



UNWRAPPED |

What consumers say about safe and sustainable food packaging

Findings of an eleven-country consumer survey



Acknowledgements

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IN A WRAP | findings

During October 2022, BEUC members surveyed consumers across 11 European countries¹ to investigate attitudes towards food packaging and to explore consumer experiences, behaviours, and awareness of food-related risks.

MAIN FINDINGS

1



1 in 4 consumers feel poorly informed about food packaging and kitchenware, while less than 10% feel well informed. Many find that the information provided with food packaging is neither understandable (26%) nor sufficient (36%).

2



Around 3 in 4 consumers recognise the official 'food contact' symbol – but only a minority (29%) knows what it means.

3



3 in 4 consumers experience at least occasionally that essential information is missing or unclear when buying or using food containers and kitchenware. All such items should have an easy-to-understand instruction for use, according to 9 in 10 consumers.

4



Consumers are in general aware that some packaging or containers can release chemicals into food – with plastic items perceived as especially 'risky'.

5



50% of consumers say they keep using (for some time) worn or damaged food containers and kitchenware, such as damaged non-stick frying pans. Age and wear can increase risks of chemicals leaching into food. And, fear of food contamination along with a loss of utility are also the main reasons for discarding damaged food containers.

¹ AUSTRIA (VKI), BELGIUM (Testachats/Testaankoop), CZECHIA (dTest), DENMARK (Forbrugerrådet TÆNK), GERMANY (vzbv), ITALY (Altroconsumo), NORWAY (Forbrukerrådet), the NETHERLANDS (Consumentenbond), PORTUGAL (DECO), SLOVENIA (Zveza Potrošnikov Slovenije), and SPAIN (OCU).

6



Reusing packaging and food containers is fairly common among consumers. 1 in 5 reports reusing such items for purposes that may increase their exposure to food-related risks, e.g. storing hot food or drink in single-use packaging.

7



2 in 5 consumers find it unclear which food containers and packaging are safe to use. A majority (59%) trusts public authorities to effectively check that food containers and packaging are safe. In reality, regulators however face major challenges in doing so.

8



70% of consumers are worried about the impact on their health of chemicals present in food packaging and kitchenware. 9 in 10 support stricter rules to prevent health impacts.

9

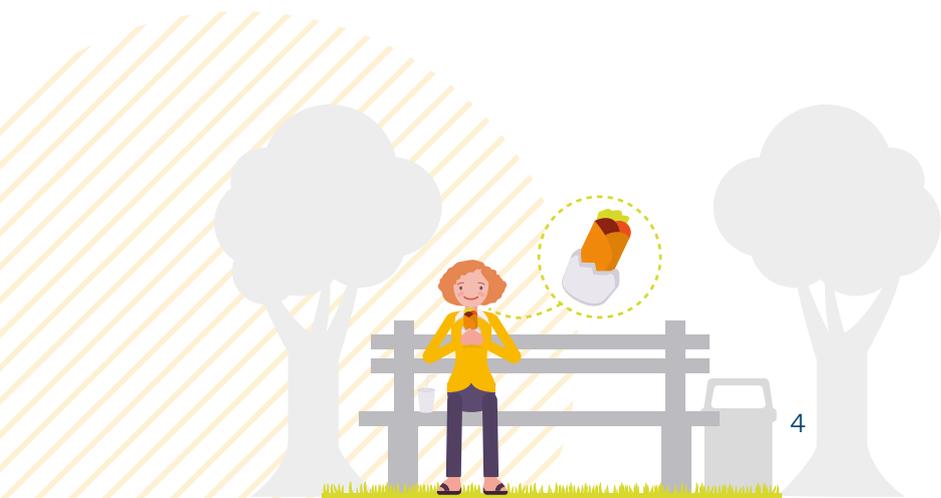


2 in 5 consumers find it unclear which food containers or packaging are environmentally-friendly. Green claims should however be strictly regulated, according to around 9 in 10 consumers.

10



4 in 5 consumers are worried about the impact of food packaging on the environment. Almost 9 in 10 support strict rules to prevent such impacts.



HOW TO REPACK EU FOOD PACKAGING LAWS |

recommendations

A recurrent theme emerging from our survey is that consumers do not feel sufficiently informed when buying or using food containers and packaging. There are further signs that consumers often do not receive information they in fact are entitled to. This situation can mislead consumers and may in turn increase their exposure to food-related risks. While trust in public authorities to prevent such risks is fairly high, there are however also notable concerns about the negative impact food packaging could have on health and the environment.

Taken together, these findings show that EU food packaging policy falls short of consumer expectations – and needs. A rethink of EU food packaging laws is required to enable informed consumer choices, and to better protect the health of people and our planet. To achieve this, BEUC recommends² that EU decisionmakers:

