



Behavioural study on strategies to improve the effectiveness of product recalls

Final Report

EUROPEAN COMMISSION

Directorate-General for Justice and Consumers
Directorate E — Consumers
Unit E4 — Product safety and Rapid alert system

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Acknowledgements

The authors of this report acknowledge the useful guidance and input provided during this study by the European Commission – (Directorate-General for Justice and Consumers and Joint Research Centre (Competence Centre on Behavioural Insights) – as well as representatives of the following organisations: the Australian Competition and Consumer Commission; Australian National University; Electrical Safety First; European Consumer Association (BEUC); the Finnish Safety and Chemicals Agency; the French Directorate-General for Competition, Consumer Affairs and Fraud Control; the German Federal Motor Transport Authority; Kids in Danger; the Organisation for Economic Cooperation; and Development Secretariat and the US Consumer Product Safety Commission. We would also like to thank all the interviewed stakeholders for their insights.

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More information on the European Union is available on the Internet (<http://europa.eu>).

Luxembourg: Publications Office of the European Union, 2021

Project Number: 2021.3142				
Title: Behavioural Study on strategies to maximise the effectiveness of product recalls – Executive Summary				
Linguistic version	Media/Volume	Catalogue number	ISBN	DOI
EN PDF	PDF/Volume_01	DS-09-21-229-EN-N	978-92-76-38778-7	10.2838/172595

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1. Introduction

Economic operators have to make sure the products they place on the EU market are safe and take appropriate measures when it is not the case. If a dangerous product has already been supplied to consumers, it may be necessary to recall it, i.e. recover it from end users. Product recalls are one of the most common measures to minimise risks posed by dangerous products. Recalls, however, only prevent harm if consumers respond to them, either by returning products or – at least – by stopping to use them.

Evidence suggest that many recalled products remain in consumers' hands, either because consumers are unaware that products are being recalled or because they fail to act on recalls. Survey evidence from the European Commission¹ indicates that a third of consumers keep using dangerous products despite seeing a recall notice. This suggests that there is room for improvement in the effectiveness of recalls, both in terms of reaching affected consumers and getting them to act. In order to improve recall effectiveness, it is, therefore, crucial to understand what drives consumers' behaviour in the recall process.

Most consumers do not seem to make the link between product registration and product recalls. Six in ten European consumers are not aware that they can be more easily informed about problems with a product if they register it.² Therefore, the effectiveness of recalls may also be improved through improved product registration, making it crucial to understand what drives registration.

1.1. Objectives of the study

The overarching objective of this study is to identify and test the most promising solutions to improve the effectiveness of product recall campaigns and to formulate policy recommendations (both short and medium term) to support the European Commission in developing initiatives to increase recall effectiveness. These recommendations may feed into revisions of existing legislation, in particular the General Product Safety Directive (GPSD).

This report also provides estimates of the economic burden of recalled products remaining in consumers' hands and of the impact of remedies that improve the effectiveness of product recalls.

The report is built around two central research questions:

- **Product recall:** How can the response rates to product recalls be increased through improvements to recall communication and procedure?
- **Direct consumer contact:** How can product registration rates be increased to facilitate direct consumer contact in case of safety issues?

These questions are researched across different consumer product categories (other than food, pharmaceuticals and medical devices, which are not covered by the GPSD). Furthermore, the geographical scope of the study covers all EU Member States, Norway and Iceland.

1.2. Structure of this report

The remainder of this report is structured as follows:

- Section 2 provides an overview of the study's methodology;

¹ European Commission. (2019). Survey on consumer behaviour and product recalls effectiveness. Retrieved from: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

² European Commission (2019)

- Sections 3 to 6 provide an overview of drivers and barriers for consumers, market practices, and policy initiatives regarding various aspects of product recalls;
- Sections 7 to 10 provide an overview of drivers and barriers for consumers, market practices and policy initiatives regarding various aspects of product registration;
- Section 11 looks into effective monitoring of recall campaigns;
- Section 12 analyses the economic impact of recalls; and
- Section 13 provides conclusions and policy recommendations.

METHODOLOGY

2. Summary of methodology

The study used a range of different research methods, which can be divided into three phases:

- preparatory research;
- consumer survey and behavioural experiments; and,
- economic assessment of the impact of product recalls.

Data collection included both qualitative methods (such as literature reviews, desk research and consumer focus groups) and quantitative methods (such as surveys). Different methods were used to verify and triangulate the results, thus providing more robust conclusions.

The primary data collection for this study was conducted in a representative sample of EU Member States and for a representative sample of product categories. This ensured that the research tasks remained tractable while producing generalisable results.

The sample of EU Member States was as follows:

- Belgium;
- Bulgaria;
- Croatia;
- Czech Republic;
- Denmark;
- Germany;
- Ireland;
- Latvia;
- Portugal; and,
- Spain.

These countries were chosen to reflect different profiles in relation to:

- **safety culture**, such as consumer trust in product safety, awareness of the legal requirement to recall dangerous products and level of product registration;
- **exposure** to product recalls;
- **economic diversity**, proxied by GDP per capita and income inequality;
- **social diversity**, including linguistic variation and attitudes towards personal data sharing; and,
- **geographic location and size.**

The sample of product categories used in the study was as follows:

- toys and games for children;
- cars and motorcycles;
- clothing and footwear;
- domestic electrical appliances;
- communication devices;
- childcare and children's equipment; and
- furniture.

These product categories were selected to represent a balance over a number of criteria, namely:

- recall frequency;
- main related risks;
- price;
- size and weight;
- expected lifespan; and,

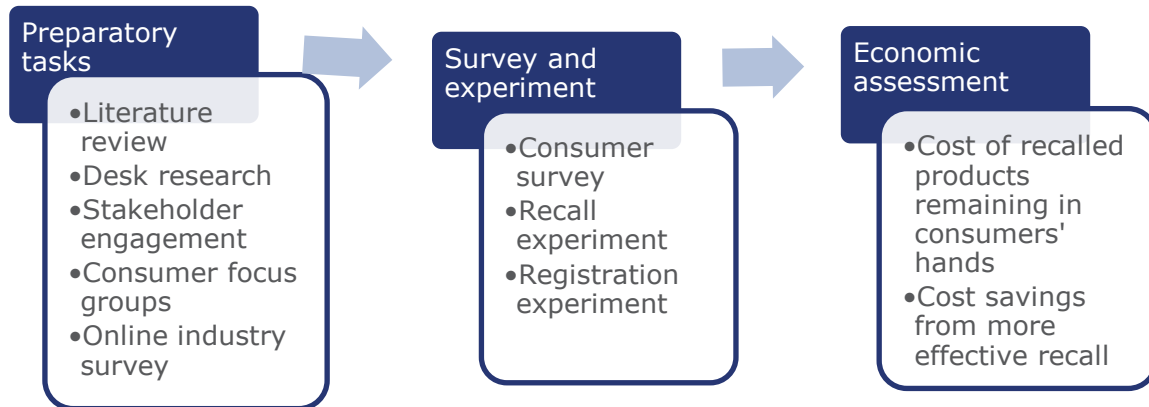
- availability and nature³ of registration schemes.

The remainder of this section will briefly touch upon the three phases of research of this study. An extended summary of the methodology is available in the Technical Annex.

2.1. Overview of the methodology

The figure below provides an overview of tasks carried out in the support of this report.

Figure 1: Overview of the methodology



2.2. Preparatory research

Literature review

A literature review was conducted to get an understanding of existing information on product recalls and product registration to be accounted for and incorporated into the remainder of the tasks.

We analysed sources from all EU Member States, Iceland, Norway as well as selected third countries⁴. These sources were complemented with literature from international organisations, such as the EU and the OECD. Wherever possible, literature was reviewed in the national language of the country concerned. The literature review approach followed was in line with Rapid Evidence Assessment methodologies.

Desk research

The literature review was complemented by desk research on product recall campaigns and product registration schemes. The aim of the desk research was to map current market practices on recalls and registration and to identify any best practices.

Desk research was undertaken by investigating online sources, such as the EC Safety Gate, manufacturers' websites and online news articles. In total, we analysed 55 recall campaigns and 40 product registration schemes across 11 countries⁵.

Stakeholder engagement

Stakeholder interviews were conducted to gain first-hand insights from experts in the field of product recalls and registration. These experts represented:

³ The nature of registration schemes refers to whether registration is mandatory (e.g. for cars) or voluntary.

⁴ Australia, Canada, New Zealand, the United States, the United Kingdom.

⁵ This list includes the following 10 EU Member States: Belgium, Bulgaria, Croatia, Czechia, Denmark, Germany, Ireland, Latvia Portugal and Spain. Recall campaigns were further identified in the United States.

- market surveillance authorities;
- industry associations;
- consumer organisations;
- companies; and,
- academics.

Interviews lasted around one hour and were semi-structured (i.e. they followed the outline of an interview guide, but were allowed to flow naturally depending on the expertise of the interviewee). Topics discussed in the interviews included product recall procedure and communication, product registration processes and the economic impact of recall campaigns.

Industry survey

Stakeholder interviews were complemented with an online survey targeting manufacturers, wholesalers and retailers in various sectors. This industry survey sought to increase the reach of stakeholder engagement. The survey questions focused on practices on product recalls, as well as product registration and other methods of identifying customers in case of a product recall.

The survey could be completed in English, French, German, Spanish or Bulgarian and took around 20 minutes to complete. Fieldwork was conducted between 26 May and 31 August 2020. 150 responses were collected during the fieldwork.

Consumer focus groups

Consumer focus groups were conducted to obtain qualitative insights from consumers regarding product recalls and registration. Topics discussed in the focus groups included:

- consumers' perceptions and attitudes towards recall campaigns, and their response to different types of recall messaging;
- consumers' perceptions and attitudes towards product registration schemes and their response to different types of invitations to register; and,
- consumers' attitudes towards product safety.

Focus groups were conducted in four countries⁶ and – due to the COVID-19 pandemic – took place online, using conferencing software and webcams. Each focus group lasted around 90 minutes and was moderated by a highly experienced moderator. Focus groups were structured around a discussion guide, to ensure that similar topics were discussed in each group.

The results of the preparatory research fed into the design of the consumer survey and two behavioural experiments. These are discussed in the next section.

2.3. Consumer survey and behavioural experiments⁷

Consumer survey

The aim of the consumer survey was to investigate consumers' attitudes towards and awareness of product recall campaigns, and its relation to product safety. Furthermore, the survey also looked into consumers' experience with product registration as well as their product safety perceptions. The survey also collected information to enhance the analysis of the survey and the experiments, such as behavioural drivers (e.g. trust and present bias) and socio-demographics factors (e.g. age, education and financial status).

⁶ Bulgaria, Germany, Ireland and Portugal. All focus groups were conducted in the national language of the respective country.

⁷ Note that throughout the report, only statistically significant results from the consumer survey and experiments are discussed.

Recall experiment

The purpose of the experiments was to obtain information on observed consumer behaviour in settings mimicking real-life product recall or registration procedures. The recall experiment, in particular, looked at the way consumers behave when faced with a product recall, and how this behaviour changes when the recall process is changed.

In the experiment, respondents received a recall notification. They had to decide whether to engage with the notification, or to put it aside. If respondents did engage with the notification, they then had to decide what to do with the recalled product, i.e. return it, dispose of it, or keep it after all. The experiment thus followed the following three stages:

- In **stage 1**, respondents were asked to answer questions about the products they 'owned', mimicking the everyday use of products. In this stage, respondents received a small amount of initial information regarding a recall campaign, either via a website banner advertisement or via an e-mail notification. If the respondent clicked on either, they moved to stage 2.
- In **stage 2**, respondents were shown the full recall notification, and had the option to confirm that they wanted to learn more about the recall. If they did so, they moved to stage 3.
- In **stage 3**, respondents needed to decide whether to return, dispose of, or keep the product being recalled. Furthermore, if the respondent chose to return or dispose of the product, they also needed to complete the procedure.

The outcomes of interest in the recall experiment were whether the respondent: 1) responded to the recall notification (either in stage 1 or 2), and 2) returned the product. The analysis of the results investigated whether these outcomes were impacted by changes to:

- the channel of the recall notification⁸;
- the content and layout of the recall notification; or,
- the effort required to complete the return task in stage 3.

Registration experiment

The registration experiment looked at consumer behaviour in the face of prompts to register products they bought. In the experiment, respondents could receive prompts to register their product at various points in the customer journey. If respondents started the registration process, they were subsequently asked to finish it. The experiment thus followed three stages:

- In the **point-of-sale** stage, respondents were asked to 'purchase' a product in an e-commerce environment.
- Following the point-of-sale stage, respondents entered into the **post-purchase stage**. In this stage, respondents were asked to answer questions about the product they just 'purchased', mimicking everyday use of the product.
- Depending on the version of the experiment, respondents were prompted to register their product either in the point-of-sale stage or in the post-purchase stage.⁹ If respondents engaged with this prompt, they moved to the **registration stage**. In this stage, respondent needed complete the registration process.

The outcomes of interest in this experiment were whether the respondent: 1) started the registration procedure, and 2) whether they also completed it. The analysis focused on whether these outcomes were impacted by changes to:

⁸ I.e. whether consumers were directly approached by a manufacturer with a recall notification or whether this information was only provided through a generic online advertisement campaign.

⁹ Respondents received this prompt only once, so they never received the prompt in both stages.

- the timing of the prompt to register in the point-of-sale or post-purchase stage¹⁰;
- the content of the prompt to register; or,
- the effort required to complete the registration procedure.

Implementation of the survey and experiments

The survey and experiments were implemented online and were run in 10 countries¹¹ in the local language. In total, 10,013 respondents completed the survey and experiments between 24 September and 7 October 2020. All respondents first completed both experiments and then the survey questions. The order of the two experiments was randomised between respondents.

To ensure representativeness, sampling of respondents used pre-defined but flexible sub-sample sizes (i.e. quota) based on official population statistics published by Eurostat. Any imbalances in the representativeness of the sample were managed by weighting the data.

Lab experiments

In addition to the online survey and experiments, lab experiments were carried out face-to-face in Germany and Bulgaria with 120 respondents in each country¹². The lab experiments consisted of reduced versions of the online experiments followed by a 30-minute focus group. These groups were designed to obtain qualitative information from more vulnerable consumers in relation to product recalls.

2.4. Economic assessment

One of the objectives of the study was to estimate, in monetary terms, the cost to society and potential EU-wide cost savings due to increased effectiveness of recall campaigns. The results of the preparatory tasks and the experiments were used to make an economic assessment of recalled product remaining in consumers' hands. This assessment estimated the economic cost to society of consumers not responding to product recalls, and thereby continuing to use dangerous products. The economic assessment further provided an estimate of cost savings generated for society by making recalls more effective.

The first step to achieve this objective was to calculate the societal (monetary) cost due to injury caused by products subject to a recall but which were not returned or disposed of by the owner. **The EU-wide cost of recalled products remaining in consumers' hands is, therefore, understood as the total societal cost due to the ineffectiveness of recall campaigns.**

Considering the available data, the **EU-wide cost of recalled products remaining in consumers' hands** was calculated as the sum of the cost of injuries over all product categories in the EU Rapid Alert System (RAPEX/Safety Gate)¹³. Mathematically, the calculation can be expressed as follows:

$$\sum_{p=1}^n (\text{average units sold}_p * \text{notifications}_p) * \left(1 - \frac{\text{units returned}_p}{\text{units sold}_p}\right) * k * \text{average cost of accident}_p$$

The variables included in the cost model are:

¹⁰ The post-purchase stage included two different variants of the prompt: a prompt included with the packaging of the product or a general prompt to register in the form of a banner ad.

¹¹ Belgium, Bulgaria, Croatia, Czechia, Denmark, Ireland, Denmark, Latvia, Portugal and Spain.

¹² The lab experiments were conducted between 1 and 6 October in Germany, and between 24 September and 8 October in Bulgaria. Due to the COVID-19 pandemic, groups were organised under special hygiene regulations and with reduced group sizes.

¹³ <https://ec.europa.eu/safety-gate>

- *average units sold_p*: for each product category (p) on Safety Gate, the average number of units available in the EU market was estimated for the year of analysis. To estimate the overall number of units available in the market, the average units sold (per recall notification) was multiplied by the number of notifications (*notifications_p*) in a specific year for each product category.
- $\left(1 - \frac{\text{units returned}_p}{\text{units sold}_p}\right)$: this is the correction rate, a multiplication factor ranging between 0 and 1 which indicates the share of products subject to a recall that consumers return.¹⁴
- *k*: a probability factor, ranging from 0 to 1, representing the probability that an injury materialises over the lifetime of the product remaining in consumers' hands. This probability is not known at individual product level, but – for the purposes of this study – estimates are in a range between 0.01% and 1%. This is in line with the framework of risk assessment provided in the Guidelines for the management of the European Union Rapid Information System "Safety Gate/RAPEX"¹⁵.
- *cost of accident_p*: the average monetary value attached to the injuries caused by the products in that specific product category. In this study, the monetary estimates of the injuries include the cost of healthcare treatments, productivity losses and losses of quality of life. The cost-model partially builds on the analysis conducted for the "Study to support the preparation of an evaluation of the GPSD as well as of an impact assessment on its potential revision"¹⁶, which ran in parallel with this study.

The estimates of the EU-wide cost of recalled products remaining in consumers' hands are available in section 12.1. These estimates provided a baseline for the economic impact of increased recall effectiveness.

The behavioural recall experiment demonstrated significant impact of one potential remedy: the use of a direct channel of communication to notify consumers that a product they own is under recall. Analytically, the improvements in recall effectiveness impact the correction rate $\left(1 - \frac{\text{units returned or dispose}_p}{\text{units sold}_p}\right)$. By varying this rate under the selected remedy, we calculated the cost savings associated with more effective recalls.

The estimates of the economic impact of increased recall effectiveness are available in section 12.2. The detailed methodology and results of the economic assessment are reported in Annex 3 of the Technical Annex.

¹⁴ It does *not* include those that are just disposed of.

¹⁵ ANNEX Guidelines for the management of the European Union Rapid Information System 'RAPEX' established under Article 12 of Directive 2001/95/EC (the General Product Safety Directive) and its notification system (Page 85 Table 3).

¹⁶ European Commission, Study to support the preparation of an evaluation of the GPSD as well as of an impact assessment on its potential revision, written by Civic Consulting, 2020 (ongoing at time of writing).

STUDY FINDINGS

3. An introduction to the drivers of recall effectiveness

Product recalls are an important corrective action for keeping unsafe products away from consumers. However, at present the rate of products successfully recovered from consumers remains low¹⁷.

Indeed, the consumer survey conducted by this study showed that, on average, 42% of respondents saw or received recall information during the past 2 years and 14% of respondents indicated that this information concerned a product they owned themselves¹⁸.

Table 1: Share of consumers having seen or received recall information

	Yes, and it affected one of the products I own	Yes, and it affected a product I do not own	Yes [Total]
Percentage	14	29	42

Source: Consumer survey

Almost 4 out of 10 respondents who had experienced a product recall in the past reported either taking no action (13%) or continuing to use the recalled product with caution (24%), as opposed to 50% who contacted the recalling company to have the product repaired, replaced or refunded and 13% who disposed of the product.¹⁹

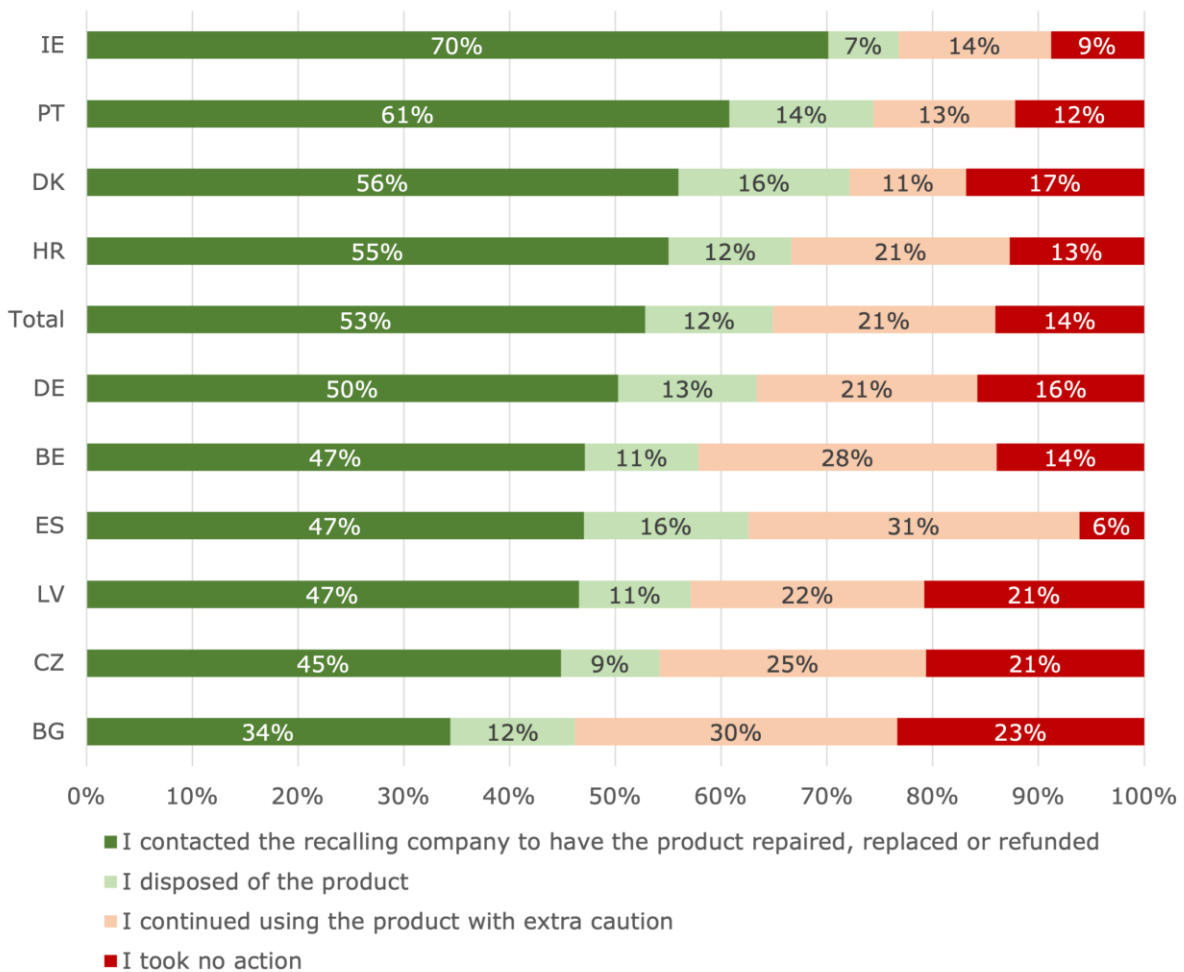
There is noticeable variation in recall response by country, as shown below²⁰. Irish consumers were the most likely to contact the recalling company (70%), followed by Portuguese consumers (61%). The lowest fraction was observed for Bulgaria with 34%. Conversely, continuing to use the product with extra caution or taking no action was most often reported by Bulgarian (53%), Czech (46%) and Latvian (43%) consumers (30%).

¹⁷ OECD Report "Enhancing product recall effectiveness globally", December 2018, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2018\)1/FINAL&docLanguage=E](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2018)1/FINAL&docLanguage=E)

¹⁸ The question was Q2.5 "In the past 2 years, do you recall having seen or received any information notices or announcements concerning the recall of a specific product? If you saw both a recall notice on a product you own and on a product you do not own, please select both answer-items". Given the question format the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=10,013.

²⁰ The question was Q2.7_real "Thinking about the recall of [insert product], what did you do in response to the recall?". Number of observations N=1,147. Country Codes: Belgium (BE), Bulgaria (BE), Czech Republic (CZ), Germany (DE), Denmark (DK), Spain (ES), Croatia (HR), Ireland (IE), Latvia (LV), Portugal (PT).

Figure 2: Response to recall by country (self-reported past behaviour)



Source: Consumer survey

Recall effectiveness crucially depends on consumers' participation, which can vary depending on a number of factors. Therefore, in order to increase the effectiveness of product recalls, we need to take into account a number of consumers' drivers, barriers and trade-offs. Existing research (described in more detail below) has found that recall effectiveness depends on external features such as product characteristics (e.g. price, type of risk, frequency of use, etc.) as well as consumers' characteristics (e.g. demographic factors, attitudes towards product safety). Additionally, recall effectiveness depends on the sales channel (products bought online have higher success rates because of greater traceability of affected consumers).

However, recall campaigns' characteristics (e.g. communication channels, content of recall announcements, use of remedies, etc.) also play an important role. Moreover, as demonstrated in several studies, the behaviour of consumers in recalls is affected by several behavioural biases that need to be taken into account when designing effective recall campaigns. Below, we summarise the impact of consumer, product and recall campaign characteristics on recall effectiveness.

3.1. The impact of consumers' characteristics on recall participation and awareness

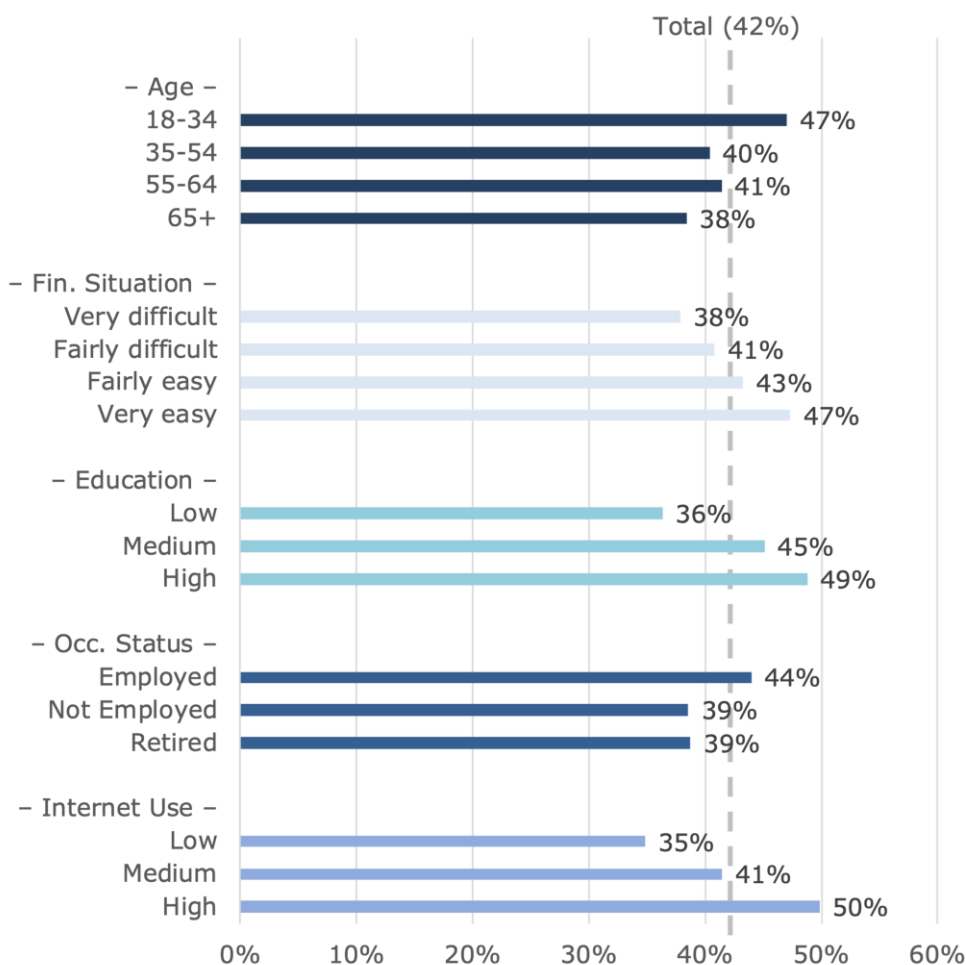
3.1.1. The impact of consumers' socio-demographic characteristics

Consumers' exposure to recall notices

The research finds that **consumers' characteristics can influence their awareness of and therefore their participation in recall campaigns**. For example, according to a European Commission's 2019 survey²¹, consumers with a low level of education, those in a less stable occupation (e.g. unemployed, job-seekers) and those who do not purchase products online are the least aware that dangerous products should be recalled. Consumers who are less aware that dangerous products should be recalled are also less likely to be exposed to recall information.

Indeed, consistent with the literature, in the consumer survey²² conducted for this study, older respondents, those in a more difficult financial situation, less-educated ones, unemployed and retired respondents were and those with lower internet use less likely to report having seen or received recall information (Figure 3)²³.

Figure 3: Share of consumers having seen or received recall information by socio-demographic characteristics



Consumers' participation in a recall

²¹ European Commission. (2019). Survey on consumer behaviour and product recalls effectiveness. Retrieved from: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

²² All reported differences in the survey and experiment are statistically significant at at least 95%.

²³ The question was Q2.5 "In the past 2 years, do you recall having seen or received any information notices or announcements concerning the recall of a specific product? If you saw both a recall notice on a product you own and on a product you do not own, please select both answer-items". Given the question format the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=10,013.

Consumers' age and employment status may also impact their participation in a recall as indicated in the research conducted by the Australian National University on the Takata airbag recall. Through extensive analysis on a large sample of individuals subject to the airbag recall, the research shows that socioeconomically disadvantaged and relatively young customers have lower compliance rates in recall campaigns. According to the research, both groups may be under scarcity of time and/or finance to comply with the recall²⁴.

These findings were borne out by the stakeholder interviews. For example, an interviewed car manufacturer noted that adults who are of working age (as opposed to retirees) may be less inclined to participate in recalls, as time is more of a pressing issue. Having to take time off work to return a vehicle or not having the convenience of a car to get to work while waiting for a replacement may dissuade some consumers from participating in a recall. Therefore, remedies should try to take into account minimising the inconvenience arising from recall participation. This is discussed in more detail in Section 6.2.1.

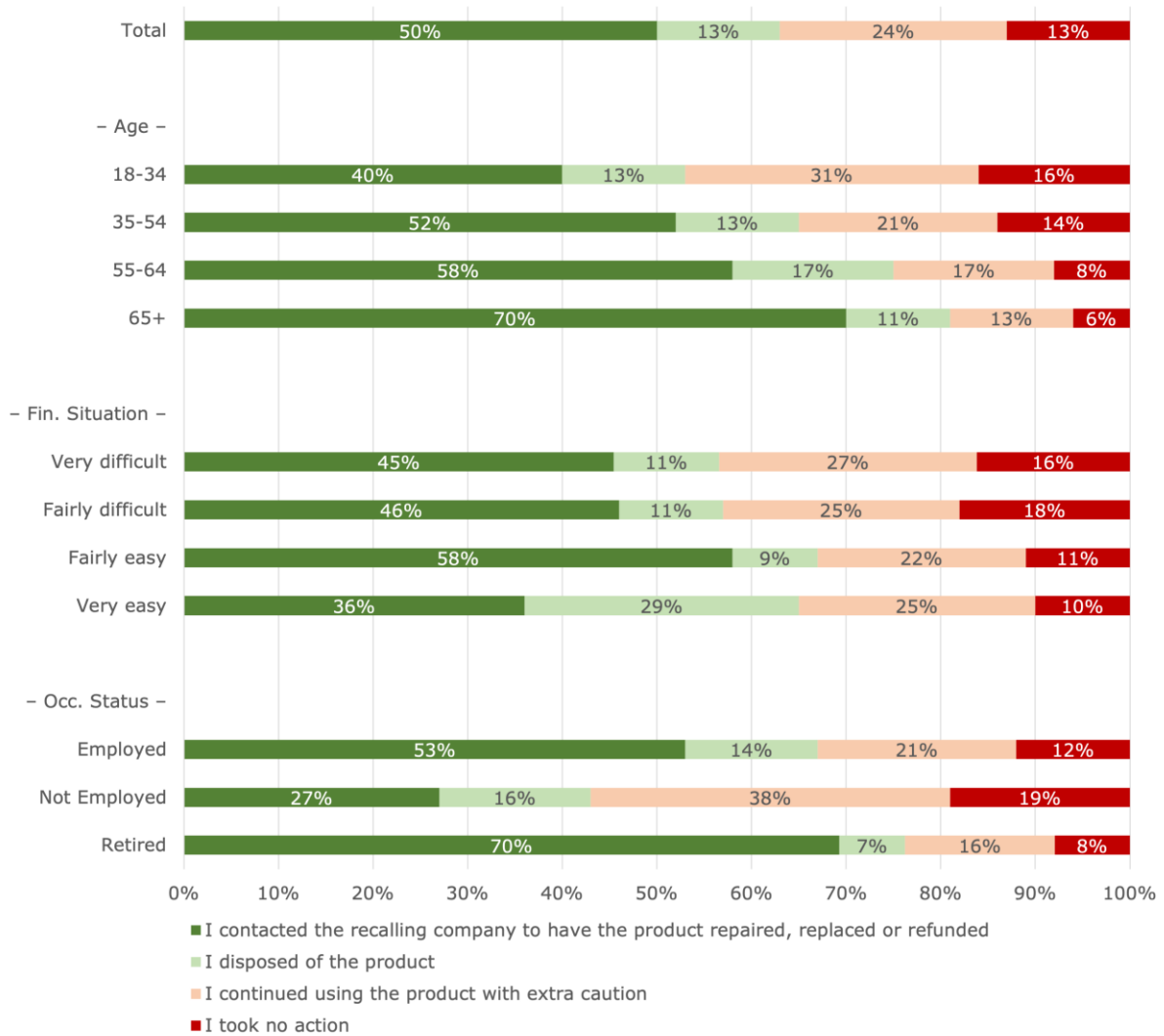
The consumer survey also explored respondents' behaviour when they saw the recall notice²⁵, and found that in general less well-off and unemployed consumers are more likely to report taking no action when they see a recall notice and less likely to contact the recalling company. Moreover, the older consumers are, the more frequently they would contact the recalling company, while young consumers display a comparatively large fraction of continuing to use the product with extra caution.

²⁴ Biddle Zhang (2018), Application of Behavioural Insights to understand the Australian recall of Takata Airbags, Australian National University, presentation given at the '18th Meeting of the OECD Working Party on Consumer Product Safety' 16 April 2018

²⁵ The question was Q2.7_real "Thinking about the recall of [insert product], what did you do in response to the recall?". Number of observations N=1,147.

Country Codes: Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Germany (DE), Denmark (DK), Spain (ES), Croatia (HR), Ireland (IE), Latvia (LV), Portugal (PT).

Figure 4: Response to recall by socio-demographic characteristics (self-reported past behaviour)



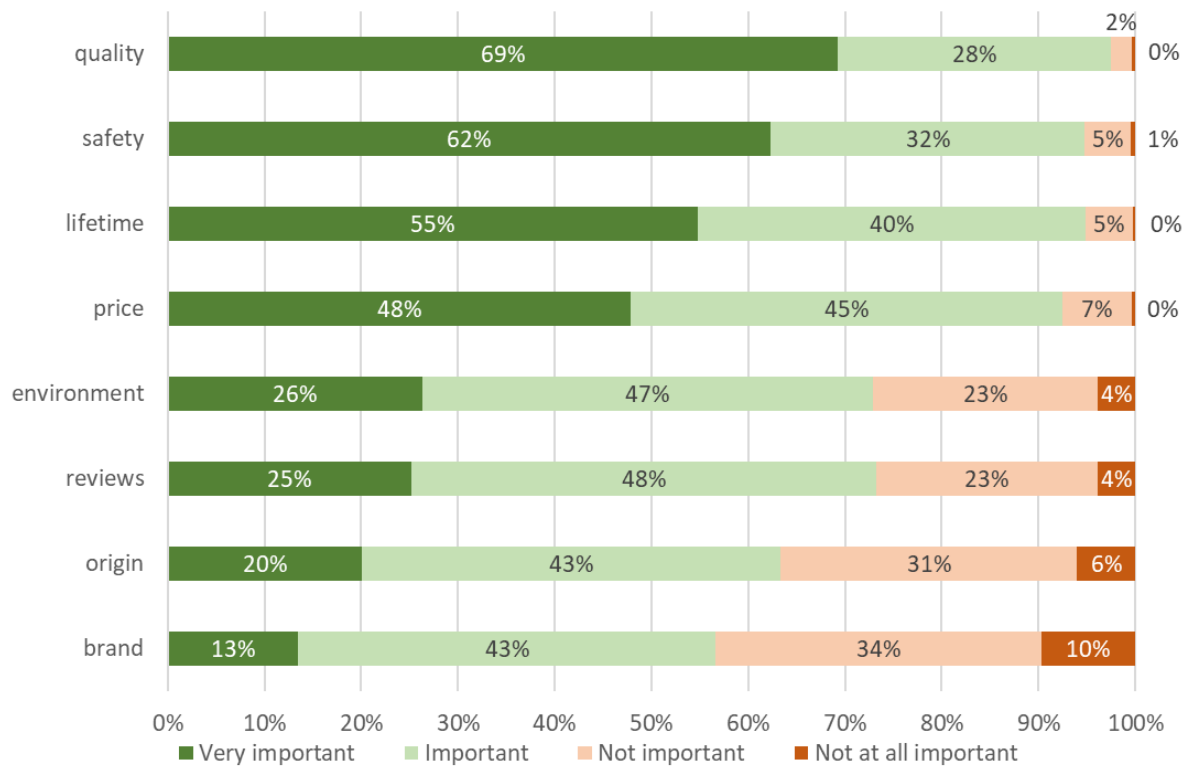
Note: The question was Q2.7_real "Thinking about the recall of [insert product], what did you do in response to the recall?". Percentages were rounded to whole numbers. Number of observations N=1,147.

Source: Consumer survey

3.1.2. The impact of the value assigned to product safety

The survey included a question on the relevance of different aspects for consumers' purchasing decisions. As displayed in Figure 5, **the most important aspect in purchasing decisions was quality, followed by product safety and the lifespan of products.**

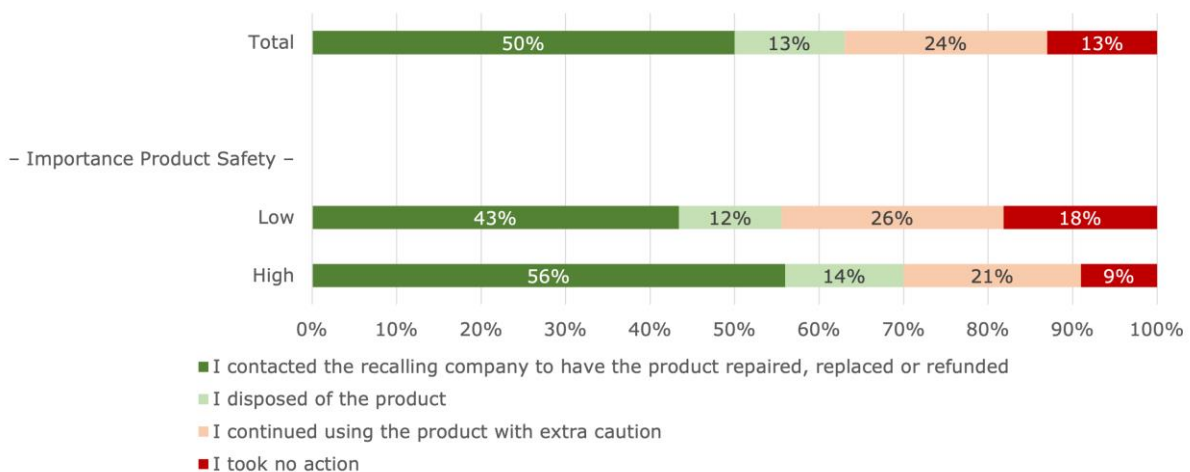
Figure 5: Relevance of different aspects for purchasing decisions



Note: The question was Q1.1 "When you buy a product, how important are the following aspects for your purchasing decision?". Answer options were given on a four-point scale from "1 – not important at all" to "4 – very important". Number of observations N=10,013.
Source: Consumer survey

Interestingly, consumers who said they value product safety in the survey were also considerably more likely to report taking action upon seeing recall notices (in particular contacting the recalling company) and less likely to continue to use the product or take no action.

Figure 6: Response to recall by importance of product safety (self-reported past behaviour)



Note: The question was Q2.7_real "Thinking about the recall of [insert product], what did you do in response to the recall?". Percentages were rounded to whole numbers. Number of observations N=1,147.

Source: Consumer survey

3.2. The impact of product characteristics on recall effectiveness

Product characteristics, specifically **product lifespan, value and age as well as the perceived risk of the product** also have an impact on consumer's propensity to participate in a product recall.

3.2.1. The impact of product price and longevity on recall participation

Generally speaking, for products with a short lifespan consumers may be less motivated to respond to a recall if they expect that the product will, in any case, only last for a short period of time.

Findings from the literature review were consistent in pointing out that the correction (or participation) rates among consumers increase relative to the price of the product, i.e. the higher the price of the product, the more likely consumers are to participate in a recall. For example, the hard return statistics collected by the U.S. Consumer Product Safety Commission (CPSC) show return rates rate of around 5% for products under USD 20 and over 30% return rates for products more expensive than USD 5,000²⁶. In Australia, the average return rate of recalled products between 1987 and 2010 ranged from 80% for motor vehicles to 18% for clothing²⁷. In a consumer survey conducted by the Australian Competition and Consumer Commission, 70% of respondents declared that they would be motivated to return a product that cost AU\$ 25 or more²⁸.

