



InformPack Business Brief and Recommendations
for Decision Makers

Circular economy transition and food packaging:

**Engaging consumers in sustainable
consumption behaviours**



SETTING THE SCENE:

The need for engaging consumers in the circular economy transition

Food packaging has become crucial in modern food systems. It enables efficient global logistics, protects the content, helps extend product shelf-life and reduce food waste, and informs consumers. While packaging offers numerous benefits, its growing production and consumption significantly contributes to environmental issues like plastic pollution, biodiversity loss, and climate change that can threaten resilience of ecosystems and impact human health.

In the European Union (EU), many of these environmental issues are addressed through Circular Economy policies and measures that prioritize waste reduction, recycling, and packaging reuse over waste incineration and landfilling. Despite decades of progress in packaging waste management, the amount of packaging waste has been steadily increasing - with current measures, it is projected to rise by 19% by 2030 (European Commission, 2022; European Council, 2024). Therefore, the EU has introduced more ambitious measures to accelerate circular economy transition.

This InformPack project business brief highlights the key insights on communicating packaging sustainability to engage consumers in adopting sustainable consumption behaviours within circular economy transition. Besides providing insights on consumers' sustainable choices and packaging waste management, the brief also provides recommendations to business decision makers, such as packaging producers, food industry and retailers, in communicating and engaging consumers in taking actions in their daily lives.

Complexities in packaging waste management across the European Union

The European Green Deal, along with its many policy initiatives, such as Circular Economy Action Plan (CEAP) and Plastics Strategy, aim to drive the transition towards the circular economy across EU member states. Waste Framework Directive (WFD) and related Packaging and Packaging Waste Directive (PPWD) have been the guiding instruments in European packaging governance. These directives have provided member states with flexibility in national-level implementation, which has led to the development of various recycling and extended producer responsibility (EPR) schemes across Europe. Currently, there are many variations in packaging waste collection systems not only across different member states but in some countries also regionally, as shown in Figure 1.

	FINLAND	DENMARK	POLAND	SPAIN
Plastic	separate collection	separate collection	plastics and metals are collected together (yellow bin)	plastics and metals are collected together (yellow bin)
Metal	separate collection	separate collection		
Carton board	separate collection	separate collection	cartonboard and carton are collected together (blue bin)	cartonboard and carton are collected together (blue bin)
Carton	separate collection	separate collection		
Glass	separate collection	separate collection	Separate collection (green bin)	Separate collection (green bin)
Beverage bottles	deposit refund system	deposit refund system	deposit refund system for PET	No
Producer responsibility system	two packaging producer organizations takes care of organizing	only for beverage bottles	municipals	municipals

*In some regions of Poland colorless glass is collected to white bin

Figure 1. Examples of packaging waste collection in four EU member states (Rautkoski and Kataja, 2024).

While harmonizing systems could improve the efficiency of waste collection and recycling, it has faced resistance due to concerns about increased waste management costs. Given the diverse population characteristics, consumer habits, and geographic conditions across EU countries, harmonization might be challenging, as the need for various types of recycling solutions and systems is likely to persist in the future.

	% current targets (by weight)	% end of 2025 (by weight)	% end of 2030 (by weight)
TOTAL recycling target	55 %	65 %	70 %
PLASTIC	25 %	50 %	55 %
ALUMINIUM	-	50 %	60 %
GLASS	60 %	70 %	75 %
PAPER AND CARDBOARD	60 %	75 %	85 %

Table 1. EU's Packaging waste recycling targets. Data from the European Union (2024). Illustrated interpretation.

The current Packaging and Packaging Waste Directive (PPWD) mandates the Member States to arrange systems for extended producer responsibility by 2024 to meet the binding targets for packaging waste recycling (Table 1). The recently agreed Packaging and Packaging Waste Regulation (PPWR) has increased the ambition level both in reducing packaging consumption but also in product design and waste management. Besides harmonizing national packaging and packaging waste management and providing environmental protection, the PPWR also aims to ensure the functioning of the EU's internal markets, prevent waste production, and prioritizes reuse, recycling, and recovery of packaging waste over disposal.

Environmental sustainability of packaging systems can only be improved by adopting a balanced combination of different circular economy strategies and approaches, such as reducing packaging consumption, adopting packaging reuse, improving recycling, as well as using more sustainable raw materials. Here, all the packaging value chain actors, from material producers to consumers have an important role.