- **REINFORCE THE RULES REGULATING WHAT INFORMATION – AND HOW – FOOD PACKAGING PRODUCERS AND RETAILERS MUST COMMUNICATE TO CONSUMERS.** This should include an obligation to always provide an easy-to-understand instruction for use. Also, the EU must develop a labelling scheme that works for consumers, for example through new rules to improve the presentation, legibility, and durability of food packaging labels.
- **STRENGTHEN THE RULES OBLIGING PRODUCERS AND RETAILERS TO ENSURE THAT THEIR PACKAGING MATERIALS ARE SAFE UNDER ALL FORESEEABLE CONDITIONS OF USE** to better take actual consumer behaviour into account. Stricter control on how the official ‘food contact’ symbol is used is needed to avoid confusing consumers about which packaging might be suitable for reuse.
- **INTRODUCE NEW SAFEGUARDS AGAINST MISLEADING FOOD PACKAGING LABELS AND UNSUBSTANTIATED CLAIMS.** This should include strict criteria regulating what claims producers and retailers are allowed to make for their products and packaging. Public authorities need to focus their market controls on products – including those sold online – with insufficient, ambiguous, or missing labelling to ensure that consumer always receive the information they are entitled to.
- **INVEST IN AWARENESS-RAISING CAMPAIGNS TO EDUCATE CONSUMERS ABOUT FOOD PACKAGING LABELS AND THEIR MEANING.** Consumer groups can play an important role in supporting such efforts and in ensuring that relevant information reaches consumers. Increasing public support (also financial) for consumer organisations could enable those with more limited resources to better take on that role.
- **ADOPT A PREVENTIVE APPROACH TO CHEMICALS PRESENT IN FOOD PACKAGING AND KITCHENWARE.** This should include a default ban on all chemicals of high concern – such as those that may cause cancer, birth defects, or reproductive harm. Existing legal limits for e.g. plastic materials further need to be revisited to better protect consumers.
- **INCREASE SIGNIFICANTLY AVAILABLE RESOURCES FOR OFFICIAL CONTROLS** to ensure that EU food packaging rules deliver real change for consumers on the ground. The Commission should set rules on uniform conditions and frequency of checks for certain products where specific risks or serious breaches of legislation have been continuously identified, such as online sales or imported goods.
- **REGULATE REUSABLE, RECYCLABLE, AND RENEWABLE MATERIALS** to incentivise their use and to promote consumer trust. This should include strict safeguards to prevent consumer exposure to chemical contaminants present in recycled and plant-based materials. Clear legal targets to avoid overpackaging and to reduce waste should likewise be introduced.

² See further BEUC. [Time is ripe to repackage food safely](#). December 2019.

SETTING THE SCENE |

consumers and food packaging

On its way from farm to fork, our food comes in contact with many different materials and products, such as plastic packaging, paper wraps, kitchen utensils or ceramic tableware. Food packaging and kitchenware are essential to how we store, transport, preserve, and ultimately consume our food. But these materials and products can also impact the quality and safety of foodstuff throughout the food chain. Chemicals present in packaging can for example leach into food, thereby creating risks for consumer health.

EU food packaging legislation³ – meant to safeguard consumers against such risks – provides insufficient protection, as the European Parliament highlighted⁴ in 2016. Well over 8,000 chemicals are used to produce and treat food packaging materials in Europe;⁵ only a fraction of these chemicals are however covered by specific EU rules, primarily in plastic materials. Enforcement authorities meanwhile control less than 5% of regulated substances, typically those that either have high public visibility or are easy to test for.⁶ Parliament in turn concluded that these and other critical gaps in the legal framework are detrimental to public health and consumer trust. Subsequent reviews have confirmed – and expanded – upon that conclusion, showcasing that an overhaul of EU food packaging laws is urgent.

This fact is also recognised in the 2020 Farm to Fork Strategy⁷ in which the European Commission commits to legal reform to improve food safety and public health, as well as to promote sustainable packaging solutions – in line with the European Green Deal. The EU now faces a once in a generation opportunity to build a better, future proof legal framework that protects its citizens against harmful chemicals, empowers consumers, and delivers towards achieving the UN Sustainable Development Goals.

WHY WE DID THIS SURVEY?

Protecting consumers against food-related risks is fundamental to EU policies on food packaging, dating back to the first Community legislation in the 1970s. Little is in general however known about consumer attitudes towards food packaging nor their needs and experiences.

To close this gap, BEUC members from across Europe decided to survey consumers to better understand how they use food containers and kitchenware. Do they use them as intended? Are they aware of food-related risks associated with using these items – and what are their main concerns? We also explored if consumers feel well-informed about food packaging and kitchenware, how they understand labels, and whether they always receive the information they should.

Insights from this survey can thus help EU decisionmakers devise rules that better correspond to actual consumer needs and behaviours, as well as meet their expectations.

³ REGULATION (EC) No 1935/2004 on materials and articles intended to come into contact with food.

⁴ European Parliament. [Report on the implementation of the Food Contact Materials Regulation \(\(EC\) No 1935/2004\)](#). 2015/2259(INI). July 2016.

⁵ J. Muncke et al. [Impacts of food contact chemicals on human health: a consensus statement](#). Environmental Health 19. March 2020.

⁶ See e.g. European Commission. [Evaluation of the legislation on food contact materials – Regulation \(EC\) No 1935/2004](#). SWD/2022/0163 final. June 2022.

⁷ European Commission. [Farm to Fork Strategy](#). May 2020.



HOW WE DID IT?

The survey was conducted by Euroconsumers⁸ during October 2022 across 11 European countries: Austria, Belgium, Czechia, Denmark, Germany, Italy, the Netherlands, Norway, Portugal, Slovenia, and Spain.

Data were collected through an online questionnaire distributed to participants by a market research company. The questionnaire was administered to panels of just over 1,000 respondents per country. Respondents were selected with a view to ensure a representative sample of the countries' national populations.

A total of 11,232 valid responses were collected. Samples were weighted for age, gender, educational level, and region to be representative of the countries' national populations.

WHAT WE FOUND?

Awareness is high among consumers that food packaging and tableware can contribute to food-related risks. A recurrent theme throughout this report is however also that consumers do not feel sufficiently informed about such risks – or about food packaging in general. There is – perhaps not surprisingly – significant support for EU rules to enable consumers to make better informed choices when buying or using food containers and packaging. Support for regulation to prevent negative impacts on health and the environment is likewise notable.