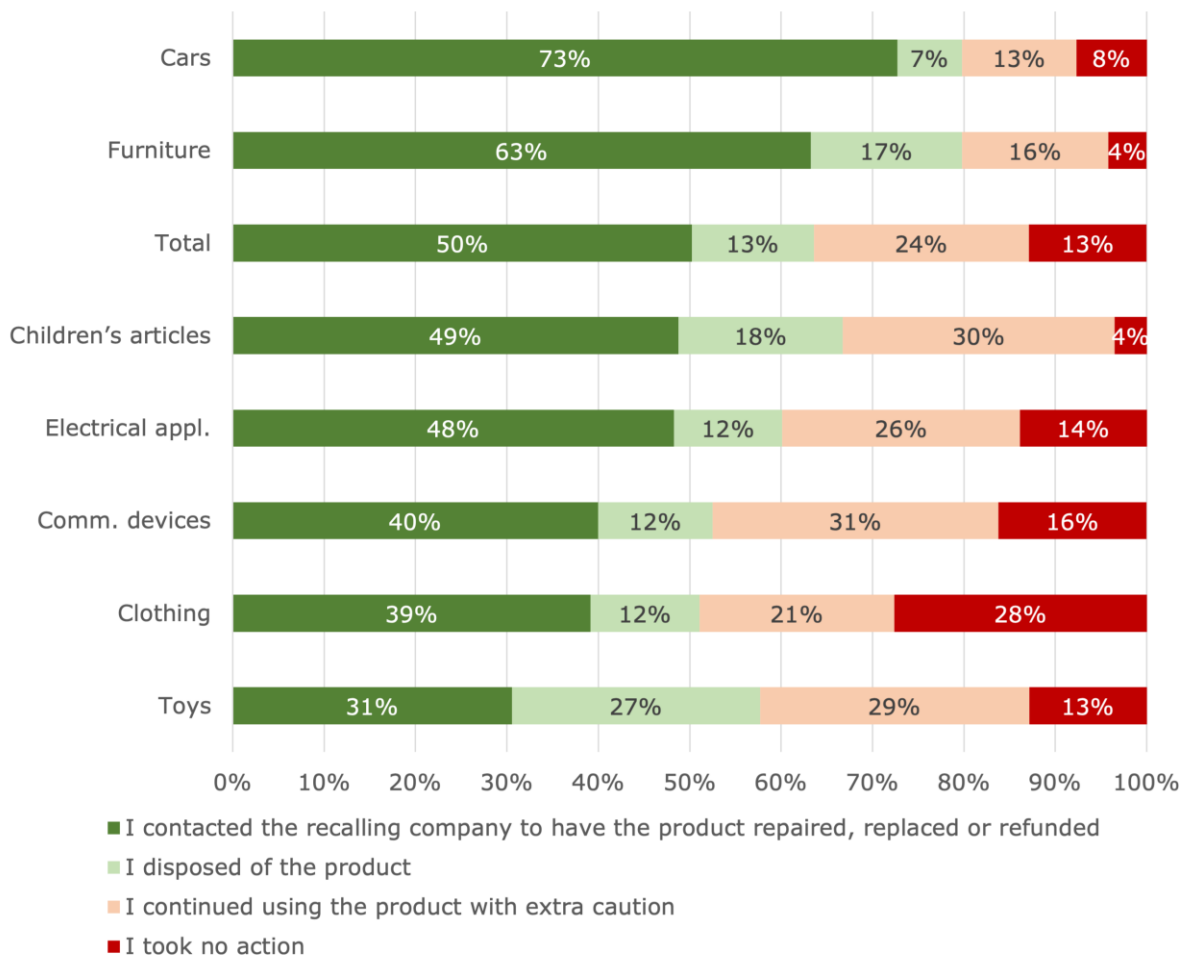
These results were consistent with the findings of the consumer survey, which found that **the shares of consumers contacting the recalling company are especially high for high-priced products such as personal cars and motorcycles (73%)**. Continuing to use the product with extra caution is, on the other hand, very low for personal cars (13%). The same pattern can be observed for furniture where the share of consumers contacting the recalling company is comparatively large (63%) and continuing to use the product with extra caution is rather low (16%). **The share of consumers who disposed of the product was comparatively large for children's toys and games (27%)**.

²⁶ CPSC (2017), CPSC Defect Recall Data Carol Cave Deputy Director, Office of Compliance and Field Operations July 25, 2017, available at: <https://www.slideshare.net/USCPSC/cpsc-recall-effectiveness-workshop-recall-data>

²⁷ ACCC "Review of the Australian product safety recalls system" (2010) 1, p. 18, available at: <https://www.accc.gov.au/system/files/Review%20of%20the%20Australian%20product%20safety%20recalls%20system.pdf>

²⁸ ACCC "Check your home for recalled products", 2 August 2016, available at: <https://www.accc.gov.au/media-release/check-your-home-for-recalled-products>

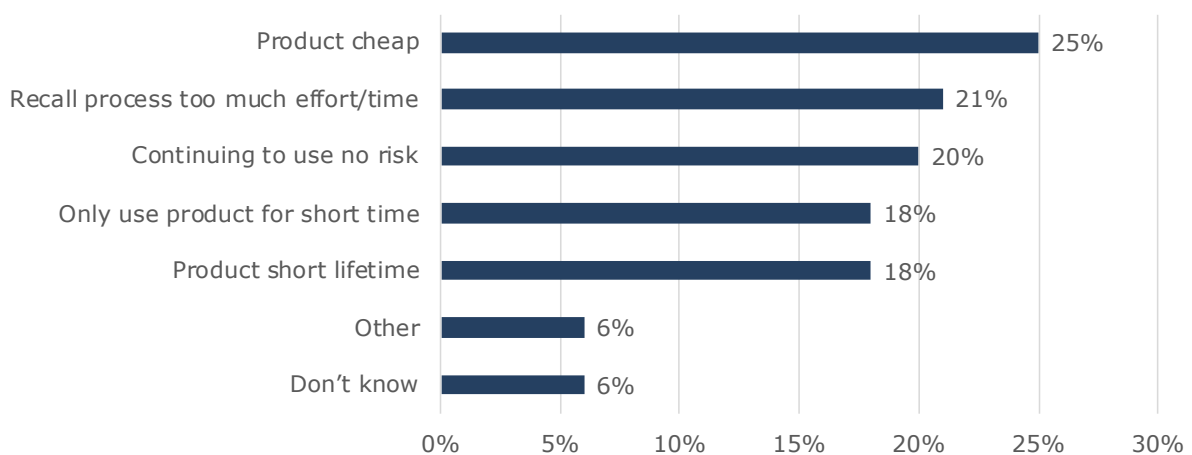
Figure 7: Response to recall (self-reported past behaviour)



Note: The question was Q2.7_real "Thinking about the recall of [insert product], what did you do in response to the recall?". Number of observations N=1,147.
 Source: Consumer survey

Indeed, the product being cheap was the top most-frequently-reported reason for respondents to take no action (25%), while 18% of respondents each said they did not respond to a recall because the product had a short lifetime or they were only using it for a short time.

Figure 8: Reasons for taking no action in response to the recall (self-reported past behaviour)

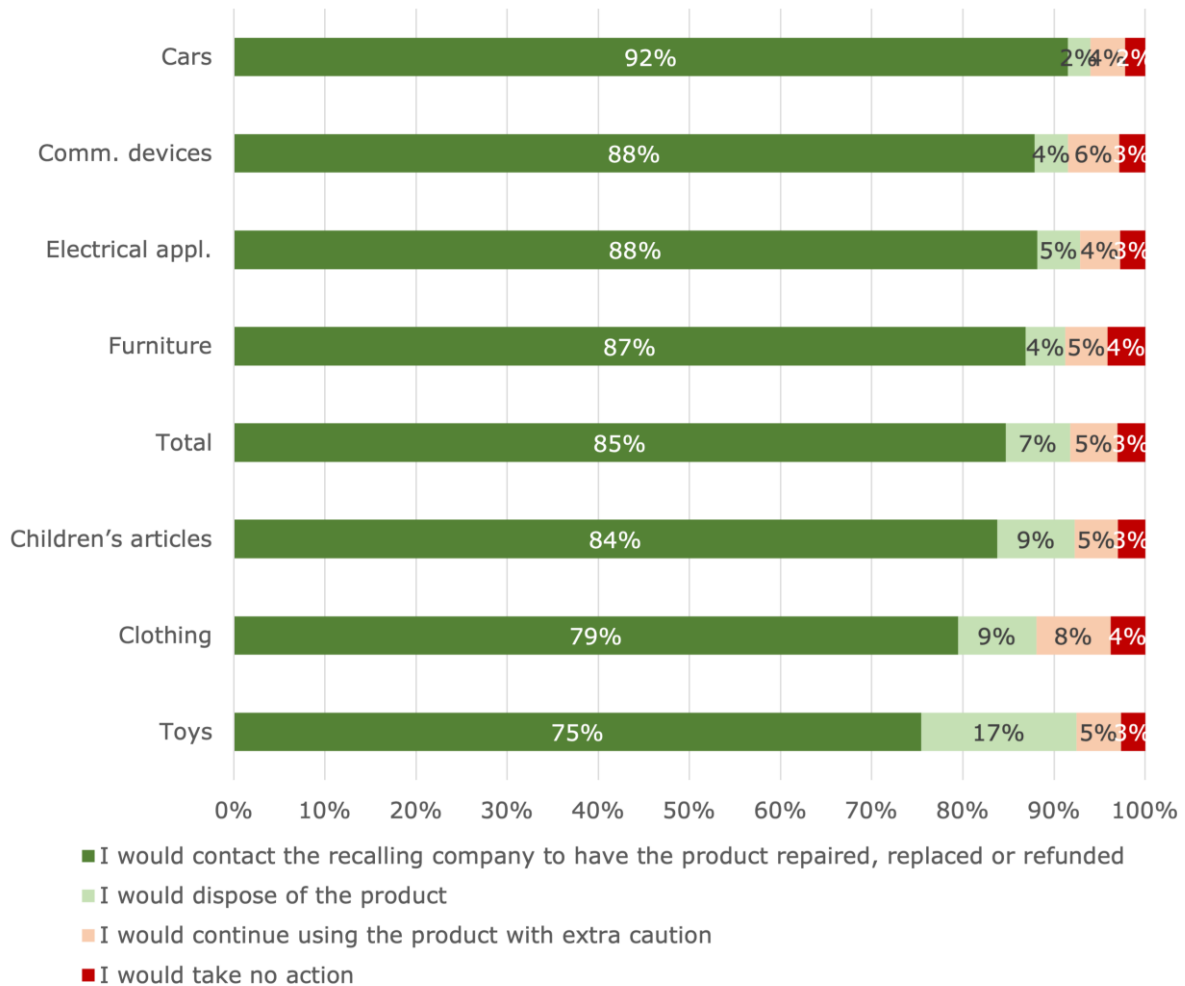


Note: The question was Q2.11_real "Why did you take no action?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=153.

Source: Consumer survey

Consumers were also asked about their reported intended behaviour in the event of a hypothetical recall, and once again, consumers were more likely to report they would contact the recalling company if the recalled product were a personal car or motorcycle, and the lowest shares were reported for clothing and toys²⁹.

Figure 9: Response to recall (hypothetical behaviour)



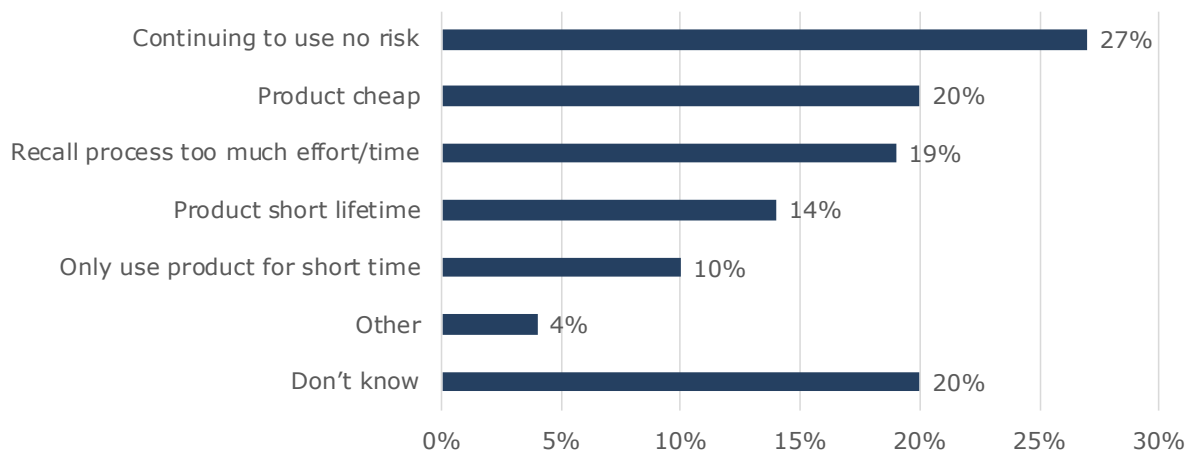
Note: The question was Q2.7_hypo "Imagine you own [insert product] and you receive a notice or announcement concerning the recall of this product. What would you do in response to this recall?". Number of observations N=8,866.

Source: Consumer survey

Once again, the second-most-frequently reported reason for respondents to intend taking no action was that the recalled product was cheap (20%), while 14% of respondents mentioned the product having a short lifetime.

²⁹ When comparing the results with the real scenario it can be found that the shares of contacting the recalling company are higher (i.e. 85% hypothetical versus 50% real scenario). Nevertheless, this is not surprising because consumers often overestimate the probability of taking certain actions, especially when it comes to "exemplary" behaviour.

Figure 10: Reasons for taking no action in response to a recall (hypothetical behaviour)



Note: The question was Q2.11_hypo "Why would you take no action?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=368.

Source: Consumer survey

One reason for greater recall participation for more expensive or durable products might be that consumers may feel that the effort of participation is only worth it for longer-lived or dearer products. This rationale was brought up by consumers in the focus groups conducted for this study.

"And then it depends on how much it's worth – a coffee maker is not worth the same as a computer mouse and in that case I might consider going to the store." [Portugal, low education group]

"If it's a car I'll return it, if it's sandals for example, I'll wear them until they tear, and I'll throw them away" (non-online group, Bulgaria)

"For it is more expensive product I will make an effort, but for something cheap I would not waste time, unless there is an easy way." (general public group, Bulgaria)

"Usually, the replacement takes a long time and for an ordinary and cheap product, it is not worth the effort" (lower educated group, Bulgaria)

Another factor that was mentioned in terms of product characteristics and their impact on consumers' participation in a recall was the purpose of the product. A global retailer noted that products which are frequently used in everyday life, and therefore seen as essential, are more likely to be returned following a recall announcement than those that are less frequently used.

3.2.2. The impact of product risk perception on recall participation

Beliefs about high overall levels of product safety may be a driver for low participation in product recalls. For example, a 2003 CSPC study finds that consumers' risk perception for different types of products (which is influenced by a number of factors, including price, brands, product type etc.) influences consumers' participation in recalls. For instance, higher product prices, national brands, sales through speciality stores (vs. mass discounters), promotion through speciality magazines and experts, and longer warranty periods are associated with a higher perceived level of safety. Furthermore, consumers tend to underestimate the risks associated with leisure products (e.g. for sports,

recreational vehicles) as they are often linked with positive emotions for consumers (as compared to more 'objective', functional products).³⁰

The same study further finds that increased hazard perception among consumers leads to increased recall compliance. The factors that influence consumers' perception of risk, which also influence participation in a recall, are: 1) hazard severity, 2) hazard probability, 3) availability, 4) controllability (degree to which a consumers believe that negative outcome can be reduced by personal skill, diligence, or use of a safeguard), 5) 'dreadness' (personal emotional 'gut' reaction of horror to a particular negative consequence), 6) irreversibility, 7) catastrophic potential (likelihood that negative outcome will affect others), and 8) immediacy of effect. Another important aspect that has been noticed is that adults tend to overestimate the responsibility of children when handling products, causing inadequate protection from possible injury. Thus, parents may also underestimate risks posed by products to children in general.³¹

The US CPSC's decision-making framework identifies that consumers' decision-making involves assessing risk and deciding the "acceptable" level of risk. Hence, the first explanation why consumers continue to use a faulty product is that the risk of continuing to use it may be underweighted.³² This phenomenon is called "probability neglect" in the behavioural economics literature i.e. people often underweight or even ignore small probabilities³³.

Hazard perception as key driver of participation in recall campaigns also emerged from stakeholders' interviews. The fact that a product poses a risk for the consumer's safety or that of their family strongly increases their likelihood to participate in a recall.

One complicating factor is that consumers may overstate the safety of products in the market. Focus group discussions suggest that consumers tend to take the safety of products from major manufacturers or retailers for granted, which might partly explain lower recall participation.

Likewise, according to consumer focus groups carried out by a national market surveillance authority to test consumers' understanding of product safety, found that it can be quite difficult to impart upon consumers what exactly constitutes a safe product and what the CE certification mark is. For instance, consumers thought that every single product in a shop had been assessed or examined before it was placed on the shelves, which in reality is not the case. This misunderstanding among consumers inhibits recall effectiveness, as it can prevent consumers from understanding the gravity of a recall situation.

3.3. The impact of recall campaign characteristics on recall effectiveness

Characteristics of the recall campaigns also play an important role in their effectiveness: timeliness, communication as well as costs and benefits of participation are amongst the factors that most influence the participation in recalls.

The literature review suggests that **timing plays an important role in recall participation**. According to the ACCC³⁴ the first eight weeks following a recall notification were the most significant because this is the timeframe during which 80% of all products are likely to be returned. In general, recall campaigns seem to be more effective when closer to the identification of the problem. A furniture manufacturer highlighted timeliness as a crucial factor in the effectiveness of recall campaigns and indicated that the first six weeks as being the most effective. Another stakeholder interviewed (economic operator in the field of homeware and electrical goods) expressed a similar view, arguing that the "window" in which a recall communication is particularly effective is the first 12 weeks.

³⁰ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates, 2003, available at: <https://www.cpsc.gov/s3fs-public/pdfs/recalleffectiveness.pdf>

³¹ Idem

³² Idem

³³ Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux

³⁴ Available at: <https://www.accc.gov.au/media-release/check-your-home-for-recalled-products>

Several stakeholders (from electronic sector) stressed the importance of the follow-up communication.

Campaign communication can also impact recall participation. For example, the channel of communication (discussed in more detail in section 4) can influence consumers' engagement with and response to recall communication; as can the content and layout of recall notices (see section 5). Finally, the effort required by consumers to participate in a recall, relative to the benefits of doing so, can impact consumers' decision to begin or complete recall participation (see section 6).

3.4. An overview of market practices relating to recall effectiveness

Since campaign characteristics can interact with consumers' characteristics to influence consumers' response to recall notifications and the effectiveness of recalls, it is important to examine existing market practices regarding recall campaigns. This section provides a broad overview of companies' recall practices, which are explored in more detail in the remainder of this report.

3.4.1. Experience with product recalls

The study team conducted an industry survey with 150 respondents, wherein two-fifths of respondents had conducted a recall campaign (see Annex A12.3 in the Technical Annex). The most frequently-impacted product categories were domestic electrical appliances, toys/games for children and personal cars and motorcycles³⁵.

3.4.2. Passive versus pro-active recall campaigns

Regarding companies' behaviours in the context of product recalls, the bulk of the literature focusses on companies' behaviour after a recall campaign, rather than their management of recall campaigns themselves. This might be because, as discussed in Chen et al. (2009)³⁶, **most companies engage in a passive recall strategy rather than a proactive one**. The paper explains that a passive recall is issued much later than proactive recalls and is usually initiated by complaints from consumers about injuries or death. In addition, the study finds that proactive recall strategies have a higher negative effect on the firm's financial value vis-à-vis passive strategies. This could be partially explained by the fact that investors tend to assume, in case of a proactive approach, that the product defect must be particularly serious.

Why might companies be cautious about active recall campaign strategies?

The literature suggests that companies may be disincentivised from being pro-active in recall campaigns, because of fears about the perception of their products or brand image. For example, S. Raithel and S. Hock (2020) test the impact of different product recall strategies on customers³⁷. They found empirical evidence to show that **post-recall reputation is higher for conforming strategies (where the company response meets customer expectations) than for under- and overconforming strategies (where it falls short or exceeds expectations, respectively)**. This latter point is particularly interesting and novel: that exceeding stakeholders' expectations during a product crisis can have unintended negative consequences on both customers and investors. As explained in the article, although exceeding stakeholders' expectations is essential for building a superior brand reputation, exceeding evaluators' (consumers' or

³⁵ In fact, the majority of respondents with experience of conducting recalls selected the catch-all category of 'Other', which included products such as: cosmetics, medical devices, IT products, sports/DIY products, grocery products and electrical equipment.

³⁶ Chen, Yubo & Ganesan, Shankar & Liu, Yong. (2009). Does a Firm's Product-Recall Strategy Affect Its Financial Value? An Examination of Strategic Alternatives During Product-Harm Crises. *Journal of Marketing American Marketing Association* ISSN. 73. 214-226. 10.1509/jmkg.73.6.214.

³⁷ Raithel, S, Hock, SJ. The crisis-response match: An empirical investigation. *Strat Mgmt J.* 2020; 1– 15. <https://doi.org/10.1002/smj.3213>

investors') expectations during a crisis can have unintended negative consequences: according to the paper, external stakeholders might become suspicious and wonder why a firm is accepting more crisis responsibility than it needs to³⁸.

Being the first to announce a product recall can even translate to reductions in stock value. A recent study in the US automotive sector found that automakers can time product recalls (either deliberately or unconsciously) so as to minimise impacts on stock value³⁹. The study found a number of cases of substantial delays, even after the manufacturers were aware of safety issues. Moreover, recalls were frequently announced in "clusters". For example, one manufacturer would announce a recall owing to a leaky fuel tank valve, quickly followed by a recall announcement from other manufacturers. The study also finds that being the first in the cluster to announce a recall can be associated with an almost 67% larger stock market penalty than being one of the "following" manufacturers i.e. not the first to announce a recall⁴⁰.

Moreover, **recall campaigns might not always lead to improvements in product safety processes**. For example, Kalaiganam et al. (2012)⁴¹ show that lower-quality brands tend to be more motivated to improve product reliability in the context of a recall because recalls may more severely harm future sales of a product, since consumers already have the perception of the product as low-quality. By contrast, higher quality brands tend to be less motivated to improve their product reliability since they are somewhat shielded by the perception of their products as being of higher quality, therefore reputational risk levels are lower for them as compared to lower quality brands.

Indeed, taking active steps such as insurance against the cost of a recall campaign might actually have unintended consequences. For example, Schuurmans (2013) finds that fully obligatory insurance schemes are not desirable as this might lead to less careful manufacturing of products (as companies do not bear any costs in case of faulty products covered by the insurance), but instead a model of mandatory additional (but not full) insurances, co-assurance and increasing the coverage of existing insurance schemes⁴².

The EC survey (2019) points out, however, that the majority of respondents indicated that their trust in the brand actually increased as a result of a recall. Likewise, follow-up questions after the behavioural experiment in this study indicated that consumers' trust in companies can increase as a result of a well-managed recall. Follow-up questions after the behavioural experiments suggested that a majority of respondents who clicked on the initial recall notification did not experience a reduction in trust because of the recall announcement. Respondents who clicked on the initial recall notification were asked questions regarding:

- Perception of manufacturer's trustworthiness (68% said 'trustworthy' or 'very trustworthy');
- Likelihood of purchasing a product from the manufacturer again (62% responded 'likely' or 'very likely'); and
- Likelihood of recommending the manufacturer to friends or family (53% responded 'likely' or 'very likely').

³⁸ However, consumers may often react favourably to a well-handled recall campaign. See below.

³⁹ Mukherjee, U., Ball, G., Wowak, K., Natarajan, K. and Miller, J (2021), Hiding in the Herd: The Product Recall Clustering Phenomenon, Manufacturing & Service Operations Management, <https://doi.org/10.1287/msom.2020.0937>

⁴⁰ https://www.eurekalert.org/pub_releases/2021-01/uond-adr011821.php

⁴¹ Kalaiganam, Kartik & Kushwaha, Tarun & Eilert, Meike. (2012). The Impact of Product Recalls on Future Product Reliability and Future Accidents: Evidence from the Automobile Industry. *Journal of Marketing*. 77. 10.2307/23487412.

⁴² D. Schuurmans (2013). Product recall en zijn gevolgen: op naar een betere marktveiligheid. Tilburg University. <http://arno.uvt.nl/show.cgi?fid=129078>

3.5. An overview of policy initiatives relating to recall effectiveness

3.5.1. Initiatives at EU level

Legislation

The key legislation at EU level is the **General Product Safety Directive** (GPSD)⁴³. Under the GPSD, producers are obliged to take appropriate action when they become aware that a product they have placed on the market is dangerous. This may include, as a measure of last resort, recalling products that have already been supplied to consumers. Distributors have to cooperate with producers and competent authorities (e.g. to ensure that relevant information is passed on to consumers). Although economic operators are encouraged to take action voluntarily, Member States' authorities have the power to order a recall or to organise it themselves, if voluntary action taken by economic operators is unsatisfactory or insufficient.

The GPSD is applicable to non-harmonised consumer products⁴⁴ and it also covers risks not addressed by harmonised legislation. Moreover, the provisions of the GPSD relating to the obligations of producers and distributors, the obligations and powers of the Member States, the exchanges of information and the dissemination of information apply also to products covered by specific rules of Union law, if those rules do not already contain such obligations. The recently adopted Regulation 2019/1020 on market surveillance and compliance of products sets out market surveillance rules applicable to harmonised products, including provisions on recalls equivalent to those in the GPSD. Under this Regulation, the national market authorities have the enforcement powers to order a recall and if the economic operator fails to take corrective action, authorities shall ensure the product is recalled⁴⁵. The regulation also envisages the power to recover costs by market surveillance authorities⁴⁶.

Neither the GPSD nor Regulation 2019/1020 set out specific rules on the recall process. They also do not provide for specific remedies to be made available to consumers in case of a recall. National legislation may, however, impose more detailed or stricter requirements on the recall process within their countries. Furthermore, some Member States have adopted guidelines to help economic operators carry out successful recall campaigns. In addition, specific provisions on recalls may be set out in sector-specific harmonised legislation⁴⁷, such as Regulation (EU) 2018/858 on approval and market surveillance of motor vehicles.

Safety Gate/RAPEX

Under the GPSD, the authorities should also immediately communicate both voluntary and mandatory recalls (and other corrective measures taken against dangerous products) through the **EU Rapid Alert System (Safety Gate/RAPEX)**. Other countries participating in the system should check if the notified product is also available on their market and take follow-up measures, if needed. The European Commission is in charge of ensuring the effectiveness and proper functioning of the Safety Gate/RAPEX and of informing the general public about the notified products through the Safety Gate public website⁴⁸.

⁴³ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32001L0095>

⁴⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32019R1020>

⁴⁵ Art. 14 4.(h) and Art. 16 3. (c) and 5.

⁴⁶ Art. 15.

⁴⁷ EU harmonisation legislation is listed in Annex I to [Regulation \(EU\) 2019/1020](#).

⁴⁸

https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm

The "Product Safety Pledge"

As regards online marketplaces, on top of the "notice and take-down" procedure set out in the E-Commerce Directive⁴⁹ and also in the more recent Commission proposal for a Digital Services Act (DSA)⁵⁰, several major online marketplaces signed up to the EU's "Product safety Pledge"⁵¹. This initiative, which is the first one of its kind in the product safety area, sets out specific voluntary actions in 12 different areas, including removing within 2 working days dangerous product listings identified on the basis of governmental notices and through monitoring public recall websites and cooperating with EU Member States' authorities and sellers to inform consumers about recalls. The Commission is monitoring the implementation of the Pledge and encouraging further marketplaces to join the initiative.

3.5.2. National guidelines to business operators

The most common type of initiative by national authorities to improve product recalls is to provide official guidelines to business operators on how to conduct these campaigns.

A number of EU/EEA countries provide some kind of guidance on recalls. For instance, the Finnish Safety and Chemical Agency (TUKES)⁵² and the Norwegian Directorate for Civil Protection and Emergency Planning (DSB)⁵³ provide guidelines on the requirements for the recall information (including the content of the notification and how the information should be provided). Likewise, in Belgium, the Ministry for the Economy provides detailed guidance on the channels to communicate recall information to consumers⁵⁴. Guidance for economic operators also exists in countries such as Austria⁵⁵, Denmark⁵⁶, Germany⁵⁷ and Sweden⁵⁸.

⁴⁹ Under the E-Commerce Directive, the exception of liability does not apply, if the internet service provider becomes aware that it is storing illegal content (e.g. dangerous product listings) and does not remove it expeditiously.

⁵⁰ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (COM/2020/825 final)

⁵¹ See: https://ec.europa.eu/info/sites/info/files/voluntary_commitment_document_4signatures3-web.pdf

⁵² Tukes, Announcing product recalls <https://tukes.fi/en/products-and-services/dangerous-products/content-and-format-of-a-recall-notice>

⁵³ DSB, Veileder om meldeplikt ved farlige produkter <https://www.dsb.no/lover/produkter-og-forbrukertjenester/veiledning-til-forskrift/veileder-om-meldeplikt-ved-farlige-produkter/#tilbakekalle-produkter>

⁵⁴ Available at: <https://economie.fgov.be/fr/themes/qualite-securite/securite-des-produits-et/rappel-dun-produit-ou-autre>

⁵⁵ <https://www.sozialministerium.at/Themen/Konsumentenschutz/Produktsicherheit/Gefahrliche-Produkte-und-Rueckrufe.html>

⁵⁶ <https://www.sik.dk/erhverv/produkter/vejledninger/generelle-vejledninger-om-produkter/tilbagetraekning-og-tilbagekaldelse-produkter>

⁵⁷ <https://www.baua.de/DE/Themen/Anwendungssichere-Chemikalien-und-Produkte/Produktsicherheit/Rueckrufmanagement/Handlungsempfehlungen.html>
https://www.baua.de/DE/Themen/Anwendungssichere-Chemikalien-und-Produkte/Produktsicherheit/Rueckrufmanagement/Rueckrufmanagement_node.html

⁵⁸ <https://www.konsumentverket.se/for-foretag/produktsakerhet/salt-farlig-vara/>

Comprehensive guidelines to help businesses carry out an effective recalls have also been issued by a number of jurisdictions outside the EU, including Australia⁵⁹; Canada⁶⁰; New Zealand⁶¹; the UK⁶² and the US⁶³.

3.5.3. Initiatives at international level

In recent years, cooperation schemes have also been implemented at international level to enhance the effectiveness of product recalls.

These include information sharing tools, such as the OECD's GlobalRecalls portal for dangerous non-food products⁶⁴ and joint communication campaigns, such as the 2019 OECD campaign co-led by ACCC and the European Commission⁶⁵.

In addition, the OECD Policy guidance⁶⁶ of October 2020 provides a comprehensive set of recommendations on all aspects of the recall process (measuring recall effectiveness, recall management, communication to consumers, international cooperation). It is intended as a guide for governments and stakeholders to enhance product recall effectiveness globally.

International cooperation is likely to increase its relevance due to the current trends such as the growing share of international e-commerce that is today taking place through online platforms and the globalisation of supply chains⁶⁷.

⁵⁹

See:

<https://www.productsafety.gov.au/system/files/Consumer%20product%20safety%20recall%20guidelines.pdf> (last access: 06/10/2020); https://www.productsafety.gov.au/system/files/Product%20safety%20bulletin%20-%20How%20to%20conduct%20a%20successful%20recall_0.pdf; https://www.productsafety.gov.au/system/files/1556_How%20to%20communicate%20and%20advertise%20a%20consumer%20product%20safety%20recall_FA.pdf; <https://www.productsafety.gov.au/recalls/guidance-for-suppliers/recall-advertisement-templates>;

⁶⁰ Available at: <https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/industry-professionals/recalling-consumer-products-guide-industry.html> (last access: 06/10/2020)

⁶¹ Available at: <https://productsafety.tradingstandards.govt.nz/for-business/product-recalls/guidelines-for-product-recalls/> (last access: 06/10/2020)

⁶² UK Department for Business, Energy & Industrial Strategy (BEIS) (2018), Supporting better product recalls: Code of practice on consumer product safety related recalls and other corrective actions <https://www.gov.uk/government/publications/supporting-better-product-recalls>

⁶⁴ OECD, Global Recalls, available at : <https://globalrecalls.oecd.org/#/>

⁶⁵ Australian Competition and Consumer Commission (ACCC), 2019

⁶⁶

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLanguage=En)

⁶⁷ OECD (2018), "Enhancing product recall effectiveness globally: OECD background report", OECD Science, Technology and Industry Policy Papers, No. 58, OECD Publishing, Paris, <https://doi.org/10.1787/ef71935c-en>.

4. The impact of the channel of notification on recall effectiveness

4.1. Consumer drivers, barriers and trade-offs

Based on the European Commission survey (2019), the top three channels through which consumers see or hear product recall information are traditional media (80%), online media (54%) and word of mouth (29%), followed by physical stores (24%).

4.1.1. The effectiveness of direct notification

The literature generally agrees that the actual means of communication considered most effective and most comprehensive is direct contact, e.g. via mail, email, telephone etc.

Direct communication was the preferred communication channel for all consumer groups in the European Commission's EU-wide survey⁶⁸.

Jones Day (2019)⁶⁹ highlights the importance of referring to the data collected at the point of sale to maximise the chance to conduct the recall using direct communication channels. Similarly, the Center for Science in the Public Interest report on food recalls notes that direct communication (e.g. using loyalty programmes data) is the most effective way to reach consumers⁷⁰.

The hard return statistics from the US CPSC support this approach when comparing the correction rates for two methods of recall notification. The 'recall alert'⁷¹ is associated with 50% correction rates, whereas press releases with 6% (see below).

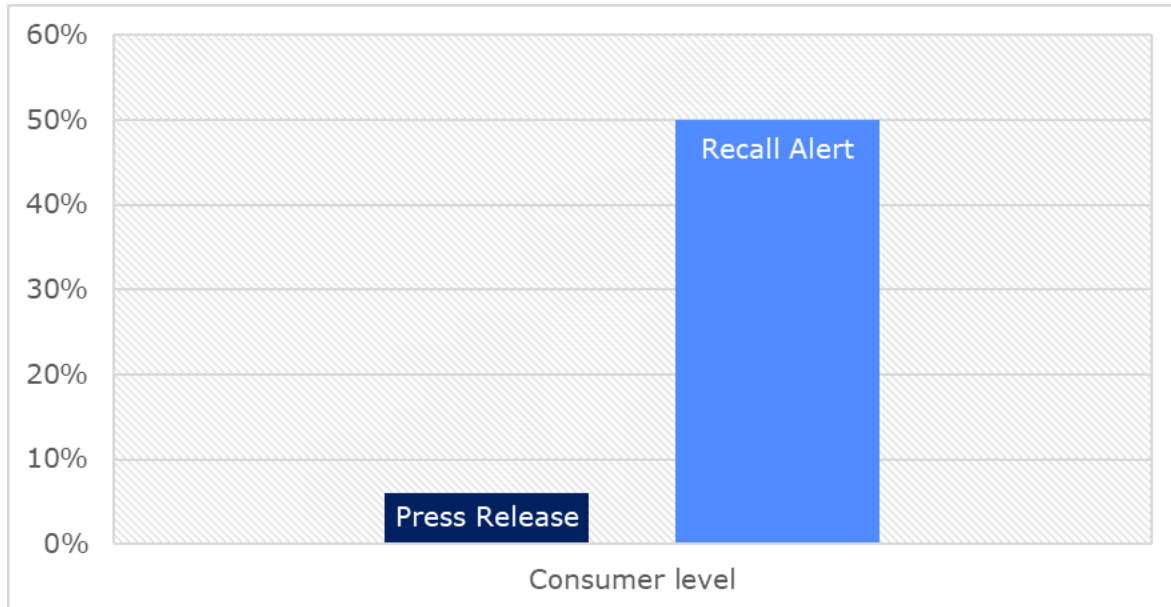
⁶⁸ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

⁶⁹ Jones Day Publications (2019). How to Conduct a Product Recall in Australia: A Guide. Available at: <https://www.jonesday.com/en/insights/2019/04/how-to-conduct-a-product-recall>

⁷⁰ Center for Science in the Public Interest (2016). Building a Food Recall System that Really Protects Consumers. Available at: <https://cspinet.org/sites/default/files/attachment/Building%20a%20Food%20Recall%20System%202016.pdf>

⁷¹ The CPSC classifies a case as a 'recall alert', if the company is able to contact 95% of affected consumers using direct notification channel, in which case no press release is required.

Figure 11: Correction rate by recall type (CPSC, US, 2017)⁷²



Evidence from the behavioural experiment

The greater effectiveness of direct notification compared to general advertising was confirmed in the behavioural experiment conducted for this study. The channel of notification was investigated in the recall experiment in two stages. In stage 1, respondents were shown either an e-mail pop-up or a generic banner ad as an initial recall prompt. In stage 2, respondents were shown the full recall notification, which was framed either as a personal e-mail or as a generic notification⁷³. Figure 12 and Figure 13 below provide a visual representation of the variants for respectively stage 1 and stage 2.

Figure 12: Recall notification in stage 1 of the recall experiment

a) Direct notification

In the next task, we ask you to answer some questions about the products you own. Remember that you can earn points by providing the correct answer.

Products you own

Hatchback	Sweater	Washing machine
Find out more	Find out more	Find out more

Which of the products you own did you purchase most recently?

Hatchback
 Sweater
 Washing machine

Which of the products you own has electronic parts?
 (Note: there are two possible correct answers, choose one)

Hatchback
 Sweater
 Washing machine

Which of the following products you own is the most expensive?

Hatchback
 Sweater
 Washing machine

YOU RECEIVED AN EMAIL

From: product-recall@watefall.eu

Subject: PRODUCT RECALL: Your Waterfall 4 Washing Machine

Click to open

X

⁷² CPSC (2017), CPSC Defect Recall Data Carol Cave Deputy Director, Office of Compliance and Field Operations July 25, 2017, available at: <https://www.slideshare.net/USCPSC/cpsc-recall-effectiveness-workshop-recall-data>
⁷³ This framing was not applied to the generic notification.

b) Generic notification

In the next task, we ask you to answer some questions about the products you own. Remember that can earn points by providing the correct answer.

Products you own

Washing machine Find out more	Sweater Find out more	Toy Find out more
---	---	---

Which of the products you own did you purchase most recently?

- Washing machine
- Sweater
- Toy

PRODUCT RECALL *Waterfall 4 Washing Machine*

Click for more information

Which of the products you own has electronic parts?

- Washing machine
- Sweater
- Toy

Which of the following products you own is the most expensive?

- Washing machine

Source: Recall experiment

Figure 13: Recall notification in stage 2 of the recall experiment

a) Direct notification

From: product-recall@waterfall.eu ✉

Sent: 04 February 2021 18:00

Subject: VOLUNTARY PRODUCT RECALL: Your Waterfall 4 Washing Machine

Dear Mr Johnson,

We, Waterfall Corp, have identified issues with Waterfall 4DE, 4XE and 4ZE Washing Machines manufactured after 23 June 2016. Our records show that you purchased a Waterfall 4XE, which is subject to this recall.

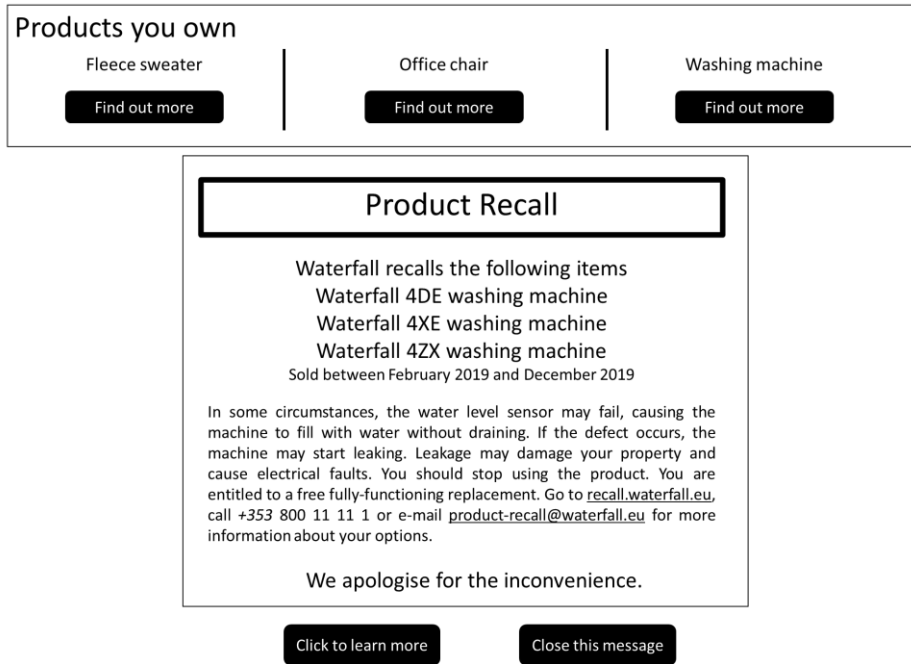
In some circumstances, the water level sensor may fail, causing the machine to fill with water without draining. If the defect occurs, the machine may start leaking. Leakage may damage your property and cause electrical faults. You should stop using the product. You are entitled to a free fully-functioning replacement. Go to recall.waterfall.eu, call +353 800 11 11 1 or e-mail product-recall@waterfall.eu for more information about your options.

We apologise for the inconvenience.

Yours sincerely,

James Sullivan
 Vice-President; Quality and product safety

b) Generic notification

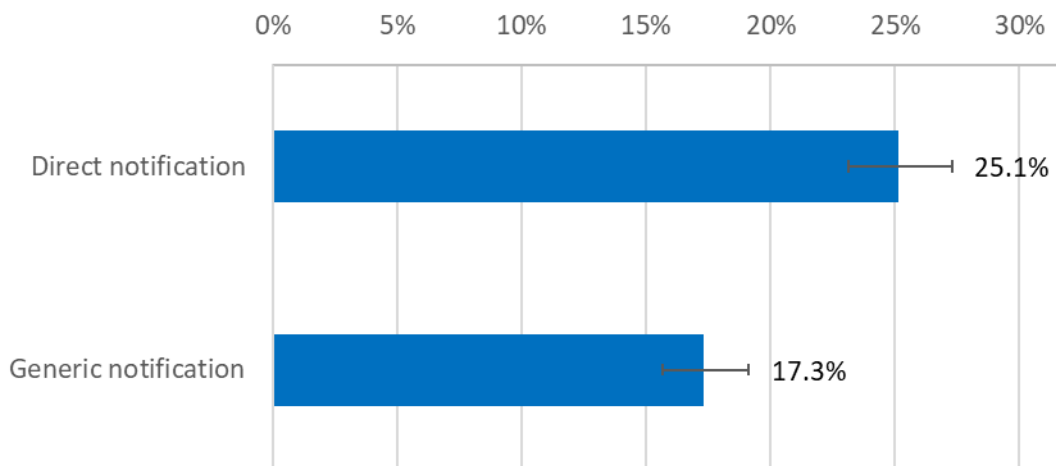


Source: Recall experiment

The behavioural experiment found that respondents were considerably more likely to react to the direct notification than to the general notification, both in terms of:

- engaging with the initial recall prompt by clicking on it (Figure 14), and with
- proceeding with the recall after reading the full recall notification (Figure 15)⁷⁴.

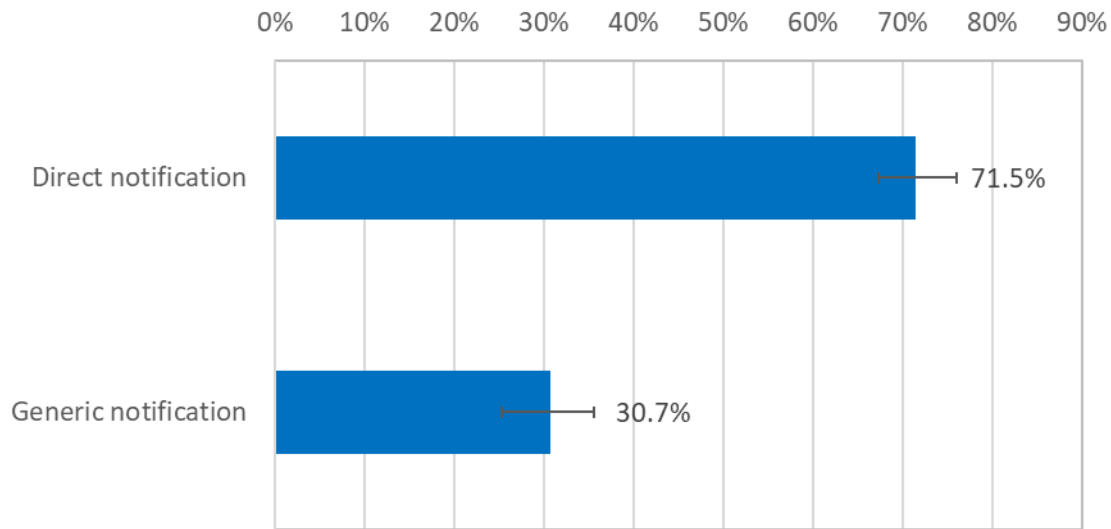
Figure 14: Percentage of respondents engaging with the initial recall prompt; stage 1 – by channel of notification



Base: all respondents
Source: Recall experiment

⁷⁴ Referred to below as 'engagement with the recall notification in stage 2'.

