choice.

Despite differences across sectors, overall, the emerging picture suggests that **sustainability is now a recognized and shared reference but often fragile in its practical translation**. More than a lack of sensitivity, a structural difficulty emerges in managing tensions between conflicting goals and in translating them into consistent choices over time. People express favorable attitudes and intentions but struggle to incorporate them into everyday decisions **due to economic and functional barriers, consolidated routines and limited trust in available alternatives**.

These findings represent a first step to understand how consumers deal with tensions and potentially conflicting goals and provide the basis to deepen **two central dimensions for promoting more sustainable behaviors**.

First, it is crucial to strengthen the ability to **integrate apparently irreconcilable polarities** in consumption choices. In this context, opportunities for change appear linked

to the ability to simplify the decision-making process, increase transparency and make sustainability an accessible choice compatible with everyday needs, without requiring sacrifices perceived as excessive.

Second, it is necessary to recognize the **evolution of behaviors over time and across contexts**. In particular, understanding when behavioral sequences take the form of **consistency pathways** or, on the contrary, give rise to **mechanisms of justification** (moral licensing) or **rebalancing** (moral cleansing) is crucial to design more effective interventions.

The analysis of the **six datasets** available on AMELIA, with data aggregated at the provincial level, allows precisely to **explore in depth the complexity of consumption** behaviors and to identify effective levers of intervention across different territorial contexts to support citizens toward more conscious and consistent choices along the entire product life cycle.