We unpack these findings – along with recommendations to decisionmakers – in the following pages, structured around three main topics:

- Consumer knowledge, experiences, and information needs.
- Awareness, behaviours, and concerns about health impacts.
- Attitudes towards food packaging and the environment.

⁸ Gathering five national consumer organisations and giving voice to a total of more than 1,5 million people in Italy, Belgium, Spain, Portugal and Brazil, Euroconsumers is the world's leading consumer cluster in innovative information, personalised services and defence of consumer rights. Our European member organisations are part of the umbrella network of BEUC, The European Consumer Organisation. Together we advocate for EU policies that benefit consumers in their daily lives.

FINDINGS AND RECOMMENDATIONS

Here we detail the survey findings – and provide our assessment and recommendations for action.

CONSUMER KNOWLEDGE, EXPERIENCES, AND INFORMATION NEEDS

We explored if consumers feel well-informed about food packaging and kitchenware, how they understand labels, and whether they always receive the information they should. This is essential to ensure that a revised legal framework provides consumers with the information they need – and expect.

1 **1 in 4 consumers** feel poorly informed about food packaging and kitchenware, while less than 10% feel well informed. Many find that the information provided with food packaging is neither understandable (26%) nor sufficient (36%).

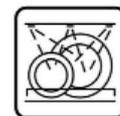
- Dutch, German, and Norwegian consumers are more likely to say that they feel well-informed (up to 14% in Norway). Around 1 in 3 consumers in Denmark, Belgium and Spain in contrast say they feel poorly informed.
- Consumers feel better informed about some issues than others. For example, consumers tend on average to feel well or completely informed about **correct storage of food products** (50%) and **correct use of utensils** (49%). In contrast, consumers tend to feel little or not at all informed about the **composition / main materials of food packaging** (46%), **contamination risk of chemicals from packaging** (55%) or **from kitchenware** (51%) into food.
- 2 in 3 consumers find the information provided with food packaging and food containers **understandable**; slightly fewer but still a majority (57%) find the information **sufficient**. A sizable minority in all countries however find the information neither understandable (26%) nor sufficient (36%). This is the case for over 40% of German and Spanish consumers who say the information is not sufficient, while 38% of Slovenian consumers find it not understandable.

2 **Around 3 in 4 consumers** recognise the official ‘food contact’ symbol – but only a minority (29%) knows what it means.

- The **Glass and Forks symbol** shown here on the right communicates that materials or products are suitable for food contact. Use of the symbol is regulated in the EU; and recognition of the symbol is at 72% also fairly high among consumers, ranging from 62% in Denmark to almost 80% in Austria, Italy, and Slovenia.
- Understanding of the symbol is much lower, however. Of those who recognise the symbol, only 40% on average **correctly identifies what it means** (i.e. suitable for food contact). In Italy and Czechia, over 50% of respondents know what the symbol means, while that figure drops to around 1 in 3 in the Netherlands, Portugal, and Spain.



- 10% of those who recognise the symbol say they do not know what it means, while 28% associate it with performance-related symbols, such as suitable for dishwasher. 20% believe that the symbol indicates that a product can be consumed (eaten/drunk). 3% finally link the symbol to recycling or recycled materials.
- **When considering the full sample** – that is, both respondents who recognise the symbol and those who do not – fewer than 1 in 4 Dutch, Norwegian and Spanish consumers can correctly identify the meaning of the Glass and Fork symbol. Belgian (31%), Czech (35%), Italian (42%), and Slovenian consumers (32%) fare slightly better in comparison.
- Other food packaging symbols are by comparison generally both well-recognised and understood by consumers. For example, symbols related to **suitable for dishwasher**, **suitable for freezing**, and **suitable for microwave** are on average recognised by 78%, 91%, 93%, respectively. When considering both respondents who recognise these symbols and those who do not (the full sample), consumers also tend to know their meaning, with correct symbol identification by 70% (suitable for microwave), 73% (dishwasher), and 86% (freezing) – compared to only 29% for the Glass and Fork symbol.
- 1 in 3 consumers finally say that they feel little or not at all **informed about symbols on food containers** (recognising them, knowing their meaning). 27% say they feel well or completely informed.



3

3 in 4 consumers experience at least occasionally that essential information is missing or unclear when buying or using food containers and kitchenware. All such items should have an easy-to-understand instruction for use, according to 9 in 10 consumers.

- Fewer than 10% of respondents say they **do not check or pay attention to any information or symbols** when buying or using food storage containers and kitchenware. Of those who do check, 74% however say that information sometimes or frequently is missing.
- For example, 2 in 3 consumers at least sometimes experience that **safe use instructions** are missing when buying or using food containers and kitchenware. This could for example be information related to cleaning, oven-safe, or maximum heating temperature. 20% report that such information is frequently missing.
- Also, 27% frequently experience that information is **only present on product packaging or on a sticker** that disappears when the product is used. 3 in 4 Czech, Italian, Portuguese, and Spanish consumers say that they experience this situation either occasionally or frequently.
- More than 3 in 5 consumers have experienced symbols that are either **not clear** (67%) or **not visible / poorly readable** (63%). Among Austrian, Czech, Portuguese, and Spanish consumers, over 70% say they at least sometimes come across unclear symbols. In Austria, Belgium, Czechia, Germany, Italy, and Slovenia, 1 in 5 say they frequently encounter symbols that are not visible or poorly readable.
- Consumers are in comparison less likely to report missing information on **specific chemicals** (42%) or **on materials** (53%) – although respectively 43% and 37% also say they do not look for such information.
- 9 in 10 consumers (strongly) agree that all food packaging and kitchenware should have **an easy-to-understand instruction for use**. Support is consistent across countries, with around half of Belgian and Dutch consumers strongly agreeing, increasing to over 70% in Portugal, Slovenia, and Spain.