Figure 15: Percentage of respondents engaging with the recall notification; stage 2 – by channel of notification



Base: all respondents who engaged with the initial recall prompt in stage 1
Source: Recall experiment

In terms of engaging with the initial recall prompt, 25% of respondents shown the direct notification clicked on it, compared to 17% of respondents shown the general ad notification. Analysis across demographic groups shows that lower levels of education and higher levels of internet use are associated with a higher likelihood to engage with the direct notification than the general notification.

The impact of communication channel was especially large in the second stage, where respondents chose whether to act on the full notification. 72%⁷⁵ of respondents being shown a direct recall notification decided to act on it. The equivalent percentage for respondents being shown a generic notification is 31%⁷⁶. In stage 2, direct notification outperformed the generic notification in the ten experiment countries, by age category⁷⁷, financial status⁷⁸, educational level⁷⁹, internet use⁸⁰, importance of product safety⁸¹, occupational status⁸² or product used in the experiment⁸³. The results are statistically significant⁸⁴ for all products and all socio-demographic groups.

Full results for both stage 1 and stage 2 can be found in the Technical Annex.

Direct notification may show greater urgency and seriousness

The greater effectiveness of direct notification may be driven by a number of factors. Participants in the focus group conducted for this study felt that a recall notice on a webpage has limited effect, as such a notice reaches only a small proportion of those who own the product. Moreover, it was felt that it would be difficult for those owning the product to distinguish whether the notice on the webpage is about their product. An email from the manufacturer was regarded by participants as a more effective and appropriate way to

⁷⁵ Base: all respondents who engaged with the initial recall prompt in stage 1.

⁷⁶ For each stage, the difference between the direct and generic notification is highly statistically significant ($p < 0.001$).

⁷⁷ Age of respondents were categorised as: 18-34, 35-54, 55-64 or 65+.

⁷⁸ Respondents finding it very easy, easy, difficult or very difficult to make ends meet.

⁷⁹ Low, medium or high

⁸⁰ Low, medium or high use

⁸¹ Product safety being very important or not very important.

⁸² Employed, retired or neither employed nor retired.

⁸³ Hatchback car, shape sorter toy, fleece sweater, washing machine or office chair.

⁸⁴ ($p < 0.01$, or significant at 99%)

inform consumers about a product recall. It was felt that an email stresses the urgency of the recall, and shows that the company is taking the matter seriously.

"I suppose they won't have this wide internet communication which is saying "we broke down." [Bulgaria, low education group]

"With the second message, I would definitely assume it's my device, because I am being contacted personally. [In message 1] it is only a coffee maker that looks like mine." [Germany, high education group]

"[In the second message] the manufacturer gets active. In the message before I had to get active." [Germany, high education group]

This is consistent with the findings of follow-up focus groups with vulnerable consumers, which showed preference for a direct contact.

"If they do a product recall like this, it is better for me personally, if I'll get a letter by mail. Then I am reassured and then I can still call and talk to someone." (Lower educated group, Germany)

"When it comes to safety, regardless of the product, you need to be notified in a more individual way" (General public group, Bulgaria)

4.1.2. Using multiple channels to communicate recalls

Since recalls frequently impact multiple groups and in many cases it is not possible to reach all affected consumers directly, recall effectiveness can be increased by using multiple channels of communication.

Most of the literature agrees that **the use of a variety of communication methods maximises the ability of economic operators to reach consumers who might be affected by a recall.**

Several communication channels should be utilised at once in order to inform as many affected customers as possible⁸⁵. Indeed, in practice, a manufacturer may need to use a combination of approaches in the hope that at least one communication gets through to every customer with an affected product.⁸⁶

While targeting consumers online through innovative methods can increase the reach of product recalls, the importance of offline communication channels should not be overlooked as both types of channels are important to consumers⁸⁷. A study on consumer behaviour and consumption patterns found that merging social media and internet advertising with traditional media (TV, radio, newspaper, direct mail) can "reinforce communication and provide credibility" for better effectiveness.⁸⁸

The OECD Policy guidance⁸⁹ recommends using multiple communication channels to promptly contact those consumers affected by a product recall, including advertising in

⁸⁵ Adeola Bamgboje-Ayodele, Leonie Ellis, Paul Turner (2016), A food recall case study in Australia – Towards the development of food safety applications for consumers, available at: <https://www.iseki-food-ejournal.com/ojs/index.php/e-journal/article/view/303>

⁸⁶ Lorraine Conway (2019), Product safety and recall, available at: <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8211#fullreport>

⁸⁷ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

⁸⁸ Bond, C., Ferraro, C., Luxton, S., Sands, S. (2010). Social Media Advertising: An Investigation of Consumer Perceptions, Attitudes, and Preferences for Engagement. Australian and New Zealand Marketing Academy Conference, Christchurch, New Zealand, available at: [https://researchbank.swinburne.edu.au/file/1618f811-57be-4b51-8a60-c1eedd6b3e9c/1/PDF%20\(Published%20version\).pdf](https://researchbank.swinburne.edu.au/file/1618f811-57be-4b51-8a60-c1eedd6b3e9c/1/PDF%20(Published%20version).pdf)

⁸⁹ OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLang=En)

online and offline mass media, information on the affected business' website and at point of sale, as well as more direct forms of communication to affected consumers including via connected products, loyalty and/or reward programmes and social media.

The effectiveness of direct communication channel supported by other channels was also noticed in a recall campaign run by Boots in the UK in 2002/2003. Boots operates a loyalty card program in which a significant proportion of its customers participate. Thanks to this it was possible to identify 43% of buyers of the product under recall. Within a few days after the decision to recall the product, a letter was sent to customers in an envelope with a red statement emphasising the importance of the message. At the same time, notices were sent to all Boots stores to be posted in prominent places in view of regular customers and placed on the Boots website. In addition, some Boots store managers arranged for notices to be displayed in local doctors' offices. The message was also posted on the Boots website. The campaign successfully used various communication channels to communicate with the customers⁹⁰.

Interviewed stakeholders from the electronics sector also highlighted the importance of repeatedly contacting consumers via various direct communication channels (letters, phone calls) with the objective to reach the maximum percentage of the affected consumers. One stakeholder from domestic appliances sector pointed out that they analyse open rates per day as well as open and click through rates by time and adjust their communication strategy accordingly. For instance, based on their results the open rates by day were highest on Tuesday and Thursday and lowest on Friday and Saturday.

Therefore, based on insights from the literature and interviews, companies should create a hybrid communication strategy to reach consumers, including both online communication methods (ads, online communities, customised direct email, user-generated content sites, mobile marketing) and traditional communication methods (TV, radio, customised direct email).

4.1.3. Tailoring communication channels to socio-demographics

The most effective type of communication channel depends on a number of factors, including the consumer's socio-demographic characteristics.⁹¹ For example, ads in local newspapers are likely to be more effective in reaching older consumers and social media may be more effective with young audience. These tendencies among various age groups are becoming more important to effectively tailor the indirect recall communications⁹². A similar approach is supported by the European Commission survey (2019). According to the survey, older consumers and those who do not buy online are less comfortable with online communication, whereas younger consumers do not have a preference between traditional and online communication channels. It is also important to note that, on the one hand, vulnerable groups (those with lower education, not purchasing products online and in an unstable occupation) are in general less likely to respond to product recalls. They are, on the other hand, more likely to spread word-of-mouth with friends or family⁹³.

For those categories of products purchased by specific categories of consumers, communication should be also targeted through dedicated online fora. For instance, for retailers and manufacturers in the sector of child clothing online parenting fora are the main area to pay attention to. Parents can be quick to raise alarms on these sites when it

⁹⁰ <https://www.electricalsafetyfirst.org.uk/media/1259/product-recall-report-2014.pdf>

⁹¹ Mora C, Menozzi D (2008), Benefits of traceability in food markets: Consumers' perception and action, available at: https://www.researchgate.net/publication/249028559_Benefits_of_traceability_in_food_markets_Consumers'_perception_and_action

⁹² Jones Day Publications (2019). How to Conduct a Product Recall in Australia: A Guide. Available at: <https://www.jonesday.com/en/insights/2019/04/how-to-conduct-a-product-recall>

⁹³ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

comes to the safety of their children, and they must be regularly monitored to ensure any potentially dangerous situation can be identified and acted upon⁹⁴.

Apart from consumer segments, it is also crucial to align the recall communication strategy to specificity of a given sector. For instance, in sectors with many low value products, it may be difficult to reach consumers directly, as product registration levels are likely to be low. In such cases, blanket campaigns (which target the largest possible audience across a wide area) can be the most effective strategy⁹⁵.

Additionally, it is important that recall information reaches consumers in their own language. The OECD Policy guidance encourages businesses to provide information in relevant languages when recalled products are sold globally or to culturally diverse populations⁹⁶.

A global manufacturer specified that, in order to increase the reach of their recall campaigns, they disseminate recall information not only in the official national language of any given country but also in the language of the largest linguistic minority in that country. Language was found to be an important consideration for other stakeholders too. In Portugal for example, a consumer organisation highlighted the importance of recall announcements made by multinational companies being made in Portuguese as opposed to English only.

4.1.4. Using new media to communicate recalls

Some recent research suggests that social media is an increasingly important tool to increase recall effectiveness. For example, the CPSC expert workshop highlighted the need to **explore innovative marketing strategies and technology in order to deliver recall messages to consumers**. Marketing and technology (e.g. social media, use of apps, targeted messaging) might increase effectiveness.⁹⁷

Social media recall advertising is particularly cost-effective in targeting specific audiences (that is via targeted communication taking into account socio-demographics) but also more importantly in activating the word of mouth. With the use of social media people are able to share details about recalled products with their contacts who they think might be affected by a recall campaign.⁹⁸ However, recent report by Kids in Danger points out that companies are reticent to post recall announcements on their social media accounts and there is room for improvement in the use of this communication channel.⁹⁹

This is consistent with the findings of stakeholder interviews, which suggested that social media can also be leveraged to create innovative and eye-catching messages to increase the visibility of recall messages and raise awareness. For example, an Australian stakeholder pointed out that for recall notices in Australia, there is a move away from traditional print media (because of diminishing circulation and the environmental impact of using paper to produce posters) towards advertisements on websites, social media and

⁹⁴ Stericycle Expert Solutions (2020), State of the Nation 2020 Product Recall All Industries Edition, available at: <https://www.stericycleexpertsolutions.co.uk/recall-hub/resources/spotlights-indexes>

⁹⁵ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

⁹⁶ OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLanguage=En)

⁹⁷ CPSC (2017), Recall effectiveness Workshop, available at: https://www.cpsc.gov/s3fs-public/Recall_Effectiveness_Workshop-Transcripts-2018.pdf?DANfPWVdXLz6jk.lAn9rzT3dX6ZQXQa0

⁹⁸ Idem

⁹⁹ Kind in Danger (2020), A Long Way to Transparency: CPSC and Recalling Companies Lagging in Publicizing Recalls on Social Media, available at: <https://kidsindanger.org/2020/09/a-long-way-to-transparency-cpsc-and-recalling-companies-lagging-in-publicizing-recalls-on-social-media/>

in trade publications. This online presence helps to achieve maximum consumer reach, increasing the likelihood of consumers then participating in a recall.

An interviewed economic operator in the field of homeware and electrical goods suggested the use of hashtags (ideally recognised hashtags identified by the EC) which could be used to enhance the visibility of a recall campaign and reach out to consumers to inform them in a quick and effective way of the recall of a particular product.

4.1.5. Impact of the source of recall information

There is a relatively small body of literature relating to consumers' trust and expectations regarding different actors' role in product safety.

The European Commission's Consumer Conditions Survey showed that 70% of consumers trust public authorities to protect their rights as consumers and 66% trust independent consumer organisations to protect their rights as consumers.¹⁰⁰

Regarding the perceived trustworthiness of information by type of source, a 2017 study published by the International Association for Food Protection¹⁰¹ on Canadian consumers, finds that the most trusted source of recall information are the federal agencies, while information sourced from online social networks lacks similar trust and reliability. A 2007 study on consumer decision-making process with respect to food confirms that public authorities are regarded as the most reliable information source as regards the safety and quality aspects of food products¹⁰².

This is broadly consistent with the findings of the consumer survey, which asked respondents a question on trust in different sources of product risk information (Figure 16).¹⁰³ The highest degree of trust was reported for scientists (90% of respondents totally or tend to trust scientists as a source), followed by consumer associations (80%), shops (77%), EU institutions (72%), national authorities (71%) and producers (71%). Lower trust levels were reported for journalists (50%) while influencers, celebrities and bloggers received the lowest rating (22%).

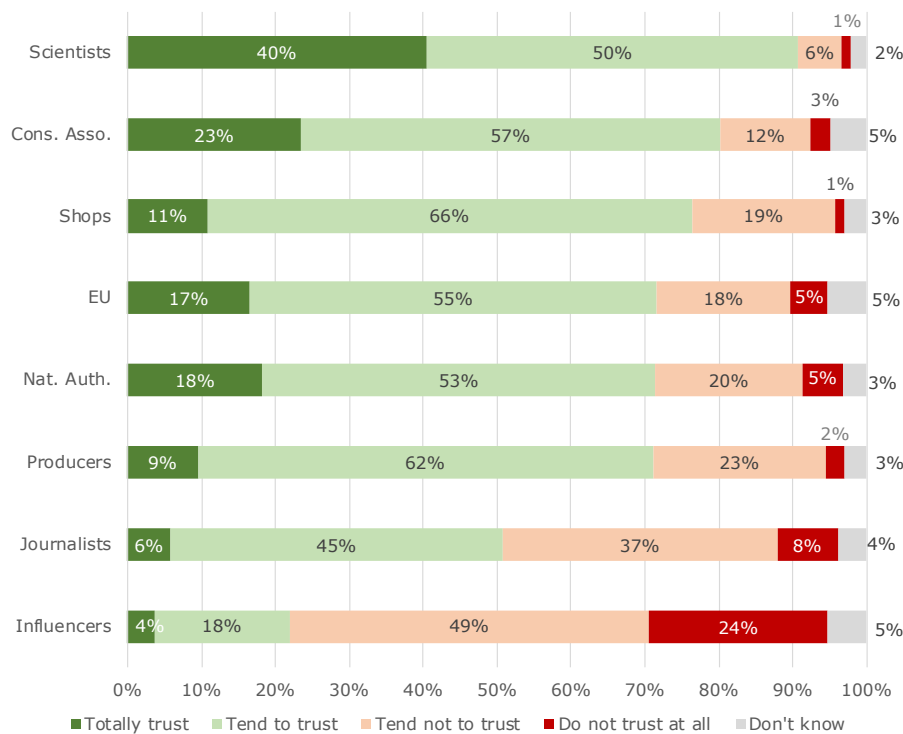
Figure 16: Trust in different institutions regarding product risk

¹⁰⁰ European Commission (2021), Consumer Conditions Survey, available at: https://ec.europa.eu/info/sites/default/files/ccs_key_highlights_110321_public.pdf

¹⁰¹ International Association for Food Protection (2017), Food Recall System Effectiveness: Industry and Government Perspectives within Canada, available at: <http://www.foodprotection.org/files/food-protection-trends/may-jun-17-winters.pdf>

¹⁰² Halawany, R., Bauer, C., Giraud, G., & Schaer, B. (2007). Consumers' Acceptability and Rejection of Food Traceability Systems, a French-German Cross-Comparison, available at: <https://ageconsearch.umn.edu/record/6567/files/sp07ha03.pdf>

¹⁰³ The question was taken from Special Eurobarometer (2019) "Food safety in the EU" Wave EB91.3 and slightly adapted for the purpose of our questionnaire. Please note that the figure does not include the complete labelled answer categories but only abbreviations. The full labels used in the survey were 1. Scientists, 2. Consumer associations / NGOs, 3. National authorities, 4. EU Institutions, 5. Journalists, 6. Industry / Producers, 7. Celebrities, bloggers and influencers, 8. Shops and Retailers.



Note: The question was Q1.3: "To what extent do you trust or distrust the following sources for information on product risk?". Answer options were given on a four-point scale from "1 – do not trust at all" to "4 – totally trust" including "don't know". Number of observations N=10,013.

Source: Consumer survey

For what concerns the role of non-governmental organisations in product safety, a 2013 study¹⁰⁴ discusses the social expectations placed on non-governmental actors in the area of consumer protection, which by their nature cannot be in charge of supervisory activities. These NGOs are expected to be in charge of communication with the general public and the provision of advisory services to consumers. One of the national consumer organisations interviewed during the study noted that, given the widespread use of the internet and online information, the publication of recall announcements on the websites and social media channels of companies, national authorities and NGOs is effective. However, they said that advertisement on the television would in their opinion be the most effective channel, although this has, to their knowledge, only been used on one occasion.

4.2. Mapping and assessment of market practices

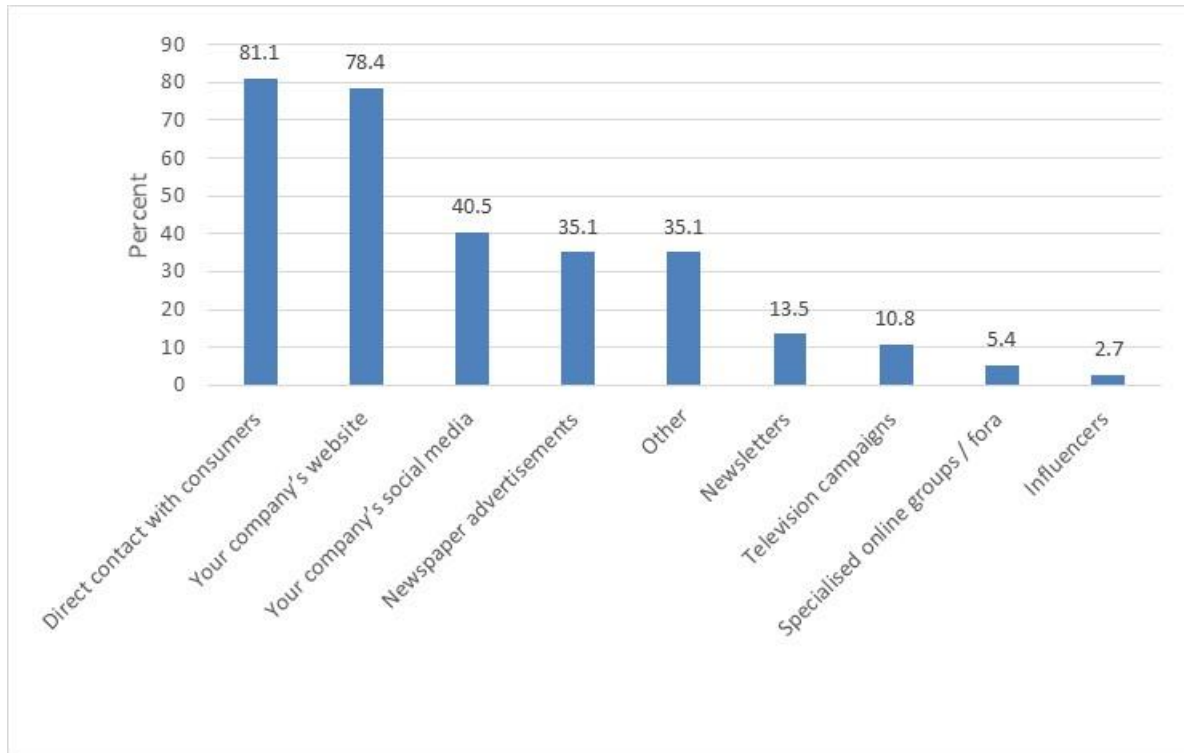
Our online desk research found that manufacturers' / sellers' websites remain the key communication channel with the consumers (46 out of 55), supported by the manufacturers'/sellers' social media accounts (11) and press releases from manufacturer / seller / government (9). Online newspapers / articles / blogs were frequently used to reach affected consumers (32 cases). In nearly half of the recalls, recall notices were also published by market surveillance authorities (23 cases).

In several cases, the campaigns were also published on the websites of other national organisations, such as consumer organisations (8) and industry associations (5) In several cases (14), dedicated product safety and recalls website was used (most of them hosted by market surveillance authorities) to communicate with consumers.

¹⁰⁴ Rovenska, Michaeka (2013), Consumer protection in the area of product safety with a focus on toys, available at https://theses.cz/id/7fdgro/?zpet=%2Fth_search%2Fprace_na_stejne_tema%3Fpg%3D1%3Bks%3Dbezpecnost%20vyrobku%3B

This is broadly consistent with the findings of the industry survey, which finds that direct contact with consumers, the company’s website and the company’s social media are their preferred communication channels in the event of a recall.

Figure 17: Q20 Have you ever used one of the following channels to encourage customer participation in a product recall over the past 5 years? (Please select all that apply) (N=22)



These communication channels were also rated the most effective by industry survey participants.

Figure 18: Q21 In your opinion, which channels prove most impactful in encouraging consumers to participate in a product recall? (N=37)

	1: not at all effective	2: not very effective	3: somewhat effective	4: effective	5: very effective	Total Responses
Direct contact	0	0	3	13	19	35
Your company's website	2	4	13	9	2	30
Your company's social media	1	4	6	7	5	23
Television campaigns	2	2	3	5	2	14
Newspaper advertisements	4	7	6	4	0	21
Newsletters	1	5	6	2	0	14
Influencers	6	1	2	3	0	12
Specialised online	3	2	4	4	1	14

groups / for a						
other (please specify)	2	0	3	3	3	11

4.2.1. How do communication channels vary by sector?

Direct communication via post/mail is mostly used in the automotive sector as emerged from the analysis of recall campaigns issued by the analysed car manufactures (, which is linked to the availability of product owners' latest details, such as home address¹⁰⁵. This is not the case for the other product categories, where no mandatory product registration is in place and in case of in-store purchase consumer details are only sometimes registered (e.g. via loyalty cards).

In limited cases, a dedicated product safety and recalls website was used (some of them hosted by market surveillance authorities) in the EU to communicate with consumers, such as in Denmark (electric kettle, baby chair and bouncer, vacuum cleaner), in Germany (

¹⁰⁵ Some manufacturers did not include any contact details for consumers wishing to complain. This was the case of Mercedes Benz (Germany) where there was no contact point provided in the recall notice. Instead, the manufacturer directly contacts the affected customers.

car) and in Ireland (washing machine,, baby safety gates).

Online newspapers and articles were frequently used for recalls concerning children's products. All recall campaigns concerning children's products used multiple communications channels, with the majority being present in online newspapers. The use of YouTube and TV channels was limited, with only one Europe-based campaign identified in Bulgaria (baby roll-rattle). In two cases, an online retailer included a safety notice on their website in Portugal (baby monitor) and in Denmark (cuddle nest).

4.2.2. How do recall communication strategies vary by country?

The team found that recall campaigns in the US tended to use multiple communication channels, including the involvement of national consumer associations, dedicated product safety and recall websites as well as in-store communication. In the EU, Irish recall campaigns were most likely to use multiple communications channels. This could be associated with the large scale of the campaigns selected for the analysis in these two countries (such as the Takata airbags, the Fisher-Price rock 'n play sleepers and the Samsung washing machine recall campaigns in the US and Whirlpool washing machine and iconBIT hoverboard in Ireland).

4.2.3. Using direct communication

As mentioned above, direct communication is most common in the automotive sector, because of the availability of car owners'/holders' data. One industry association for the automotive sector indeed noted that in order to increase the effectiveness of recalls, personal contact of customers through writing letters is best. They said that they contact a customer with up to three of these personalised letters, which are formulated more and more sharply. The stakeholder also noted that they use every possible channel to receive the contact information of an affected customer, and if they know that the product was a gift or has been sold on as second-hand, they also try to contact these secondary consumers.

Likewise, one interviewed UK company in the domestic appliances sector mentioned that their most frequently used channels of communication are email and post. Although they tried to use call centres to communicate recalls in the past, these did not prove to be overly successful. Public campaigns are another possible channel, although they are expensive to conduct and so only used when the risk posed by a recalled product is considerable.

Another interviewee based in the UK (a manufacturer in the electronics industry) reported that they are able to reach almost 100% of customers affected by a recall (either via post of email) given that all their products are supplied via courier, and these details are saved. This company contacts affected consumers first via an email accompanied by a letter in the mail, with one or two follow-up reminders being sent where necessary.

In Ireland when publishing or otherwise communicating warnings to consumers, although there is no recommended form of media, the typical advertising channels used are advertisements in the local media and the press, in-store notices, web postings, emails and use of social media.¹⁰⁶

4.2.4. Using influencers and novel techniques

The researchers found a number of novel uses of online media, both in terms of communication channels used and forms of communication with consumers encouraging their participation in a recall, for example:

- Use of social media channels;
-

- Use of online influencers, such as actors and public figures to increase the awareness;
- Providing videos / YouTube in multiple languages to spread the message;

In addition, mobile apps allow users to see up-to-date recall information and search for recalls by product type/name. However, as pointed out by a third-country public authority after signing up to recall alerts, consumers may be flooded with information, and thus ignore the messages altogether. Therefore, the alert system should be more targeted and well thought-through. For instance, the Whystle app in the US allows for immediate personalised safety alerts for the selected product categories or brands based on the user's choice (e.g. children's articles, pet accessories etc.). It also reinforces the word-of-mouth by allowing to easily share the alerts with family and friends. This solution is a good example of how customising recall information and preventing information overload can increase customers' participation in product recalls.¹⁰⁷

Despite this general trend towards the use of online advertising to transmit recall notices, a Danish manufacturer remarked that it was easier in the past to reach consumers affected by a recall when there was a more limited number of media channels (i.e. only five television stations and print media). With today's proliferation of print media, online news, television channels, social media, etc., the situation is more fragmented, and it is arguably harder to reach affected consumers.

4.2.5. Encouraging word-of-mouth in recall communication

One interesting initiative to activate the word-of-mouth is a campaign by Toyota to give consumers incentives to spread information about the Takata airbag recall on their social networks. In practice, consumers receive a \$5 gift card for every Toyota owner that schedules an appointment for a vehicle repair, and an additional \$50 gift card after the vehicle repair has been completed.¹⁰⁸

However, the desk research found that only few recall campaigns showed evidence of encouraging word-of-mouth. Out of 40 analysed campaigns five included some sort of encouragement to spread the news further. These included:

- Ford's website¹⁰⁹ about Takata airbags in the US (using calls to action such as "Spread the word! Share the important recall information with your friends and family to help ensure their vehicles are safe")
- Core drills and spare parts from C&E.Fein GmbH in Bulgaria¹¹⁰ (using language such as "Please, forward the safety warning without delay to all persons possessing an affected drill whom you know. Alternatively, we can directly address these persons if you provide us with their contact details."); and
- Retailer (Jollyroom) urging the word of mouth about a cuddle nest recall in Denmark¹¹¹ and about a baby bouncer recall in Germany¹¹². The recall notices read "if you have sold or given the product away, please notify the new owners of the recall".
- Additionally, the toy recall notice of Rimi (Latvia)¹¹³ does not specifically encourage word of mouth, but there is an option within the recall notice to share the announcement on Facebook and Twitter, which facilitates spreading the news further.

¹⁰⁷ Whystle, available at: <https://whystle.org/#about>

¹⁰⁸ WTVM (2019). Toyota collaborates with new project to encourage people to check vehicle recall status. Available at: <https://www.wtvm.com/2019/01/23/toyota-collaborates-with-new-project-give-encourage-people-check-vehicle-recall-status/>

¹⁰⁹ <https://owner.ford.com/service/frequently-asked-questions-regarding-takata-airbag-inflator-recalls.html>

¹¹⁰ https://www2.fein.com/magdrill-care/?lang=bg_bg

¹¹¹ <https://www.jollyroom.dk/kundeservice/tilbagekaldelser/babydan-cuddlenest-ergo>

¹¹² <https://www.jollyroom.de/kundenservice/produkt-rufe/petite-cherie-babywippe>

¹¹³ <https://www.rimi.lv/jaunumi/rimi-atsauc-no-tirdzniecibas-bernu-rotallietu-sunitis>

One stakeholder from the domestic appliances sector highlighted the power of word of mouth through family and friends. The interviewee explained that one should always ask registered consumers to share campaign information with family and friends.

Another consumer organisation (an NGO) indicated that such an approach very much depends on cultural particularities. The stakeholder underlined that consumers in the country in question are much more likely to trust official governmental sources as opposed to their neighbours or acquaintances, and so word-of-mouth would not necessarily prove to be that effective. That said, the stakeholder expressed the view that if family members tell others in their family about a recalled product that they know they both possess, this could only increase the likelihood of others participating in the campaign.

4.2.6. Communicating with consumers in their native language

Communication with consumers in their native languages, even in the case of international recalls, is crucial for accurately getting across the message to the end users. Based on the insights collected via national desk research, in the overwhelming majority of cases (53 out of 55 recall campaigns), the recall notice was available on manufacturers' websites in the country's official language/s.

It is also important that the procedure for handling complaints allow for two-way communication with consumers. Over 83% of the campaigns had a process in place for addressing queries or complaints. This means, there would be a point of contact on the recall notice that consumers could reach out to express their complaint or request more information, e.g. a service telephone number.

4.3. Policy initiatives (recommendations and initiatives by public bodies)

Concerning policy initiatives relating to communication channels, in most cases national authorities focus their intervention to the publication of guidelines for market operators or by providing relevant information on their websites. The subsections below provide some selected examples from third countries and the EU / EEA member states.

4.3.1. Communication channels used by recalling companies

Guidelines of public authorities usually suggest to broadcast the details of the recall as widely as possible, including directly contacting the known users of the product.

The guide published by Belgian authorities¹¹⁴ requires economic operators to directly contact all affected consumers, whenever feasible. In case consumers cannot be informed directly, it also mandates the use of a number of public communication channels. Specifically:

- The notification of the recall should be displayed in the point of sale for at least two consecutive months in a clearly visible place and the notification should include at least the description and picture of the product, the risk associated and the ways in which customers may return the product and related remedies;
- In case the economic operator has a website or an account on social media (Facebook, Twitter, etc.) the same information must be placed in a clearly visible manner for at least two consecutive months on the homepage or at least a message with the abovementioned information shall be published. Similarly, if the economic operator uses a newsletter.

Similar requirements exist in Finland with regards to the use of communication channels.¹¹⁵ The guidelines specify that in the first place the company should attempt to contact the

¹¹⁴ Lignes directrices pour les mesures correctives, available at: <https://economie.fgov.be/sites/default/files/Files/Quality-and-Security/Acteurs-du-marche-qui-fournissent-directement-aux-consommateurs-utilisateurs.pdf>

¹¹⁵ Tukes, Announcing product recalls. Available at: <https://tukes.fi/en/products-and-services/dangerous-products/content-and-format-of-a-recall-notice>

consumers on an individual basis also by using, if available, loyal customer system or other customer register for communication or marketing purposes. If all consumers and end users are reached through these means (including, for example, private email addresses, mobile apps used by the company for sending private messages, and private messages via social media channels), no further announcement is necessary. However, if this is not feasible, the Finnish authority requires companies to proceed with a public announcement: either at regional or national level depending on the possibility to define the sales region of the product or not. The public announcement should be made through the issuing of a press release on the product recall containing the same information as the notice of product recall and in general, "the notice must be placed in those press and/or electronic media that may be assumed to be the most comprehensive in reaching the product's consumers and end users". The Finnish authority, Tukes, also requires companies to carry out the public communication on the company website, in retail outlets and showrooms for at least three months and in a visible manner, but also ask to its distributors to publish the notification on their websites and its retail outlets.

Along the same lines, the Norwegian Directorate for Civil Protection¹¹⁶ sees as crucial choosing the right information medium that will be used to reach the customers with the desired information (i.e. advertising in newspapers, radio, TV, internet or in stores). This choice should take into account the coverage of the information medium in the areas where customers are expected to be found and if the spread of the product cannot be delimited, the information should be nationwide. Direct contact, according to the guide, is seen as preferable to reach out to the consumers compared to information via the stores and other indirect means.

The Austrian government recommends that affected consumers should be informed as directly as possible and that the information be also prominently posted on the company's own website and at the point of sale. In the case of specialised products, advertisements in specialist magazines are recommended. It also recommends contacting associations specialising in consumer information. Mass media announcements may also be necessary if other channels prove insufficient.¹¹⁷

Outside the EU, the guidelines published by ACCC (2013)¹¹⁸ state that "if suppliers know who and where their customers are, they should create targeted recall notice programmes. If they do not, the ACCC recommends advertising on a wider scale to ensure a successful recall". Similarly, the US National Highway Traffic Safety Administration (NHTSA) supports using a multi-channel and multi-touch approach to improve recall effectiveness, that is using both direct and indirect communication methods and delivering messages frequently¹¹⁹.

The US Consumer Product Safety Commission (US CPSC) recommends the use of new or innovative methods of communication, in addition to more traditional ones like news releases or company's websites. Among the recommended innovative means of communication, the CPSC lists: 1) a video news release to complement written news release, 2) use of firm's social media presence, such as Facebook, Google+, YouTube, Twitter, Flickr, Pinterest, company blogger networks, blog announcements, 3) purchase of mailing lists to obtain information on recalls from mobile devices, 4) paid notices via TV, radio, Google, Facebook, and other online search engines The Handbook contains specific

¹¹⁶ Norwegian Directorate for Civil Protection, available at : <https://www.dsb.no/lover/produkter-og-forbrukertjenester/veiledning-til-forskrift/veileder-om-meldeplikt-ved-farlige-produkter/#tilbakekalle-produkter>

¹¹⁷ Bundesministerium (2020), Rückrufe von Verbraucherprodukten available at: <https://www.sozialministerium.at/dam/jcr:35a4f566-f118-4871-80c3-a6196ea9b5e5/FAQ%20R%C3%BCckrufe.pdf>

¹¹⁸ Australian Competition & Consumer Commission (2013), Product Safety Bulletin for businesses: What you need to know about: Hot to conduct a successful recall, available at: https://www.accc.gov.au/system/files/658_Product%20safety%20bulletin_how%20to%20conduct%20a%20successful%20recall_FA3.pdf

¹¹⁹ United States Department of Transportation, Tips for Increasing Recall Completion Rates, available at: <https://www.nhtsa.gov/vehicle-manufacturers/tips-increasing-recall-completion-rates>

suggestions for communicating recall information via news releases, video news releases, posters, social media and other forms of notices.¹²⁰

Likewise, the guidelines by Health Canada require the recalling company to publicise the recall on the Health Canada website and use other communication tools to communicate the recall, such as company websites, social media platforms, media/marketing outlets, direct notices and posters.¹²¹ Along the same lines, national guidelines for product recalls in New Zealand¹²² suggest the use of the following channels to inform the public of a recall: 1) direct contact with consumers, 2) recall notices in newspapers, in-store, on the business website, or on the product recalls website, 3) media releases, 4) notices in newsletters/websites of relevant organisations, 5) advertising in magazines, 6) specialist publications, radio, TV, retailers' mailers.

In the UK, the 2018 Code of Practice by the British Standards Institution¹²³ lists the following example communication channels that could be used to reach the target audience:

- Personal contact with impacted consumers (via e-mails, letters, text messages, phone etc);
- Recall action webpages linking to the home pages of relevant companies;
- Links to recall pages of consumer websites and/or websites of professional bodies;
- Social media;
- Point-of-sale information e.g. through leaflets or mini-posters;
- Government and third-party recall websites;
- Broadcast media and consumer programmes;
- Media newsrooms;
- Advertisements in newspapers or specialist publications;
- Free telephone services; or
- Mailshots or door-to-door leaflets.

In general, a multi-channel approach is recommended to increase the recall effectiveness, as opposed to use of a single channel only.

Based on the UK guide, the decisions on the actual communication channels to be used for a particular incident should be tailored and based on a range of factors including the following:

- target audience;
- seriousness of the risk;
- scale and geography of product distribution;
- reliability of distribution data held by the business and third parties;
- traceability of the product to the consumer.

In the stakeholder interviews, it was suggested by a national market authority that the European Commission could publish/promote an EU level recall guide for manufacturers and another one for authorities. In the latter, the guidelines should focus on ways to enhance recall effectiveness and provide suggestions on how to encourage manufacturers to conduct a good recall.

¹²¹ Health Canada (2019), A guide for voluntary recall of consumer products or cosmetics in Canada, available at: <https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/industry-professionals/recalling-consumer-products-guide-industry.html#a5.5.1>.

¹²² New Zealand Trading Standards, Guidelines for product recalls, available at : <https://productsafety.tradingstandards.govt.nz/for-business/product-recalls/guidelines-for-product-recalls/>

¹²³ British Standards Institution (2018), Supporting better product recall, 4.4.7.4 Communication channels, p. 10-11.

Another consumer protection authority mentioned that a repository of best practices, including information from non-EU jurisdictions, would be useful in terms of improving recall effectiveness. It was also suggested that, for products sold in more than one country, the European Commission should publish some common guidance and best practice insights into recall practices.

4.3.2. Authorities' involvement in spreading recall information

There is an increased effort among national governments to engage in spreading recall information directly to consumers through their websites and social media. In the US, the CPSC publishes a joint press release with the recalling company unless 95% of affected consumers can be reached directly. In several countries, there are central national recall databases that act as a single access point about recall notices for consumers.

Below we provide the list of examples of the national recall databases.

Figure 19: Example of national recall databases and portals

Country	Link to the national recall database
EU / EEA countries	
Austria	https://www.ages.at/produktwarnungen/
Bulgaria	https://kzp.bg/opasni-stoki-v-bulgaria?f_category=0&f_year=2020&f_search (mandatory recalls) https://kzp.bg/novini/dekatlon-balgariya-eood-predpriema-dobrovolni-merki-vav-vrazka-s-ustanovena-opasnost-pri-izpolzvane-na-detski-shorti-za-bord-500kid-olaian (voluntary recalls)
Denmark	https://www.sik.dk/farlige-produkter
Estonia	https://www.ttja.ee/et/tarbijaoigustest-ettevotjatele/ohutus/toote-ohutus/2018-aastal-turult-korvaldatud-ohklikud-tooted
Finland	https://www.ruokavirasto.fi/henkiloasiakkaat/tietoa-elintarvikkeista/takaisinvedot/ https://recall.trafi.fi/#vclass=&mark=&model= (motor vehicles)
France	https://www.economie.gouv.fr/dgccrf/securite/avis-rappels-produits
Germany	www.rueckrufe.de
Hungary	https://fogyasztovedelem.kormany.hu/#/veszelyes_termekek_
Iceland	https://www.neytendastofa.is/neytendur/solubonn-innkollunvoru/
Ireland	https://www.ccpic.ie/consumers/product-safety/product-recalls/
Latvia	https://www.ptac.gov.lv/lv/jaunumi?category%5B103%5D=103
Luxembourg	https://portail-qualite.public.lu/fr/alertes.html
Malta	https://mccaa.org.mt/Section/Content?contentId=4407

Country	Link to the national recall database
The Netherlands	https://terugroepregister.rdw.nl/Pages/Terugroepregister.aspx (motor vehicles)
Norway	https://farligeprodukter.no/
Poland	http://publikacje.uokik.gov.pl/hermes3_pub/
Romania	https://anpc.ro/categorie/44/retrageri-voluntare-de-produse
Slovenia	https://www.gov.si/zbirke/seznami/nevarni-proizvodi/
Sweden	https://www.konsumentverket.se/aktuellt/aterkallelser-av-varor/ https://www.elsakerhetsverket.se/privatpersoner/dina-elprodukter/forsaljningsforbud/ (electrical products)
Non-EU countries	
Australia	https://www.productsafety.gov.au/recalls
Canada	https://healthycanadians.gc.ca/recall-alert-rappel-avis/index-eng.php
UK	https://productrecall.campaign.gov.uk/
US	https://www.cpsc.gov/Recalls
NZ	https://www.recalls.govt.nz/

Figure 20: Example of the user-friendly national database for recalls and safety alerts (Canada)¹²⁴

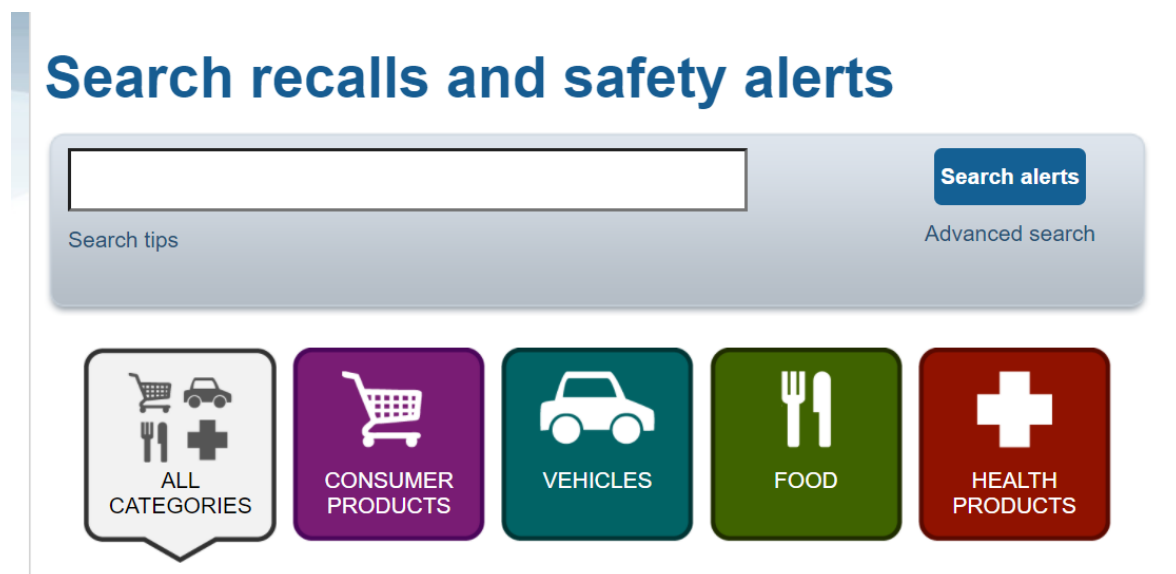
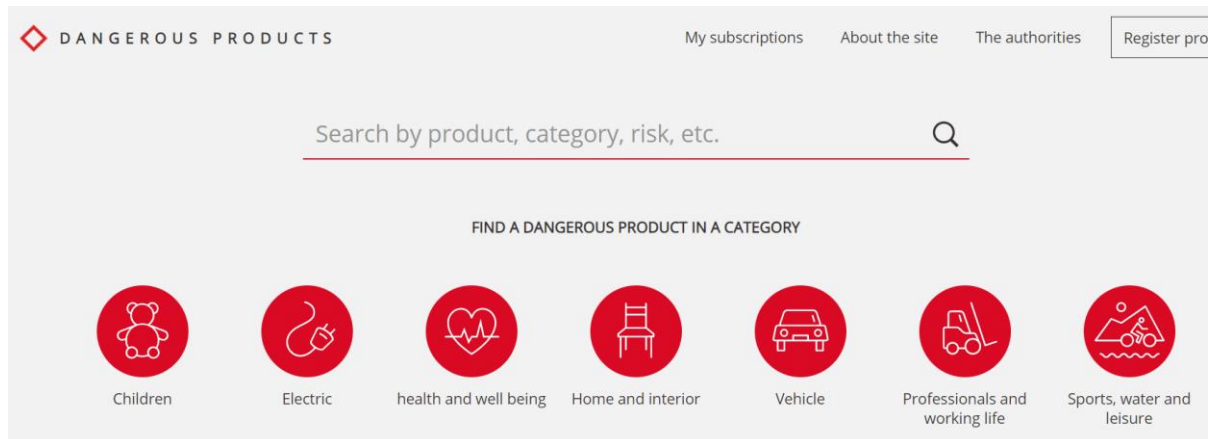


Figure 21: Example of the user-friendly national database for recalls (Norway)¹²⁵

Efforts are also made to make these databases more user-friendly for mobile users and/or link them with mobile applications.