Consumer perspectives: Navigating a complicated packaging choice and disposal landscape

The current packaging choice and disposal landscape is challenging for a consumer. Despite increasing consumer awareness about packaging waste and related environmental challenges, consumers often struggle to access information on different food packaging disposal methods (Norton et al., 2023). Additionally, the previously mentioned cross-country variations in managing packaging waste create further complications and confusion for consumers (Norton et al., 2023).

To create effective consumer engagement, the InformPack project explored EU consumers' food packaging related challenges and preferences. The aim was to understand

what consumers want to know about food packaging and how they would like to receive the information. The findings of these studies highlight several food packaging purchase- and disposal-related issues that impact consumers' decisions as well as their preferred communication formats. To ensure their validity the developed engagement tools were tested with consumers to assess their impact on the adoption of positive food packaging behaviours. The impact analysis showed a staggering positive impact of self-reported future adoption of positive packaging behaviours, validating the design approach undertaken for engagement.

The consumer insights across nine EU countries (Greece, UK, Poland, Spain, Italy, Germany, Finland, Denmark and France) emphasise excessive packaging, limited product choices and (high) price as the main purchase related issues when it comes to food packaging. This is especially relevant for fresh produce and dairy products since those are the dominant food categories for which packaging impacts purchase related decisions. Regarding disposal, food packaging made from mixed materials, aluminium and soft/hard plastic were perceived most challenging at the home front. Whereas on the go, main disposal-related issues were

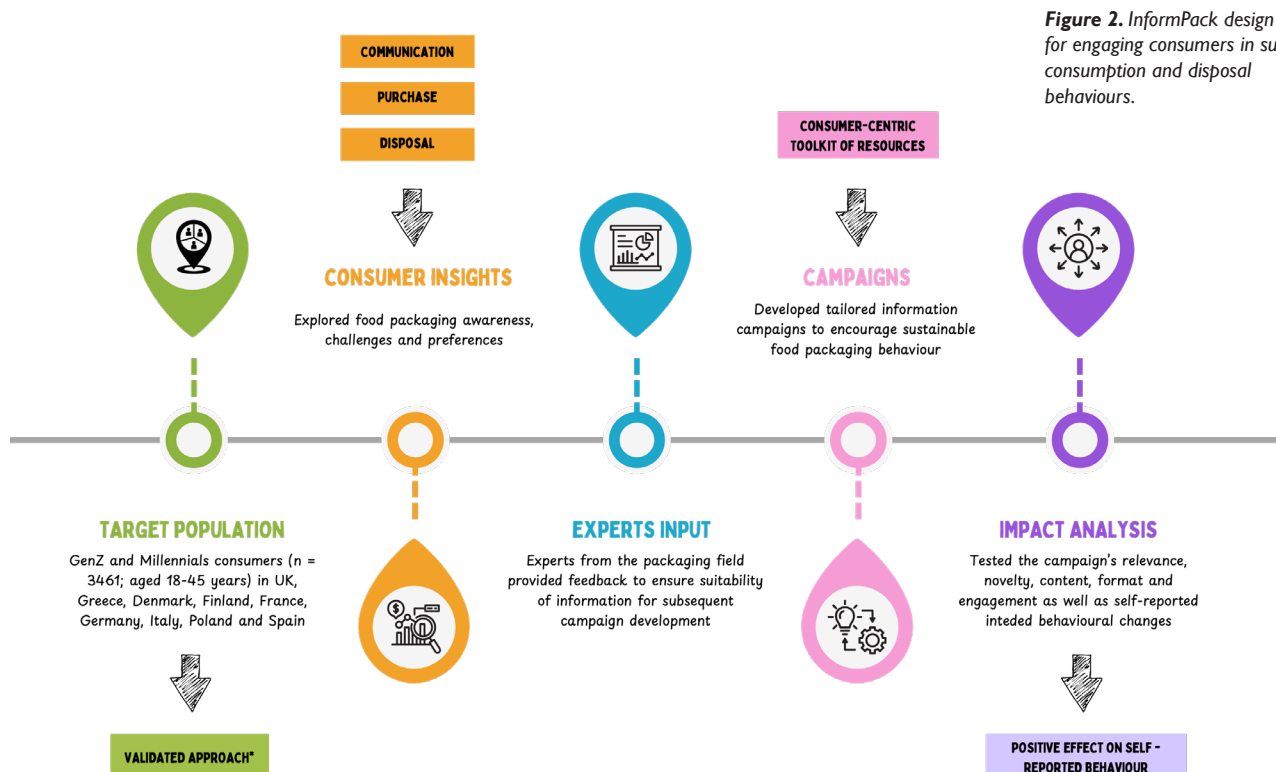


Figure 2. InformPack design approach for engaging consumers in sustainable consumption and disposal behaviours.