ASSESSMENT AND RECOMMENDATIONS

There is an evident need to improve the information available to consumers about food packaging and kitchenware: 90% of respondents thus say they feel only somewhat or even poorly informed overall. A revised legal framework must correct this situation as a priority so as to enable consumers to make better informed choices when buying or using food containers and packaging.

The low understanding of the Glass and Fork symbol, combined with a shared experience that communication of essential information is often ambiguous or missing entirely, points to further shortcomings in the legal framework. The finding that 2 in 3 consumers report experiencing that safe use instructions are missing is of particular concern. Without this information, consumers may not use food containers and kitchenware as intended by the producer, which in turn can increase food-related risks – a point we return further to below. For now, however, these results sadly confirm previous findings⁹ by consumer groups that use instructions are frequently either missing or given exclusively in the form of unclear pictograms without further wording.

The results related to the Glass and Fork symbol meanwhile correspond to previous findings¹⁰ by consumer group vzbv that only a minority (48%) of German consumers can correctly identify its meaning. These figures stand in stark contrast to the findings for other food packaging symbols. Unlike the Glass and Fork symbol, performance-related symbols, such as dishwasher safe are not standardised, and their visual expression can vary (greatly) from one producer to another.¹¹ The high recognition and understanding among consumers of such symbols is therefore remarkable when compared to their low understanding of the official EU ‘food contact’ symbol – and calls into question its practical value as a communication tool to consumers.

BEUC recommendations

- ☑ The EU rules regulating what information – and how – producers and retailers must communicate to consumers should be reinforced. This should include an obligation to always provide an easy-to-understand instruction for use. Public authorities also need to focus their market controls on products – including those sold online or imported from abroad – with insufficient, ambiguous, or missing labelling to ensure that consumer always receive the information they are entitled to.
- ☑ The EU must develop a labelling scheme that works for consumers, for example through new rules to improve the presentation, legibility, and durability of food packaging labels. A limited list of pictograms producers can use should be established to avoid that food packaging labels are overloaded with unclear or unfamiliar symbols. Standardising existing performance-related symbols would also improve how information on correct use of food containers and packaging is communicated to consumers.
- ☑ National governments need to invest in awareness-raising campaigns to educate consumers about food packaging labels and their meaning. Consumer groups can play an important role in supporting such efforts and in ensuring that relevant information reaches consumers. Increasing public support (also financial) for consumer organisations could enable those with more limited resources to better take on that role.

⁹ See e.g. BEUC. [Half-baked](#). December 2022.

¹⁰ Verbraucherzentrale. [Bevölkerungsbefragung zu Lebensmittelkontaktmaterialien](#). September 2020.

¹¹ See e.g., TÜV Rheinland. [6 Common Food Symbols You Should Know](#). Accessed: 12 April 2023.

AWARENESS, BEHAVIOURS, AND CONCERNS ABOUT HEALTH IMPACTS

We sought to understand how consumers use food containers and kitchenware. Do they use them as intended? Are they aware of food-related risks associated with using these items – and what are their main concerns?

4

Consumers are in general aware that some packaging or containers can release chemicals into food – with some items perceived as especially ‘risky’

- 61% of respondents for example believe that **storing food in packaging and containers can result in contamination risks**. Answers vary across countries, however: while 40% of Spanish consumers think that packaging and containers can release chemicals into food, over 70% in Portugal and Slovenia believe this to be true.
- Also, respondents are in general aware that packaging and containers are more likely to release chemicals into food in certain circumstances. 2 in 3 consumers for example correctly say that **storing acidic or fatty foods** can increase contamination risks. About 70% believe such risks exists **when storing hot food** or **when heating food** (e.g. in the microwave).
- Spanish consumers are least likely (47%) to associate storing acidic or fatty foods with contamination risks compared to over 75% of Austrian and German consumers. Fewer Spanish consumers (59%) also see a risk with storing hot food than Czech and Slovenian consumers (78%). Austrian and Portuguese consumers are finally more likely to say that heating food items increases food-related risk, compared to just over 60% of Dutch and Spanish consumers.
- 40% of respondents associate food-related risks with all four situations presented in the survey. 6% do not know for any of the situations.
- Consumers on average **associate plastic items with higher risk** of food contamination. For example, respondents tend to link plastic containers (55%), drinking bottles (55%), pan turner (48%), and food wrap film (46%) with medium to high risks. Fewer consumers in contrast identify inert materials such as glass (10%), ceramics (16%), or steel (19%) with food-related risks. One exception to this pattern is **‘bamboo’ plastic items** which respondents tend to associate with lower risks than other plastic items – possibly as a result of the frequent, misleading marketing of plastic bamboo as a green alternative to regular plastic.¹²
- Responses are consistent across countries, with some notable variations. For example, 28% of Norwegians link ceramic containers to contamination risks, compared to only 6% in Czechia. Likewise, consumers in Belgium, Denmark, the Netherlands, Norway, and Spain are twice as likely as Austrian, Czech, and Slovenian consumers to associate glass jars with contamination risks (over 10% versus less than 5%). Non-stick pans are finally viewed by 51% of Italian respondents as presenting a medium to high risk, compared to only 31% in Portugal.