Indeed, mobile technology is the key to reach consumers according to the Health Canada report (2018). Canadians seem to prefer mobile communication compared to other means for this purpose. The Canadian Food and Safety Inspection Agency reported that 89% of visitors to their homepage were using mobile browsers. They also reported that 83% of the traffic to their recalls' pages came from Facebook¹²⁶. In general, there are around 7 million annual visits on the current recall safety portal, most of which are accessed via mobile.¹²⁷ This led to a project aimed at optimising the public recalls and safety alerts website. Initiated in 2018, the project entered a second round in 2019 with the aim to improve the search solution by using open source technology.¹²⁸

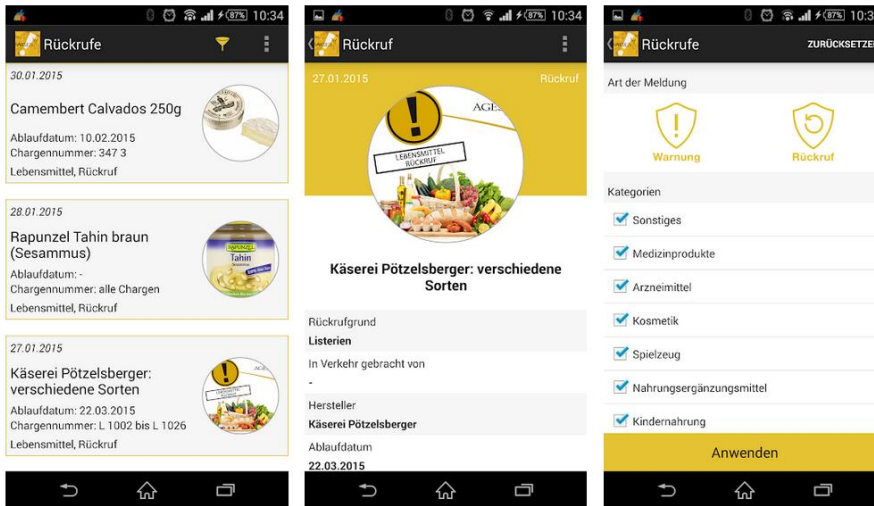
Additionally, some of the national authorities, such as Austria, France, the US and Canada have undertaken projects to develop recall apps to facilitate communication with consumers. Below we provide some examples from these countries.

Figure 22: Example of the mobile app for recalls and safety alerts warnings (Austria)

¹²⁶ Government of Canada (2018), Project summary: Recalls and safety alerts, available at: <https://blog.canada.ca/research-summaries/recalls-research-summary.html>

¹²⁷ Government of Canada (2018), Recalls and safety alerts: An optimization project to better protect Canadians, available at: <https://blog.canada.ca/2018/10/18/recalls-safety-alerts.html>

¹²⁸ Government of Canada (2020), Research summary: Recalls and safety alerts search optimization, Round 2, available at: <https://blog.canada.ca/research-summaries/recalls-safety-alerts-research-summary.html>



The application compiles the most recent recalls and safety alerts from Austrian Agency for Health and Food Safety (AGES) for a range of food and non-food products¹²⁹

Figure 23: Example of the mobile app for safety alerts (US)

CPSC Recall App



The CPSC Recall App is a stand-alone mobile app that enables the public to search for product recalls.

Please download the CPSC Recall App and let us know what you think by sending an email to suggestions@cpsc.gov.

[Download the CPSC Recall App](#)

The CPSC Recall App is a stand-alone mobile app that enables the public to search for product recalls¹³⁰

A number of countries also publicise recall information through their social media.

Automotive recalls

As previously mentioned, in all EU Member States car owners are required to register their own car with public authorities. An informal survey with national registration and roadworthiness authorities carried out by the European Commission in February 2020 sought to collect information on authorities' involvement in communicating recall information to consumers. Based on the 17 replies received, in the majority of countries, the responsibility for informing the vehicle owners lies with the recalling company (which can request contact details of affected owners from the vehicle register). However, in a number of EU countries, authorities do contact consumers directly, either routinely or in specific situations. In Denmark and Hungary, recall letters are as a default option sent to vehicle owners/holders by national authority and in Austria the contact is made by the association of insurance companies (which is the entity responsible for operating the vehicle register)¹³¹. In Finland, the third notification is accompanied by a letter from the authority, which informs car owners about possible sanctions in case of non-compliance.

¹³¹ Informal European Commission survey with national registration and roadworthiness authorities (Feb. 2020). Based on replies received from 17 authorities.

German and Dutch authorities offer a paid mailing service, whereby they send out the letter on behalf of the manufacturer, who bears the shipping costs. In addition, some countries (Finland¹³², the Netherlands¹³³) run public car recalls databases, which allow searching for recalls based on brand and other information. It is also possible to check whether the car is subject to a recall based on the license plate number.

One industry survey participant in the automotive sector suggested that increasing information sharing with different departments of the national authorities to alert consumer directly about the recall campaigns is key (e.g. in cases when consumers pay annual road tax, have a safety inspection carried out, renew insurance).

In terms of future EU initiatives to enhance product recall effectiveness, several stakeholders mentioned that the Safety Gate website should be made more user friendly. It was noted that there is the misconception that consumers read Safety Gate notices, whereas in reality it is only really authorities and industry/consumer associations who follow the notices there.

4.3.3. Role of consumer organisations in spreading recall information

In terms of public initiatives by consumer organisations, a number of national consumer organisations, such as UFC Que Choisir in France¹³⁴ and Stiftung Warentest¹³⁵ publish recall notices on their websites.

The UK charity Electrical Safety First in addition to listing all the electrical recalls that are currently active in the UK on its website has also come up with an innovative idea to encourage consumers to check their home for recalled items. They have teamed up with Amazon Alexa to allow consumers to enable a free extension which lets them find out if any of their electrical products have been recalled¹³⁶. There is also a 'How can it kill me' game to allow users to discover how their electrical products could cause them danger¹³⁷.

Similarly, a stakeholder from the domestic electrical sector stressed the importance of sharing recall announcements and messages with third parties such as charities, consumer groups and politicians urging them to share the recall details with their members. The stakeholder believes the consumers are more likely to listen to a 'trusted voice' and take action.

4.3.4. Role of online marketplaces in spreading recall information

Online marketplaces can also play an important facilitating role in passing recall information to consumers, given that they have the possibility to identify consumers who have purchased a recalled product. On top of the "notice and take-down" procedure set out in the E-commerce Directive¹³⁸ and also in the more recent Commission proposal for a Digital Services Act (DSA)¹³⁹, the signatories of the EU Product Safety Pledge have adopted additional voluntary commitments, which include cooperating with EU Member States' authorities and sellers to inform consumers about relevant recalls or corrective

¹³² <https://recall.trafi.fi/#vclass=&mark=&model=>

¹³³ <https://terugroepregister.rdw.nl/Pages/Terugroepregister.aspx>,

¹³⁴ <https://www.quechoisir.org/rub-produit-au-rappel-t647/>

¹³⁵ <https://www.test.de/thema/rueckruf/meldungen/>

¹³⁶ <https://www.amazon.co.uk/Absurd-Electrical-Safety-First/dp/B07PB7XQQK>

¹³⁷ <https://www.electricalsafetyfirst.org.uk/what-we-do/consumer-campaigns/online-campaigns/how-can-it-kill-me/>

¹³⁸ Intermediary service providers carrying out hosting activities may benefit under certain conditions from an exemption of liability. However, the liability exemption is subject to specific conditions. It only applies if the intermediary service providers have no actual knowledge or awareness of the information hosted (in this case the dangerous product) or, upon obtaining such knowledge or awareness, they act expeditiously to remove or to disable access to it. If hosting service providers do not fulfil these conditions, they are not covered by the liability exemption and thus they can be held liable for the content they host. For more information, see also the [European Commission notice on the market surveillance of products sold online \(2017/ 250/01\)](#).

¹³⁹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (COM/2020/825 final)

actions.¹⁴⁰ Online marketplaces take different approaches to recalls, some companies approaching the buyers directly and others requesting the sellers to reach out to their customers.

One of the interviewed marketplaces, for example, adopts the first approach by directly reaching out to the customers. In this case, it is the marketplace itself that – on behalf of the manufacturer – contacts the customers that have purchased the product under recall on the marketplace. However, all responsibilities of the recall campaign (including also the remedies to be provided to customers) remain on the manufacturer and the marketplace provides a link to manufacturers' website for further information. They claim that this approach was chosen to ensure data protection of its own customers.

On the other hand, another online marketplace explained that they do not take a direct contact with buyers and thus they act as an intermediary in the recall communication process. In case of notifications on dangerous products, for example by authorities, this marketplace informs sellers about the safety issue and provides clear instructions to contact the buyers immediately. The stakeholder explained that they do not directly monitor the actions of the sellers and especially buyers and therefore they do not measure recall effectiveness.

The same stakeholder mentioned that they are currently building an online portal where market surveillance authorities will be able to automatically upload information about dangerous products. The portal will allow for an option to contact sellers but also more importantly to contact buyers directly by market surveillance authorities.

The third online marketplace we spoke to plays a similar intermediary role in the recall process, meaning that they do not directly reach out to buyers. Consequently, they do not have insights about recalls effectiveness. Their communication process in case of a product recall between market surveillance authorities (MSA), marketplace, sellers and buyers is similar to the one described above, that is the marketplace directly communicates only with the sellers and not buyers. The stakeholder pointed out that from their perspective the main issue to improve recall effectiveness is to correctly identify which product has been recalled (based on product specification and product batches). As their listings are global, they claim this is a complex and time-consuming process. Once a product that is under recall has been correctly identified, the seller can easily contact the buyers through the platform (i.e. through email notifications).

¹⁴⁰ See: https://ec.europa.eu/info/sites/info/files/voluntary_commitment_document_4signatures3-web.pdf

5. Impact of content and layout of recall notices on recall participation

5.1. Consumers' drivers, barriers and trade-offs

5.1.1. Biases to be watchful of when designing recall notices

Existing research indicates that the content and layout of a recall notice can influence consumers' propensity to engage with a notice, their understanding of the danger attached to holding on to a recalled product, and their likelihood to react to the information in the recall notice ("recall-to-action probability").

The OECD 2018 report¹⁴¹ points out that understanding consumer behaviour is essential to enhance the effectiveness of recall communication. Behavioural biases that should be taken into account when creating recall announcements are, for example:

- information overload (if recalls contain too much information or consumers feel overwhelmed with information on recalls, they may disengage and not take action),
- framing effects (consumers are influenced by how information is presented). Presenting an option in a certain way may induce consumers to evaluate the choice from a particular reference point. For example, consumers are less likely to respond to recalls if the potential hazards are not clearly stated),
- inertia (with an inherent fear of the unknown, when consumers face complex products or a bewildering array of choices, they may ignore possible choices or choose not to choose),
- endowment effect (consumers often demand much more to give up an object than they would be willing to pay to acquire it. This is because naturally humans tend to be loss averse, even if it is in relation to a recalled product),
- over-optimism (consumers tend to think that they are more likely to experience an outcome that is better than the average expected outcome),
- time inconsistency (consumers may make choices that are not consistent across time periods due to conflicts between short-term urges and long-term interests).

Most interviewed stakeholders agreed that improvements should be made to the recall advertisements themselves to make them clearer and more visible to the consumer.

5.1.2. Description of risk

The OECD Policy guidance¹⁴² recommends clear communication of the risk posed by the recalled products, avoiding verbose and mixed messages that may confuse consumers and demotivate them to take action. This is also borne out by other studies which point out that consumers may misunderstand the actual risk represented by continuing to use the product, e.g. if the threat is communicated as a chance / probability (i.e. "1 in 100 chance the product catches fire when continuing to use")¹⁴³.

Likewise, recall guides in third countries (e.g. UK, Australia) stipulate that recall notices should not use terms decreasing the perception of risk (e.g. 'voluntary/precautionary recall' or "overheating" instead of fire).

For the focus group participants, the perceived seriousness and likelihood of harm caused by a product's malfunctioning was a decisive factor for acting or not acting on a product recall. The participants agreed that the mention of an immediate and tangible danger in a

¹⁴¹ OECD (2018). Measuring and maximising the impact of product recalls globally: OECD workshop report, OECD Science, Technology and Industry Policy Papers, No. 56, OECD Publishing, Paris, retrieved from: <https://doi.org/10.1787/ab757416-en>.

¹⁴² OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLang=En)

¹⁴³ Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux

product recall notice, such as the potential for suffering an “electric shock”, was a key driver to take action. Various participants said that only direct danger to themselves or their family would make them stop using a product and return it to the seller or manufacturer immediately. Several participants noted that in case of less imminent or concrete risks, such as the potential for “overheating”, they would keep using the product for some time before taking action, or they might not take action at all. Images shown to respondents are provided in Annex 8 in the Technical Annex.

“When I read ‘overheat’ I would think, the machine might get a little warm. I would not have guessed that you can get an electric shock from it. I wouldn’t risk that.” [Germany, high education group]

“If they only talk about overheating, I’d probably make one or two coffees more before returning it. With this last message [with stronger safety-related warnings], I definitely wouldn’t switch it on, ever again!” [Portugal, high education group]

“[With regard to the potential for suffering an electric shock] It’s going in the bin. I don’t even want a new one. They’ve lost me for life.” [Ireland, low education group]

OECD (2018)¹⁴⁴ also pointed out that using dramatic signal words to inform consumers of the risk rather than softer terms such as ‘voluntary’ would increase recall effectiveness. This was borne out by the focus groups, which showed that participants generally felt that a good recall message needs to show a sense of urgency, underlining the risk to the consumer. The term “Important safety notice” in the headline received some positive acclaim as “attention-catching”. The phrase “voluntary product recall”, on the other hand, was viewed as too weak, self-evident, or confusing because participants were unsure to whom “voluntary” referred or what it meant.

“This phrasing [with voluntary] is not one that makes you pay attention” [Bulgaria, low education group]

“See where it says voluntary product recall. Does that mean they’re doing that voluntarily?” [Ireland, low education group]

“I didn’t like ‘voluntary product recall’ anyway. ‘Product recall’ is better, because in the end it’s up to you anyway whether you do something or not.” [Germany, low education group]

[A recall notice headlined] “‘Important safety notice’ is more attention-catching than ‘product recall’. ‘Product recall’ can also be a small problem ... when it says ‘safety’, it’s different. Then I know it’s not about my coffee don’t tasting good...” [Germany, high education group]

“The one with the greatest impact on me was the border and all the signs used in it, and the fact of saying important safety notice.” [Portugal, low education group]

On the other hand, the addition in the example recall notices of a phrase like “Protect yourself and your loved ones” (included in messages 2 to 5) was seen as superfluous or over the top.

“This one is over the top, “protect yourself and your loved ones” ... every normal and rational person would immediately act anyway.” [Bulgaria, low education group]

5.1.3. Standardising recall information

Consumers may be put off from reading or acting on recall notices if they are too complex. Consumers have many competing demands upon their attention and too much information

¹⁴⁴ Ibid.

means that they may experience “information overload” where they cannot cognitively process the information they are given and might make worse decisions, i.e. providing too much, densely-packed information may be counterproductive.

The OECD Policy guidance¹⁴⁵ provides comprehensive recommendations on the content of recall notices. Under the guidance, the businesses shall apply the following principles when preparing a recall notice: ensure the title or heading of the recall notice is direct and draws attention to the announcement, describe the recalled product in plain language; include clear and high quality images of the recalled product, and key product identifiers, such as model, batch and serial numbers; provide simple instructions on how consumers can participate in a recall; provide contact details to enable consumers to seek further information, including through, for example, a dedicated helpline.

Likewise, a number of jurisdictions (including Finland, Norway, Australia, Canada, UK and US) have defined the main elements that need to be included in a recall notice, such as product description, product pictures, hazard description, instructions on how to participate in a recall and contact details. In the US, unless the recalling company can contact 95% of affected consumers directly, the CPSC agrees the language and issues a joint news release with the company¹⁴⁶. The Australian and UK guides set out fully standardised templates for recall notices, including design elements.

Stakeholders interviewed during the study pointed out that **having a standardised template for the recall notice might allow consumers to engage more easily**. For example, one online marketplace shared with us examples of standardised templates that they use to provide refunds. The template begins by naming the authority that has issued the recall, providing more information about the official notification (for example the product code and the percentage of batches impacted). The template calls on consumers not to use the product and to return it (‘refunds upon return’) or dispose of it (‘proactive recalls’). Interestingly, the template also asks consumers to share the email with others in case the product was bought for someone else.

Similar views about content and structure simplification were shared by focus group participants. They preferred clearly structured recall messages, highlighting the hazard, the actions to take, and the contact details (see message 3 in Annex A8.8 in the Technical Annex). Readability was seen as crucial. Bullet points were preferred over a single body of text with the same information. Participants favoured clear and to the point wording.

“This one [with a concise layout] is formulated very well indeed, because it says why, how and what to do to avoid this risk, and how to contact them so we can get our new free replacement.” [Bulgaria, low education group]

“That [notice with a concise layout] jumps out at you and you barely have to read it. The others you kind of have to trawl through the text.” [Ireland, high education group]

5.1.4. Inclusion of product picture

The inclusion of a product picture and further product identifiers (as well as a clear visual indication of where to find them on the product) can help consumers immediately determine if they own the recalled product.

Stakeholders made it clear that they need to work with the assumption that **consumers’ knowledge of the product is very low**. Market research on consumer literacy found that consumers sometimes do not even understand product tags very well, and so it is of fundamental importance that the notice is as clear and simple as possible. This means including high quality pictures of the product in the advertisement so that consumers have

¹⁴⁵ OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLang=En)

¹⁴⁶ CPSC (2012), Recall Handbook, available at: <https://cpsc.gov/s3fs-public/8002.pdf>

a greater chance of recognising an affected product, considering the use of videos to show the product more clearly and to make the advert more appealing to consumers.

Focus group participants also appreciated the inclusion of a product image, because it draws attention and serves to alert those consumers who focus less on the text.

"I'm for including the picture of the machine, because it would make me check the model to be sure whether or not that was the same model as mine..." [Portugal, low education group]

"It is an eye-catcher because I often do not read the whole mail. Now when I see the picture I immediately see, 'Oh, it's my washing machine', so I better read the text." [Germany, low education group]

Likewise, in the follow-up focus group with vulnerable consumers in Bulgaria, a preference was shared for design that would use an image

"It should have a picture of the product to make it interesting, something like "Read it is important" to attract my attention" (Lower education group, Bulgaria)

However, one participant explicitly warned that a picture could prevent checking one's product if the same product is available in different varieties and colours.

"The pictures help to draw attention to it, but they can also work in the opposite sense. For instance, if my machine is black and the one in the picture is white, I look at it and think "It's not mine". [Portugal, high education group]

5.1.5. Striking visual elements

Stakeholders noted that consumers often do not understand risk well, and using striking visual imagery could enhance the visibility of notices and increase awareness. Two different Bulgarian stakeholders specified that using bold colours (particularly red) for the text of recall notices really helps to increase their visibility and make them clearer to consumers.

This issue was explored in the focus groups, which discussed participants' attitudes towards striking visual elements such as a red frame and exclamation mark. Participants had mixed feedback to these elements. While some participants considered the frame as 'eye-catching', others felt that it was exaggerated¹⁴⁷ and made the notice look like spam email. However, eye-catching imagery might work better in indirect communication.

"Optically this is more catching. The other ones looked like an obituary. Red colour is a signal colour, it jumps in everyone's eye." [Germany, high education group]

"The one with the greatest impact on me was the border and all the signs used in it, and the fact of saying important safety notice." [Portugal, low education group]

"If I would get this as an email, I would think immediately of spam due to the design. But if this would hang in a store..." [Germany, high education group]

"This is a more alarming one... I think this is more effective and will catch full attention." [Bulgaria, low education group]

"If it's in an email, maybe not [i.e. the visuals elements not needed], but if it's a poster in a shop or trying to catch your attention, then that's a different story." [Ireland, high education group]

¹⁴⁷ We note that in the focus groups, the borders and graphical elements were designed to be very striking. In addition, in the focus group setting where participants' attention was directed to the notices, they may have noticed and reacted more strongly to these elements than for such a notice in real life.

"If I would get this as an email, I would think immediately of spam due to the design. But if this would hang in a store..." [Germany, high education group]

"I think it's a bit exaggerated [with the red frame]. It reminds me of spam mails." [Germany, low education group]

"I do not like it...it is completely over the top and I prefer the previous one." (Bulgaria, low education group)

"It is minimising the importance of the text and doesn't instil trust. It is overly ornamented, over the top, just leave this triangle and remove the border." [Bulgaria, low education group]

In the follow-up focus groups with vulnerable consumers in Bulgaria, participants supported the use of colour or warning signs to draw consumers' attention to the recall:

"To contain a warning sign, text "Read this is important information", so not to miss it" (Low-income group, Bulgaria)

"Perhaps a more colourful background for the banner and the text "Recall of product" should be in bold to stand out. This will work for me." (Non-online group, Bulgaria)

5.1.6. Impact of the "messenger" on recall participation

The entity recalling the product appears to be highly relevant to the effectiveness of recalls. Engagement with recall notices may be impacted by whether a trustworthy expert, authority or influencers communicate the recall to consumers (OECD, 2018¹⁴⁸). This is consistent with the findings of the consumer survey, which found that scientists and consumer associations were more trusted by consumers than producers; survey respondents tended to not trust celebrities or influencers (see Section 4.1.5).

Moreover, an interviewed stakeholder from the domestic electrical sector in the UK pointed out that it is important to team up with market surveillance authorities when spreading news of recall announcements, since they believe that a message from a 'trusted messenger' is more effective than simply from a manufacturer or retailer. The interviewee also explained that in line with this concept, they are launching a trail with the UK safety regulator to see if use of a Government logo has an impact in increasing registration rates

5.2. Mapping and assessment of commercial practices

5.2.1. Language used in recall notices

In general, country researchers carrying out desk research on recall notices perceived that the language of the recall campaigns analysed was easy to understand, avoiding complex or technical language. Even for more complex products (e.g. gas kitchen stove, core drill) in the majority of cases technical terminology or jargon was avoided.

However, in some campaigns there were differences between the language used in different communication channels (e.g. manufacturer's website vs manufacturer's social media or national consumer organisation). In the example of a pressure washer from the US, the national consumer organisation uses more emotional language to highlight the associated risks for consumers and their families, while the manufacturer uses a more descriptive and neutral language. This might confuse consumers in terms of their

¹⁴⁸ OECD (2018). Measuring and maximising the impact of product recalls globally: OECD workshop report, OECD Science, Technology and Industry Policy Papers, No. 56, OECD Publishing, Paris, retrieved from: <https://doi.org/10.1787/ab757416-en>.

perception of the level of risk or action required and results in limited interest and participation in the recall.

Nearly all recall announcements highlighted in some manner the benefits of participating in a recall (e.g. repeating information about receiving a replacement free of charge, highlighting the importance of customers' safety), while some used persuasive or emotional language (e.g. keeping their loved ones safe). Some products also used behaviourally-informed language highlighting the risk of harm or loss if consumers do not participate in the recall (particularly stressed for children's articles). However, often a simple, rather descriptive narrative was adopted in the recall notices, as opposed to using persuasive formulations.

A domestic appliances manufacturer highlighted the need to avoid legal and technical language to which consumers tend to react less frequently. Instead, the tone of the recall notice should be sincere, apologetic, and customer-friendly. The stakeholder also shared their insights about the subject heading of the email and the open rate results. The use of words like "Update" and "Important" seem to show a higher open rate than some of the subjects starting with the name of the manufacturer. Their data also suggests that subjects containing 'please' or have a question are least likely to be opened demonstrating a need for the message and headline to be strong.

5.2.2. Product descriptions

Most of the analysed recall announcements provided a clear description of the recalled product in the recall notice, which included product pictures and product identifiers, such as model, batch and serial numbers. These were often accompanied by clear explanations of where to find product identifiers, or providing pre-generated lists. However, in some cases the ways of identifying the faulty products were not entirely clear, e.g. when a recall page includes a photograph of the recalled product but does not visually indicate where to find the product identification numbers; or when a recall website does not include a photograph of the product but contains only images indicating approximately where to find the identification numbers on the product. The researchers assessed this practice as providing incomplete information, as both product picture and pictures of product identifies should be provided in the recall notice.

5.2.3. Description of risk

In general, researchers found that the risk described in the recall announcements was not always very transparent. Recall notifications frequently used language that might send "mixed signals" to consumers. More than half (35 out of 55) recall notices used terms that could downplay and soften a perceived risk level associated with the recall, for example:

- 'voluntary/precautionary recall' or 'voluntary replacement programme' (27 cases)
- 'in rare cases'/'in specific conditions' (20 cases)
- highlighting that there have been no reported injuries (2 cases)

In limited cases, the risk description was vague, i.e. when the risks were not clearly explained. This was the case in a baby's care seat recall in Portugal, where the recall notice only states that a test was conducted, and the breakage of a component was observed.

At the same time, nearly half of the recall notices used elements increasing and emphasising the risk level associated with the recall, including:

- Use of stronger signal words e.g. 'danger', 'immediately stop using the product', 'ban' or 'immediately', which stresses the urgency of risk. In some cases (8) consumers were instructed to stop using the product as it represents a high risk. Similarly, Fisher-Price instructs consumers to 'discontinue use of the item immediately' and states that 'infant fatalities have occurred'.
- As part of the recall of a baby monitor in Denmark consumers were required to demonstrate evidence that the faulty product was disposed. This does not seem to be a common practice and was not identified for other product recalls.

- Use of capital letters or bold in description of risk.

The type of risk highlighted the most in the analysed recall announcements was the risk for the consumer's own safety and the message of the recall would appeal to people's desire for safety for themselves. However, as expected, there was one notable exception: products used by children and toys, where the risk for the family and children's safety was emphasised. The recall announcements did not typically highlight risk for the general public, except for one case of a communication device. The announcement of Lenovo (Denmark) stated that the recall was conducted in the interest of public safety in cooperation with relevant authorities in the EU. It did not mention any risk to the consumers' own safety or the safety of their families as such.

5.2.4. Layout of recall notices

Country researchers found that the layout of recall notices was broadly comparable across various product categories and countries, with the majority composed of short paragraphs with subheadings/bullet points and the presence of the brand logo. A substantial minority of analysed recall campaigns, however, had a complex layout including lengthy continuous text and no eye-catching elements (lack of bold or highlighting of key words). Some recall notices used eye-catching graphical elements, such as red colour, warning signs or capital letters.

5.3. Policy initiatives (recommendations and initiatives by public bodies)

Some of the identified national guidelines provide specific recommendations about recall notices content and layout. Below we describe selected examples from EU/ EEA member states and third countries.

For example, the Finnish Safety and Chemicals Agency provides guidance about the recall notice content and format on their website¹⁴⁹, setting out that a good recall notice:

- Is large and "draws attention";
- Has either the word "RECALL" or (if the measure is not a recall) "IMPORTANT SAFETY NOTICE" in the heading;
- Includes a picture and information to identify the product, such as brand or trade name, model, batch or serial number etc. Other relevant identifying information includes colour and size of the product, where to find the serial number and time and places where the product was sold;
- Provides a clear description of the risk;
- Includes clear instructions to consumers on what action they need to take e.g. discontinue using the product etc;
- Provides contact information for consumers to find information in the local language.

The guidelines given by the Norwegian Directorate for Civil Protection¹⁵⁰ stipulate that the recall notice should make the message clear so that it is easy to understand. The points that should be included in whole or in part are:

- clear text in the heading (e.g. WARNING!)
- brief description of why the information is provided.
- description of what the problem consists of and what damage it can cause
- description of how the product can be identified (e.g. limited to a certain series, or part number) and image of the product including the identification numbers

¹⁴⁹ Finnish Safety and Chemical Agency, available at: <https://tukes.fi/en/products-and-services/dangerous-products/content-and-format-of-a-recall-notice>

¹⁵⁰ Norwegian Directorate for Civil Protection, available at : <https://www.dsb.no/lover/produkter-og-forbrukertjenester/veiledning-til-forskrift/veileder-om-meldeplikt-ved-farlige-produkter/#tilbakekalle-produkter>

- information on what the customer should do if they own the product in question (i.e. consumers could either repair the product, receive a new product or receive a refund if the recalled product is returned where it was purchased).
- Contact details such as a telephone number the customer can contact for further information together with company name and address.

In Australia, the Competition and Consumer Commission (ACCC) issued Consumer product safety recall guidelines in 2015.¹⁵¹ According to these guidelines, the information on recall notices for consumers should be detailed, precise, clear, and easy to understand/contain no overly technical terminology. The guidelines set out the key elements to be included in a recall notice (product description, picture of the product, description of the defect, statement of the hazard, a section titled 'What to do', which explains the immediate action consumers should take, 'contact details', which explains who consumers should contact to receive a refund or have the product repaired/replaced) and states that the notice should not include the words 'voluntary recall'. Furthermore, detailed specifications for newspaper recall notices are reported in terms of size, font and style of the recall (as in the figure below).

Figure 24: Sample recall notice, Australian Competition and Consumer Commission



The ACCC also published additional tips in 'easy English' to inform suppliers about how to conduct a successful recall,¹⁵² how to communicate and advertise a consumer product

¹⁵¹Available at:

<https://www.productsafety.gov.au/system/files/Consumer%20product%20safety%20recall%20guidelines.pdf>

¹⁵² See: https://www.productsafety.gov.au/system/files/Product%20safety%20bulletin%20-%20How%20to%20conduct%20a%20successful%20recall_0.pdf

safety recall¹⁵³, etc. In addition, recall advertisement templates are freely available online,¹⁵⁴ helping suppliers to create a recall notice that is as user friendly as possible.

In the UK, a new comprehensive guide from 2018¹⁵⁵ includes a dedicated section about the content of recall notices. The guide recommends the use of simple and understandable language as well as graphics that facilitate communication with non-native speakers. It indicates that a “corrective action announcement” should always include:

- A clear heading drawing attention to the announcement and using signal phrases such as “Important Safety Warning” and any corrective action e.g. “PRODUCT RECALL”;
- A clear description of the risk;
- Details to identify the product such as brand, barcode, colour, size etc.;
- A product photograph;
- What customers should do if they believe they possess a product covered by the announcement;
- Details of any remedies (refunds, exchanges, repairs etc.);
- Websites and free telephone number for further information.

The guide also indicates additional information to include wherever possible:

- Model, batch number, serial number and where this information can be found on the product;
- Additional instructions for customers to ensure their safety e.g. “Stop using immediately”, “Unplug and do not use” etc.; and
- Potentially a “checker tool” on webpages or in online messages to help consumers to identify if their product is covered by the announcement.

¹⁵³

See: https://www.productsafety.gov.au/system/files/1556_How%20to%20communicate%20and%20advertise%20a%20consumer%20product%20safety%20recall_FA.pdf

¹⁵⁴ See: <https://www.productsafety.gov.au/recalls/guidance-for-suppliers/recall-advertisement-templates>

¹⁵⁵ BSI (2018), Supporting better product recall, 4.4.7.3 Content of recall and other corrective action, Announcements, p. 9, <https://www.bsigroup.com/en-GB/pas7100-supporting-better-product-recalls/>

Moreover, the guide provides model examples for a general recall notification (see figure below), a direct notification as well as a notification using social media.

Figure 25: UK recommended general recall notification¹⁵⁶



The Canadian government agency Health Canada provides guidelines on their website (latest update in 2019)¹⁵⁷. As a best practice, the consumer recall notice should include the following information: name and location of the recalling company; detailed description of the product, including name, make, model, distinguishing features, batch or serial number; statement of the hazard and associated risk; number and type of injuries associated with the issue; dates when the product was available for sale; retail locations/online sites where the product was sold; number of products involved; immediate action that the consumer should take and who consumers should contact for further information including a telephone number, preferably toll-free with service in English and French, and hours of business together with picture(s) of the product.

Similar recommendations are provided by the US Consumer Product Safety Commission (US CPSC) in the 2012 Recall Handbook¹⁵⁸. CPSC first needs to approve public communication messages before the recalling company can launch a communication campaign. CPSC supports the use of plain language, using information from agreed-upon joint press releases. The Handbook states that each recalls news release must use the word "recall" in the heading and should begin with, "In cooperation with the U.S. Consumer

¹⁵⁶ *Ibid*, p. 40. Permission to reproduce extracts from British Standards is granted by BSI Standards Limited (BSI). No other use of this material is permitted.

¹⁵⁷ Health Canada (2019), A guide for voluntary recall of consumer products or cosmetics in Canada, available at: <https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/industry-professionals/recalling-consumer-products-guide-industry.html#a5.5.1>

¹⁵⁸ US CPSC (2012), Recall Handbook, available at: <https://cpsc.gov/s3fs-public/8002.pdf>

Product Safety Commission (CPSC)....". The Handbook also provides the list of elements that such notice needs to contain, such as information about product specifications, risk description, company details, summary of incidents. For other communication channels, the Handbook provides recommendations, e.g. it states that a poster should be brief and eye-catching and should include the terms "safety" and "recall" in the heading and should use a QR code or other mobile scanning code to let consumers act on the recall immediately.

The New Zealand Trading Standards also issued National guidelines for product recalls¹⁵⁹: it is required for a recall notice to include the details of the defective product, clear photographs of the product and a freephone number in New Zealand.

¹⁵⁹ New Zealand Trading Standards, Guidelines for product recalls, available at : <https://productsafety.tradingstandards.govt.nz/for-business/product-recalls/guidelines-for-product-recalls/>

6. Trading off the costs and benefits of participating in a recall

6.1. Consumers' drivers, barriers and trade-offs

Broadly, recalls may be more effective if the benefits of complying with a recall are high relative to its cost, and/or the relative advantages of complying with a recall are effectively communicated with respondents.

6.1.1. Costs associated with recall participation

An important factor impacting consumers' recall participation are the associated costs. These costs, according to a CPSC study, can be an obstacle to consumer compliance with the recall, in particular if costs of recall participation outweigh the benefits¹⁶⁰. Below are some examples of costs that can arise during the recall process from the consumer perspective:

- financial costs (e.g. postage for the return of the product)
- time costs
- disutility costs (loss of use of product or restriction of its functionality)
- social costs (e.g. if the repair or retrofit involves the use of protective safety gear that the consumer perceives as embarrassing)
- resources (skills/tools needed to complete the recall task)
- effort (physical effort that must be expended to comply with recall)

Understanding and navigating of recall information

As explained in section 5.1, costs relevant for consumers' decisions to participate in recalls can be related to the content and layout of recall communications. Consumers may be put off from acting on recall notices, if they are lengthy, complex or minimise the perception of risk.

Costs may also stem from the way recall notices are framed within the IT infrastructure. Health Canada's project to improve its recalls and safety alerts website identified the following key issues when using the site on mobile devices¹⁶¹:

- Site not responsive - people pinched and zoomed on their mobile due to the website not having a mobile browser design
- Separate unlinked recalls for the same problem.
- People tried to use recalls like shopping pages, meaning they wanted to click the brand name and it was not possible
- The list of affected products was long and difficult to consult (e.g. unordered tables were hard to read). Often phone recalls were written like press releases and it was not always clear for consumers what to do.

Effort of complying with a recall

Cost could also refer to the effort of returning the product, carrying out self-repair or even disposing of the faulty product. Hence, a potential solution to increase action is that the process of return or otherwise obtaining a remedy is made as simple as possible¹⁶². This is particularly important given that the US CPSC's research has shown that even modest inconvenience can affect response rates of recalls strongly.

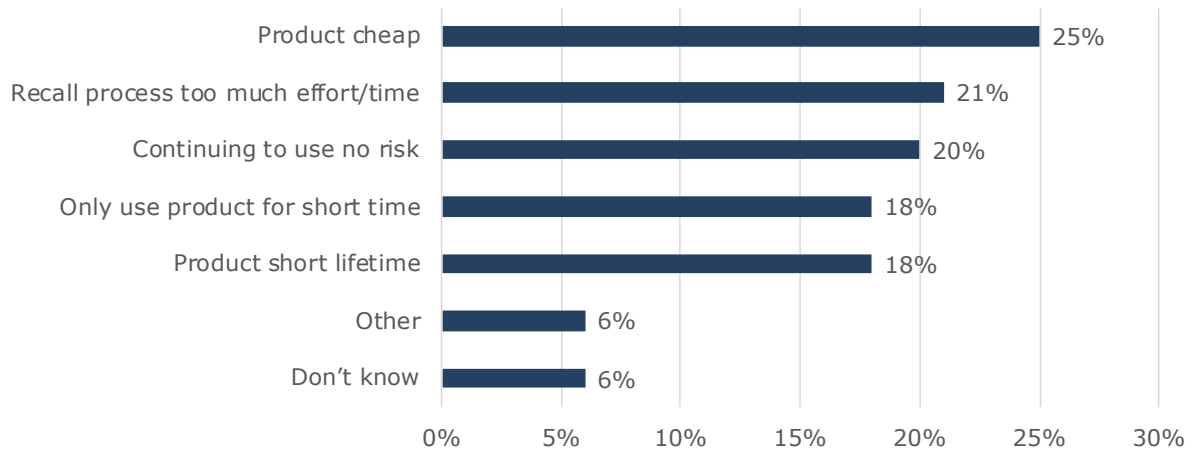
¹⁶⁰ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates, 2003, available at: <https://www.cpsc.gov/s3fs-public/pdfs/recalleffectiveness.pdf>

¹⁶¹ Health Canada, Project summary: Recalls and safety alerts optimization project, 2003, available at: <https://blog.canada.ca/research-summaries/recalls-research-summary.html>

¹⁶² Tukes, Content and format of a recall notice, available at: <https://tukes.fi/en/products-and-services/dangerous-products/content-and-format-of-a-recall-notice>

The consumer survey also shows that the effort of participating in a recall can be a major deterrent for consumers to participate in a recall. Respondents who had taken no action when a product they owned had been recalled were asked their reasons. The second-most-frequently reported reason for taking no action was that the recall process took too much effort or time.

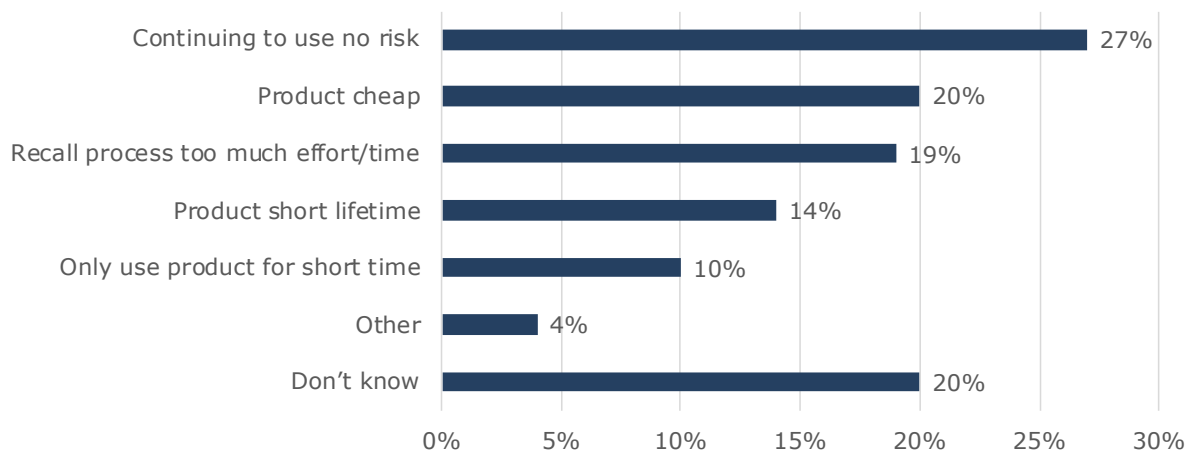
Figure 26: Reasons for taking no action in response to the recall (self-reported past behaviour)



Note: The question was Q2.11_real "Why did you take no action?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=153.

Similarly, when respondents were asked about their intended actions in the event of a hypothetical recall, 19% of those who reported they would take no action said this was because they believed the process would take too much effort or time.

Figure 27: Reasons for taking no action in response to a recall (hypothetical behaviour)



Note: The question was Q2.11_hypo "Why would you take no action?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=368.

It is important to note that consumers' perceptions of high costs of recall participation in relation to its benefits could also stem from unclear description and insufficiently convincing presentation of the benefits of participation.

6.1.2. Solutions for making recall participation more attractive to consumers

Solutions to incentivise recall participation could therefore consist in reducing the cost and/or making the benefits of the recall more attractive and clearer to consumers, so that they can understand that the benefits of returning the product actually outweigh costs.

The CPSC research¹⁶³ has pointed out that there are several ways to reduce the burden of recall participation, for example through:

- Offering in-home repair instead of requiring consumers to return the product to the manufacturer/retailer;
- Offering faster service;
- Having dealers perform better work;
- Making dealers more cooperative;
- Emphasising that the repair is free; and
- Compensating owners for the inconvenience and/or making the recall process more convenient [for consumers]

As for the benefits of recall participation, the OECD Policy guidance¹⁶⁴ recommends practical and accessible remedies that do not cause substantial inconvenience, especially for vulnerable consumers. Businesses are also encouraged to consider offering incentives to motivate consumers to participate in a recall (such as discounts, vouchers and other offers).

In consumer focus groups, participants' attitudes regarding different forms of remedies were explored in discussions. Participants were inclined to see a full refund as more attractive than a repair or replacement, especially for smaller products that are easily transported. Several participants felt that in the event of serious malfunctions which could potentially harm users, reimbursement is the only acceptable solution. Some mentioned that they would like compensation for the period during which they cannot use the product.