the lack of sorting instructions and nearby bins. While the purchase and disposal results varied across countries, the communication preferences of the consumer generations examined did not, revealing a clear preference for short and targeted communication combining text with visual stimuli, such as infographics and videos.



Engaging consumers through sustainability communication

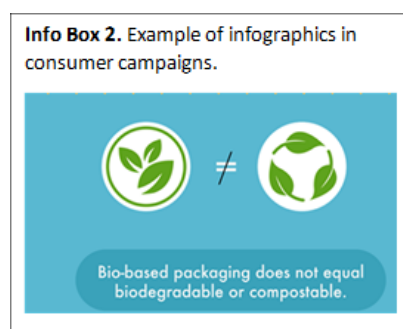
Business actors, particularly food companies, brand owners, and retailers, play a central role in adopting new packaging innovations and encouraging consumers to engage in more sustainable packaging consumption behavior. As mentioned earlier, gathering consumer understanding and targeting communication accordingly is a key aspect of consumer engagement to sustainable consumption and disposal.



However, due to the many environmental problems associated with food packaging and the complexities of packaging sustainability, achieving this is not easy. One of the key challenges revolves around difficulties in

identifying among many packaging materials and types what is sustainable in each case. In addition, packaging sustainability and choosing the optimal waste management solutions, as shown earlier, are often highly context dependent making generalization difficult. Despite the apparent difficulties, communication is crucial.

To respond to consumers' preferences, the project developed educational campaigns, including infographics and videos as well as Recycle Hero Quiz for [children](#) and [adults](#) in different language versions. These [digital campaigns](#) convey the message that various packaging solutions are needed and that adopting circular economy principles (refusing, reducing, reusing, and recycling) in daily life is needed for the transition towards more sustainable food packaging.



Effectively conveying information requires a thoughtful approach that captivates both children and adults, ensuring content is adapted to suit various age groups. Clear and engaging campaigns foster understanding and interest in food packaging area. Furthermore, it is essential to pay close attention to the labels on food packages to promote sustainable consumer choices and ensure proper food packaging disposal.

Educating children about the importance of food packaging aspects can lead to positive behavioural changes in the adults around them—parents, caregivers, and teachers alike. This, in turn, can influence responsible practices regarding the disposal of food packaging and informed consumer choices that benefit overall health and the environment.



Designing multi-stakeholder engagement – Experiences from food and retail companies

Brand owners from food industry and retail have a particular role in engaging consumers and other stakeholders into more sustainable consumption behaviours. The following cases exemplify innovative actions taken by the industry in designing multi-stakeholder engagement.



Co-creating innovative packaging solutions with stakeholders – Case Eroski, Spain

EROSKI organized a series of collaborative sessions involving multiple stakeholders, including academia, technological research centers, packaging manufacturers, food suppliers, and retailers. These sessions aimed to develop innovative packaging solutions to tackle key challenges in the food sector. A target was on finding sustainable solutions for 4th and 5th range food products and responding to the rapidly growing demand for convenient, ready-to-eat, and ready-to-cook items. The primary focus was on co-creating solutions to sustainability challenges of fresh packaged products, including the technical feasibility of ovenable and microwaveable packaging, cost-effectiveness, collaboration among supply chain actors, and alignment with government regulations. The discussions focused on identifying and developing packaging recovery systems, creating new sustainable and circular packaging solutions suitable for the food sector, and supporting food companies in evaluating and improving their packaging management practices to ensure recyclability and compliance with regulatory standards through customized technical and legal solutions.

During the participatory process the stakeholders identified several issues critical

to achieving sustainability transition. Key priorities include:

Fully recyclable and recycled packaging: Increasing the use of sustainable materials without impacting the competitiveness of ecosystem players.

Reducing costs of sustainable packaging materials: Making sustainable options more affordable.