¹² Stiftung Warentest. Die Bambuslüge. Test 8/2019. July 2019.



5

50% of consumers say they keep using (for some time) worn or damaged food containers and kitchenware. A loss of utility and fear of food contamination are the main reasons for discarding such items.

- Age and wear can increase the release of chemicals from food packaging and containers. Cracks and scratches in protective surfaces can also increase such risks. Wear and tear do in general however not cause consumers to immediately discard food containers and kitchenware. Around 50% for example says that they keep using (for some time) damaged non-stick frying pans or ceramic containers despite cracks in the glazing. Many consumers also keep using kitchenware despite changes in shape (44%) or colour (64%).
- Among those who stop using a **damaged frying pan** after less than a month, fear of food contamination is the leading cause. The picture differs for **damaged food containers**, however: here consumers are more likely to cite a loss of utility as the main reason for discarding such items. One exception though are **changes in colour or material characteristics** of food containers, where 45% mentions contamination risks as a reason, compared to 35% for a loss in utility.
- Consumers in Austria, Denmark, Germany, Italy, the Netherlands, Portugal, and Spain are in general more likely to cite contamination risks as the reason for discarding damaged kitchenware than those in Belgium, Czechia, Norway, and Slovenia.

6

Reusing packaging and food containers is fairly common among consumers. 1 in 5 reports reusing such items for purposes that may increase their exposure to food-related risks.

- Reusing food containers or packaging other than for their intended purpose – such as for example storing hot liquid in a single use plastic bottle – can increase risks of chemicals leaching into food. Consumers are somewhat aware of this issue, with 53% stating that there is a medium to high **risk of food contamination when reusing food packaging**. 46% likewise associate a medium to high risk with using recycled plastic containers.
- While reuse of packaging and food containers is fairly common among consumers, some items are more popular than others. For example, almost 3 in 4 consumers say they sometimes or frequently reuse **lidded glass jars**. **Metal** and **hard plastic containers** are also popular, being reused at least occasionally by 41% and 51% of respondents, respectively. Reuse of **polystyrene trays**, **cardboard boxes**, and **takeaway plastic food containers** is in contrast less popular, if still fairly common, with 15%, 19% and 28% of respondents saying they do so.
- **Storing dry or cold foods** are the two most common reasons among consumers for reusing packaging and containers. Many consumers however also report reusing packaging and food containers for purposes that could increase food-related risks. For example, among those who reuse food containers, 19% say they **reuse hard plastic containers to store hot food or drink**, while **take-away plastic containers are reused for hot food-to-go** by 23%. Single-use plastic bags are likewise reused for freezing food by 33% of respondents who say they reuse such bags.

7

2 in 5 consumers find it unclear which food containers and packaging are safe to use. A majority (59%) trusts public authorities to effectively check that food containers and packaging are safe.

- Among Belgian, Dutch, German, Norwegian, and Slovenian consumers, over 40% say that it is **unclear which packaging and food containers are safe to use**. The same is true for many consumers in Austria, Czechia, Denmark, Italy, Portugal, and Spain, although the majority in these six countries do find it is clear which packaging and food containers are safe to use.
- Around 3 in 5 consumers on average say that they **trust public authorities** to effectively check that food containers and packaging are safe before they are put on the market.
- Trust in public authorities varies among countries, however. Austrian, Danish, Norwegian, Portuguese, and Spanish consumers are more likely to express trust in their authorities (up to 72% in Spain). Trust is in comparison lower among consumers in Belgium, Czechia, Germany, the Netherlands, Italy, and Slovenia. For example, less than 50% of Belgian and Dutch consumers trust their authorities to effectively check that food containers and packaging are safe before they are put on the market.
- 1 in 3 consumers overall expresses doubt that public authorities perform safety checks before food containers and packaging are put on the market. 7% are either undecided or have no opinion.

8

70% of consumers are worried about the impact on their health of chemicals present in food packaging and kitchenware. 9 in 10 support stricter rules to prevent health impacts.

- 2 in 3 Czech, Danish, and German consumers say they are worried or very worried about the **health impacts of chemicals** in food packaging. In Italy, Portugal, Slovenia, and Spain, around 4 in 5 consumers are (very) worried about possible health impacts.
- Concern is less pronounced among Austrian, Belgian, Dutch, and Norwegian consumers, although a majority in these four countries are still (very) worried about impact chemicals could have on their health.
- 88% of consumers either agree or strongly agree that **producers should by law be prohibited from using chemicals** in packaging and kitchenware that could leach into food, even if health risks are low.
- Support for stricter rules ranges from 84% among Dutch consumers to 92% in Slovenia. More than 2 in 3 Austrian, Italian, Slovenian, and Spanish consumers say they strongly agree with the need for such rules. Across all countries, only 7% of consumers do not express support for stricter rules, while 5% are either undecided or have no opinion.

ASSESSMENT AND RECOMMENDATIONS

Awareness is in general high among consumers that chemicals present in food packaging and tableware can result in food-related risks – as are concerns about the health impact these chemicals could have. These findings further indicate an increase in concern among consumers: a 2010 Eurobarometer survey¹³ found that close to 60% of Europeans are (very) worried about chemicals contained in plastics or other food contact materials. By comparison, 70% of respondents to this survey are (very) worried about the health impacts of chemicals in food packaging. EU decisionmakers need to respond to these concerns by introducing stricter rules to significantly reduce the use of hazardous chemicals in food packaging and kitchenware – a core goal also identified in the Farm to Fork Strategy and strongly supported by 9 in 10 consumers.