"I like the fact they will refund me." [Bulgaria, low education group]

"You just wouldn't quite trust it, if it was repaired." [Ireland, high education group]

"If it was a smaller appliance, I would prefer a replacement or my money back." [Ireland, high education group]

"[In case of a refund] I know that I'm not going to have trouble again. I will have my money returned and I can go buy another product." [Ireland, low education group]

"I expect a compensation for the period I won't be able to use the product." [Bulgaria, high education group]

However, it should be noted that a substantial number of focus group participants reported that they were unlikely to respond to *any* recall message, no matter how it is phrased or communicated. Some participants noted that they preferred repairing products themselves. Others simply did not consider it worth the effort to have a product repaired or replaced and would rather buy a new one.

"My partner would try to have a look and, if it's possible, exchange the part himself. Then I would not make the effort of bringing it back." [Germany, low education group]

¹⁶³ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates, 2003, available at: <https://www.cpsc.gov/s3fs-public/pdfs/recalleffectiveness.pdf>

¹⁶⁴ OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLang=En)

"These days with electronic goods, they do a reasonable 5-10 years if it's white goods in the kitchen, and if they do get broken, or you need to replace it, sometimes it's easier just to go and buy a new one, rather than replace it." [Ireland, low education group]

Consumer focus group participants were also asked about possible sanctions in case of non-compliance with a recall, such as deactivating connected devices. Participants had mixed views about such solutions, except in the case of immediate danger, such as an overheating battery of a smartphone, or if the device gets stolen. Moreover, participants had privacy concerns about the use of connected devices to monitor the functioning of their appliances/products.

"No, I would be terrified. I am not going to bring a spy into my house who will check if everything is in order in my fridge." (Lab experiment follow-up focus group, general population)

6.2. Mapping and assessment of market practices

6.2.1. Effort required for consumers to participate in a recall

The study's analysis of 55 recall campaigns shows that the instructions provided to consumers in most recall announcements are clear and understandable. Only one case contained instructions that were judged to be 'rather difficult'.¹⁶⁵ In this case (street chalk, Germany), it was not clear which product was affected by a recall, based on the product description and product pictures included in the recall notice. This is an important issue, as lack of clear instructions can discourage consumers from taking action, especially if the product value is low.

The following were the most frequent steps that consumers needed to take to comply with a recall:

- Bring back the product to a store (24 cases);
- Schedule an appointment for a pick-up / repair at home (15 cases);
- Contact the company for replacement parts (to be delivered to consumers) (7 cases);
- Send back the product (with pre-paid postage or reimbursement of shipping costs) (4 cases).

In the clear majority of the analysed recall notices the steps to be taken by consumers were considered (based on perceptions of the country researchers) as 'very easy' or as 'rather easy' (49 cases). In 6 cases, the steps were perceived as rather burdensome (i.e. they required too much effort from a consumer)¹⁶⁶. For example, the recall of a waste crusher in Czechia requires the customer to ask for the replacement which they need to install themselves, which may discourage customers who lack technical skills or simply have no willingness to do so themselves. In case of the recall of a foldable beach chair in Spain, the steps can be seen as rather burdensome (returning a product to the shop) compared to the value of the product (15 EUR).

How does the recall process vary by product category?

Regarding the specific product categories, the requirement to schedule an appointment for a pick-up or repair at home occurred mostly for larger/bulkier domestic electrical appliances (e.g. washing machine, tumble dryer, kitchen stove, air conditioning machine).

¹⁶⁵ The Likert scale provided in the qualitative assessment: *very easy, rather easy, rather difficult, very difficult*. Question asked to country researchers: *How easy or difficult is it to understand the instructions given in the recall announcement?*

¹⁶⁶ The Likert scale provided in the qualitative assessment: *very easy, rather easy, rather burdensome, very burdensome*. Question asked to country researchers: *How easy or burdensome are the steps to be taken by the consumer?*

In the case of durable children's articles and equipment as well as toys consumers were typically asked to bring back the product to a store (e.g. children's bib, cuddle nest, baby roll-rattle, car seat for babies, baby safety gates).

How do manufacturers/suppliers make the recall process easier for consumers?

In terms of process facilitation for the consumer, the following best practices have been identified:

- In four cases, all US manufacturers (a pressure washer (US); a baby sleeper (US); a children car seat (US); a baby bouncer (US)) a pre-paid postage was offered to consumers. This practice was not commonly found in European recall campaigns. The pre-paid postage label facilitates the return process for consumers by reducing the required cost and effort of participation;
- The producer offers an arrangement of a free visit by a technician to replace faulty machine parts (e.g. a tumble-dryer (CZ));
- Return without proof of purchase (e.g. baby toy (BG); piece of furniture (BE); a baby safety gate (IE))¹⁶⁷;
- The manufacturer allows customers to return the product in any shop they choose, rather than the one they purchased the product from (e.g. bike seat for kids (BE));
- The seller offers to pick-up a bulky product (e.g. kitchen stove (ES));
- Customer-friendly online verification tool, where consumers can introduce the serial number and get a confirmation if their product is affected by the recall campaign. (e.g. baby monitor (PT), washing machine (PT));
- Providing a Q&A / FAQs section for consumers to facilitate the recall process (e.g. car component (US)). The FAQs section included information such as what the safety issue was, which vehicles were included in the recall, whether the vehicle was safe to drive, how to determine if the consumer's vehicle was high-risk, how to get the vehicle fixed, time for a repair, and whether to disable the airbag.

The industry survey participants also provided some insights about the solutions to reduce the burden for consumers. These are consistent with the desk research findings and include:

- Providing mobile solutions
- Offering collection and delivery service for the customer
- Covering the cost of shipping
- Offering more flexible / or dedicated hours to customers returning recalled products
- For electronics, allowing automatic software updates (e.g. similar to the way the mobile phone operators update customer's software).

What recall process features could discourage consumers from participating in a recall?

One of the factors that may discourage or even prevent recall participation is the need for proof of purchase. It is particularly perceived as an obstacle when the product price or risk level is low and therefore consumers in general have a lower incentive to participate in a recall. Often for offline purchases the likelihood of a consumer keeping a receipt is low and thus such a requirement prevents some of them from participating in a recall.

Another potential deterrent identified in the research involved self-repair through replacement of faulty parts as a remedy. This was the case in five recall notices. Such solution could discourage those consumers who are not very familiar with technical instructions and lack the skills, or simply do not have the determination to make the changes themselves. This was mentioned in relation to the waste crusher (Czechia where a customer was required to follow detailed instructions, which were provided as a PDF document. The process was perceived as time consuming and the instructions were not user-friendly (although provided in the national language). A similar approach was offered

¹⁶⁷ This does not mean that proof of purchase was required in all other cases. The study team did not investigate this point during the data collection process. Only some producers highlighted in their communication.

in the case of a chest of drawers (Belgium) and a children's car seat (US), where free replacement parts for self-repair were provided along with the instructions. Depending on how technical the actual replacement/repair is and the individual's preferences/skills, perceptions of such remedies might vary.

6.2.2. Recall remedies

Based on the analysis of 55 recall campaigns, the most common type of remedies offered to consumers was either full product refund and/or product replacement. In some cases, free replacement parts for self-repair were offered, or an appointment for a repair at home by a recalling company (discussed in the previous section). In limited cases information about remedies was missing in the recall notices (such as an electric grill or a passenger car plush toy).

Based on desk research, the remedies offered were as follows¹⁶⁸:

- Full refund (24 cases)
- Product replacement (18 cases)
- Product repair (11 cases)
- Free replacement parts for self-repair (5 cases)
- Partial refund (3 cases)

Overall, among the analysed recall notices, around one-fifth of remedies are assessed as being of 'high' attractiveness (12 cases¹⁶⁹), based on perceptions of the country researchers, while most are assessed as being of 'medium' attractiveness (35 cases¹⁷⁰), and a few are assessed as having 'low' attractiveness (7 cases)^{171,172}.

Sometimes, the remedy description in the recall notice is unclear or lacks some details (or even does not appear in the recall notice) and therefore can be seen as not attractive. For instance:

- Stroller (Denmark) – unclear details about remedies: The recall notice and the landing page of the reclamation portal only indicate that a new chassis will be provided, while the textile of the recalled product can be re-used. It is not clear to what extent the product needs to be brought for repair or whether consumers themselves can self-repair the product.
- Baby bath toy (Ireland) – confusing information about remedies: On the authority's website concerning the recall, a refund is mentioned as the remedy. However, on the manufacturer's site, the remedy is a replacement toy of comparable value. Therefore, overall, it is unclear which remedy is available to consumers.

How do remedies offered vary by product type?

In terms of product-related differences, in general a full product refund or product replacement was offered for products of low or medium value (such as durable children's articles and equipment, smaller domestic electrical appliances). Higher value products

¹⁶⁸ In limited cases more than one remedy option was offered (e.g. product replacement or full refund).

¹⁶⁹ In the class of "High" level of attractiveness fall those remedies judged as providing an incentive to the consumer to participate in a recall. For example a smart fix that allows the consumer to keep on using the product until a replacement is provided, a cash refund which is more welcome than a voucher, the possibility to access multiple types of remedies (more choice for consumer).

¹⁷⁰ In the class of "Medium" level of attractiveness fall those remedies considered as expected by the average consumer (e.g. the replacement of the recalled product with one of same market value and characteristics). In this class are also cases in which the manufacturer does not provide additional incentives to customers to participate to the recall and/or multiple options.

¹⁷¹ In the class of "Low" level of attractiveness fall those remedies that are judged inferior to consumers' minimum expectations or where transaction costs might exceed the value of the good making the remedy not worth the effort.

¹⁷² The Likert scale provided in the qualitative assessment: low, medium, high;

Question asked to country researchers: How would you assess the attractiveness of the remedies offered?

often being larger domestic electrical appliances, communication devices or cars were more associated with product repair as a remedy.

Time limits for recall participation

Except for one case (toy, Latvia), there was no time limit indicated in any of the campaigns for returning a product.

However, in some cases, the offered remedy varied depending on the time of purchase. In two US campaigns, the date of purchase defined whether a consumer qualified for a full refund or a discount for a new product:

- Washing machine: several options were offered to consumers:
 - Option 1) free in-home repair of the washer plus 1-year extension of the warranty;
 - Option 2) rebate and additional loyalty incentive of up to USD 150 for choosing a new Samsung washing machine;
 - Option 3) Consumers who purchased the recalled product within the previous 30 days of the recall announcement were eligible for a full product refund from their original place of purchase;
- Baby sleepers: consumers were either offered a full cash refund (if they owned the product for 6 months or less) or a voucher for another product, if they purchased the product more than 6 months before.¹⁷³

Likewise, one of the stakeholders we interviewed from the domestic appliances sector pointed out that recall remedies depended on the characteristics of the recalled product and its age. The stakeholder described a tumble dryer recall campaign where two remedies were offered in the first phase – free of charge repair at home and chargeable replacement with a superior product in a form of a heavily discounted upgrade. The stakeholder explained how it was a good deal for customers because most of their affected products were 10-year-old. Therefore, customer would probably end up replacing their products in the near future anyway. The interviewee pointed out that in order to further encourage participation, two additional remedies were offered to customers – refund based on the age of the appliance and free-of-charge replacement with a similar product. The latter was considered as the most effective remedy that resulted in additional customers coming forward.

Furthermore, one automotive manufacturer we interviewed tries to ensure that busy working-age consumers do not have to wait unduly long for a remedy. They try to make sure that where a car needs to be returned to an authorised dealer/workshop for a replacement of a faulty part, a replacement part is fitted within an hour to an hour and a half.

Additional incentives offered to encourage recall participation

Recall effectiveness can also be increased by including incentives to comply beyond a simple remedy, such as replacement, repair or refund.

Only one campaign analysed during the desk research offered additional incentives to comply in order to increase participation rates. In a car recall (US), consumers were provided with both a replacement car while their own car was being fixed and a cash card worth 800 dollars.

This is consistent with the industry survey (see Annex A7.4 in the Technical Annex), where the bulk of respondents said they did not provide any additional incentives.

¹⁷³ In the case of the EU recall, a full refund was provided for products purchased within the past 2 years. see: https://service.mattel.com/uk/recall/FWX18_IVR.aspx?prodNo=FWX18

An OECD report (2018¹⁷⁴) provides examples of additional incentives used by companies in recall campaigns in Australia, US and Canada:

- In June 2018, the retail store, Target Australia, recalled a pressure cooker and offered AUD 10 gift card in addition to a full refund (ACCC, 2018).
- In March 2018, Alstyle recalled infant body suits and offered free shipping, along with USD 10 gift card for every returned body suit (Health Canada, 2018).
- In February 2018, when Tiffany & Co. recalled crystal mugs, it offered free shipping to those consumers unable to return the product in-store and provided a USD 100 gift card in addition to a full refund (US CPSC, 2018).

6.2.3. Sanctions in case of non-compliance

None of the analysed recall campaigns analysed through the online desk research had information about foreseen back-up solutions/sanctions in case of no participation by the consumer.

However, in the industry survey (see Annex A7.4 in the Technical Annex), a stakeholder in the automotive sector mentioned that they penalise retail partners (rather than consumers) for missing an open recall when a car receives a service or repair.

Another form of sanction is reducing the functionality or even disconnecting an internet-connected product in the event of non-compliance with a recall. An OECD report¹⁷⁵ mentions the example of Samsung's recall of its Galaxy Note7 phone. The almost 100% return rate has been linked to sending of over 23 million recall alerts and push notifications to Samsung's customers, and a software update that reduced battery capacity to 0%.

Stakeholder interviewees representing electrical and/or electronic devices mentioned that, once installed, it would be possible to identify connected products affected by a recall, carry out updates, or -if need be – reduce the functionality or even disable a product remotely before damage was done. One interviewee in the domestic appliances sector pointed out that technologies such as a SIM card transponder in device where applicable could be used, which could send its own message out, identify itself/software update/turn itself off. "Such a solution would be relatively expensive but the technology does exist and can be implemented".

Relatedly, an interesting practice is currently being tested by a large communications company. The company uses the potential of IoT to alert the owners of recalled products directly and, if needed, remotely switch off or reduce the functionality of dangerous products. The current prototype product recall system can be used for large domestic appliances, such as tumble dryers, washing machines, fridges and freezers. Through integrating by manufacturers a miniature electronic device into their devices, a link over the company's network will be established. This system could prove to be particularly useful for reaching non-registered devices or ones that have been re-sold / gifts etc. With this system the manufacturer can also keep an audit trail of messages delivered successfully to their customers via the company's network.¹⁷⁶

However, stakeholder interviewees across a number of different areas indicated that it was important to take into account both consumer privacy, as well as respect the rights of consumers regarding the functionality of the product, i.e. it would be unfair to sell them a

¹⁷⁴ OECD (2018), Measuring and maximising the impact of product recalls globally: OECD workshop report. Available at: https://www.oecd-ilibrary.org/industry-and-services/measuring-and-maximising-the-impact-of-product-recalls-globally_ab757416-en

product based on a certain functionality and then unilaterally reduce it without sufficient grounds.

6.3. Policy initiatives (recommendations and initiatives by public bodies)

In the automotive sector, an informal survey with national registration and roadworthiness authorities carried out by the European Commission in February 2020¹⁷⁷ indicates that a number of EU countries are monitoring recall compliance and applying sanctions in case the car is not fixed. In Germany and in Slovenia, the failure to fix the vehicle despite multiple reminders can lead to the withdrawal of vehicle registration.¹⁷⁸ In Finland, the vehicle will get a note in the vehicle register, with which it will not pass the periodic technical inspection (PTI). Making recall compliance obligatory is also considered in Italy and in the Netherlands. Outside the EU, similar measures are in place in New Zealand¹⁷⁹ and in some Australian territories¹⁸⁰.

Indeed, a car manufacturer informed us that they would like to see increased action from national authorities to make it illegal to drive a faulty car (i.e. to not return a car to the manufacturer in the case of a recalled component, item of software, or of the car itself). Given the potentially lethal nature of non-compliance with recalls in the case of motor vehicles, the manufacturer wanted to see more being done by either national or EU authorities to pressure consumers to comply with recall campaigns.

¹⁷⁷ 17 replies were received to the survey.

¹⁷⁸ Informal European Commission survey with national registration and roadworthiness authorities (Feb. 2020). Based on replies received from 17 authorities.

¹⁷⁹ <https://www.tvnz.co.nz/one-news/new-zealand/cars-dont-get-unsafe-airbags-repaired-replaced-fail-wof-tests-government-says>

¹⁸⁰ <https://www.productsafety.gov.au/recalls/compulsory-takata-airbag-recall/faq-for-takata-airbag-recalls#does-the-recall-affect-my-vehicle-registration-or-insurance->

7. Product registration

The research shows that recall effectiveness is considerably higher when companies can directly contact consumers affected by a recall (see Section 4.1.1). Therefore, recall effectiveness can be increased by instruments such as product registration, which enable manufacturers/suppliers to directly contact consumers who may be affected by a recall. Indeed, product registration has been identified as a useful way to help identify customers affected by recalls during the CPSC Recall Effectiveness Workshop in 2017. One of the main conclusions was that direct notifications have a substantial impact on consumer return rates and that improved product registration methods (e.g., retailer opt-in at checkout, home voice assistants, photo texting, QR codes, and incentives) could lead to higher consumer participation to recall campaigns¹⁸¹.

Below we provide an overview of consumers' drivers, barriers and trade-offs relating to product registration, and the existing market practices.

7.1. Consumers' drivers, barriers and trade-offs

7.1.1. How do consumers' characteristics impact the propensity to register (or not register) products?

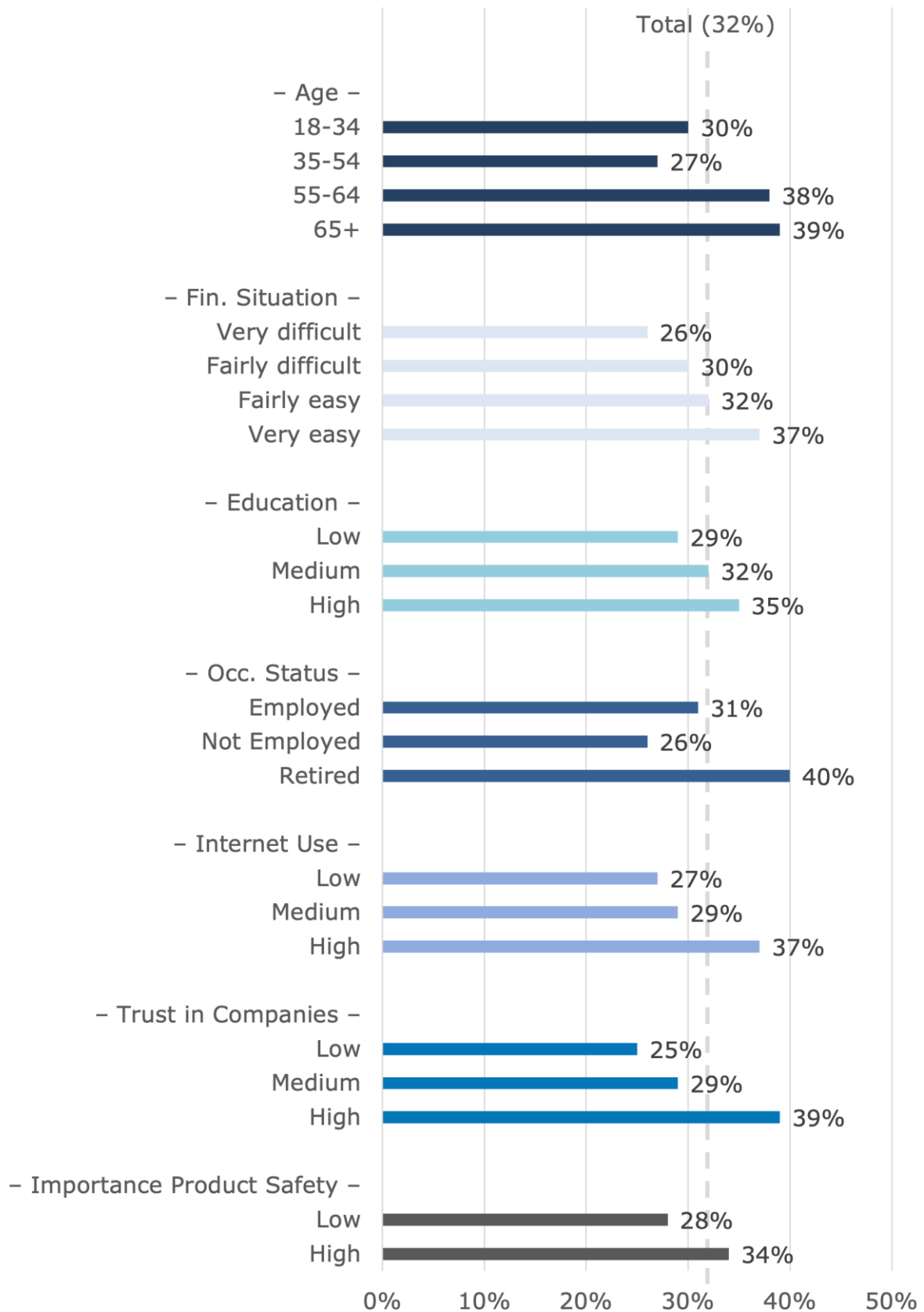
On average, 32% of respondents who had experience with any of the relevant products said they had registered products¹⁸². However, there were notable differences by respondents' socio-demographic characteristics (Figure 28). In general, registration behaviour increased with age, financial situation, education and internet use. As for the occupational status, it was lowest among unemployed respondents.

In addition, respondents who place greater value on product safety and those with greater trust in companies are more likely to report registering their products.

¹⁸¹ CPSC (2018), Recall Effectiveness Workshop Report CPSC in Cooperation with Stakeholders, pages 4-5, July 25, 2017. Published on February 22, 2018. https://www.cpsc.gov/s3fs-public/Recall_Effectiveness_Workshop_Report-2018.pdf

¹⁸² The question was Q2.2_real "Thinking of [insert product] that you bought or received as a gift in the past 2 years, did you register the product with the manufacturer or seller?". Percentages were rounded to whole numbers. Number of observations N=9,320.

Figure 28: Registration behaviour by respondents' characteristics (self-reported past behaviour)



When respondents were asked about their behaviour regarding hypothetical product registration, 35% of respondents who did not own any of the relevant products said they would register products. As with respondents who had experience of the relevant products,

higher internet users were more likely to report that they would register products, as were participants who reported attaching greater value to product safety¹⁸³.

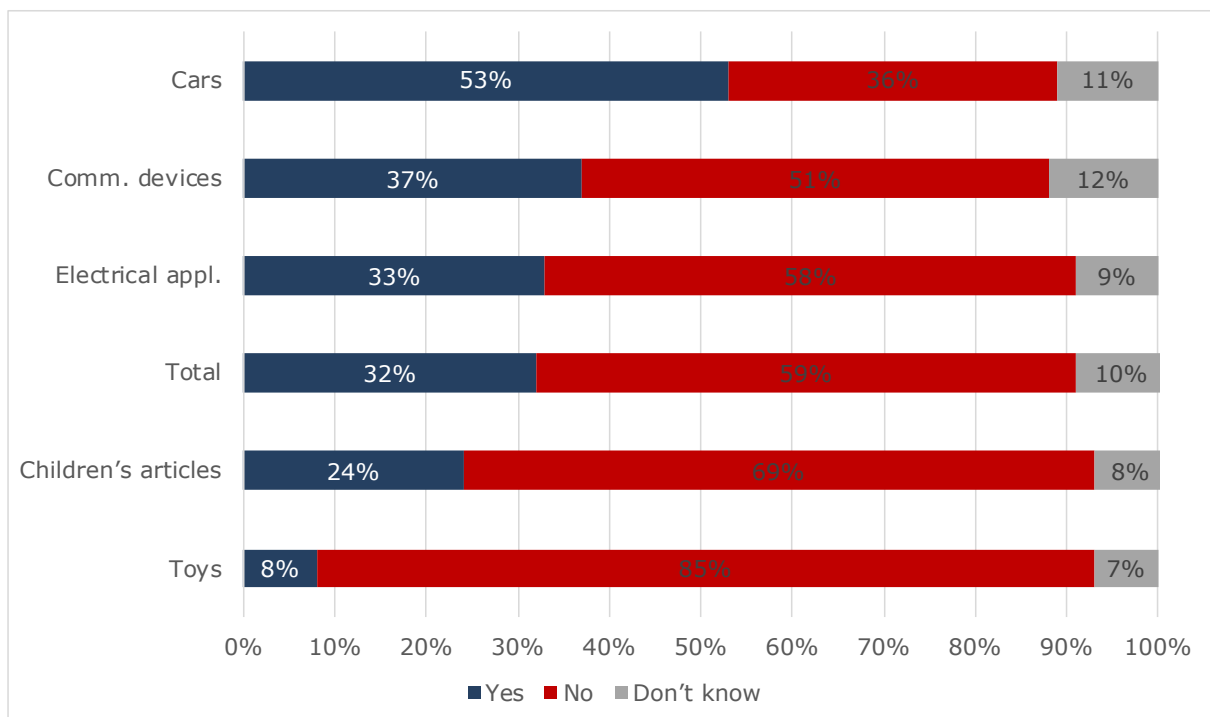
7.1.2. How do product characteristics impact the propensity to register products?

Consumers are more likely to register expensive products

Existing research has found that consumers' propensity to register their product is impacted by characteristics such as product type and price. For example, according to the European Commission's 2020 Market Monitoring Survey, product registration varies significantly by product categories. The survey shows that registration is most common for Internet-connected products (69% of consumers say they registered at least one product in the past 2 years), followed by electronic products (65%) and domestic appliances (55%). Products for children are registered the least often among the proposed categories (36%)¹⁸⁴.

This research is consistent with the findings of the consumer survey, which found that participants were more likely to report having registered expensive products such as personal cars and motorcycles (53%) and communication devices (37%), and least likely to report registering toys (8%).

Figure 29: Registration behaviour by product category (self-reported past behaviour)



Note: The question was Q2.2_real "Thinking of [insert product] that you bought or received as a gift in the past years, did you register the product with the manufacturer or seller?". Percentages were rounded to whole numbers. Number of observations N=9,320.

The preparatory focus groups also suggest that product value and expected lifespan play an important role in consumers' decisions regarding product registration. Participants were relatively more inclined to register expensive and durable goods, such as washing machines, TVs, smart phones and other similar electrical and household devices. For

¹⁸³ The full list of results by socio-demographic groups is provided in the Technical Annex.

¹⁸⁴ https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/market-monitoring_en

relatively less expensive goods, with a shorter lifespan, such as cheap electronic devices, participants perceived few reasons for registering.

"If the product is less than 50 EUR I won't register it" [Bulgaria, low education group]

"I have heard about it, but I know it only from expensive devices. For simpler things, it is not worth it." [Germany, low education group]

"For a toaster, I don't know.. for 44 EUR I wouldn't make such an effort. For a more expensive product, let's say, a washing machine or a fridge, this would be something different." (Economically inactive group, Germany)

"I would not register clothes, shoes, toys and anything smaller. Registration makes no sense, there isn't really a reason when it breaks down, and clothes just get worn out" (General public group, Bulgaria)

"No, I would only do it in the case of household appliances, mobile phones..., more expensive stuff." [Portugal, low education group]

"Machine things. Yeah, exactly like kitchen items like a washing machine or white goods." [Ireland, low education group]

"I think I've done it once for a bigger item, but normally it's a lot of hassle for just a small item, and you just kind of think I'll take my chances and not bother." [Ireland, high education group]

"I think there are certain things that you don't really need to register, like a little radio or something... if you throw out your email address, they're just going to spam you." [Ireland, low education group]

Insights from the stakeholder interviews are consistent with these findings. Stakeholders generally believed that consumers' propensity to register a product was driven by the value of the product and its lifespan. At the same time, it was noted that some (in particular childcare) products with a longer lifespan may be used for a relatively short amount of time and then passed on to friends or relatives or sold second-hand. In such situations, even if the product was registered by the initial consumer, the registration details will not be updated for the second-hand purchaser (unless the possibility is given to register a second hand product), meaning that they are likely to be uncontactable in case of a product recall.

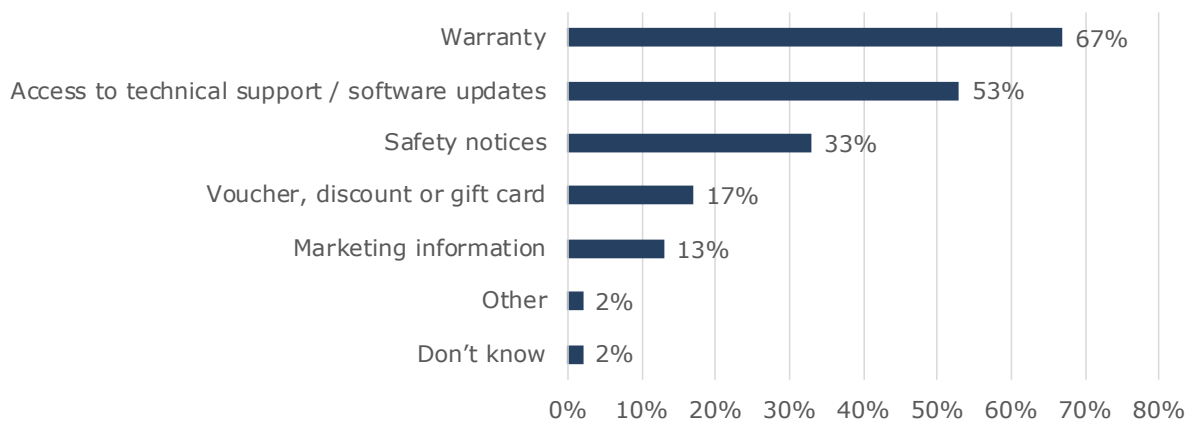
Consumers typically register products for extended warranties

Likewise, a 2015 US survey found that products that are registered tend to be more expensive (78%), and consumers have thought about this purchase for a longer time (60%). The likelihood of product registration among consumers is also higher with safety-related products such as alarm systems (63%) and if registration is necessary to activate a warranty (87%). The survey findings also indicate that warranties are seen as a key incentive for product registration¹⁸⁵.

Indeed, the consumer survey confirms that the top-reported reason for participants who had registered products was to avail themselves of a warranty, or to get access to technical support/software updates.

¹⁸⁵ Schoettle and Sivak (2015), Consumer Preferences Regarding Product Registration, available at: <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116020/103219.pdf?sequence=1>

Figure 30: Reasons to register the product (self-reported past behaviour)



Note: The question was Q2.3_real "You indicated that you registered [insert product] with the manufacturer or seller. Why did you register it?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=3,066.

Focus group participants too tended to associate product registration with the possibility to obtain an extended product warranty or better technical support.

"All products that I buy are registered, because this increases the warranty" [Bulgaria, low education group]

"Registration mostly comes with an extension of the warranty deadline." [Germany, high education group]

"I only registered those products when I realised there was a warranty extension involved, otherwise I wouldn't have done it..." [Portugal, low education group]

"We bought a washer dryer. I think they just quite susceptible to kind of breaking down so we bought it, we bought the warranty." [Ireland, high education group]

"Yes [I register], because they have your information stored in their database and things are done so quickly" [Bulgaria, low education group]

"When I don't register the product and I have a problem with it, every time I would need to find all the data again for that device. When I would register it upfront, I only need this information once." [Germany, high education group]

"I registered all my TVs. When I have questions or problems occur, then the communication is easy." [Germany, high education group]

"I once did a product registration like this for my tools. Was also high-quality material. But I registered it on the manufacturer's site." What was the benefit? "If you don't have the box or the device anymore, then you can't tell the police which device and which serial number and which value... Then everything is in there [the registration]. Even the payment receipt. And also the warranty from the manufacturer." (Non-online group, Germany)

Some participants noted however that there is no need to register a product to have a (legal) guarantee, limiting in their eyes the added benefit of registering a product for an additional warranty.

7.1.3. Consumers' reasons for not registering products

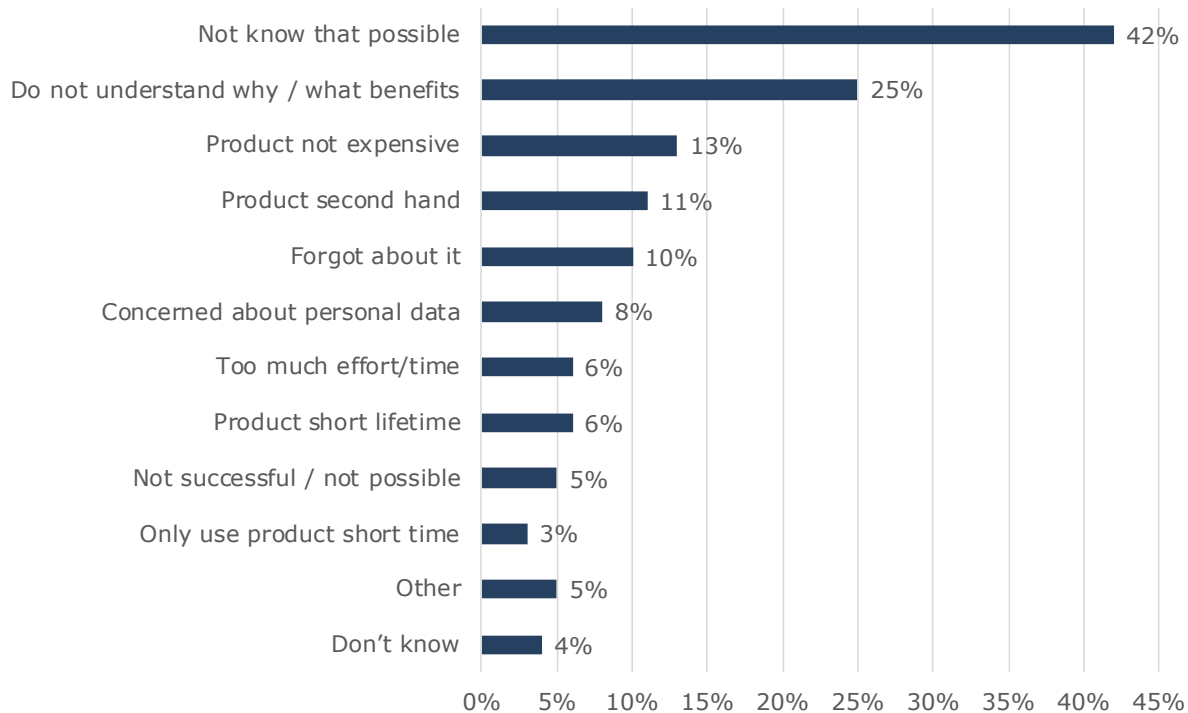
Low awareness of link between product registration and safety

One of the barriers identified in relation to product registration is low awareness of its potential usefulness in case of product recalls. In a 2019 survey by the European Commission, only 40% of EU consumers said (upon prompting) that they were aware that registering a product can allow manufacturers or sellers to contact them directly in case there are issues. This figure was lower among female consumers, those with low education, those who do not purchase products online and consumers in a less stable occupation¹⁸⁶.

In the European Commission's 2020 Market Monitoring Survey not seeing the benefits of registration was mentioned as one of the three main reasons for not registering a product (along with the product being too cheap and personal data concerns)¹⁸⁷.

Similarly, the results of the consumer survey conducted for this study confirm that the second most frequently reported reason for not registering a product was not understanding why or not seeing the benefits. Interestingly, the most frequently reported reason for not registering a product was simply not knowing that such a thing was possible.

Figure 31: Reasons not to register the product (self-reported past behaviour)



Note: The question was Q2.4_real "You indicated that you did not register [insert product] with the manufacturer or seller. Why did you not register it?". The question allowed for multiple answers, hence, the percentages do not sum up to 100%. Percentages were rounded to whole numbers. Number of observations N=5,353.

As mentioned above, focus group participants too associated product registration with extended warranties or after-sales support rather than safety.

¹⁸⁶ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

¹⁸⁷ https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/market-monitoring_en

Only one, higher educated focus group participant spontaneously made the connection between registering a product and product recall.

"In case a given appliance proves to be defective, they can track it and warn people; for instance, if a specific series of appliances is defective and has to be returned." [Portugal, high education group]

The follow-up focus groups conducted after the lab experiments also suggest that some consumers might have low awareness of product registration at all, often confusing it with an extended warranty.

"I don't have any experience with registrations and haven't even seen invitations for registration [of] my products." (Economically inactive group, Bulgaria)

"We need more information about the registration benefits and process, I didn't know that a product can be registered, whether all products can be registered or only certain?" (Low-income group, Bulgaria)

"I registered my new washing machine to get the extended warranty period. I don't know for what other purpose the registration is valid." (Lower education group, Bulgaria)

This was borne out in the stakeholder interviews: it was suggested by several stakeholders that many consumers are simply not aware of the fact that product registration can be available for the purpose of receiving safety updates and information about possible product recalls. Rather, if consumers do register a product, it is often for the purpose of receiving an extended warranty for their product. One consumer organisation remarked that the link between product registration and safety notification in case of a product recall is not made sufficiently clear.

Personal data and privacy concerns

Concerns about data privacy are a significant barrier that can put consumers off from sharing their data. For example, in the European Commission's 2020 Market Monitoring Survey, concerns about misuse or sharing personal data was mentioned as one of the three main reasons for not registering a product (along with the product being too cheap and not seeing the benefits of registration)¹⁸⁸.

Likewise, the 2015 SafeKids Worldwide study¹⁸⁹ found that some customers prefer not to fill out a car seat registration card because they believe that their personal data will be used for marketing purposes and mailing lists (even if, "regulations prohibit manufacturers from using the registration cards for anything but a recall").

In fact, in the US, over half of surveyed consumers said they were concerned about unwanted communication from the company after registration, with most preferring such communication to be legally prohibited. Results indicated that consumers would prefer not to receive unwanted communication about the product (59%) and some even prefer the prohibition of communication that does not concern safety (79%).¹⁹⁰

The opinion of consulted interviewees was very similar in relation to privacy concerns. Several pointed out that there is a definite balancing act for consumers as to whether or not they should share their personal data (for example through product registration, online purchases or loyalty schemes), even if one of the results of sharing this information is that they could be kept informed about safety issues for a particular product. Consumers are

¹⁸⁸ Relatively few consumer survey respondents reported privacy concerns as an issue for not registering their products. However, this may be because other reasons were classified as being more important.

¹⁸⁹ SafeKids Worldwide (2015), Car Seat Recalls: What Every Parent Needs to Know, available at: http://www.safekids.org/sites/default/files/cps_study-2015_v8-for_web.pdf

¹⁹⁰ Schoettle, Brandon; Sivak, Michael, University of Michigan Transportation Research Institute (2015). Available at:

<https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116020/103219.pdf?sequence=1&isAllowed=y>

generally cautious about receiving a lot of spam messaging and marketing information, as opposed to genuine safety information. According to a multinational furniture manufacturer, customers are in general unwillingly to share their data with companies. This diffidence means that customers frequently give fake personal data with fidelity cards, also to avoid marketing promotions (i.e. e-mail spamming). The use of consumers' data for recall notifications should be better streamlined: one solution could be to provide customers with the possibility to indicate separate contact details for product safety purposes.

A similar result emerges from the focus groups: a key reason participants provided for not registering their products was that they felt uncomfortable about providing personal data, which they feared would be used for targeted advertising (profiling) and other marketing purposes. Various participants noted that they distrust reassurances that their data is not used for these purposes. This applied to respondents in both the lower and higher educated groups.

"I do not have any experience with product registration. I do not believe it is for statistical purposes. I think it is for marketing purposes." [Bulgaria, high education group]

"Some will say that they could sell your personal data to others. I suppose that there are such dark scenarios..." [Bulgaria, low education group]

"Only the vendor benefits from registrations. They have your data, see your purchase behaviour and afterwards can bombard you with advertising." [Germany, low education group]

"I am 100% sure that they share personal data. They share it between them or sell it, everyone knows that." [Germany, low education group]

"I feel like the company's going to be getting more out of it than I am because they're getting where I bought it.. where I am [located], and I may or may not need the warranty." [Ireland, high education group]

A similar comment was made in the focus group, following the lab experiment:

"I would be afraid that I would receive a lot of spam. You'll give away your data and then you'll constantly get – 'We have a new toaster, better toaster' or 'If you want a toaster, we also have a mixer on sale.'" (Economically inactive group, Germany)

7.2. Mapping and assessment of market practices

This section looks into market practices in relation to product registration through the analysis of online registration schemes offered by manufacturers and retailers. Below we provide a brief summary of characteristics of the registration schemes we found during our desk research before providing a more detailed assessment of the 40 registration schemes (4 per country) selected for full analysis.

7.2.1. Availability of product registration schemes

The registration schemes analysed as part of the study's "consumer journey"¹⁹¹ were available online on companies' websites in a form of a post-purchase registration. Point-of-sale registrations and registrations during product delivery were not tested within the consumer journey research and therefore there are no findings relevant for these types of registration.

¹⁹¹ The consumer journey is a structured mapping on a sample of companies' registration schemes available to European consumers. The mapping is based on a structured template and analyses aspects of the procedures required by consumers to register their purchases.

The table below presents the number of companies offering product registration per each product category and the share of registrations out of all companies screened. As explained in the methodology section, the sample presented below is limited and should not be treated as statistically representative. In addition, the intention of the “consumer journey” exercise was to identify companies that do offer registration schemes and to analyse them. Therefore, the actual prevalence of product registration schemes offered by manufactures and retails is likely to be lower.

A clear majority of companies screened offered registration schemes for communication devices (69%) and domestic electrical appliances (60%). Product registration for durable children’s articles and equipment is not frequent in the EU. Among 60 manufacturers, only nine offered product registration (which could explain low rates of registration for this product category, as reported by consumers). Additionally, during our desk research we came across some US companies offering product registration on their local websites, but they were not available for consumers in the EU (e.g. US-based address for registration was mandatory).¹⁹²

Table 2 Registration schemes per product category

Product category	Number of companies screened	Number of companies offering product registration	Share of companies with product registration
Communication devices	39	27	69%
Domestic electrical appliances	94	59	60%
Domestic electrical appliances & Communication devices	35	13	37%
Durable children’s articles and equipment	60	9	15%
National market surveillance authority / Industry association	52	0	0

The vast majority of the identified registration schemes were offered by manufacturers (106) while only two were offered by online retailers. Among 58 retailers screened across 10 countries, only two offered product registration on their websites. For example, Currys provides both links to brands’ registrations schemes but also, for some specific products sold in their shops, an ad-hoc registration scheme¹⁹³.

On the other hand, the industry survey found that the bulk of respondents did not offer the option for consumers to register their products (see Annex A12.2 in the Technical Annex). However, the sectors that did offer this possibility most frequently were broadly consistent with the desk research: personal cars and motorcycles and domestic electrical appliances. Survey respondents that did offer the option of product registration tended to

¹⁹² Given that product registrations in the US were not within the scope of the product registration analysis the statistics presented below include the ten EU countries as mentioned in the methodology section.