Sustainability-first design: Ensuring packaging is designed with environmental impact as a primary consideration.

In addition to technical and economic challenges, participants emphasized the importance of consumer and youth engagement to cultivate sustainable habits. Interactive formats such as webinars and competitions are proving effective in raising awareness and encouraging active participation. Furthermore, collaboration among industry, consumers, and educational institutions was underscored as essential for driving meaningful innovations in sustainable packaging.



Youth Engagement and Educational Initiatives – Case Maspex, Poland

With an aim to involve young adults in implementing the 4R principles (Reduce, Replace, Reuse, Recycle) of circular economy, Maspex organized a webinar for high school students to provide engaging content on food packaging management and sustainable development. TikTok was used as a science populariser to attract and retain the attention of the young audience. Also, an interactive Quiz using a Slido tool, was conducted at the end of the webinar. The top 10 participants received small prizes. Approximately 800 students from several schools and classes enrolled in the event and over 200 of them actively participated in the quiz. Creative Contest: Students were invited to submit materials—such as presentations, videos, graphics, or other forms of communication—highlighting their ideas on applying the 4R principles to food packaging. Entries were evaluated based on creativity, originality, relevance to the 4R principles, feasibility, and environmental impact.



KEY RECOMMENDATIONS

Engaging consumers in sustainable food packaging consumption behaviours

1. Keep the message simple yet engaging

Effective communication and engagement for promoting sustainable habits rely on delivering clear and focused information to consumers. This approach contrasts with the complexity of the current food packaging systems. Thus, we need to strive for a simpler and easier systems as well as focus research on how to communicate effectively.

For example, improving packaging labelling would be needed. The establishment of a simple, consistent and mandatory labelling system for food packaging across EU countries, clearly indicating the proper sorting and disposal methods, could significantly enhance the recycling rates of food packaging, as also suggested by the PPWR. It would be beneficial for this system to be accompanied by consultations with consumers to gather their insights and feedback.

2. Tailor communication and engagement activities to the target audience

Not all consumers are the same, face the same obstacles, have the same information needs or communication and engagement preferences. Thus, communication and engagement approaches need to be fit to purpose. Within

these frames, focus needs to be placed on understanding better different consumer segments and how we can effectively engage them with the sustainable transformation of the food packaging system to achieve the desired impact.

Engaging consumers and youth is crucial to fostering sustainable habits, with interactive formats like webinars and competitions effectively raising awareness, creativity, co-creation and encouraging participation.

3. Collaborate and co-create together with consumers and other stakeholders to drive impactful sustainability innovations

Providing information and raising consumers awareness alone is not sufficient as sustainability challenges and related solutions are systemic. Thus, collaboration between industry, consumers, and educational institutions is essential for driving impactful innovations. Running educational activities in real-life settings, such as local waste management plants or supermarkets, make learning on sustainable food packaging behaviour more engaging and emotionally impactful for consumers.



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Contact information

InformPack consortium leader: Niki Alexi, Aarhus University

Editors: Henna Sundqvist, VTT, Hille Rautkoski, VTT

Contributors: Hille Rautkoski (VTT), Henna Sundqvist (VTT), Niki Alexi (Aarhus University), Joanna Fotschki (IARFR), Iwona Kieda (IARFR), Bartłomiej Mielniczuk (Maspex Group), Stella Lignou (University of Reading), Victoria Norton (University of Reading), Ainara Llona (EROSKI, S. Coop.)

Layout design: Niina Hyry, VTT

Project partners

Aarhus University, Denmark

University of Reading, UK

VTT Technical Research Centre of Finland Ltd., Finland

Institute of Animal Reproduction and Food Research, Polish Academy of Sciences (IARFR), Poland

BIOAZUL SL, Spain

Maspex Group, Poland

Food Bank in Olsztyn (FBO), Poland

EROSKI, S. Coop., Spain

InformPack project - Public engagement and co-creation for a more sustainable European food-packaging ecosystem

InformPack is a Proof-of-Concept public engagement project that received funding from EIT FOOD (2022-2024). The project explores the cross-cultural variations among consumers in terms of awareness, information gaps, issues and attitudes towards food packaging as related to product choice upon purchase and disposal patterns at home and on the go. The findings are used to create actions, tools, and strategies that can influence public behaviours and future solutions, with an aim to support a transition to a more sustainable European food-packaging ecosystem.