¹³ European Commission. [Food-related risks](#). Special Eurobarometer 354. November 2010.

The rather high trust among consumers in public authorities to safeguard their health is meanwhile encouraging. That trust may not be entirely merited, however. In 2016, the European Parliament thus identified¹⁴ critical gaps in the legal framework meant to protect consumer health and interest. Subsequent reviews have confirmed – and expanded – upon that conclusion: a 2022 Commission review¹⁵ for example found that deficiencies in the legal framework create severe challenges for EU and national regulators to effectively ensure that food containers and packaging are safe. The review also documented that public enforcement in general is weak, not sufficiently effective, and considered a low priority. In practice, Member States enforce compliance for only a fraction of regulated substances (<5%), typically those that either have high public visibility or are easy to test for.

The survey results however also point to a more fundamental failure to adequately prevent food-related risks. The EU requires that all food containers and packaging are safe under normal or foreseeable conditions of use. But the use intended by the producer may not in fact correspond to how consumers use them in practice. The findings thus show that 1 in 5 consumers use throwaway packaging and containers in ways that could increase their exposure to chemical contaminants. A further concern here is that the Glass and Fork symbol can be displayed on packaging, which is not suitable for reuse,¹⁶ such as either cardboard packaging or take-away plastic containers. This can lead those consumers who recognise the symbol without knowing what it means to believe that reusing such items do not contribute to food-related risks.

A partial solution could be to introduce a dedicated pictogram signalling to consumers when packaging is not suitable for reuse. Still, it is also crucial to avoid overloading food packaging with labels and pictograms, as it risks confusing consumers and can create a false sense of security. Better labels and information likewise will not benefit much the close to 10% of consumers who say they do not pay attention to symbols and use instruction. As such, producers and retailers must instead by law be required to ensure that their food packaging and products are safe under a wider range of use – and reuse conditions than is the situation today. This would also prevent that responsibility for avoiding food-related risks is shifted to the consumer.

BEUC recommendations

- ☑ The EU rules obliging producers and retailers to ensure that their packaging materials are safe under all foreseeable conditions of use should be reinforced to better take actual consumer behaviour into account. In support, consumers should receive clearer information on food containers and their intended uses – including on their possible reuse for food-related purposes. Combined with awareness-raising efforts, stricter control on how the Glass and Fork symbol is used is needed to avoid confusing consumers about which packaging might be suitable for reuse.
- ☑ The EU should adopt a preventive approach to chemicals present in food packaging and kitchenware – in line with the EU Chemicals Strategy for Sustainability and consumer expectations. This should include a default ban on all chemicals of high concern – such as those that may cause cancer, birth defects, or reproductive harm. Food-related risks need to be further reduced by requiring producers to ensure that contaminants released from their packaging and kitchenware are kept to a strict minimum. Existing legal limits for e.g. ceramics or plastic materials further need to be revisited to better protect consumers, while safeguards to account for their combined exposure to chemicals from food packaging and other sources should be introduced.
- ☑ Member States must significantly increase their resources for official controls to ensure that EU food packaging rules deliver real change for consumers on the ground. To reduce dependency on public finances, authorities should be allowed to collect fees from food business operators to cover the costs of performing official controls. Also, the Commission should set rules on uniform conditions and frequency of checks for certain products where specific risks or serious breaches of legislation have been continuously identified, such as online sales or imported goods.

¹⁴ European Parliament. [Report on the implementation of the Food Contact Materials Regulation \(\(EC\) No 1935/2004\)](#). 2015/2259(INI). July 2016.

¹⁵ European Commission. [Evaluation of the legislation on food contact materials – Regulation \(EC\) No 1935/2004](#). SWD/2022/0163 final. June 2022.

¹⁶ European Commission. [Evaluation of the legislation on food contact materials – Regulation \(EC\) No 1935/2004](#). SWD/2022/0163 final. June 2022.

ATTITUDES TOWARDS FOOD PACKAGING AND THE ENVIRONMENT

Tableware and packaging are increasingly being marketed as 'eco-friendly' or recyclable. We wanted to understand what consumers think about such claims. Are they concerned about the impacts packaging can have on the environment? And, if so, what action do they think the EU should take?

9 **2 in 5 consumers** find it unclear which food containers or packaging are environmentally-friendly. Green claims should however be strictly regulated, according to around 9 in 10 consumers.

- At least 45% of consumers in Belgium, Denmark, Germany, the Netherlands, and Portugal say it is **unclear which food containers and packaging are environmentally-friendly**. The same is true for at least 40% of Austrian, Norwegian, Slovenian, and Spanish consumers, although a majority in these four countries do find it clear which food containers and packaging are environmentally-friendly.
- 87% of consumers (strongly) agree that producers should by law only be allowed to label food containers or packaging as environmentally-friendly if they **met strict criteria**. 3 in 4 Slovenian consumers express strong supports for such rules, as do over 60% of Austrian, German, Portuguese, and Spanish consumers.
- Support is slightly less pronounced among Belgian, Dutch, and Norwegian consumers – although still significant overall (80% or more supports or strongly supports strict rules regulating green claims). Across all countries, only 7% say they are either undecided or have no opinion.

10 **4 in 5 consumers** are worried about the impact of food packaging on the environment. Almost 9 in 10 support strict rules to prevent such impacts.