¹⁹³ <https://www.currys.ie/ieen/product-safety-information-724-commercial.html>

be larger and medium-sized companies¹⁹⁴, among them manufacturers and retailers as well as wholesalers (in particular the automotive industry).

A retailers' organisation interviewed expressed their view about the prime role of manufacturers in promoting product registration. The stakeholder explained that the need/importance for product registration would be different depending on the product category, lifespan, cost and inherent risk of the product for its users. Manufacturers know their products best and can offer solutions to the customers accordingly. In addition, for products with a longer lifetime, the retailer is likely not to have given product on offer anymore and therefore it should be the responsibility of the manufacturer to solve the issue. The manufacturer can provide this information with the products (e.g. in a form of a sticker, QR code, leaflet) for the customer so registration details are available at their own convenience.

As discussed above, product registration is not commonly offered across all product categories, even in some categories where it may be beneficial. However, as pointed out by a toy manufacturer, the possibility to register a product does not mean that consumers systematically choose to register all their products. Children's products are often used for a relatively short amount of time, and so many consumers may not consider it being worth their time to register the product.

Interviewees consulted on the topic agreed that if more effort should be made to promote products' registration, then it should happen **primarily on products which carry the highest safety risks, are more expensive, and have a longer lifespan**. In most cases, all types of interviewees – market surveillance authorities, consumer organisations and manufacturers – mentioned that particular **attention should be given to products used by vulnerable categories of users** (i.e. children, persons with disabilities, elders) and **products which could generate more widespread damages if faulty** (i.e. drones, gas boilers, gas/electric heaters, medical devices etc.). For example, a national consumer protection authority and a Croatian industry association suggested that children's products could be, as it is in the U.S., subject to a dedicated policy to improve registration rates. However, as pointed out by a consumer organisation, the definition of the **level of risk needed for a product category to become subject to the mandatory provision of registration schemes** would become critical.

Interviewees' opinion regarding the possibility of requiring sellers or manufacturers to provide the possibility of registration to their consumers was mixed. In principle it is considered as a positive idea. However, interviewees raised also some concerns, first of all the burden on companies. As pointed out by a market surveillance authority, SMEs would struggle with such requirement and an association of child products pointed out that, since the average price of their products is relatively small, the obligatory provision of a registration scheme would not increase the registration rates. As noted by a non-European authority questioned about this possibility, the responsibility to provide a registration scheme for companies entails several costs and risks for companies for example to ensure that data protection of consumers is respected and additional burden on companies to establish a periodic reporting to authorities.

Industry-wide initiatives

The only identified initiative supported by national industry association is the "Register My Appliance" website¹⁹⁵, managed by the UK Association of Manufacturers of Domestic Appliances (AMDEA). The initiative aims at facilitating consumers' registration process by providing direct links to manufacturers' registration schemes. The site currently has 58 brands that are part of the Register My Appliance scheme. They also provide a guarantee that they do not process, access or retain any customer data.

¹⁹⁴ See Section **Error! Reference source not found.** for a categorisation of 'large' and 'medium' sized'.

¹⁹⁵ See: <https://www.registermyappliance.org.uk/>

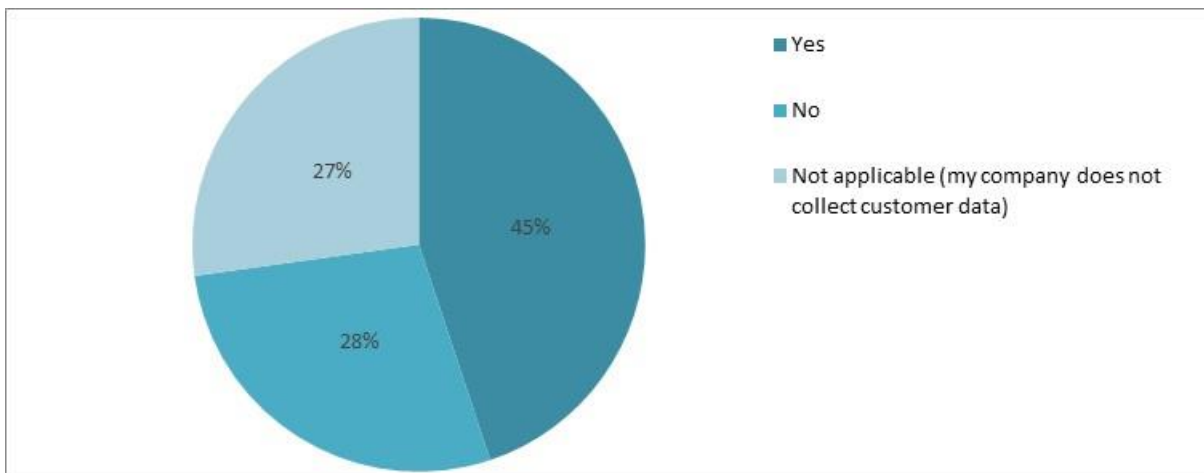
7.2.2. Other sources of consumer data

Given that product registration is not uniformly available, it is worth examining whether other sources of customer data can be used for the purposes of product safety.

How often do companies use other sources of customer data for safety purposes?

In order to gain a more comprehensive overview of industry practices regarding identifying customers who might be affected by a recall, industry survey respondents (regardless if they offer product registration or not) were asked if they use customer data collected for other purposes (e.g. loyalty schemes, online sales, digital receipts etc.) to contact customers in case there is a safety issue with their product. Nearly one third of respondents replied that their company does not collect such data. Among those who do, almost half (mostly larger enterprises) indicated that they make use of this data to notify their customers in case of safety issues (45%), while nearly a third said they do not follow such process. It is worth noting, however, the self-selection bias when analysing this particular survey question.

Figure 32 Q14 Do you use customer data collected for other purposes (e.g. loyalty schemes, online sales, digital receipts etc.) to contact customers in case there is a safety issue with their product? (N=147)



However, this practice may not be universal. Based on desk research on the customer journey and analysis of privacy / data policies, it seems that the majority of companies do not envisage the use of customer data collected outside of product registration schemes for safety notifications. Safety did not appear to be a large part of the privacy policies: in the majority of cases, there was no mention of safety and product recalls in the privacy notice.

When companies' privacy policies did mention the use of customer data other than product registration for safety purposes, the sources included online sales ; loyalty/membership programmes or other sources such as digital receipts; account activation, participation in campaigns, product reviews, app downloads or from social media such as Facebook.

Should companies be obliged to use their customers' data for safety purposes?

In answer to the question of whether consumer data collected for the purposes of **loyalty schemes, online purchases or electronic receipts should be used to alert consumers in case of a product recall**, several stakeholders both in the EU and in third countries were **supportive of the idea, as long as it would take place in conformity with the General Data Protection Regulation (GDPR)**.

A market surveillance authority from a third country strongly encourages suppliers to use any and all options available to them to contact consumers.

A stakeholder from domestic electrical appliances and electronics sector explained that one of the main reasons for collecting information about customers is the safety and possibility of direct contact in case of recalls. This is explicitly stated in the contract that consumers consent to.

Another stakeholder from the same sector also explained that they as a manufacturer use any relevant consumer records (such as loyalty programmes) for a product recall. Consumers are asked to opt in to receive any information from the company but there is also a note from the manufacturer that "We may use your details should we need to contact you with important safety information relating to your appliance." This means that for those customers who opted out from receiving the company's messages, they would still contact them if there is a safety issue.

The use of loyalty programmes for safety purposes

Based on the input collected from stakeholder interviewees, some retailers in the EU work with loyalty cards through which they can communicate with customers according to certain rules and permissions. A retailers' association indicated that normally retailers ask their cardholders if they allow them to contact them in case of a product recall. However, the stakeholder indicated that customers mistake this request for a request to receive marketing information and decline.

Loyalty programmes are also increasingly used by industry to share recall information in third countries. However, as explained by a third country public authority the authorities cannot require such programmes to be run by industry. One solution suggested by the stakeholder is to make registration at the time of purchase more widely available to increase registration of products. This is easier for larger items such as cars or bulky electrical items (discussed in more detail in section 8.1).

An example of an effective use of loyalty card programme within the non-food industry is Boots campaigns from 2002/2003. Boots operates a loyalty card program in which a significant proportion of its customers participate. Thanks to this it was possible to identify 43% of buyers of the product under recall. Within a few days after the decision to recall the product, a letter was sent to customers in an envelope with a red statement emphasising the importance of the message.¹⁹⁶

Similarly, a large furniture manufacturer pointed out that their family card can be a means for identifying affected customers in the case of a product recall. These customers are then contacted directly via email. Stakeholder interviewees agreed that companies that collect their customers' contact information should be obligated to make use of it in case there is a product recall. A third country authority explained that in their experience though some suppliers do not want to use loyalty programmes to contact consumers about recalls because they prefer to use their contact details to send them specials and offers. For instance, one large group of companies has primarily agreed to use their loyalty programme as their last resort for contacting consumers about recalls.

Another issue with using loyalty programmes, as identified by a large furniture manufacturer, is that the customers who sign up to the loyalty card **do not always give their real personal data but they often provide fake data**, so it is not possible to completely rely on these databases for reaching directly affected customers. In order to address this issue, the company interviewed launched a pilot project in the US on increasing consumer safety awareness for certain products (in this case, the chest drawers). After purchasing a product, consumers are directly advised on safety issues (and requested to provide their contact details in case there are any issues with the product).

A third country market surveillance authority concurred, pointing out that loyalty programmes have mixed success. Some loyalty cards that consumers receive are never

¹⁹⁶ Electrical Safety First (2014), Consumer Voices on Product Recall, available at: <https://www.electricalsafetyfirst.org.uk/media/1259/product-recall-report-2014.pdf>

registered. The quality of contact details associated with them is also mixed. For example, customers often do not complete all of the contact details or keep them up to date.

This finding is consistent with the literature review. For example, a survey by the US Center for Science in the Public Interest (CSPI)¹⁹⁷ indicates that - out of nine stores that had customer loyalty programmes - eight use the information gathered by the programme to alert customers about food recalls. However, the problem that the report points out is that loyalty programmes capture the contact information of less than half of the customers and thus an email or telephone call should not be used as a sole method of recall communication. Another form of communication can be printing recall information on sales receipts of consumers identified as having purchased the recalled product.

Findings from another study related to recalls within food sector report that the relevance of recalls and through that customers' active response to recall notices can improve by using customer loyalty data to create personalised and customised information. The report refers to a survey of the Food Policy Institute of the State University of New Jersey based on which 75% of respondents would like to receive personalised information about recalls on their receipts at the grocery store. Additionally, more than 60% reported they would also like to receive such information through a letter or an e-mail. Such system could be very effective for some retailers, e.g. Costco in the US requires their consumers to purchase memberships to shop in their stores. However, the report points out the problem with customers often providing false data to avoid spam. As a result, much of the information that stores gather through loyalty card programmes is not usable and they can never reach the end-customers if there is a safety issue.¹⁹⁸

When asked about methods to increase consumers' likelihood of consenting to receiving safety notifications and providing accurate data for this purpose e.g. when signing up to loyalty programmes, a stakeholder – a third country authority – indicated negative / warning messaging as more effective than positive / rewarding messaging. Another stakeholder representing the same industry described a way to overcome customers' reluctance to provide accurate information: customers can opt out from receiving marketing information. If there is a recall, the company will contact consumers via direct communication channels clearly stating the purpose, such as "We are contacting you specifically in relation to safety issue. We will not contact you for marketing purposes (...)".

Moreover, the Acheson Group (2018) highlights that setting a system of contacting customers about product recalls based on loyalty schemes would require significant effort from retailers in order to assure accuracy of the initial information provided by customers, followed by updates about home address, email/phone changes etc. The article also reports the increasing trend among retailers to use their loyalty card data to directly contact customers (by postal mail, email or phone) about special offers and coupons. The suggested approach is to add a statement about recall notifications to the standard privacy notice form to ensure that personal data collected through loyalty cards can be used in case of a recall,¹⁹⁹ with a simple suggested format of privacy notices allowing consumers to opt in or out of the loyalty programme's:

- Store coupons;
- Store specials; or
- Information if any food the consumer is purchased is subject to a recall.

Delivery records

¹⁹⁸ The Nation's Health (2010), Health officials use new means to trace sources of food illness: Customer loyalty cards hold promise, available at: <https://www.thenationshealth.org/content/40/4/1.1>

¹⁹⁹ The Acheson Group (2018), Loyalty Card/Recall Notification Settlement Nearing: What Will this Mean for Retailers?, available at: <https://www.achesongroup.com/post/loyalty-card-recall-notification-settlement-nearing-what-will-this-mean-for-retailers>

Another form of customer identification was mentioned by one interviewee, who is able to contact nearly all of their customers thanks to their delivery records.

Online sales and digital receipts

A market surveillance authority from a third country believes that customer data collected through online sales tend to be the most effective option for recall notifications at this stage. The stakeholder explained that digital receipts have only begun being used in the last couple of years and they have not yet had an opportunity to test the effectiveness of this option. However, some suppliers the authority is in contact with have indicated that they think it will be useful in contacting consumers. In Canada, the interviewee we spoke with had launched a project which linked the transaction number on a receipt to the account number of a customer, meaning that customers could be contacted much more easily in case of a product recall. However, the project was ceased due to a lack of funding. Relatedly, a UK stakeholder pointed out that it is possible to create a Unique Reference Number attached to a receipt which makes it easier to identify specific customers.

Data held by third parties

A market surveillance authority from a third country mentioned that personal details that are often provided to insurance companies that are part of the purchase package could be seen as another source of consumer data and can be used in case of a product recall.

An additional method of tracing products to consumers identified by the ACCC²⁰⁰ is the use of banking or credit card records. In such cases, the supplier could ask that the card operator to forward communication relating to a recall to all of its customers who purchased the product.

New technologies

A recent OECD report on the Internet of Things (IoT) and product safety²⁰¹ mentioned that the Internet of Things may bring a number of benefits to businesses and consumers alike, such as enabling businesses to:

- identify the need for a recall in a timely and effective manner
- alert consumers about a recall; and
- remotely switch off recalled connected products that remain in consumers' hands.

Stakeholders identified the use of such technologies as potentially highly impactful for identifying customers who might be affected by a product recall and alerting them in real time. In particular, connected devices could simplify the process of registration for consumers: often the device registration could be done as part of device initialisation.

However, there were a number of caveats:

- Interviewees pointed out that such technologies could work for some devices but not all;
- Relatedly, such solutions typically work best for more digitally “switched-on” consumers (who are more likely to register products anyway). For example, a Croatian industry association expressed the view that the use of internet-connected products for product registration in countries with low levels of digital literacy would prove problematic. Where a move away from more traditional forms of registration

²⁰⁰ ACCC (2010), Review of the Australian product safety recalls system, available at: <https://www.accc.gov.au/system/files/Review%20of%20the%20Australian%20product%20safety%20recalls%20system.pdf>. This method was also identified in the UK guidelines for conducting a recall: <https://www.bsigroup.com/en-GB/pas7100-supporting-better-product-recalls/>

²⁰¹ OECD (2018). Enhancing Product Recall Effectiveness Globally. Available at: https://www.oecd-ilibrary.org/science-and-technology/enhancing-product-recall-effectiveness-globally_ef71935c-en;jsessionid=rweHh0nYbVZnkhIfNNUTD-PH.ip-10-240-5-103

(for example filling in a form) to be made, one section of the population could be excluded from registration.

The stakeholders also pointed to the need for sensitivity around protection of consumers' privacy.

7.3. Policy initiatives (recommendations and initiatives by public bodies)

In general, there are very few public initiatives promoting products' registration. All identified ones occur in non-EU countries.

Electrical Safety First is a charity operating in the UK, with the mission of reducing the number of injuries and deaths caused by electricity across the UK.²⁰² One of their three listed "ways to stay safe" is facilitating electric appliances registration. For this purpose, the website provides an easy to use way for consumers to register their products online. First, they can select the relevant product category, and then the relevant brand of the product they are seeking to register. The website then redirects the consumer to the registration page of the manufacturer/producer. This means that the vast majority of electrical products can easily be registered through the help of the site (for example in the category of fridge/freezers, it is possible to be redirected to the sites of 37 different brands).

In January 2017, the UK Office for Product Safety and Standards (OPSS) gave its support to "Register My Appliance Day", a campaign by the Association of Manufacturers and Domestic Appliances (AMDEA) mentioned above to raise awareness of product safety and recalls. Consumers are encouraged to add product details onto the AMDEA Register My Appliance portal, so that they can be contacted swiftly if a safety repair is needed²⁰³.

In the US one of the main initiatives on children's products safety and recalls is 'Danny's Law'²⁰⁴ which requires manufacturers to include pre-postage-paid registration cards so that parents can be easily notified in the event of a recall. However, as mentioned by a report published by the NGO "Kids In Danger", Danny's Law is better equipped to prevent than to react to unsafe children's product issues since its main aim is to ensure that children's products are safe before they are sold to prevent product recalls and injuries²⁰⁵. In a 2002 report²⁰⁶, the US NHTSA pointed to a 24% increase in the return rate for car seat registration cards since 1993 following the introduction of a mandatory product registration card, and a corresponding 7% increase in the average effectiveness rate for child safety seat recalls.

A related remedy introduces a specific responsibility upon nominated individuals to register large appliances. In the UK, Electrical Safety First has recently campaigned for an amendment to the Fire Safety Bill, which would see a nominated 'Responsible Person' record the presence of large appliances with a view to removing or repairing faulty products, minimising the risk they can pose in densely populated buildings²⁰⁷. Mandatory five-yearly electrical safety checks in tower blocks are also included in the tabled amendment. These measures come in the wake of tragedies like the Grenfell Tower fire,

²⁰³ Lorraine Conway, House of Commons Library (2019), Product Safety and Recall, available at : <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8211#fullreport>

²⁰⁴ Consumer Product Safety Improvement Act (CPSIA) - 2008. This law – including a section named for Danny Keysar - requires standards for childcare products, bans lead and other harmful substances, and mandates independent testing for most children's products

²⁰⁵ Kids in Danger (2016). A KID Report Card: Children's Product Recalls in 2015 March 2016. Available at: http://www.kidsindanger.org/docs/research/KID_Report_Card_0316.pdf

²⁰⁶ US National Highway Traffic Safety Administration (2002). Evaluation of Child Safety Seat Registration. Available at: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/809518>

²⁰⁷ <https://www.electricalsafetyfirst.org.uk/media/hjjbxgs0/fire-safety-bill-2-reading-final.pdf>

in which 72 people were killed. Analysis of Government data issued by the Home Office and conducted by Electrical Safety First reveals that nearly a quarter of accidental electrical fires that have occurred in high-rise buildings over the last five years in England were a result of faulty appliances and leads as well as faulty fuel supplies, which can include electrical wiring in a property²⁰⁸. Better documentation of electrical goods could therefore prevent similar disasters.

Other interesting examples were identified in the US, where non-government product safety/recalls portals collect complaints from consumers about faulty products and alert consumer (who sign up to such alerts) about published recalls. Below are two examples of portals offering this service:

- Consumer Reports (<https://www.consumerreports.org/cro/index.htm>)
- Consumer Notice (<https://www.consumernotice.org/>)

²⁰⁸ <https://www.electricalsafetyfirst.org.uk/media/hjbxgs0/fire-safety-bill-2-reading-final.pdf>

8. Impact of the timing of a prompt to register on registration effectiveness

8.1. Registration is more effective at point of sale

Product registration can, generally, be offered at the point of sale or post-purchase.

Findings from industry survey

Surveyed manufacturers and retailers typically believed that point-of-sale registration (either in-store or online) was somewhat or very effective. The most frequently provided responses regarding in-store registration suggest that it is seen as "very effective" (9 responses) or "effective" (4 responses). The in-store registration is provided mostly by companies active in personal cars and motorcycle selling (7). Similarly, online registration at check-out is perceived as "very effective" (5 responses) or "effective" (3 responses). However, four respondents indicated that online registration is "somewhat effective". The online-registration is provided mostly by companies active in domestic electrical appliances (4), mostly large and medium-sized enterprises.

Figure 33: Effectiveness of registration at point of sale

	1: not at all effective	2: not very effective	3: somewhat effective	4: effective	5: very effective	Total
In Store	1	1	3	4	9	18
Online	1	3	4	3	5	16

Surveyed respondents tended to rate post-purchase registration as less effective than point-of-sale registration, but registration at delivery was perceived to be the most effective among post-purchase registration methods.

Findings from behavioural experiment

The greater effectiveness of registration at the point of sale was confirmed by the behavioural experiment. The prompt to register was either given at the point of sale or post-purchase, with two different variants being applied at the latter stage. More precisely, the variants were:

- a prompt at the point of sale (*Point of sale* in the figure below);
- a prompt included with the packaging of the product (*With package*); and,
- a general prompt to register in the form of a banner ad (*General prompt*).


The figure below provides a visual representation of these variants.

Figure 34: Timing of the prompt to register

a) Point-of-Sale

WarehouseShop [My basket](#) | [My account](#) | [Log out](#)

Congratulations! You selected a: **Odyssey X20 Smart Phone**



€366

Screen: 6.5" Full HD Touchscreen

Camera: 12MP (back)/5MP (front)

Storage: 32GB

Battery: 4000 mAh

CLICK HERE TO PROCEED TO CHECKOUT

Please register your product; Odyssey would like to let you know about exclusive offers!

CLICK HERE TO PROCEED TO CHECKOUT AND REGISTRATION

b) With package

In the next task, we ask you to answer some questions about the product you just chose as if answering an online quiz. Remember that you can earn points by providing the correct answer.

Quiz • Master Quizzes | Prizes | Games

How much do you really know about your shopping habits?

What was the price of the smart phone you just selected?

€300
 €333
 €366
 €387

How much storage did the smart phone have you just selected?

16GB
 32GB
 64GB
 128GB

How large was the smart phone you just selected?


6.5"
 6.6"
 6.7"
 6.8"

Which colour was the smart phone you just selected?

White
 Gold
 Black
 Red

How many cameras did your selected smart phone have?

0
 1
 2
 3


ODYSSEY
✕

Congratulations on your new Smart phone!

Contents of this box:

- ** Smart phone
- ** Charger
- ** Manual
- ** Warranty documentation

CLICK HERE TO ACKNOWLEDGE DELIVERY

Please register your product; Odyssey would like to let you know about exclusive offers!

CLICK HERE TO ACKNOWLEDGE DELIVERY AND REGISTER YOUR PRODUCT

c) General prompt

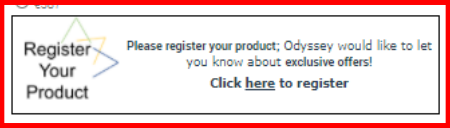
In the next task, we ask you to answer some questions about the product you just chose as if answering an online quiz. Remember that you can earn points by providing the correct answer.

☰ Quiz · Master
Quizzes | Prizes | Games

How much do you really know about your shopping habits?

What was the price of the smart phone you just selected?

£300
 £333
 £366
 £399




How much storage did the smart phone have you just selected?

16GB
 32GB
 64GB
 128GB

How large was the smart phone you just selected?

6.5"
 6.6"
 6.7"
 6.8"



saving for their future starts now

mutual national banking group

Which colour was the smart phone you just selected?

White
 Gold
 Black
 Red

How many cameras did your selected smart phone have?

0
 1
 2
 3

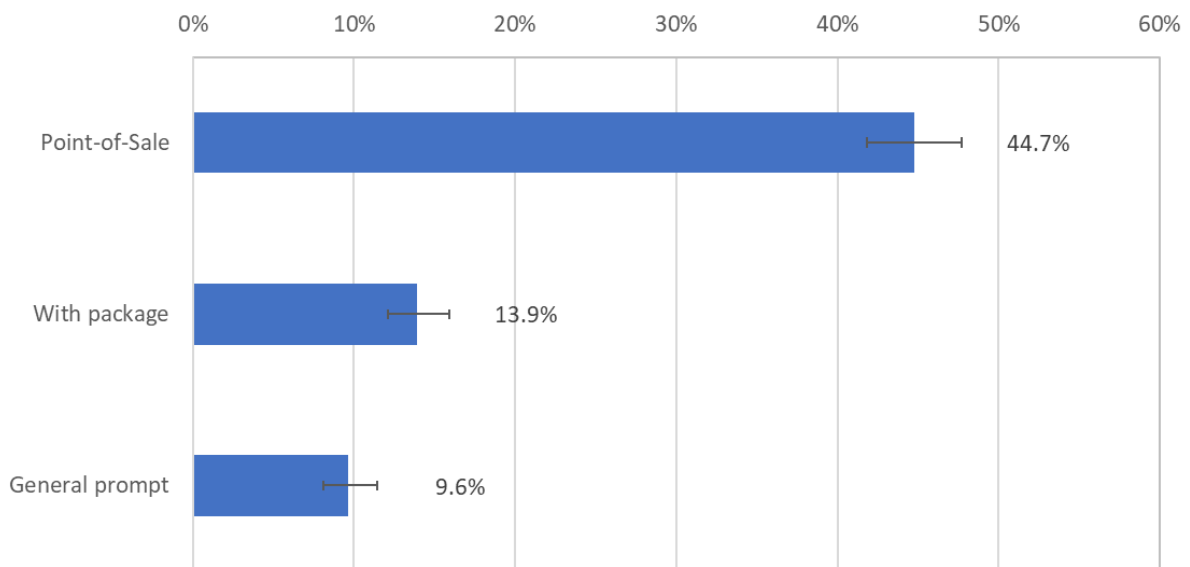
Submit

Source: Registration experiment

The behavioural experiment shows that **prompts at the point-of-sale stage work much better than prompts at the post-purchase stage** while **within the post-purchase stage, providing the prompt as part of packaging outperformed a generic prompt** (Figure 35). Nearly 45% of respondents started registration when they were shown the prompt at the point of sale, compared to respectively 13.9% and 9.6% of respondents who did so when shown the prompt attached to product packaging and a general add campaign²⁰⁹.

²⁰⁹ The differences are also highly statistically significant ($p < 0.001$).

Figure 35: Percentage of respondents starting the registration procedure – by variant timing of the prompt



Base: all respondents

Findings from consumer focus groups

These findings are broadly consistent with the findings of the consumer focus groups, which explored consumers' attitudes towards the timing of product registration. When asked about their preferred way and time to register products, participants were generally in favour of having the possibility to register products at the point of sale, when buying the product. Lower educated participants especially seemed to prefer registering a product immediately when buying it.

"For me, it would have to be right at the store, especially because I am the sort of person who the minute I get home all I want is to install the appliance or equipment and put it to work, so I'd never remember doing it then." [Portugal, low education group]

"It is best if I can fill the form in the store immediately" [Bulgaria, low education group]

"Why do you have to go and register it when you go home? Can it not be done a source when you're in the shop? It should just be done automatically, the technology is there." [Ireland, low education group]

"After the purchase, you do other things, and you forget about the registration." (low-income group, Germany)

Moreover, more vulnerable consumers pointed out that point-of-sale registration enabled them to ask salespersons any questions.

"I prefer to register the product at the point of sale, it is much easier for me and if I need more information – the salesperson can assist me with filling up the form." (Economically inactive group, Germany)

"It would be good to receive such invitations at the point of sale, not just online as in the experiment we just completed." (Low-income group, Bulgaria)

"If I have more information about the registration benefits I would make an effort for any type of product, not only the expensive appliances. I want to receive this information from the salesperson when I buy the product." (Low-income group, Bulgaria)

Moreover, a general registration campaign may not get its message out because consumers might confuse a prompt to register with general advertising.

"The invitation to register seemed like an advertisement of a new product or service, a banner, even a virus and I concluded that it was better ignored." (Economically inactive group, Bulgaria)

"This message is like spam, more information about the product; I didn't notice it was to register the product." (General public group, Bulgaria)

However, one higher educated participant appeared to be more inclined to register at a later moment in time, at home.

"I like to check everything, to read everything very carefully, so I always prefer to do it at home without feeling pressured." [Portugal, high education group]

The importance of providing prompts at the point of sale is confirmed when we look at results by country, age group²¹⁰, financial status²¹¹, educational level²¹², internet use²¹³, importance of product safety²¹⁴, occupational status²¹⁵, or product used in the registration experiment²¹⁶. For every single demographic group or product, the prompt at the point of sale leads to a significantly higher percentage of respondents starting registration than either of the two prompts provided in the post-purchase exercise²¹⁷.

Sub-group analysis focussing on post-purchase prompts to register finds that for some, but not all, demographic groups, the prompts attached to packaging perform better than generic prompts. Full results are available in Annex A14.3.5 in the Technical Annex.

8.2. Mapping and assessment of market practices

In all of the 40 cases the team analysed as part of the consumer journey, product registration is done **after** the consumer purchased a product and there was no time limit for its completion. In some limited cases, consumers were urged to proceed with their registration up to between 28-45 days in order to benefit from warranty extensions (e.g. two manufacturers of electrical appliances in Czechia, a manufacturer of durable children's articles and equipment in Portugal, two manufacturers of domestic electrical appliances in Croatia). In the majority of registrations there was no time limit for product registration (in 8 cases there was some time restriction), that is products bought during any period could be registered on the website. However, in seven cases, a proof of purchase was required, which can considerably limit the possibility to register the products, especially for second-hand items and gifts.

One example of mandatory point of sale registration has been identified in the US. A home furnishings retailer has launched a scheme to mandate consumers to register a product and provide proof of registration before they pick up the product. Consumers are assured that their information will only be used for safety purposes²¹⁸.

²¹⁰ 18-34, 35-54, 55-64 and 65+.

²¹¹ Respondents finding it very easy, easy, difficult or very difficult to make ends meet.

²¹² Low, medium and high educational level.

²¹³ Low, medium and high internet use

²¹⁴ Product safety is very important, or product safety is not very important.

²¹⁵ Employed, retired or neither employed nor retired.

²¹⁶ Smart phone, high chair or toaster.

²¹⁷ $p < 0.001$ for all groups except financial status; $p < 0.01$ for all financial status groups

²¹⁸ <https://www.furnituretoday.com/furniture-retailing/ikea-implements-tip-over-awareness-sales-requirement/>

9. Impact of the content of a prompt to register on registration effectiveness

The study explored the impact of the content of the prompt to register, both qualitatively through preparatory focus groups and quantitatively through the behavioural experiment.

Both focus groups and behavioural experiment broadly confirmed that prompts to register linked to extended warranties are likely to be effective, consistent with evidence that consumers register products to avail themselves of extended warranties (section 7.1.2). Moreover, very strong safety-related language in prompts to register may be counterproductive, since it can put consumers off from purchasing products.

9.1. Evidence from the focus groups

The preparatory focus groups conducted for this study explored the messaging that would prove effective in encouraging consumers to register. Focus group participants were shown four hypothetical invitations, or 'messages', to register a washing machine, displayed below. Subsequently, participants were asked which of these invitations made them most likely to register a washing machine and why.

Figure 36: Invitations to register a product shown to participants

<p>Thank you for buying one of our state-of-the-art washing machines. Make sure to register it so that you can keep track of your warranty and easily order replacement parts for your machine.</p> <p>Please visit registration.com</p> <p style="text-align: right;">1</p>	<p>Thank you for buying one of our state-of-the-art washing machines. Make sure to register it so that we can contact you in case there are any issues with your product.</p> <p>Please visit registration.com</p> <p style="text-align: right;">2</p>
<p>Thank you for buying one of our state-of-the-art washing machines. Make sure to register it so that we can contact you in case there are any issues with your product. This may prevent injury in your home and even save lives.</p> <p>Please visit registration.com</p> <p style="text-align: right;">3</p>	<p>Thank you for buying one of our state-of-the-art washing machines. Make sure to register it so that we can contact you in case there are any issues with your product. The information will never be used for marketing purposes and will not be transferred to third parties.</p> <p>Please visit registration.com</p> <p style="text-align: right;">4</p>

In Bulgaria, Germany and Portugal, participants considered the first message to be the most convincing or among the two most convincing messages. This was mainly because message 1 was seen as emphasising the perceived key benefits of registering for consumers (as noted also in the section above): access to the (extended) warranty and technical support. In Ireland, on the other hand, many stated that they did not engage with message 1, because they believed that the receipt / proof of purchase would be sufficient to get a replacement or repair and they would not need an additional warranty. Across countries, it was not always clear to everyone what "keep track of your warranty" meant in practice, even for those for whom the reference to the warranty sounded reassuring.

*"If I have an issue and I would call the manufacturer, I don't want to look at the documents of the product and wonder which is my product model. This will save time."
[Bulgaria, low education group]*

"...most of them send you an e-receipt anyway and you can still fall back on your warranty if you can prove you bought it from a certain place on a certain date. I never really saw the point of doing this [registering]" [Ireland, high education group]

Similarly, participants in the follow-up focus groups after the experiment reported that they preferred prompts to register emphasising the payoff of making the effort to register, such as an extended warranty.

"If it's not related to something I'll get extra doing this (like an extended warranty) and take my time, I wouldn't do it." (General public group, Germany)

"I always register when I shop online if this extends the warranty." (Lower education group, Bulgaria)

However, using an extended warranty to entice consumers to register their product might need some consideration about the information to provide in the prompt. For example, follow-up focus group participants sometimes said that they would like to know how long the extension might be, or need reassurance that the warranty was not attached to extra costs.

"How long will the warranty be extended? For me it would also be interesting to know if it will be extended for 1-2 years, if it is worth to register." (Lower educated group, Germany)

"I want to know that I don't take a risk, that it is really made clear that I don't have to pay anything." (Non-online group, Germany)

Message 4 above (highlighting that consumers' information would not be used for marketing purposes) also generated a substantial level of support. In Bulgaria and Ireland, this was considered to be the most credible and trustworthy message, while in Germany and Portugal this message was rated among the two most convincing messages. Participants valued the emphasis on privacy protection in message 4. However, some participants did not believe that the manufacturer would keep this promise and thought that their data would still be used for marketing purposes by the manufacturer, or even shared with or sold to third parties.

"That wording is much better ... it does say what it's going to be used for, and it wouldn't be used for marketing or transferred to a third party. I would be more inclined, if I saw that, to register." [Ireland, high education group]

"I would not trust this statement. We all assume that they send us tons of advertising." [Germany, high education group]

"This invitation is the most motivating for me to register my product, because they won't share my personal data with a third party." [Bulgaria, high education group]

"I prefer this invitation because of the nondisclosure of personal information." [Bulgaria, low education group].

Messages 2 and 3 were the least well-received. Message 2 was considered as lacking a clear incentive for registering, even though some participants valued its succinctness. Message 3 received substantial negative feedback. The references to 'injury' and 'save lives' were considered exaggerated or disconcerting/threatening, and participants generally did not see how registering could protect them against these risks.

Re message 2: "This invitation is very brief and clear." [Bulgaria, high education group]

Re message 3: "Why should they threaten us to make a registration? I just do not get it." [Bulgaria, high education group]

*Re message 3: "I bought a washing machine that's risking my life? Then I don't want it."
[Germany, low education group]*

Re message 3: "Yeah, I suppose you'd be wondering why are they selling me something if they think that it could injure me." [Ireland, high education group]

In focus group discussions following lab experiment, participants also reported that they preferred to receive some payoff for the effort of registering a product, like a warranty.

9.2. Findings from the behavioural experiment

The language of the prompt to register was investigated in the registration experiment. The experiment varied the content used in the prompt to register by:

- highlighting the link between registration and product safety (*Safety* in the figure below);
- ensuring that personal data is not used for marketing purposes (*No marketing*);
- varying the source of the prompt to register (*Public authority*);
- incentivising registration through extended warranties (*Warranty*); and,
- varying the severity the risk to safety described in the prompt (*Strong*).

The experiment further included a baseline. The variants looking at language built on top of each other. That is, the "safety" variant was the same as the "baseline" variant with one change; the "No information" variant was the same as the "Safety" variant with one change; etc. As such, we can compare each percentage shown in the figure pairwise with the percentage displayed above it. The figure below splits out variants which can be directly compared into different panels.

Although the percentage of respondents registering a product may not align with real-life figures, treatment effects can be calculated by looking at differences between variants. Visual representations of the variants are provided in the figure below.

Figure 37: Content of the prompt to register

a) Baseline

Please register your product; Odyssey would like to let you know about **exclusive offers!**

b) Safety

Please register your product so that Odyssey can **contact you** if your product presents a **safety risk or other defect.**

c) No marketing

Please register your product so that Odyssey can **contact you** if your product presents a **safety risk or other defect.**

Following **EU data privacy** regulations, the **personal information** you provide for this purpose **cannot be used for marketing** purposes.

d) Public authority

The Product Safety Authority recommends that you register your product so that Odyssey can **contact you** if your product presents a **safety risk or other defect.**

Following **EU data privacy** regulations, the **personal information** you provide for this purpose **cannot be used for marketing** purposes.

e) Warranty

The Product Safety Authority recommends that you register your product so that Odyssey can contact you if your product presents a safety risk or other defect.

Registering your product activates your extended warranty- don't miss out!

Following EU data privacy regulations, the personal information you provide for this purpose cannot be used for marketing purposes

f) Strong

The Product Safety Authority recommends that you register your product so that Odyssey can contact you if your product presents a safety risk or other defect.

Registering your product activates your extended warranty – don't miss out!

Following EU data privacy regulations, the personal information you provide for this purpose cannot be used for marketing purposes.

Register your product to help protect yourself and your loved ones.

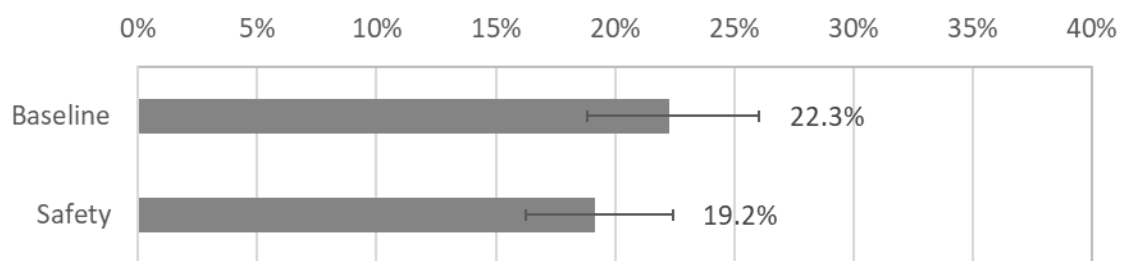
Source: Registration experiment

The behavioural experiment highlights two elements of the prompts which have the largest impact on registering.

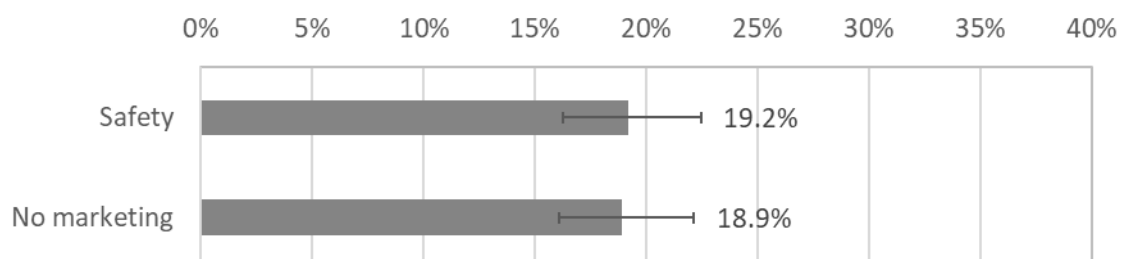
- Firstly, tying registration to an extended warranty has the largest impact of all tested variants. The percentage of respondents starting the registration procedure under the "Warranty" variant and "Public authority" variant differs by 5.1 percentage points. This difference is statistically significant ($p = 0.040$).
- To a lesser degree, moving the request to register from a private company (the manufacturer) to a public authority also improves the likelihood of respondents to start registration. However, the difference with the "No marketing" variant is weaker than the previously mentioned difference (4.2 percentage points), and it is only significant at the 10% level ($p = 0.060$)²¹⁹.

Figure 38: Percentage of respondents starting the registration procedure – by variant language of the prompt²²⁰

a) Safety versus baseline



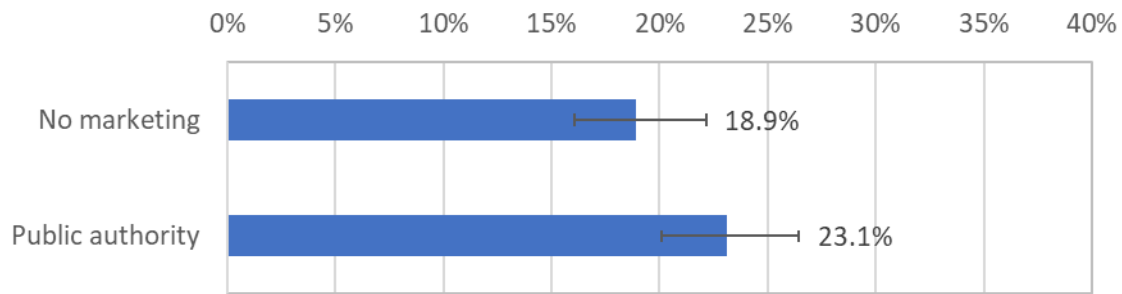
b) No marketing versus safety



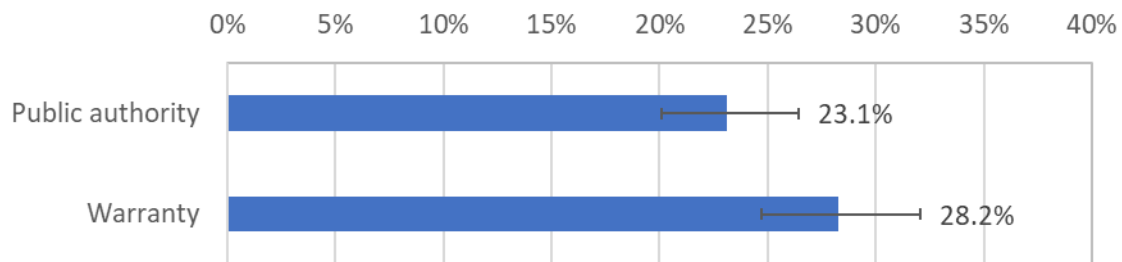
²¹⁹ Note that there was no statistically significant difference between the "Safety" variant, the "Warranty" variant and "Strong" variant.

²²⁰ Since variants in this section build on each other, we present all relevant pairwise comparisons between variants. However, pairwise comparisons which are not statistically significant have been greyed out.

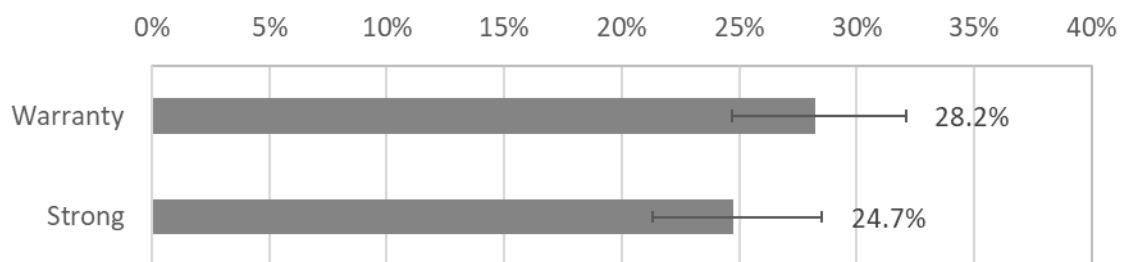
c) Public authority versus no marketing



d) Warranty versus public authority



e) Strong versus warranty



Note: Variants within the same group differ in exactly on element of request to register, and can be compared directly to calculate treatment effects.

Base: all respondents

The results from the full sample outlined above seem to hide a plethora of complexity. There was no consistent theme to the impact of content across countries. For example, having the prompt be given by a public authority had a positive impact on the likelihood to start registration in Belgium, Ireland and Spain, but provoked a negative reaction in Bulgaria.²²¹ Similarly, offering extended warranties with registration or using strong language in the prompt provoked different reactions across countries. This implies that there is a complexity to the impact of language across countries, which is not necessarily captured in an EU-wide analysis. The table shows, for each country, which variants²²² increased or reduced the percentage of respondents starting registration.

Table 3: Impact of language across countries

Variant	Increase registration	Reduce registration
Safety	DE, PT	
No marketing	BG, CZ	

²²² The table shows which variants are statistically significantly (at the 5% level) associated with a change in the percentage of respondents starting the process of registration

Public authority	BE, IE, PT, ES	BG
Warranty	BG, HR, DE	BE, IE
Strong	DK	CZ, ES

Note: each cell shows the country code in which a variant statistically significantly increases or reduces the percentage of respondents starting registration, at – at least – the 5% level. Tests are conducted with the preceding variant, i.e. we get the following tests: baseline versus safety, safety versus no marketing, no marketing versus warranty and warranty versus strong. Language of the prompt had no influence on the likelihood to start registration in Latvia.

As the table shows, each variant is associated with improving the likelihood of respondents starting registration in at least some countries but none for all countries. Furthermore, most variants are associated with both increases in the likelihood in some countries but decreasing the likelihood in others. In all, the impact of the language in the prompt seems highly country-specific.

The impact of content follows similar pattern as in the full sample for some groups, for example age, educational level and occupational status, but looks different for others.

Based on analysis by age groups – 18-34, 35-54, 55-64 or 65+ – the inclusion of an extended warranty seems particularly important at younger ages. For the 18-34 age group in particular, “Warranty” was the driver of impact of content. However, the evidence in favour of the warranty weakens with older age groups²²³. In fact, none of the messaging had impact on behaviour for the 65+ group.

Similarly, analysis by educational level – low, medium or high – and by occupational status – employed, retired or neither employed nor retired – suggests that “Warranties” drive the impact of content, but for the medium educational level and employed respondents only. However, no impact of content is found in the other educational level or occupational status groups.

Lastly, we looked at the impact of the language in the prompt to register at different stages of the customer journey. As highlighted in section 2.3, the prompt to register was provided either at point of sale or during a post-purchase task²²⁴. There is some evidence that the content of a prompt has the largest impact at the point of sale²²⁵.

9.3. Mapping and assessment of market practices

9.3.1. Linking product registration to safety in invitations to register

The link between product registration and safety is in general not highlighted in the analysed registration schemes and the main purpose of the registration is related to general marketing and customer support. Out of the 40 analysed registration schemes, only four included a statement in the invitation to register that customer contact details would be used to communicate safety issues with the products.

Two invitations to register included a statement that registration is carried out solely for safety purpose. In the case of Mattel soothing seat in Spain²²⁶ consumers receive the following reassurance “The information you provide shall not be used for any purpose other than to contact you in case of recall or safety alert regarding the product you have

²²³ The difference between the “Warranty” and “Public authority” variants was significant at the 1% level for the age group 18-34, but only at the 10% level for the 35-54 age group. The inclusion of an extended warranty had no additional impact for the 55-64 or 65+ group.

²²⁴ For the latter, there was also a distinction between a direct prompt or a generic prompt.

²²⁵ A complete list of results is provided in the Technical Annex.

²²⁶ Translation from original statement in Spanish: “La información de esta página únicamente servirá para contactarte en caso de que haya una Alerta o Aviso de Seguridad para este producto. No se utilizará la información personal para otros fines”. Available at: <https://service.mattel.com/es/registration/default1.asp>

registered". Likewise, the invitation to register a car seat by Babytrend²²⁷ states: "We will use the information provided on this page only to contact you if there is a safety alert or recall for this product". This language closely follows the US requirements, where registration for the purpose of receiving safety alerts or recalls is mandated by law²²⁸.

Two further invitations to register mentioned product safety among other benefits of completing the registration process. In case of Sandberg solar powerbank in Portugal²²⁹ the invitation to register stated "Why register your product? – Receive important information about your product, such as updates and safety alerts". Curry's online registration scheme in Ireland²³⁰ is an example of how retailers and manufacturers can cooperate to support product registration and to link it to safety and recalls, as opposed to marketing. The registration page clearly links product registration and safety of family and children ("Registering your Currys PC World purchases and keeping up to date on the latest safety advice doesn't need to be a big job. We've compiled everything you need to know into three short points, to make sure you and your family are safe at home"). Below the information about product registration there is a section about product safety notifications with the list of issued recalls.

Safety issues are normally not mentioned at the invitation stage and tend to appear (if at all) at a later stage of the registration process (e.g. privacy notice). One can assume that highlighting the safety issue could be more common for children's articles and equipment. However, as mentioned above, registration schemes for this product category are not well established in Europe and therefore not many examples were found.

9.3.2. Use of registration data – analysis of privacy notices/contractual terms

Using product registration data for safety purposes is more likely to be mentioned in the companies' privacy/data policy (whose acceptance is a mandatory step of the registration)²³¹ alongside with the uses of customers' data for marketing and advertising purposes.

In our sample of analysis, the use of customers' data for safety communications was mentioned in half of privacy notices (21 out of 40), while a number of further ones included a generic reference to "product / after-sales support" (9 cases). However, except in two cases, the notices also mentioned marketing/after-sales communications in addition to safety communications. Therefore, by accepting the terms and conditions of the privacy/data policy, customers agree to their information being used for both marketing purposes and for safety-related communications, which might in general discourage from participation in product registrations.

In addition, only in a minority of cases consumers were given the choice to opt in or out from marketing communications. Bosch (Spain)²³² stated on their website that they used a "double opt-in system" to ensure that consumers give their consent to receiving promotional communication in a clear and explicit manner. Consumers are told they will only receive marketing communication if they click on the link sent in the confirmation email.

²²⁷ <https://babytrend.com/pages/car-seat-product-registration>

²²⁸ The Babytrend registration is only applicable to child restraint systems purchased in the United States, but it was possible to conduct an online registration simulation and complete it by providing an Irish address. Babytrend products can be purchased online and delivered to the EU from the US.

²²⁹ Original message in Portuguese: "Receba informações importantes sobre o seu produto, como atualizações e mensagens de segurança". Available at: <https://sandberg.pt/pt/support/warrantyRegistration>

²³⁰ <https://www.currys.ie/ieen/product-safety-information-724-commercial.html>

²³¹ Customer normally needs to tick a box to finish the product registration process, accepting the terms and conditions of the data policy

²³² <https://www.bosch-home.es/mybosch/mi-cuenta>

10. Trading off the costs and benefits of registering a product

10.1. Consumers' drivers, barriers and trade-offs

The literature suggests that minimising consumer effort is key to improve registration rates (consistent with the findings of the behavioural experiment, see section 10.1.1).

A 2015 US survey found that consumers trade off the perceived benefit of registering a product (to activate warranties and receive recall notices) against the effort of registering a product. The survey found that 78% of consumers prefer automatic registration while other preferred registration methods are via email or website: all solutions that require the least effort²³³.

In order to minimise the effort needed from consumers to register products, businesses should ensure that the registration process is as simple as possible by only asking for the necessary information that will allow direct contact (e.g. only email address). An effective strategy to minimise consumer effort would require close collaboration between public authorities and businesses in simplifying and standardising the product registration process across the EU²³⁴.

10.1.1. Findings from behavioural experiment

The impact of the effort required to complete registration was also tested in the behavioural experiment. Respondents needed to undertake either:

- low effort to register their product, by submitting a pre-filled form;
- medium effort to register their product, by entering product details provided in a separate document; or,
- high effort to register their product, by entering product and purchase details provided in two separate documents.

The figure below shows a visual representation of the treatment variants.

²³³ Schoettle and Sivak (2015), Consumer Preferences Regarding Product Registration, available at: <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116020/103219.pdf?sequence=1>

²³⁴ EC (2019). Survey on consumer behaviour and product recall effectiveness, Available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

Figure 39: Effort to register

a) Low

I do not want to register my product anymore. Skip to next task.

Odyssey registration form

Please provide the information below

Brand of the product

Model

Product code

Submit

Click the buttons below to find more information about your product

PRODUCT INFORMATION

b) Medium

I do not want to register my product anymore. Skip to next task.

Odyssey registration form

Please provide the information below

Brand of the product

Model

Product code

Submit

Click the buttons below to find more information about your product

PRODUCT INFORMATION

c) High

I do not want to register my product anymore. Skip to next task.

Odyssey registration form

Please provide the information below

Brand of the product

Model

Product code

Date of purchase

Retailer/Seller

Submit

Click the buttons below to find more information about your product

PRODUCT INFORMATION

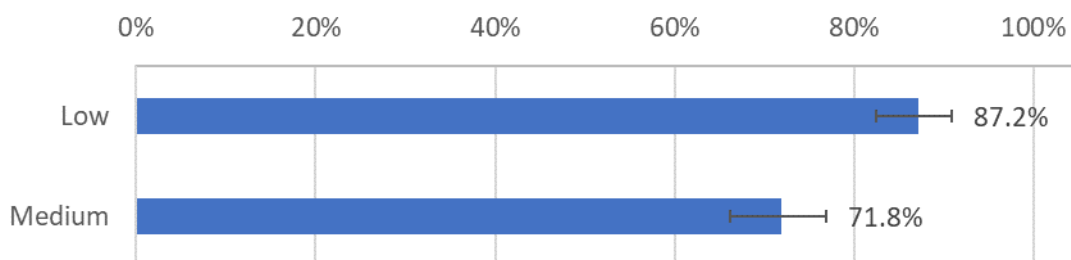
PAYMENT INFORMATION

Source: Registration experiment

The behavioural experiment confirms that lowering the effort substantially increases the probability that respondents complete the process of registration. 87.2% of respondents who needed to perform low levels of effort to register their product completed the product registration, compared to 71.8% of respondents completing moderate effort and 62.9% of respondents who needed to perform high effort (Figure 40)²³⁵.

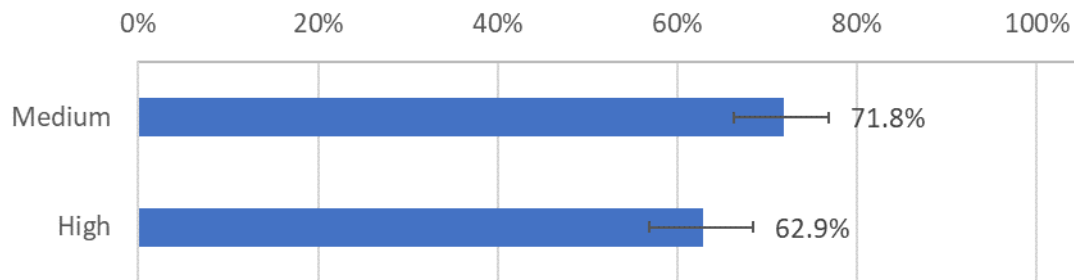
Figure 40: Percentage of respondents completing the registration procedure, provided they also started it – by level of effort required to complete

a) Low effort versus medium effort



²³⁵ The differences were statistically significantly different (χ^2 test, $F=20.1$, $p<0.001$).

b) High effort versus medium effort



Note: Variants within the same group differ in exactly on element of effort, and can be compared directly to calculate treatment effects.

Base: Respondents starting the registration stage

Analysis across demographic groups shows that the likelihood of registration is always higher as effort is lower.

The analysis by countries, demographics and products suggests that the most important difference is the distinction between low effort and medium effort, i.e. the distinction between a pre-filled form and a form requiring respondents to enter product details. The difference between medium and high effort, i.e. the amount of information required, had less of an impact.

10.2. Mapping and assessment of market practices

The desk research found that the process that consumers normally need to follow to register their product was to fill out product registration form on the company's website, which in some cases additionally required setting up an account.

The time taken to complete the registration was relatively short. Most registrations were completed in 3-10 minutes. However, there were some cases where a high level of details was mandatory and proof of purchase needed, which made the process more time-consuming. Additionally, in some cases, registration required setting up an account (followed by email validation), which required extra effort (around 20 minutes in total to complete the entire registration). Therefore, online registration without having to set up an account is easier for consumers.

Other factors contributing to the perceived ease of completing the registration are related to the required customer and product data, as well as the layout and language of the registration online interface.

The reduced number of mandatory fields in the online form encourages consumers to complete the registration procedure. In the majority of analysed registrations researchers highlighted that the ease of completing the registration as the reason why they considered it as good practice. However, often it was mandatory to provide full personal address, which our researchers perceived as not necessary for registration. Instead it created the impression that the focus of the registration is more on reaching customers for advertising purposes rather than for safety reasons.

Some manufacturers enabled customers to log in with the details of their social media accounts such as Facebook or Google (e.g. domestic electrical appliances in Portugal or communication devices in Bulgaria). This option saved time for filling in personal details, which in some cases our researchers found burdensome and time consuming. However, logging in through social media means that personal data is shared with the third parties (e.g. Facebook, Google), which raises privacy concerns. More innovative ways of product registrations, such as QR code scanning, are not very frequent at the moment. Such an option was offered for domestic electrical appliances in Belgium. Adding drop-down menus also helped save time and make the registration process more user-friendly.

Additionally, the research found that a dedicated section for product registration should be accessible and easy to find for consumers on companies' websites. Incentives to register products should be clearly explained and presented to consumers. Alternatively, describing these incentives in the first step of the registration would be important to maintain consumers' interest and encourage them to proceed with the process and finalise it.

29 out of 40 analysed registration schemes offered incentives and after-sales support. The most frequently-found methods to encourage consumers to register products were an extended warranty and after-sales support (e.g. download of device manual / information about compatible products). In some cases coupons of vouchers / discounts were offered for the next purchase as an incentive to complete the registration process, e.g. 20% additional discount on accessories (offered by a multinational manufacturer of domestic electrical appliances), one-time 25% discount on spare parts in the online shop (applied by another manufacturer of domestic electrical appliances).

As for the insights collected from the stakeholders, it appears that the methods of identifying and contacting the owners of recalled products differ from country to country. What is clear is that for consumers to register their products there needs to be a clear link between the burden related to registration and the perceived benefits.

One of the interviewed market surveillance authorities noted that contacting customers affected by product recalls in Belgium is very difficult, largely because the manufacturer/producer issuing the recall cannot identify the consumers who bought the product. This was a common concern expressed in many countries. For larger more expensive products, particularly those bought online, contact is often easier as these are the products that tend to have been registered by consumers. The same authority also pointed to the concern that the General Data Protection Regulation (GDPR) restricts the consumer information that can be collected and stored, which may serve to decrease the effectiveness or likelihood of product registration.

As a comparison from a non-European country, an Australian interviewee informed us that product registration is not integrated into industry practice in Australia. Only around 5% of recalled products had a corresponding registration scheme.

11. Monitoring the effectiveness of recall campaigns

In general, there is limited evidence that suggests systematic attempts to monitor the effectiveness of recalls in the EU. The OECD Policy guidance²³⁶ recommends a multi-faceted approach to measuring recall effectiveness, taking into account a variety of factors in addition to return rates, such as the price and expected lifespan of a product, customer traceability, communication methods used, ease and attractiveness of recall participation and/or injury data.

Research conducted by the ACCC suggested the following criteria to evaluate recall campaign effectiveness. These criteria include ex-ante criteria (that is analysing how a campaign is planned and conducted, communication channels used, how relevant customers are identified, etc.) and ex-post criteria (that is analysing the results of campaigns).

Ex-ante criteria:

- The ease or difficulty to understand the instructions given in the recall announcement;
- Easy or burdensome steps to be taken by the consumer;
- Assessment of the attractiveness of the remedies offered;
- The ease or difficulty for a consumer to participate in the recall;

Ex-post criteria²³⁷ include:

- The proportion of affected consumers successfully contacted;
- The proportion of affected products remedied (returned, repaired, refunded, disposed of etc.);
- The proportion of affected products that are still in use by consumers (i.e. have not been disposed of prior to the recall campaign);
- The number of complaints related to the recall; and
- Whether injuries are continuing to be reported.

The international standard applied regarding ex-post monitoring of recalls effectiveness is the ISO 10393 (2013)²³⁸, which was prepared by the Standards Australia Committee for Consumer Product Management Systems. This standard provides practical guidance to suppliers on consumer product recalls and other corrective actions after the product has left the manufacturing facility. The corrective actions include: refunds, retrofit, repair, replacement, disposal and public notification. The ISO standard is intended to apply to consumer products but might also be applicable to other sectors.

Few national guidelines contain specific reference to ex-post assessment. Among the surveyed countries, Denmark uses a rating system (described below) to indicate the effectiveness of a product recall campaign. Given that it is not always necessary to return a product that has been recalled to the place of purchase/manufacture (sometimes the product is simply thrown away), figures based on the number of returned products are not always a good measurement of a successful recall. The following return rates have been used by Danish authorities to determine the effectiveness of recalls:

- For products cheaper than 25 Euros, a return rate of 10% is considered good, because a lot of the products will also be thrown away.

²³⁶ OECD (2020). Policy guidance on maximising product recall effectiveness, retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2019\)4/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2019)4/FINAL&docLanguage=En)

²³⁷ The national researchers are in the process of reaching out to national industry associations and contacting the selected companies directly with the aim to collect quantitative details of the recall campaigns. It should be noted that this approach has yield limited data thus far.

²³⁸ Available at: <https://www.iso.org/standard/45968.html>

- For products between 25 and 400 Euros, a return rate of around 50% is considered effective.
- For more expensive products there is the expectation of a higher rate of products returned (more than 50%).

A recall is only considered as complete when the Danish Safety Technology Authority assesses that these thresholds have been reached (i.e. when a satisfactory number of the products sold have been returned)²³⁹.

Among respondents of the industry survey, the respondents who recalled a product from end consumers in the past 5 years, were also asked if they monitor the effectiveness of product recall. The following details were provided about the monitoring systems:

- Monitoring % of goods returned
- Using ratios, e.g. for a client: batch of units received/batch units recalled, for a store: recall answers/total stores
- Using global reporting system and monitoring how type of product recall, season, product type may affect the response rate
- Using KPIs set by manufacturers
- Using the warranty systems for cars
- Tracking consumer responses to direct messages about safety

The stakeholder interviews indicated that there are a number of KPIs to evaluate the effectiveness of a recall campaign, but there are nuances that need to be considered. For example, a Belgian market surveillance authority reported that it uses and compares the following criteria to evaluate the effectiveness of a product recall campaign: products purchased, products in stock, products sold and products returned.

However, as was underlined by an Australian stakeholder, for them a successful recall is one where, after notification, sufficient steps are taken to prevent further injuries or deaths. The proxy for measuring that is often return rates. Given that the purpose of a recall campaign is to protect people from potentially dangerous products, the degree of success should be derived from how few injuries there are at the end. For example, there are recalls with response rates of around 97 percent, but incidents are still happening (for example housefires, burns, etc.). These incidents come with many costs for consumers, and so numbers of products returned can only tell you so much. The Australian stakeholder is therefore focused on not stopping the recall campaign until 100 percent of recalled products are returned, so as to avoid harm to consumers.

²³⁹ See: <https://www.sik.dk/erhverv/produkter/generel-produktsikkerhed/vejledninger/tilbagetraekning-og-tilbagekaldelse-produkter#>

12. Economic impact of recalls

This section provides the results of the EU-wide economic assessment and integrates them with the expected cost-saving due to the remedies analysed in the behavioural experiment.

12.1. EU-wide costs of recalled products remaining in consumers' hands

The results of the model provide a range of estimates by product category and for all recalls registered under the Safety Gate in 2019. According to our model, **the EU-wide costs of recalled products remaining in consumers' hands for 2019 was around EUR 378 Million**²⁴⁰. The most relevant product categories – where the related costs are the highest – include 'motor vehicles' (50% of the total), 'electrical appliances and equipment' (20%) and 'toys' (5.7%). This is both due to the frequency of accidents related to these product categories and to the treatment costs related to injuries caused by these products.

This estimate is the average between a lower bound of EUR 7.5 Million (if for all products under recall the risk of causing injuries were equal to 0.01%) and an upper bound of EUR 757 Million (if for all products under recall the risk of causing injuries were equal to 1%). These estimates take into account treatment costs, productivity losses and disability costs related to losses in Quality-Adjusted Life Year (QALY).

Please note that the above estimate may overestimate the harm of products remaining in consumers' hands since the calculations do not take into account consumers who dispose of the product rather than returning it. Conversely, the estimates may understate the costs of recalled products remaining in consumers' hands as not all recalls need to be reported in the Safety Gate/RAPEX²⁴¹. Moreover, existing estimates may understate injuries, since databases provide information for non-fatal injuries.

The methodology for this assessment is available in section **Error! Reference source not found.** The Technical Annex includes the detailed methodology and result of the estimates for the EU-wide cost of recalled products remaining in consumers' hands, across all product categories, in 2019.

12.2. Economic impact of increased recall effectiveness

The assessment of EU-wide costs of recalled products remaining in consumers' hands provides a baseline for the calculations of the economic impact of increased recall effectiveness.

As described above, the behavioural experiment conducted under Task 2 tested the effects of selected remedies on consumers' response to recall notices and found that respondents were significantly more likely to initially engage with or take action upon a recall notice in the form of a direct email than a general ad campaign. In particular, 86.5% of all experiment respondents who received the direct communication kept the recalled product, compared to 96.8% of those who were exposed to the general ad campaign. That is, direct communication increased recall participation rates by 10.3%. This change is not homogeneous across different categories: Washing machines are the product category with the largest increase of consumers returning or disposing of the product (13.8%), while the smallest increase is related to Office chair (7.9%).

²⁴¹ As regards products posing a less-than-serious risk, the notification to Safety Gate/RAPEX is encouraged but not mandatory in the case of both voluntary and compulsory measures taken against products subject to EU harmonised legislation and in the case of voluntary measures taken against products falling under the General Product Safety Directive. In addition, Member States are not required to notify corrective measures in cases where the effects of the product risk cannot go beyond the territory of the Member State.

According to our estimates, the proposed remedy can reduce the number of recalled products remaining in consumers' hands by over 4,673,632 million individual items: with a direct notification, compared to a general notification, in the EU there would have been 4,339,346 more individual items being returned and 334,285 more individual items being disposed by consumers in the reference year 2019. The EU-wide savings would account for over EUR 73 million²⁴².

On one hand, the estimate of the economic impact of increased recall effectiveness is conservative as it takes into account only one policy remedy (direct communication) and it does not include other policy remedies such as any remedy linked to the content of recall communication or making the recall procedure less burdensome or increasing the attractiveness of recall remedies. On the other hand, the estimate of the benefits for this specific remedy may be overestimated since in the motor vehicle sector (where the gains are estimated to be the greatest) direct recall notification is already a common practice.

The methodology used to calculate the potential economic impact of increased recall effectiveness is available in section **Error! Reference source not found.**, while the detailed methodology and results of the economic impact of increased recall effectiveness, across all product categories, in 2019, are reported in Annex 3 of the Technical Annex.

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²⁴² Note that this impact is highly sensitive to assumptions of the probability of harm from recalled products remaining in consumers' hands: at the lower bound, the impact is €1.4 million; at the upper bound, the impact is €147 million.

13. Conclusions and recommendations

13.1. Recall effectiveness varies across consumer groups

13.1.1. Exposure to information about recalls is variable across consumer groups, and some vulnerable consumers may have lower awareness

In the consumer survey, 43% of respondents reported having seen or received recall information during the past 2 years and 14% said this information concerned a product they owned themselves. Older, less-educated, more financially vulnerable, and less digitally confident respondents were less likely to report being exposed to recall information, as were unemployed and retired respondents.

Moreover, vulnerable consumers may not realise that dangerous products ought to be recalled. For example, according to a European Commission's 2019 survey²⁴³, consumers with a low level of education, those in a less stable occupation (e.g. unemployed, job-seekers) and those who do not purchase products online are the least aware that dangerous products should be recalled.

This suggests that there may be a need to increase some vulnerable consumers' awareness of the purpose of product recalls and where to look for recall information. One solution may be using multiple channels of communication (see section 13.4.1) in order to maximise the reach of information about recalls.

13.1.2. Some vulnerable consumers may be less likely to participate in recalls

Previous research indicates that younger and more socially disadvantaged consumers tend to be less likely to participate in a recall, especially if such participation is time-consuming²⁴⁴. These findings were borne out by the consumer survey, which found that younger respondents, those reporting a relatively difficult financial situation, and unemployed consumers were less likely to contact a recalling company. In addition, respondents who placed less importance on product safety were also less likely to contact the recalling company.

Therefore, there is value in reducing the burden of participation in recalls (see section 13.6.1) especially for consumers who may find it more difficult to comply with recalls.

13.1.3. More vulnerable consumers may be more difficult to identify in case of a recall

Similarly, more vulnerable and less safety-conscious consumers may be more difficult to identify in the event of a recall because they are less likely to register their products. The consumer survey found that older respondents were more likely to register products, as were relatively financially well-off respondents, those with more education, and more regular internet users, while unemployed respondents were less likely to do so.

Moreover, the consumer survey found that respondents who placed less trust in companies and those who placed less value on product safety were less likely to register products.

²⁴³ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

²⁴⁴ Biddle Zhang (2018), Application of Behavioural Insights to understand the Australian recall of Takata Airbags, Australian National University, presentation given at the '18th Meeting of the OECD Working Party on Consumer Product Safety' 16 April 2018

13.2. Recall effectiveness varies across product categories

13.2.1. Consumers are less likely to participate in recalls for lower-value, less durable products

The stakeholder interviews, consumer focus groups and consumer survey all indicated that consumers' appetite to participate in a recall is higher for higher-valued, more durable products. For example, a national market surveillance authority indicated that 80% of lower-value, shorter life-span products remain in customers' hands in the event of a recall. Consumer focus group participants pointed out that responding to a recall takes time and effort, which they would not bother with for cheaper, shorter-lived products.

A consistent pattern was observed in the consumer survey, where participants were more likely to report contacting the recalling company in the case of high-price products such as motor vehicles and more likely to dispose of cheaper products such as toys. Moreover, the product being cheap was the top-reported reason for taking no action in the event of a recall (25%), while 18% of respondents each said they did not respond to a recall because the product had a short lifetime or they were only using it for a short time. Likewise, among respondents who said they would take no action if their product was recalled in the future, 20% said they would not do so because the product was cheap, and 14% because the product had a short lifetime.

Therefore, recall effectiveness can be increased by both clearly communicating the risk of a recalled product (see section 13.5.1) and reducing the effort of recall participation (see section 13.6.1) also for relatively lower-valued, less durable products.

13.2.2. It is easier to trace higher-value, durable products since they are more often registered

Existing research finds that consumers are more likely to register high-value, more durable products such as internet-connected and other electronic devices or domestic appliances²⁴⁵. This pattern was also observed in the consumer survey conducted for this study, where the most frequently-registered products were personal cars and motorcycles (53%), communication devices (37%) and electrical appliances (33%).

Focus group participants in this study also indicated that they would be unlikely to register lower-value, less durable items since they would break down or wear out, and registration only made sense for expensive, longer-lasting products such as domestic appliances. Similarly, 13% of surveyed consumers said they did not register their product because it was not expensive, and 6% because it had a short lifetime.

This suggests that there are existing gaps in the ability to trace and identify customers possessing lower-value products that may pose a safety risk.

13.2.3. Consumers are more likely to respond to recalls of products they perceive as risky

Previous research suggests that consumers are more likely to respond to recalls for products they perceive to be risky²⁴⁶; when consumers make the decision to participate in a recall, they trade off the cost or effort of participation against the risk of recalled products remaining in their hands. One key reason for consumers' noncompliance with recalls is consumers' underestimation, of "probability neglect" of low probabilities²⁴⁷.

²⁴⁵ https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/market-monitoring_en

²⁴⁶ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates, 2003, available at: <https://www.cpsc.gov/s3fs-public/pdfs/recalleffectiveness.pdf>

²⁴⁷ Kahneman, D. (2011). *Thinking, Fast and Slow*. Farrar, Straus and Giroux

Therefore, recall effectiveness may be increased by clearly communicating the risk in order to minimise the risk of consumers' probability neglect (see section 13.5.1); and/or by reducing the effort of participating in recalls (see section 13.6.1) for all kinds of products, to encourage compliance even when consumers underweight the probability of harm from a product.

13.3. Recall effectiveness can be improved by directly contacting affected consumers

The study activities consistently found that direct communication with consumers impacted by a recall is most effective in encouraging recall participation. For example, the behavioural experiment tested the impact of the channel of communication by showing respondents either a pop-up email or a general banner ad. Respondents were not only more likely to look at a recall notice when it was directly communicated via e-mail (25% compared to 17% for a generic notification), but also to take action upon reading it (72%, compared to 31%). This is consistent with the hard data from the US CPSC, which shows that direct alerts resulted in an average correction rate of 50%, compared to 6% for press releases²⁴⁸.

The consumer focus groups suggest that the reasons for the greater effectiveness of direct communication may include reaching more consumers who are affected by a recall, showing that the recalling company takes the matter seriously and greater ease for consumers in determining that they own the recalled product.

The industry survey suggested that direct communication is also the channel companies prefer to inform customers in the event of a recall. However, the desk research suggested that the most frequently used communication channels remained manufacturers'/sellers' websites, followed by their social media accounts and press releases. Direct communication with customers was only systematically used in the automotive sector, which has mandatory product registration and therefore a record of customers' recent details including correspondence information. However, it may be feasible to use other sources of information to identify and directly contact consumers affected by a recall. For example, one interviewed representative of the electronics sector said that customer information from other channels (e.g. attached to delivery by courier) is used to contact consumers in the event of a recall.

This suggests that employing direct communication to contact consumers affected by a recall would be highly impactful in increasing recall effectiveness, giving rise to the recommendation described below.

13.3.1. Recommendation 1: The General Product Safety Directive should be amended to require the use of direct communication wherever possible

Recommendation 1: The General Product Safety Directive should be amended to require economic operators carrying out a recall to directly contact all affected customers that they can identify, which entails using personal information collected for purposes other than safety communications.

Below we summarise the assessment of this recommendation.

- **Relevance:** We assess this recommendation as **highly relevant**, supported by evidence from the literature review, stakeholder interviews, industry survey and behavioural experiment. Specifically, as described above, the behavioural experiment found that consumers are considerably more likely to both read and take action, when the recall notice is in the form of a direct notification as opposed to a general ad campaign. Further, the industry survey suggested that direct

²⁴⁸ CPSC (2017), CPSC Defect Recall Data Carol Cave Deputy Director, Office of Compliance and Field Operations July 25, 2017, available at: <https://www.slideshare.net/USCPSC/cpsc-recall-effectiveness-workshop-recall-data>

communication was assessed as the most effective channel of communication with customers in the event of a recall.

- **Feasibility:**
 - Interviews with stakeholders suggest that the use of direct communication channel is feasible to some extent in practice, however, it might vary depending on the sector or business model of the economic operator. Companies typically already prefer direct communication if they can obtain customers' contact details from sources such as product registration schemes, loyalty programmes or sales records. In the automotive sector and among some food retailers (e.g. via loyalty programmes) direct contact is the main communication channel and allows for a high level of outreach to the affected customers. In addition, based on the industry survey results, direct communication (emails, phone call, letter) is already the most commonly used communication channel to contact customers in case of safety issues. Regarding cost, an interviewed stakeholder from the domestic appliances sector said that direct communication was the third-costliest of the suggested recommendations relating to recalls, but likely to have the most substantial impacts on consumer participation and therefore benefits to companies. An online retailer agreed that using direct communication may be costly to implement since it may require setting up large ICT systems to be able to identify relevant consumers.
 - Two stakeholders in the domestic appliances and automotive industry, however, highlighted that direct communication sent through the mail system should be carefully designed, as people may have negative associations with physical mail. Consumers may interpret letters regarding recall campaigns as junk or a speeding fine before opening the letter.
- **Behavioural underpinnings:** Direct communication is expected to be more effective compared to general recall campaigns because the communication is **personalised** to consumers' names and the product they possess. Previous research conducted by the Behavioural Insights Team in the UK finds that consumers are significantly more likely to take action when communication is personalised to their personal situation²⁴⁹.
- **Added Value:** Our desk research found that some third countries (e.g. US, Canada, UK) as well as two EU member states (e.g. Finland, Belgium) stress in their dedicated recall guidelines the importance of the direct communication channel. Strengthening the GPSD to require economic operators to use available customer information for safety purposes would therefore be a powerful instrument to increase recall effectiveness.
- **Impact:**
 - As described above, the study findings consistently showed that direct communication was the most effective method of recall communication. The reduction in costs of recalled products remaining in consumers' hands of the remedy was estimated to be over €73 million (see section 12.2). Interviewed stakeholders indicated that direct communication would have the highest **benefits for companies** in the event of a recall; for consumers, who have a higher likelihood of reacting to recall notices and stopping the use of harmful products; and, therefore for preventing wider social impacts of unsafe products remaining in consumers' hands.
 - A stakeholder from the domestic appliances sector rated the use of direct communication as far and away the most effective of the suggested recommendations relating to recalls, potentially **reducing the duration and costs of conducting recalls by over 20%**. Moreover, the interviewee pointed out that contacting potentially affected consumers directly had **spillover benefits** i.e. they might also spread the news by **word-of-mouth** and notify people who could not be reached directly. Finally, over the longer-term, direct communication, by improving recall effectiveness, may also

²⁴⁹ Behavioural Insights Team, Applying behavioural insights to reduce fraud, error and debt, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/60539/BIT_FraudErrorDebt_accessible.pdf

have reputational benefits and improve the effectiveness of future recalls by encouraging customers to take action when seeing recall notices. An online retailer further noted that direct communication is highly effective because it allows for rapid communication with end users.

The research also identified an additional remedy that may benefit from further research outlined below.

Box 1: Potential Remedy: Use all available sources of data (over and above product registration) to identify consumers impacted by a recall.

Not all products have product registration available, and as indicated in section 13.2.2, consumers tend to register high-value durable products (even though other kinds of products may also have safety issues).

Therefore, as discussed in section 7.2.2, it is worth exploring additional sources of customer data to identify consumers who might be impacted by a recall. These include e.g. loyalty cards, online purchases, electronic receipts or delivery records. One limitation to the effectiveness of using loyalty programmes data for the purpose of recall communication is the accuracy of this data. As mentioned by stakeholders, the customers who sign up to loyalty programmes do not always provide their real or primary contact details to avoid receiving an influx of marketing information.

Another form of customer identification is through technologies such as the Internet of Things (IoT). Stakeholders identified the use of such technologies as potentially highly impactful for alerting consumers in real time about a recall. However, there are a number of caveats, including that such technologies would not be applicable to all kinds of products, or would only reach a subset of consumers. In general, interviewed stakeholders agreed that companies that collect their customers' contact information should be obligated to make use of this data for recall purposes, provided that consumers' privacy is respected and such use does not contravene the General Data Protection Regulation (GDPR).

13.4. Recall effectiveness can be improved by using multiple channels of communication

Product recalls can frequently affect multiple socio-demographic groups, therefore product recall effectiveness can be increased by using multiple channels of communication adapted to different groups. Previous campaigns conducted by a major pharmacy chain in the UK highlighted the value of using direct communication reinforced by other channels of communication e.g. notices displayed in-store, in local doctors' offices and on the company's website.

Communication needs to be tailored to consumer characteristics which may include socio-demographic characteristics. For example, previous research conducted by the European Commission²⁵⁰ suggests that online communication will be less effective with older or less digitally-confident consumers, and vulnerable consumers in general may be less likely to respond to recall communication but more likely to spread word-of-mouth with friends and family. Further, not all consumers may speak the local language as a first language, therefore recall communication should be disseminated in multiple languages.

²⁵⁰ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

Previous research by organisations such as Kids in Danger²⁵¹ and the CPSC²⁵² has highlighted the value of social media in targeting specific audiences and spreading word-of-mouth regarding product recalls. Stakeholder interviews suggested that new media can be leveraged in various ways: for example, using videos and memes on social media or using Twitter hashtags. The desk research found some instances of economic operators, particularly in the US, using influencers and novel techniques, e.g. using public figures or influencers, videos on YouTube or social media channels. At the same time, traditional communication channels may be more effective with older or less digitally-confident consumers²⁵³.

The desk research found that in general manufacturers/sellers' websites remains the main channel of recall communication, and the use of multiple channels of communication was widespread only in the US. Moreover, as previous research by Kids in Danger has pointed out, there may be scope to require recalling companies to publicise recalls on their social media platforms²⁵⁴.

Therefore, there may be scope for economic operators to leverage multiple channels of communication to reach more consumers (including vulnerable consumers), increase the visibility of product recalls, encourage word-of-mouth and improve recall effectiveness, as discussed in the recommendation below.

13.4.1. Recommendation 2: Use multiple channels of communication and multiple languages

Recommendation 2: Amend the General Product Safety Directive to require economic operators to use multiple channels of communication to maximise outreach to consumers and encourage using multiple languages.

Below we summarise the assessment of this recommendation.

- **Relevance:** This recommendation is of **moderate relevance**, arising from previous research and stakeholder interviews which suggest that though direct communication is the most effective way to reach consumers (including vulnerable ones), recalls using multiple channels of communication are likelier to succeed in outreach to affected consumers, especially since not all consumers may be reachable through direct communication, and not all consumers prefer the same media. Moreover, recalls need to take into account that not all consumers may fluently speak the local language.
- **Feasibility:**
 - Interviews with stakeholders suggest that manufacturers frequently do use multiple channels of communication. Online communication channels are the most cost-effective (e.g. company websites, with social media/advertising campaigns used to follow-up). Such an approach allows for a higher level of outreach to the affected customers. Regarding cost, an interviewee from the domestic appliances sector indicated that using multiple channels of communication was likely to be the **second-most costly recommendation** (somewhere between a 5% and 20% addition in the costs of conducting recalls) relating to recall effectiveness (following recommendations

²⁵¹ Kids in Danger (2020), A Long Way to Transparency: CPSC and Recalling Companies Lagging in Publicizing Recalls on Social Media, available at: <https://kidsindanger.org/2020/09/a-long-way-to-transparency-cpsc-and-recalling-companies-lagging-in-publicizing-recalls-on-social-media/>

²⁵² CPSC (2017), Recall effectiveness Workshop, available at: https://www.cpsc.gov/s3fs-public/Recall_Effectiveness_Workshop-Transcripts-2018.pdf?DANfPWVdXLz6jk.lAn9rzT3dX6ZQXQa0

²⁵³ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness, available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

²⁵⁴ Kids in Danger (2020), A Long Way to Transparency: CPSC and Recalling Companies Lagging in Publicizing Recalls on Social Media, available at: <https://kidsindanger.org/2020/09/a-long-way-to-transparency-cpsc-and-recalling-companies-lagging-in-publicizing-recalls-on-social-media/>

increasing the attractiveness of remedies or reducing the burden for consumers to participate).

- **Behavioural underpinnings:** Using multiple channels of communication ensures that recall notifications have the best chance of reaching consumers across multiple platforms. Therefore, even if consumers have **inertia**²⁵⁵ relating to their preferred channel of communication or platform, they have the opportunity to see recall notifications. Using multiple channels of communication also enables companies to target specific audiences, which makes use of the concept of **personalisation** i.e. that consumers are more likely to respond or take action to communication that feels relevant to their personal context. Moreover, ensuring that consumers have access to communication in their own language enables them to have **access** to relevant information, without which they would be unable to make informed decisions.
- **Added Value:** Our desk research found that recall campaigns in the US tended to use multiple communication channels, including the involvement of national consumer associations, dedicated product safety and recall websites as well as in-store communication. The guidelines in some third countries (e.g. US, Canada, UK) as well as some of the EU member states (e.g. Finland, Belgium) require the use of multiple communication channels. The Austrian²⁵⁶ and UK²⁵⁷ guidelines recommend that communication should be as targeted as possible. In the case of specialised products, for example, the Austrian guide recommends advertisements in specialist magazines. Additionally, some of the national authorities, such as the US²⁵⁸, Canada²⁵⁹ and France²⁶⁰ have undertaken projects to develop recall apps to facilitate communication with consumers. Strengthening the GPSD would extend the existing guidance to all Member States and encourage compliance.
- **Impact:**
 - As described above, the research suggests that using multiple channels in multiple languages is likely to be **moderately effective** in increasing the effectiveness of recalls, but less impactful than using direct communication.
 - Moreover, as a stakeholder representing domestic appliances pointed out, recalls happen under exceptional circumstances: **reaching out to one affected person who would not otherwise be reached means the issue can be closed quickly, which is cost-effective for the company as well as better for its reputation.**

13.5. Recall effectiveness can be improved with simply-laid-out recall notices, including clear description of the risk

Recall notices need to encourage consumers to take action, and therefore need to be clearly-comprehensible to consumers and use language inspiring an appropriate level of urgency. However, this is often not the case at the moment. As stakeholder interviewees pointed out, recall notices may require improvements in their content and layout to encourage consumers to take such action.

For example, language such as 'precautionary', 'discretionary' or 'voluntary' minimises the perception of risk and is often confusing to consumers as indicated by focus group participants. At the same time, the desk research found that 35 out of 55 examined recall notices used terms that could downplay risk, such as 'voluntary/precautionary recall', or emphasised the lack of reported injuries.

²⁵⁵ Madrian, B., & Shea, D. (2001). The power of suggestion: Inertia in 401(k) participation and savings behavior. *Quarterly Journal of Economics*, 116, 1149-1187

²⁵⁶ Bundesministerium für arbeit soziales und konsumentenschutz (2017), Rückrufe von Verbraucherprodukten

²⁵⁷ British Standards Institution (2019), Supporting better product recalls

²⁵⁸ CPSC Data, available at: <https://www.cpsc.gov/data>

²⁵⁹ Recalls and safety alerts mobile application, available at: <https://www.canada.ca/en/services/health/stay-connected/recalls-safety-alerts-mobile-application.html>

²⁶⁰ DGCCRF (2020), Signal conso une application mobile pour signaler une anomalie à la DGCCRF

Moreover, concise, simply-laid-out recall notices may help to combat information overload (or the tendency to shut down when faced with too much information) and help consumers to more easily identify the risk and what action needs to be taken. Focus group participants responded positively to clearly-laid-out notices signposting them to the risk, what to do to avoid the risk, and what the next steps were. This was consistent with the opinion of stakeholders from industry, many of whom also pointed out that a standardised template for recall notices may be beneficial to manufacturers and economic operators carrying out recalls by clearly indicating the information to be provided and the format.