- Italian, Portuguese, Slovenian, and Spanish consumers are those most **concerned about environmental impacts** (around 90%). Concern is slightly less pronounced among consumers in Belgium, Denmark, the Netherlands, and Norway, but still significant at 65% or more. Across all countries, fewer than 15% say they are not worried about environmental impacts, while 6% are either undecided or have no opinion.
- Support for protective EU action is uniform among consumers. For example, 85% of respondents on average (strongly) agree that to reduce waste **producers and retailers should by law be required to use less materials to package food**. Support ranges from 77% in Czechia to 90% in Spain. Among Austrian, German, Slovenian and Spanish consumers, a majority expresses strong support for such rules.
- Support for rules requiring producers and retailers to **use only packaging materials that are reusable and recyclable** is likewise high among consumers: 84% on average (strongly) agree that such rules are needed, ranging from 72% in Norway to 90% among Spanish consumers. In Germany, Italy, Slovenia, and Spain, 50% or more of consumers strongly agree with the need for such rules.
- Only around 10% of consumers on average (strongly) disagree with the need for EU action to prevent impacts on the environment, for example, through rules to reduce waste (9%) or to promote use of reusable and recycled materials (10%). 6% are either undecided or have no opinion.

100%
BIODEGRADABLE
RECYCLABLE

ASSESSMENT AND RECOMMENDATIONS

Food packaging can have significant, negative environmental impacts. Single-use plastic tableware and packaging are for example major contributors to the ever-growing spread of plastics in our environment. And, consumers are increasingly turning away from these unsustainable products: a March 2020 Eurobarometer survey thus found¹⁷ that 45% of Europeans had avoided buying single-use plastic goods or bought reusable plastic products within the past six months. Our findings however show that the EU must make it easier for consumers to make the sustainable choice via improved information and stricter criteria regulating the use of green claims.

This should also include efforts to clean up the EU market from all misleading green claims and labels. German consumer group, Stiftung Warentest has previously warned¹⁸ that many bamboo-based, re-useable plastic cups mislead consumers with claims advertising the recyclability and biodegradability of cups that neither degrade in the environment nor within industrial composting facilities. In 2021, four BEUC members likewise found¹⁹ that popular alternatives to single use plastic tableware mislead consumers with unsubstantiated green claims. This situation risks creating confusion among consumers and makes it difficult for them to identify the products that are more environmentally-friendly than others.

The significant concern about environmental impacts among consumers likewise calls for EU action. Beyond stronger waste reduction targets, the legal framework needs to encourage uptake of sustainable packaging solutions. This should include efforts to promote reliance on reusable, recycled, and renewable materials. Unlike plastic materials, the EU however does not have dedicated rules in place to ensure that such materials are safe for consumers. Recycled and plant-based materials can increase both the possible sources of contamination and the amount of chemicals leaching from packaging into food.²⁰ The EU needs to introduce strict safeguards to protect consumers against such risks. This will also promote consumer trust in novel packaging solutions and help secure continued public support for the transition to a sustainable food packaging sector.

BEUC recommendations

- ☑ The EU rules meant to protect consumers against misleading food packaging labels and unsubstantiated claims must be strengthened. This should include strict criteria regulating what claims producers and retailers are allowed to make for their products and packaging, along with a blacklist of claims that are impossible to substantiate, and therefore should never appear on food packaging. The proposed Green Claims Directive²¹ is a good start in this regard. Public authorities further need to focus their controls on cleaning up the EU market from all misleading green claims and labels.
- ☑ EU rules regulating reusable, recyclable, and renewable materials are needed to incentivise their use and to promote consumer trust. This should include strict safeguards to prevent consumer exposure to chemical contaminants present in recycled and plant-based materials. Clear legal targets to prevent overpackaging and to reduce waste should likewise be introduced.

¹⁷ European Commission. [Attitudes of European citizens towards the Environment](#). Special Eurobarometer 501. March 2020.

¹⁸ Stiftung Warentest. Die Bambuslüge. Test 8/2019. July 2019.

¹⁹ BEUC. [Towards safe and sustainable food packaging](#). May 2021.

²⁰ See e.g., B. Geueke et al. 2018. Food packaging in the circular economy: Overview of chemical safety aspects for commonly used materials. *Journal of Cleaner Production* 193.

²¹ European Commission. [Proposal for a Directive on substantiation and communication of explicit environmental claims](#). COM/2023/166 final. March 2023.

ANNEX | Questionnaire

YOUR CONCERNS WITH FOOD-CONTACT MATERIALS

This survey is about consumer views and experiences with the different materials and products that food comes into contact with, from retail till consumption. The main focus lies on food (industrial) packaging and food storage containers and kitchenware (used at home).

1. In general, to what extent do you feel informed about the following matters?

1 = not informed at all

2 = little informed

3 = somewhat informed

4 = well informed

5 = completely informed

- Correct storage of food products
- Correct use of utensils / kitchenware (when preparing food)
- Composition / main materials of food packaging
- Composition / main materials of food-contact products (e.g. kitchenware, storage containers)
- Contamination risk of chemicals from packaging into food
- Contamination risk of chemicals from food-contact utensils/kitchenware into food
- Symbols on food containers (recognising them, knowing their meaning)

2. In the following situations, do you think that some packaging/containers could release chemicals into food?

1 = no

2 = yes

3 = I don't know

- When storing food items in general, no matter their type or temperature
- When storing acidic or fatty food items
- When storing hot food items
- When heating food items (e.g. in the microwave)