This suggests that a standardised template and clear guidelines regarding the content (especially regarding the description of risk) and the layout of recall notices may not only encourage consumers to participate in recalls, but also benefit economic operators by removing ambiguity regarding the content and format of the information to be provided.

13.5.1. Recommendation 3: Avoid using terms minimising the perception of risk

Recommendation 3: The General Product Safety Directive should be revised to prevent using language that minimises the perception of risk. For example, the Directive should ensure that economic operators do not use language such as 'voluntary', 'precautionary' or 'discretionary' in headlines or the body of the notice. The risk description should also be clear and the usage of "mixed signals" about the level of risk should be avoided.

Below we summarise the assessment of this recommendation.

- **Relevance:** We rate this recommendation as of **moderate to high relevance**. The support for this recommendation arises primarily from the literature review, consumer focus groups and stakeholder interviews. Participants of consumer focus groups strongly indicated that they were confused by language such as 'voluntary' that minimised the perception of risk. At the same time, research on market practices indicates that over half of the recall announcements included terms or expressions that could downplay consumers' perception of risk, such as "voluntary/precautionary recall" or terms minimising the probability of safety incidents, such as "in rare cases"/"in specific conditions".
- **Feasibility:** Interviewed stakeholders suggested that, avoiding such terms was feasible and **relatively cost-free** compared with other recommendations relating to recalls.
- **Behavioural underpinnings:** Previous research shows that consumers are **poor intuitive statisticians**²⁶¹ and are more likely to rely on verbal signals of risk, rather than formulating their own assessments of risk likelihoods. Therefore, consumers are less likely to take action if the text in notices suggests low risk.
- **Added Value:** Desk research found that the EU/EEA countries provide rather limited guidance on the content of recalls notices. Therefore, the EU-level action could fill in the existing gap. For example, recall guides from some third countries (e.g. in the UK, Australia, South Africa) stipulate that recall notices should not use terms decreasing the perception of risk (e.g. 'voluntary/precautionary recall' or "overheating" instead of fire).
- **Impact:**
 - Consumers suggest that the perception of risk is a key determinant of their decision to act, therefore it is **important to highlight when urgent action needs to be taken**. Focus group participants indicated they would be more likely to respond to a recall notice with urgent language.
 - Similarly, based on the input from a domestic appliances manufacturer, the use of words like "important" (indicating a sense of urgency) seem to show a higher open rate email results than some of the subjects starting with the name of the manufacturer.

²⁶¹ Kahneman, Daniel; Tversky, Amos (1973). "On the psychology of prediction". *Psychological Review*. 80 (4): 237–251.

13.5.2. Recommendation 4: Standardised template for recall notices with mandatory key elements

Recommendation 4: The General Product Safety Directive should be revised to include a standardised template for recall notices with mandatory key elements.²⁶² Recall notices should be required to present the following information in a clear, upfront manner:

- Product information, including picture, brand, model, and identifiers;
- Clear description of risk in simple, 'consumer-friendly' language;
- Instructions on how to participate in the recall;
- Description of remedy;
- Link to a recall website and free phone number for queries

Moreover, recall notices should have a concise layout, with related information grouped together, and use striking visual elements to make the information more salient.

Below we summarise the assessment of this recommendation:

- **Relevance:** We rate this recommendation as of **moderate to high relevance**. The literature review, consumer focus groups and stakeholders all suggest that **recall notices should be improved**. Research conducted by the OECD suggests prescribing by law the main elements that should be included in a recall notice based on the examples from countries such as Australia and the UK²⁶³ Stakeholders frequently pointed out that consumers' product knowledge was low and therefore clarity and simplicity of recall notices was crucial. Consumer focus groups responded positively to clear, concise, eye-catching recall notices with salient information about the risk and what to do. Moreover, interviews with representatives of domestic appliances suggested that economic operators may find such standardised templates beneficial since they would receive clear direction on the content and layout of recall notices.
- **Feasibility:**
 - Interviews with stakeholders suggest that following a standardised template is likely to be feasible in practice, so long as the prescribed content includes information that would typically be provided or is relatively easy to provide in the suggested format. Moreover, larger operators and marketplaces frequently already have a standardised template in place; updating the template, as pointed out by one representative from the domestic appliances sector, should involve a relatively small upfront cost. Most interviewed industry stakeholders agreed that improvements should be made to the recall advertisements to make them clearer and more visible to the consumer. Desk research on market practices indicates that the majority of recall notices already include the above-mentioned elements therefore, the EU implementation of the standardised template in practice should be feasible.
 - An interviewed stakeholder from the domestic appliances sector said that implementing a standardised template was likely to be the **least costly** of the suggested recommendations relating to recall effectiveness – a **less than 5% addition to the cost** of conducting recalls. Moreover, the costs

²⁶² Interviews with manufacturers and retailers suggest that recall campaigns tend to be led by whichever organisation has an interface with the consumer or end user. What type of organisations this relates to depends on the sector. For example, manufacturers of large domestic appliances frequently have a direct relationship with the consumer, whereas manufacturers of toys rarely have such a relationship. In the toy sector, the relationship tends to be between consumer and retailer. Policies and legislation looking to stimulate recall communication with the consumer should take such sectoral difference into account.

²⁶³ OECD (2018), Enhancing Product Recall Effectiveness Globally. Available at: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS\(2018\)1/FINAL&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP/CPS(2018)1/FINAL&docLang=En)

of implementing a standardised template would be a one-off, as the template could be used for subsequent recall campaigns.

- **Behavioural underpinnings:** Previous research indicates that consumers are likely to better understand documents with a clear, concise layout with logical grouping of information increasing the salience of key information²⁶⁴. This is because consumers experience cognitive limitations and can actually make worse decisions when presented with too much information (known as "**information overload**"²⁶⁵); therefore it is important to ensure that consumers are presented with the key information upfront and concisely.
- **Added Value:** The study's desk research found that the EU/EEA countries provide rather limited guidance on the content of recalls notices (except for Finland²⁶⁶ and Norway²⁶⁷). Therefore, the EU-level action could fill in the existing gap. National guides were found in several third countries (Canada²⁶⁸, New Zealand²⁶⁹, UK²⁷⁰, US and Australia²⁷¹) that provide for well-defined elements that should feature in a recall notice; some of them include even details about design elements. Overall, these guides are virtually unanimous on the main elements that should be included in a recall notice.
- **Impact:** As described above, clear, concise standardised template with key information is predicted to be **moderately impactful in terms of consumers' ability to understand the required information**.
 - Consumer focus groups showed that consumers respond positively to clearly, concisely laid-out recall notices with eye-catching optical elements, with **lower-educated participants** indicating their appreciation of the greater clarity. Moreover, consumer focus groups suggest that consumers would be more likely to respond to a recall notice if the notices provided information on how to participate and had pictures that would enable them to easily associate the recalled product with the one they possess.
 - An interviewed stakeholder from the automotive sector also believed that introducing a standardised template would **reduce the costs of conducting recalls**, since it would minimise confusion across the industry.
- However, stakeholders' opinions were mixed regarding the overall effectiveness of standardised templates. Some believed that clearly and consistently communicating the required information may encourage consumer engagement. However, one representative of the domestic appliances sector noted a worry that standardised templates can make it difficult to differentiate between recall campaigns. The use of similar layout for multiple campaigns could give consumers the impression that they already saw the notification. However, the requirement to include salient clear product picture should minimise this risk.

Below we illustrate example recall notices incorporating these principles. The figures below present an example recall notice for a washing machine in the form of an email from the manufacturer, with a header indicating the intervention taken (a product recall), a concise layout, a picture of the product and a clear description of risk.

²⁶⁴ European Commission (2018), Consumer study on "Precontractual information and billing in the energy market improved clarity and comparability"

²⁶⁵ Roetzel, Peter Gordon (2019). "Information overload in the information age: a review of the literature from business administration, business psychology, and related disciplines with a bibliometric approach and framework development". Business Research. 12 (2): 479–522.

²⁶⁶ Elintarviketeollisuusliitto - Finnish Food and Drink Industry (2017), Retail and industry guidance on communications and cooperation in product recall

²⁶⁷ DSB, Veileder om meldeplikt ved farlige produkter <https://www.dsb.no/lover/produkter-og-forbrukertjenester/veiledning-til-forskrift/veileder-om-meldeplikt-ved-farlige-produkter/#tilbakekalle-produkter>

²⁶⁸ Health Canada (2019), A guide for voluntary recall of consumer products or cosmetics in Canada

²⁶⁹ New Zealand Trading Standards, Guidelines for product recalls

²⁷⁰ British Standards Institution (BSI) (2019), Supporting better product recalls

²⁷¹ Australian Competition and Consumer Commission (ACCC) (2015), Consumer product safety recall guidelines, 2015

Figure 41: Example recall notice – direct communication

From: product-recall@waterfall.eu

Sent: 04 February 2021 18:00

Subject: PRODUCT SAFETY RECALL: Your Waterfall 4 Washing Machine

Dear Mr Johnson,

We, Waterfall Corp, have identified issues with Waterfall 4DE, 4XE and 4ZE Washing Machines manufactured after 23 June 2016. Our records show that you purchased a Waterfall 4XE, which is subject to this recall.



Hazard The water level sensor may fail, causing the machine to fill with water without draining. If the defect occurs, the machine can start leaking. Leakage can cause dangerous electrical faults leading to electrocution.

What to do You should immediately stop using the product.

Remedy You are entitled to a free fully-functioning replacement.

Contact Go to recall.waterfall.eu, call +1 800 11 11 1 or e-mail product-recall@waterfall.eu for more information about your options.

Yours sincerely,

James Sullivan

Vice-President; Quality and product safety



A template for the general ad campaign would also follow the same principles, as illustrated below.

Figure 42: Example recall notice – general ad campaign

Product Safety Recall

Waterfall recalls the following items
Waterfall 4DE washing machine
Waterfall 4XE washing machine
Waterfall 4ZX washing machine
Sold between February 2019 and December 2019



Hazard The water level sensor may fail, causing the machine to fill with water without draining. If the defect occurs, the machine can start leaking. Leakage can cause dangerous electrical faults leading to electrocution.

What to do You should immediately stop using the product.

Remedy You are entitled to a free fully-functioning replacement.

Contact Go to recall.waterfall.eu, call +353 800 11 11 1 or e-mail product-recall@waterfall.eu for more information about your options.

Similarly, social media messages communicating recalls should be concise, create urgency, provide relevant information about the product and clearly signpost to further information.

Figure 43: Example tweet communicating product recall



13.6. Recall effectiveness can be increased by making participation less burdensome and more attractive

Consumers can be put off from participating in a recall if the 'cost/benefit analysis' of responding to a notice is unfavourable. Consumers are frequently present-biased i.e. they disproportionately value the present²⁷². As a consequence, they may be discouraged from recall participation since they need to undertake up-front effort in order to avoid a risk of harm that may or may not materialise. Therefore, recall effectiveness can be increased by reducing the level of up-front effort required and by making the benefit of participation more attractive and salient to the consumer.

The effort required to participate in a recall was also the second most frequently reported reason for respondents in the consumer survey to take no action: 21% of respondents who did not respond to a recall of their product reported the effort/time required as a reason. Similarly, 19% of respondents who said they would take no action in the event of a hypothetical recall said this was because they believed the process would require too much effort or time.

The time cost of recall participation can be especially onerous for socially-disadvantaged and relatively young consumers, as pointed out in research conducted by the Australian

²⁷² Benartzi, S. (2011). Saving for tomorrow, tomorrow. TED talk. https://www.ted.com/talks/shlomo_benartzi_saving_for_tomorrow_tomorrow

National University²⁷³. Therefore it is vital to reduce the burden of participation to encourage all groups of consumers (frequently including working-age and vulnerable ones) to participate. Stakeholder interviewees have pointed out that easy-to-follow instructions as well as effort-reducing measures such as offers to pick up a faulty good from the consumer's home can encourage participation.

In addition, attractive and timely remedies can also encourage consumers to get over their present bias and respond to a recall notice. Previous research by CPSC²⁷⁴ points out that remedies offered to consumers should emphasise their convenience and the lack of financial costs to consumers e.g. free repairs or exchanges, compensation for the inconvenience, etc.

13.6.1. Recommendation 5: Reduce burden on consumers to participate in recalls

Recommendation 5: The GPSD should be revised to encourage operators to make it less burdensome for consumers to participate in a recall, by ensuring that consumers do not incur any financial costs of e.g. shipping/returning recalled products and by reducing the effort needed to comply with a recall, offering quick simple processes that minimise the time spent away from work or other duties. Where possible, operators should offer default options that consumers can opt-out of, to minimise the decision burden placed upon time-or-finance-poor consumers.

Below we summarise the assessment of this recommendation.

- **Relevance:** This recommendation arises as being of **moderate** relevance from the activities of the literature review and stakeholder interviews, which pointed out that time-poor and socioeconomically disadvantaged consumers may find it difficult to participate in a recall even when they wish to do so²⁷⁵.
- **Feasibility:**
 - Based on our research, encouraging consumers to participate in a recall through reducing any burdens is relatively feasible. Desk research indicates that some companies already take measures to facilitate the participation, such as not requiring a proof of purchase, picking up/arranging for in-home repair of bulky items, offering pre-paid postage or flexibility in returning a product in any store rather than specific location of purchase.
 - Regarding costs, opinions varied by sector. For a representative of the domestic appliances sector, reducing the customer burden was rated as the second-cheapest of the recommendations relating to recalls (after a standardised template), since efforts are already being made in this direction. For a representative of the automotive sector, however, reducing the customer burden was rated as the second-most-expensive of the recommendations relating to recalls (after increasing the attractiveness of remedies). This is because such measures would require liaising with external agencies such as roadside assistance companies in order to minimise the effort required from consumers to return recalled vehicles. Similarly, an online retailer noted that there are cost limits to the flexibility that can be offered to consumers. For example, this retailer noted that providing a pick-up service for faulty products would be prohibitively costly for them.

²⁷³ Biddle Zhang (2018), Application of Behavioural Insights to understand the Australian recall of Takata Airbags, Australian National University, presentation given at the '18th Meeting of the OECD Working Party on Consumer Product Safety' 16 April 2018

²⁷⁴ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates, 2003, available at: <https://www.cpsc.gov/s3fs-public/pdfs/recalleffectiveness.pdf>

²⁷⁵ Biddle Zhang (2018), Application of Behavioural Insights to understand the Australian recall of Takata Airbags, Australian National University, presentation given at the '18th Meeting of the OECD Working Party on Consumer Product Safety' 16 April 2018

- **Behavioural underpinnings:** Previous research²⁷⁶ finds that **channel factors** (i.e. the channels and frictions linked to completing an action) are an important driver of the success of a process. Making actions as seamless and effortless as possible increases the likelihood that consumers will complete them.
- **Impact:**
 - Previous research indicates that costs are an important factor impacting consumers' recall participation. Costs are also understood in the non-financial terms, such as time, resources/skills needed or effort²⁷⁷. As pointed out by a global manufacturer, the offer of picking up faulty goods that have been subject to a product recall from the home of the customer is a strong incentive for them to participate in a recall.
 - As indicated above, findings from the literature review and stakeholder interviews suggest that effort reduction will be especially beneficial in encouraging time-poor and socially disadvantaged consumers to participate in a recall. A representative of the automotive sector also pointed out that measures to reduce the consumer burden to participate in a recall (such as pick-up services) are frequently taken up by drivers of older vehicles, who might also experience other vulnerabilities such as lower incomes.

13.6.2. Recommendation 6: Increase attractiveness of remedies

Recommendation 6: The GPSD should be revised to encourage economic operators to offer – and clearly and saliently describe in recall notices – attractive and timely remedies to consumers.

Below we summarise the assessment of this recommendation.

- **Relevance:** We assess this recommendation as **relatively high relevance**, since it arises from the literature review, stakeholder interviews and consumer focus groups, which point to the need for consumers to see the purpose or benefit of participating in a recall. Recall participation can be costly and time-consuming for consumers, and the cost and effort of participating in a recall can discourage compliance²⁷⁸. The need for attractive remedies has been reflected in the national guidelines regarding recalls published by several Member States and third countries. This is also reflected in the 2003 ISO standard for product recalls²⁷⁹.
- **Feasibility:** Encouraging more attractive remedies in the revised GPSD should be relatively feasible. However, each type of remedy would entail a different cost burden on the economic operators.
 - Interviewed stakeholders from the domestic appliances and automotive sectors pointed out that increasing the attractiveness of remedies would be the **most costly to implement** of the recommendations relating to recalls; the representative of the domestic appliances sector said that increasing the attractiveness of remedies could (depending on the nature of the issue) increase the cost of conducting recalls by 20%. However, the same interviewee said the investment was frequently cost-effective.
- **Behavioural underpinnings:** Participation in a recall can be effortful and time-consuming; moreover effort needs to be incurred upfront, whereas benefits may not be apparent or may accrue later. Consumers are frequently **present-biased**²⁸⁰, which means that they overvalue present consumption or satisfaction and are

²⁷⁶ Abel, M., Burger, R., Carranza, E. and Piraino, P. (2019). Bridging the Intention-Behavior Gap? The Effect of Plan-Making Prompts on Job Search and Employment. *American Economic Journal: Applied Economics*, 11(2), pp. 284-301.

²⁷⁷ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates (2003), Recall Effectiveness Research: A Review and Summary of the Literature on Consumer Motivation and Behavior

²⁷⁸ U.S. Consumer Product Safety Commission (CPSC); XL Associates; Heiden Associates (2003), Recall Effectiveness Research: A Review and Summary of the Literature on Consumer Motivation and Behavior

²⁷⁸ Sample sizes are too small to detect statistically significant effects; however, indicatively the evidence suggests that introducing effort does reduce the likelihood of compliance.

²⁷⁹ Available at: <https://www.iso.org/standard/45968.html>

²⁸⁰ Benartzi, S. (2011). Saving for tomorrow, tomorrow. TED talk. https://www.ted.com/talks/shlomo_benartzi_saving_for_tomorrow_tomorrow

reluctant to give up present gratification for potential future benefits, even if these benefits are large. Therefore, solutions that emphasise the attractiveness of remedies in the event of a recall are likely to encourage consumers to participate.

- **Added Value:** Revisions to the GPSD encouraging attractive remedies to consumers would ensure a better alignment across companies operating in different Member States. It might also mitigate the issue of multi-national companies conducting recall campaigns with levels of protection for consumers which differ per country, as reported by an EU consumer association. An example was the EU wide recall campaign conducted by a European automotive company which, according to the analysis conducted by the association, was offering more attractive remedies to consumers in some EU countries in comparison to others. Harmonised guidelines may, therefore, mitigate inequalities in consumer outcomes across Member States.
- **Impact:** As described in section 6.1, consumers respond positively to recall notices with attractive and clearly described remedies. In addition, findings from the literature review and stakeholder interviews suggest that attractive, non-time-consuming remedies are effective at encouraging consumers to participate in a recall.
 - A representative of the domestic appliances sector pointed out that in their opinion, while increasing the attractiveness of remedies had cost implications, these **cost implications were frequently outweighed by the benefits** of closing down an issue quickly, as well as minimising the reputational impacts to the company, and these benefits would materialise in the medium-term (between 2 and 5 years).
 - An online retailer similarly noted that increasing the attractiveness of remedies would be highly effective in reducing the time required for a recall campaign and potential reputational damage, even if the option was costly to implement. However, the retailer also highlighted that they could recover costs of conducting recalls from the manufacturer.

Box 2: Potential Remedy: Sanctions in case of non-compliance for certain product categories

Another potential remedy involves applying sanctions in the event of non-compliance to prevent harm.

Strong measures, that would make recall compliance de facto mandatory, are already being explored in the automotive sector. Indeed, in a number of countries, driving a car that has not been fixed despite multiple reminders is already illegal.

Another form of sanction consists in reducing the functionality or even disconnecting dangerous internet-connected products in the event of non-compliance with a recall.

Sanctions may be effective in that, rather than prompting recall participation by highlighting the benefits, they instead emphasise the losses consumers may incur by failing to participate. These measures may trigger **loss aversion**²⁸¹, whereby consumers feel the pain of losses more keenly than the joy of gains of equivalent magnitude.

However, it may not be possible or appropriate to enact such sanctions in the case of all products. It may be valuable to conduct research specific to the automotive sector and other high-value, high-lifespan products to drill deeper into the relative cost-effectiveness of incentives to participate in a recall, compared with sanctions for non-participation.

Consumer focus group participants had mixed feeling about deactivating connected devices, except in the case of immediate danger or if the device gets stolen. They also voiced privacy concerns about the use of connected devices to monitor the functioning of their products.

13.7. Recall effectiveness can be improved by strengthening the link between product registration and safety

Desk research and the industry survey found that product registration schemes are only available for few higher-value product categories like motor vehicles, electronic appliances and communication devices. In addition, companies rarely make the link between product registration and safety. Even when they do envisage the use of registration data for safety notifications in their privacy notices, very few say so in the invitation to register (this was the case in 4 out of the 40 analysed registration schemes).

And indeed consumers seldom see the safety benefit of registering their products. For example, in a previous survey conducted by the EC²⁸², only 40% of EU consumers indicated they were aware that registering a product can allow manufacturers to contact them in case there are any issues with the product. Moreover, vulnerable consumers (including lower-educated, in less stable occupations, or less digitally confident) were less likely to make this link.

Participants in consumer focus groups also tended to associate the benefits of product registration with extended warranties or improved technical support, rather than allowing manufacturers to contact them in case there are defects with the product. Likewise, focus groups with vulnerable consumers suggested that some may confuse product registration itself with extended warranties. This pattern was also observed in the consumer survey conducted for the study. The most frequently-reported reasons to register a product were to activate a warranty (67%) or receive technical support or software updates (53%), with only a third (33%) indicating that they registered products to receive safety notices.

Indeed, consumers may not even know that product registration is a possibility. In the consumer survey, the top-reported reason to not register a product was simply not knowing that such a thing was possible (42% of respondents). In addition, a third of respondents (29%) said they did not understand the benefits of registration (29%).

Moreover, consumers are frequently concerned about how their personal data will be used, and mistrust can discourage them from registering products. Previous consumer surveys in the EU²⁸³ and US²⁸⁴ indicate that a key reason why consumers do not register products is that they are concerned about the possibility of receiving unwanted communication (e.g. marketing communication) from companies after registration.

Focus group participants during this study echoed this concern, with many participants reporting a belief that their data would be used for marketing purposes, shared between companies, and that they would be subjected to 'spam'. However, relatively few surveyed consumers (8%) indicated privacy concerns as a reason for not registering the product, with the bulk of respondents indicating that they did not know it was possible or did not understand the benefits.

Moreover, interviewed retailers and a market surveillance authority representative pointed out that one concern with making product registration more available was precisely that

²⁸³ Idem.

²⁸⁴ Schoettle, Brandon; Sivak, Michael, University of Michigan Transportation Research Institute (2015). Available at:
<https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116020/103219.pdf?sequence=1&isAllowed=y>

consumer information collected for this purpose may be used for the purposes of marketing.

This suggests that providing an assurance that information will only be used for safety purposes may help to encourage some consumers to register products.

13.7.1. Recommendation 7: Increase awareness of safety benefits of product registration

Recommendation 7: National and EU authorities should consider carrying out information and awareness-raising campaigns (in cooperation with consumer organisations and industry associations where applicable) to increase industry and consumers' understanding of the safety benefits of product registration.

Below we summarise the assessment of this recommendation.

- **Relevance:** We assess this recommendation as **highly relevant**, since **few companies make** the link between product registration and safety in their registration schemes. In addition, previous research, stakeholder interviews and consumer focus groups indicate that consumers seldom spontaneously see the safety benefit of registering their products. Therefore there is a need to encourage companies to strengthen the link between registration and safety in their communications and increase consumers' awareness of this link, especially among vulnerable consumers.
- **Feasibility:** We assess an awareness-raising campaign to be of moderate feasibility. Interviews with stakeholders and literature reviews have indicated that there are existing awareness-raising campaigns; for example in the UK, the campaign group Electrical Safety First has run a number of campaigns raising awareness of product safety issues²⁸⁵ and the ease of product registration²⁸⁶.
- **Behavioural underpinnings:** Consumers' willingness to participate in product registration schemes is driven in part by their ability to access, assess and act²⁸⁷ on relevant information to make their decision. The consumer survey indicates that consumers place high importance on product safety when making purchasing decisions (product quality, safety and lifespan were the key drivers). Therefore, they should be made aware of the link between product safety and decisions such as product registration which can be undertaken at or after the point of sale.
- **Added Value:** The research has identified a 2019 OECD campaign on recalls, which also encouraged product registration for safety purposes. Further specific and sustained EU-level and national awareness campaigns may help to increase both companies' and consumers' awareness of the safety benefit of product registration.
- **Impact:** As indicated above, consumer awareness of the link between product registration and safety is relatively low; therefore, remedies addressing this lack of awareness are expected to be important in increasing the salience and importance of product registration in consumers' minds. However, an interviewed stakeholder from the domestic appliances sector reported that in their opinion, such a campaign may be the least cost-effective of the suggested remedies relating to product registration since consumers may not pay attention to general awareness-raising campaigns.
- An alternative is to prompt consumers in the invitation to register their product, with messaging highlighting the link between product safety and registration. However, as shown in the consumer focus groups, consumers may be put off by messaging strongly highlighting the possible safety risks of a product they are considering purchasing (see section 9.1). Therefore, such messaging should take

²⁸⁵ <https://www.electricalsafetyfirst.org.uk/media-centre/press-releases/2014/01/hair-straightener-sales-putting-children-at-risk/>

²⁸⁶ <https://www.electricalsafetyfirst.org.uk/what-we-do/consumer-campaigns/online-campaigns/done-in-97-seconds/>

²⁸⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/744521/UK_CN_consumer_remedies_project_-_lessons_learned_report.pdf

care to communicate the safety-related benefits of product registration in clear, factual terms, rather than strongly emotive terms.

Box 2: Potential remedy to explore with additional research: making registration for safety purposes more available or mandatory

As discussed above, consumers typically register high-value, durable products. Product registration is not typically offered across all product categories, even for some categories where it may be beneficial.

Stakeholder interviewees agreed that more efforts should be made to offer registration for product categories with higher value, longer lifespan, and which carry higher safety risks (irrespective of price or durability). Moreover, interviewees pointed out that more attention should be given to products used by vulnerable individuals (e.g. children, people with disabilities, older consumers etc.) and products that could cause wider harms when they are faulty or unsafe. Interviewees also indicated that introducing such obligations on companies might be burdensome and have limited impact for lower-value, shorter-lived products. This remedy is discussed in more detail in section 7.2.1.

A related remedy is to introduce obligations on consumers to register large appliances, such as a recent campaign in the UK to amend the Fire Safety Bill to nominate a 'responsible person' with the obligation of recording large appliances, with the idea that such an obligation would make product registration for safety purposes more salient and increase the likelihood of being able to identify properties in possession of appliances posing a safety risk. This remedy is discussed in more detail in section 7.3.

13.7.2. Recommendation 8: Assure consumers registering a product that their information will only be used for safety-related communication, not marketing purposes

Recommendation 8: The GPSD should be revised so as to ensure that when registering products, consumers' information is only used for safety-related communication, not for marketing purposes, unless consumers explicitly opt in to receiving such marketing communication.

Below we summarise the assessment of this recommendation.

- **Relevance:** We assess this recommendation as **moderately relevant**, since previous research and the consumer focus groups indicate that privacy concerns may put consumers off from registering products. However, only a minority of surveyed consumers indicated that privacy concerns were a reason for them to not register a product.
- **Feasibility:** We assess this recommendation as relatively feasible; stakeholder interviews and the desk research indicated that several operators already provide assurances that when consumers register products, the information is not used for marketing purposes.
- **Behavioural underpinnings:** Consumers are already put off from the effort of registering a product due to **present-bias**²⁸⁸; concerns about loss of privacy would further amplify their reluctance to begin the process of registration. Requiring consumers to opt out of receiving marketing information activates the **status quo bias**²⁸⁹, whereby consumers are more likely to stick with the status quo and are unlikely to switch away from defaults. Therefore, providing an assurance that personal information will only be used for safety-related purposes, combined with

²⁸⁸ Benartzi, S. (2011). Saving for tomorrow, tomorrow. TED talk. https://www.ted.com/talks/shlomo_benartzi_saving_for_tomorrow_tomorrow

²⁸⁹ DellaVigna, S. (2009). Psychology and Economics: Evidence from the Field. *Journal of Economic Literature*, 47(2), pp. 315-372.

a default setting that requires consumers to opt in to receiving marketing information, should reduce consumers' barriers to registering their products.

- **Added Value:** Under the EU's General Data Protection Regulations, personal data cannot be used (with very few and well-defined exceptions) for any other purpose(s) than those to which the data subjects consented²⁹⁰. The literature review found examples from outside the EU (US, UK) limiting the use of personal information collected through product registration to safety purposes only.
- **Impact:** We assess this recommendation as moderately impactful. As described above, consumers in the focus groups expressed concerns about the use of their personal data. Note, however, that in practice consumers' key reasons for not registering a product may have less to do with privacy, and more to do with the effort of registering relative to the value of the product (as described below).

13.8. Consumers are more likely to register their products at point of sale

The behavioural experiment found that respondents were substantially more likely to register a product at the point of sale compared to post-sale. In the experiment, respondents were shown one of three prompts:

- An invitation to register at the point of sale;
- A prompt attached to packaging; and
- An invitation to register as part of a banner ad, simulating a general ad campaign.

45% of respondents who were shown an invitation to register their product at the point of sale began the process of registration compared to 10% who were shown a general ad campaign and 14% when prompt to register was attached to packaging. This is consistent with surveyed representatives of industry, who believed that registration at the point of sale was likely to be more effective than post-sale, but that if registration were post-sale, it was likely to be more effective when it was attached to delivery.

Focus group participants agreed that they were more likely to register their product at the point of sale rather than at home, when they simply wanted to install and use the product. More vulnerable consumers pointed out that in-store registration had the benefit of being able to clarify things with a salesperson, and that after purchase they tended to move on to other things and forget about registration.

This suggests that registration effectiveness is likely to be greatest when the seller/manufacturer has the consumer's attention and contact with them (as at the point of sale or, to a lesser extent, at the time of delivery/installation/pick-up), compared to a general ad campaign post-sale.

13.8.1. Recommendation 9: Increase the availability of product registration at point of sale

Recommendation 9: Economic operators should be encouraged to make product registration at the point of sale available, salient, attractive and easy for consumers, especially for high-value, high-lifespan products and/or where there is the possibility of severe harm from faults. When this is not feasible, economic operators should be encouraged to attach prompts to register to packaging, installation or delivery of products (as applicable).

Below we summarise the assessment of this recommendation.

- **Relevance:** The consumer focus groups, industry survey, stakeholder interviews and the findings of the behavioural experiment suggest that consumers are **considerably** more likely to register their product at the point of sale compared to post-sale, therefore remedies making this form of registration more available are likely to be **highly relevant** to increasing registration rates. Similarly, the

²⁹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>

behavioural experiment suggests that post-sale prompts attached to packaging are more effective in encouraging consumers to start registration, compared to general ad campaigns.

- **Feasibility:** The availability of registration at the point of sale varies across sectors and economic operators. All of the registration schemes analysed during the desk research conducted for the study were post-purchase, but a few industry survey respondents did offer registration at the point of sale²⁹¹. Interviews with stakeholders representing manufacturers of appliances suggested that the feasibility of offering registration at the point of sale should be seriously considered because of its far greater effectiveness than post-purchase registration schemes.
 - However, these stakeholders noted that some issues might need to be considered, such as ensuring ‘joining-up’ between retailers and manufacturers. An interviewed stakeholder from the domestic appliances sector pointed out that the biggest barrier was who “owns” and shares the data obtained during registration, since point-of-purchase registration is done by retailers, but the responsibility and costs of recall are mostly borne by manufacturers. A similar sentiment was shared by a car distributor and an online retailer. The retailer noted potential legal issues, including potential data protection and antitrust legislation, which may be relevant when sharing customer data with other parties.
 - Therefore, solutions should be considered to facilitate the passing of customer information from retailers to manufacturers for safety purposes, with consumers’ consent. Currently, online shops usually keep track record of purchases made with a registered account, however there is no sufficient information to consumers about the use of these data for recall campaigns. A company in the UK which sells electronic products informed us that for products purchased on their online site, registration is automatic and mandatory (by company policy) for VAT registered business customers, and being contacted in case of product safety concerns is part of the agreement that these customers must adhere to when purchasing a product. A similar approach could be introduced for some specific product categories. Relatedly, IKEA has launched a scheme in the US whereby consumers are required to register clothing storage units before they can complete a purchase²⁹².
 - Furthermore, some smaller retailers may find it infeasible to implement systems to register products at the point of sale or collect customer information.
 - An online retailer, moreover, cautioned that the purchaser of a product is not necessarily the end user, especially when products are bought as gifts. The gifter may not want to register a product at point of sale, whereas the giftee may not have the information required (e.g. receipts or proof of purchase) to do so after the purchase. Therefore, the option to register the product at the point of sale should complement rather than substitute other registration channels (e.g. registration attached to product packaging).
- **Behavioural underpinnings:** Timing the prompt to register at point of sale counteracts a number of behavioural biases. For example, if consumers do not register at point of sale, any prompt to register post-sale will require them to engage in effort that takes them away from their day-to-day concerns and existing behaviour. **Inertia**²⁹³ means that it is hard to encourage consumers to engage in effort or behaviour change; and **present-bias**²⁹⁴ means that they will be reluctant to engage in effort now for potential future benefits. These impacts are minimised at point of sale when the retailer or manufacturer has the consumer’s attention and the benefits of protecting the product are **salient**.

²⁹¹ Two from the automotive sector offered product registration in-store, two from the domestic appliances sector offered it at the point of sale online.

²⁹² <https://www.furnituretoday.com/furniture-retailing/ikea-implements-tip-over-awareness-sales-requirement/>

²⁹³ Hortaçsu, A., Madanizadeh, S. A. and Puller, S. L. (2017). Power to Choose? An Analysis of Consumer Inertia in the Residential Electricity Market. *American Economic Journal: Economic Policy*, 9(4), pp. 192-226.

²⁹⁴ Benartzi, S. (2011). Saving for tomorrow, tomorrow. TED talk. https://www.ted.com/talks/shlomo_benartzi_saving_for_tomorrow_tomorrow

- **Added Value:** The study has not identified legislation or policy initiatives mandating or encouraging the availability of product registration at the point of sale in the EU. Therefore, such initiatives would add value by providing an EU-wide move to increase the availability of product registration at the point of sale.
- **Impact:** As described above, the findings of the behavioural experiment suggest that the timing of the prompt to register is **highly impactful**, and the focus groups suggest that **lower-educated** consumers are especially in favour of registering at the point of sale. Experiment participants were **substantially more likely to respond to a prompt to register at a product at the point of sale** compared to post-sale. Among post-sale registration schemes, an invitation to register attached to packaging was more effective than a general ad campaign.
 - This is consistent with the findings of the industry survey. The majority of respondents rated in-store registration as “effective” or “very effective”, compared to post-sale registration, which on average tended to receive lower ratings (“somewhat” or “not very” effective).
 - An interviewed stakeholder from the domestic appliances sector said that in their opinion point-of-sale registration at was the **most effective of the recommendations relating to product registration**, with high impacts on reducing the costs of identifying consumers affected by a recall, the length of a recall, and the reputational impact.

13.9. Consumers are more likely to register their products if the process is less burdensome

The behavioural experiment found that consumers are considerably more likely to complete the process of registration if they are required to perform less effort. Experiment respondents needed to perform one of the following levels of effort to complete the process of registration:

- Low effort (simulating an app reading a QR code): respondents were shown a pre-filled form and only needed to click a button to complete the return procedure;
- Medium effort: where respondents needed to fill in the form manually, referring to a document; and
- High effort: where respondents needed to manually fill in a longer form, referring to two documents.

The experiment found that 88% of respondents completed the process of registration when they needed to put in low effort, compared to 72% of respondents who needed to put in moderate effort and 63% who put in high effort.

These results are consistent with previous literature, which suggests that 78% of surveyed US consumers preferred automatic registration²⁹⁵. Moreover, previous research conducted by the EC concurs that collaboration between public authorities and businesses to simplify and standardise product registration would increase registration rates²⁹⁶.

This suggests that coordinated efforts to reduce registration effort (e.g. by automating and minimising information collected from consumers) would substantially improve registration effectiveness.

²⁹⁵ CPSC (2016). Available at: https://cpsc.gov/s3fs-public/February_2016_Report_to_Congress_Pursuant_to_Section_104d_Recall_Notification_Effectiveness-FINAL.pdf

²⁹⁶ EC (2019). Available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

13.9.1. Recommendation 10: Reduce the effort required to register products

Recommendation 10: Economic operators should be encouraged to reduce the effort from consumers required to register products e.g. the number of steps, time taken, amount of information required etc. They should also be encouraged to innovate in terms of methods available to register products e.g. by the use of QR codes that consumers can scan and which minimise the amount of information required for consumers to fill in.

Below we summarise the assessment of this recommendation.

- **Relevance:** Remedies relating to reducing the effort required to register a product have been identified as **highly relevant** from the findings of previous research and the behavioural experiment. The effort required to complete registration was clearly identified as a barrier to consumers completing the process. For example, research from the Schoettle and Sivak (2015)²⁹⁷ found that 78% of consumers prefer automatic registration while other preferred registration methods are via email or website: all solutions that require the least effort.
- **Feasibility:**
 - Interviews with stakeholders suggested effort reduction would be valuable, and a few interviewed economic operators suggested that some innovative techniques (e.g. provision of QR codes with packaging material) would be feasible. In fact, similar solutions have been identified already in the desk research.
 - Regarding cost, a manufacturer of domestic appliances said that solutions reducing the effort of registration was the second-most costly solution linked to product registration.
- **Behavioural underpinnings:** As described earlier, **channel factors** have been identified as key determinants of the success of a process. Previous research in retail energy markets²⁹⁸ and general insurance markets²⁹⁹ have found that consumers' propensity to change their behaviour (e.g. engage in search and comparison behaviour) increases substantially when the real effort required from them is reduced.
- **Added Value:** The literature review identified that effective strategies to increase product registration and minimise effort would require close collaboration between public authorities and businesses in simplifying and standardising the product registration process across the EU³⁰⁰.
- **Impact:**
 - The study suggests that effort reduction for product registration would be **highly impactful**. As summarised above, the behavioural experiment found that consumers' propensity to complete product registration is **substantially** reduced when respondents need to enter any information. This is consistent with the findings of previous research and stakeholder interviews.
 - An interviewed stakeholder from the domestic appliances sector suggested that reducing effort of registration would have **moderate to high benefits** in terms of reducing the cost of identifying customers affected by a recall,

²⁹⁷ Schoettle and Sivak (2015), Consumer Preferences Regarding Product Registration, available at: <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116020/103219.pdf?sequence=1>

²⁹⁸ European Commission (2018), Consumer study on "Precontractual information and billing in the energy market improved clarity and comparability"

²⁹⁹ London Economics and YouGov (2014), Study into the sales of Add-on General Insurance Products: Experimental consumer research, prepared for the Financial Conduct Authority

³⁰⁰ European Commission (2019), Survey on consumer behaviour and product recalls effectiveness EC (2019). Available at: https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf

as well as the cost and duration of recalls, and these benefits would materialise in the medium term.

13.10. Recalled products remaining in consumers' hands represent substantial costs

The study found that the EU-wide costs of recalled products remaining in consumers' hands in 2019 was approximately €378 million due to injuries caused by these products. This includes related treatment costs, productivity losses and losses of quality of life. The costs were highest for motor vehicles, electrical appliances and toys.

However, these costs can be mitigated by remedies increasing consumers' propensity to respond to and take action when exposed to recall notices. Using direct communication as opposed to a general ad campaign could reduce the number of products remaining in consumers' hands by about 4.7 million, saving €73 million in 2019 (or ~20% of the current total costs). This estimate is likely an overstatement, since in the motor vehicle sector (which is estimated to account for almost two-thirds of these savings) direct recall communication is already a common practice.

In addition to costs savings from direct communication, additional benefits are expected from other remedies identified by this study, such as improving the content and layout of recall announcements, making recall process less burdensome for consumers or increasing the attractiveness of remedies). However, it was not possible to quantify these additional benefits.

13.11. Suggested actions to maximise recalls effectiveness

Therefore, we have identified a number of actions to maximise recalls effectiveness, summarised below³⁰¹.

Table 4 : Actions to be undertaken by Commission and/or economic operators

Action	To be undertaken by
Release a guide for economic operators/ national authorities with best practices regarding the recall process	European Commission
Revise the General Product Safety Directive (GPSD) with instructions for a standardised template for recall notices, specifying that: <ul style="list-style-type: none"> - Safety-related recalls must not contain words such as 'precautionary', 'discretionary' or 'voluntary' that minimise the perception of risk; - Content should include a clear description of the risk, instructions on steps for the consumers to take (e.g. return/stop using the product etc.); the remedies available to consumers, contact details of economic operators (including a telephone number and e-mail address); - A picture of the product should be provided; - Notices should include a concise layout. 	European Commission + co-legislators (Council, Parliament)
Update existing templates for recall communications in line with the revised GPSD	Economic operators

³⁰¹ Note that any actions requiring a revision to the GPSD depend on the legislative process and the duration of the transition period.

Revise the GPSD to require the use of direct communication with customers in the event of a recall. This entails using personal information collected for other purposes	European Commission + co-legislators (Council, Parliament)
Revise the GPSD to require economic operators to use multiple channels of communication (in multiple languages, in applicable regions) in the event of a product recall	European Commission + co-legislators (Council, Parliament)
Carry out customer segmentation by socio-demographic characteristics, digital confidence and preferred channels of communication and thus identify effective channels of recall communication	Economic operators
Employ multiple channels of communication in multiple languages (where applicable) to maximise reach to affected consumers in the event of a recall	Economic operators
Revise the GPSD to encourage economic operators to reduce burdens on consumers to participate in recalls: <ul style="list-style-type: none"> - Ensure that consumers do not incur financial costs for recall participation - Reduce the effort, or simplify the processes, needed to comply with a recall 	European Commission + co-legislators (Council, Parliament)
Revise the GPSD to encourage economic operators to offer and communicate in recall notices attractive and timely remedies	European Commission + co-legislators (Council, Parliament)
Carry out information and awareness-raising campaigns to increase industry and consumers' awareness of the link between product registration and safety	National authorities, European Commission
Revise GPSD to ensure that when registering products consumers' information is only used for safety-related purposes, unless consumers explicitly opt in to receiving marketing-related information at the time of registration.	European Commission + co-legislators (Council, Parliament)
Make product registration at point of sale more widely available, attractive, salient and easy for consumers	Economic operators
Reduce the effort required for consumers to register products	Economic operators

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