3. According to your knowledge, how high is the risk of food contamination when using the following items?

1 = no single risk

2 = low risk

3 = medium risk

4 = high risk

5 = I don't know

- Aluminium foil paper
- Ceramic container
- Coffee-to-go cup made of bamboo-fibre / bamboo plastic
- Coffee-to-go cup made of cardboard
- Glass container
- Kitchen utensil or tableware made of bamboo-fibre / bamboo plastic
- Non-stick pans and bakeware
- Pan turner made of plastic
- Plastic container
- Plastic drinking bottle
- Plastic food wrap film
- Plastic sealable / ziplock bag
- Recycled plastic container
- Re-used food packaging (e.g. ice cream box, yoghurt pot, etc.)
- Silicone bakeware (e.g. moulds, baking mat, etc.)
- Silicone sealable / ziplock bag
- Stainless steel / inox container

4. Do you recognise the following symbols found on certain products? If yes, do you know what it means? [Only answer for those you recognise]

	4A. Do you recognise it? 0 = No 1 = Yes	4B. What do you think the symbol means? 0 = I don't know / I'm not sure 1 = Product suitable for dishwasher 2 = Product suitable for freezing 3 = Product not suitable for microwave 4 = Safe use in oven 5 = Product suitable for contact with food 6 = Product suitable for microwave 7 = Product that can be eaten/drunk 8 = Recycled material 9 = Product not suitable for dishwasher
		
		
		
		

5. How often do you experience the following situations when buying or using food storage containers and kitchenware?

- 0 = I don't pay attention / check for it
- 1 = never
- 2 = sometimes
- 3 = frequently

- Information on specific chemicals (e.g. absence of BPA, plasticizers, etc.)
- Lack of information on materials
- Lack of safe use / safe handling instructions (e.g. cleaning, oven-safe, maximum heating temperature)
- Symbols that are not clear / not understandable
- Symbols that are not visible / poorly readable
- Symbols that are only present on a sticker / on product packaging and disappear when the product is in use

6. How do you usually proceed when noticing the following situations in your household?

- 1 = I stop using it right away
- 2 = I keep using it for less than a month
- 3 = I keep using it (for more than a month)

- Few scratches in a pan without non-stick coating (e.g. stainless steel)
- Quite some scratches in a pan without non-stick coating (e.g. stainless steel)
- Few scratches in the non-stick coating of a frying pan
- Quite some scratches in the non-stick coating of a frying pan
- Crack(s) in a glass container
- Crack(s) in a plastic container
- Crack(s) in kitchen utensils or tableware made of plant-based materials (e.g. bamboo, wood)
- Crack(s) in silicone bakeware
- Crack(s) in the glazing of ceramic container
- Aspect / colour change in a food container or kitchen utensil (e.g. part/area which turned pale...)
- Shape change in a food container or kitchen utensil (e.g. deformed part/area, not fitting well...)

7. Which are the main reasons for you to stop using these containers / utensils? [Tick all that apply]

- Cosmetic aspect (appearance, colour)
- Fear of food contamination
- Fear of not preserving the food correctly
- I consider it not useful to me anymore
- Other [specify:]

8. How often do you reuse the following packaging items / containers for food-related purposes?

- 1 = never
2 = rarely
3 = sometimes
4 = frequently

- Glass jar with lid (e.g. from jam, spread, vegetables, sauce)
- Hard plastic container with lid (e.g. from salad box, ice cream box, margarine box, yoghurt pot)
- Metal / aluminium container with lid (e.g. from ready-to-use meal, coffee box)
- Paper / cardboard (e.g. pizza box, baking paper, cardboard punnet, coffee-to-go cup)
- Plastic container from take-away food
- Polystyrene tray (e.g. from fruit packaging)
- Single-use plastic bag
- Single-use plastic bottle

9. For which food-related purpose do you reuse these packaging items / containers? [Tick all that apply]

- Glass jar with lid (e.g. from jam, spread, vegetables, sauce)
Hard plastic container with lid (e.g. from salad box, ice cream box, margarine box, yoghurt pot)
Metal / aluminium container with lid (e.g. from ready-to-use meal, coffee box)
Paper / cardboard (e.g. pizza box, baking paper, cardboard punnet, coffee-to-go cup)
Plastic container from take-away food
Polystyrene tray (e.g. from fruit packaging)
Single-use plastic bag
Single-use plastic bottle

- Storing dry food items (e.g. pasta, rice)
- Storing cold drinks (e.g. milk, juice)
- Storing cold food (e.g. leftovers which have been previously cooled down)
- Storing hot food or drink (e.g. soup, pasta sauce)
- Freezing food
- Filling with hot food-to-go
- Heating / re-heating food
- Other

10. How much do you agree with the following statements?

- 1 = strongly disagree
2 = rather disagree
3 = rather agree
4 = strongly agree
5 = no opinion / I don't know

- In general, I find the information provided with food packaging/containers understandable.
- In general, I find the information provided with food packaging/containers sufficient.
- All food packaging / containers and kitchenware should have an easy-to-understand instruction for use.
- It is clear which food packaging / containers are safe to use.
- It is clear which food packaging / containers are environmentally-friendly.

- I am worried about the impact of chemicals present in food packaging/containers on my health.
- Producers should by law be required not to use chemicals in packaging and kitchenware that could leach into food, even if health risks are low.
- I trust public authorities to effectively check that food packaging / containers are safe before they are put on the market.
- I am worried about the impact of food packaging / containers on the environment.
- In order to reduce waste, producers and retailers should by law be required to use less materials to package food.
- Producers and retailers should by law be required to use only packaging materials that are re-usable and recyclable.
- Producers should by law only be allowed to label food packaging/containers as 'environmental-friendly' if they met strict criteria.

ENDS

