Council of the European Union

Brussels, 20 December 2022
(OR. en)

**Interinstitutional File: 2022/0432(COD)**

**16258/22**
**ADD 5**

**ENT 177**
**MI 975**
**CHIMIE 107**
**COMPET 1069**
**ENV 1334**
**SAN 672**
**IND 576**
**CODEC 2076**

**COVER NOTE**

| | |
|---|---|
| From: | Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director |
| date of receipt: | 19 December 2022 |
| To: | Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union |
| No. Cion doc.: | SWD(2022) 435 final, Part 3/5 |
| Subject: | COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the document Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures |

Delegations will find attached document SWD(2022) 435 final, Part 3/5.

Encl.: SWD(2022) 435 final, Part 3/5

EUROPEAN
COMMISSION

Brussels, 19.12.2022
SWD(2022) 435 final

PART 3/5

# COMMISSION STAFF WORKING DOCUMENT

# IMPACT ASSESSMENT REPORT

*Accompanying the document*

**Proposal for a Regulation of the European Parliament and of the Council**

**amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures**

{COM(2022) 748 final} - {SEC(2022) 452 final} - {SWD(2022) 434 final} - {SWD(2022) 436 final}

# Annex 13a – Stakeholder consultation – Synopsis report (digital labelling)

## INTRODUCTION & CONSULTATION STRATEGY

Data collection for this study has been performed using the following tools: legal review, desk research, interviews (scoping interviews and stakeholder interviews), online surveys and behavioural experiments. The results of the public consultation run by the European Commission has also been integrated in the analysis.

Stakeholder consultation activities were conducted at different stages of the study:

Interviews (April-December 2021): to collect information related to the current understanding of chemical labels, the usefulness of information provided to users, the assessment of labelling requirements and needs of users, as well as the existing digital solutions available for e-labelling.

Behavioural experiment (September-October 2021): to investigate consumers' understanding of chemical and detergents labels, the importance of different label elements as well as their interpretation with respect to safe use.

Inception Impact Assessment

Public Consultation (November 2021-February 2022): It must be noted that only the findings of this consultation related to the CLP Regulation (e.g. chemical products in general) are presented in this synopsis report.

Online surveys (Two online surveys are conducted for the purpose of this study: a survey for industrial and professional users and a survey for the assessment and comparison of policy options.

Regarding the country coverage, the consultation covered the EU-27, except for the behavioural experiment which has been conducted in four EU Member States (Germany, France, Romania and Greece).

## CONSULTATION ACTIVITIES AND TOOLS

### Interviews

Firstly, the study team conducted 10 scoping interviews with EU and international experts on labelling requirements and the use of digital tools to communicate hazard and safety information and instructions to users. Scoping interviews help to familiarise further with the topic and understand its main challenges. The objectives of the scoping interviews were to:

- Ensure that the study team is aware of all relevant background documentation and latest regulatory developments in the field;

Collect contact details of relevant stakeholders to be contacted during the data collections exercises (i.e., identifying potential future interviewees);

Raise awareness among stakeholders of the study and its benefits and enlist their future cooperation.

In a second phase, interviews were conducted with various types of stakeholders involved in labelling requirements of chemicals and the use of digital tools to communicate hazard and safety information and instructions to users.

The objectives of the interviews were to collect stakeholders' feedback on different topics related to the labelling of chemical products and e-labelling, including:

Perceived current understanding of chemical labels by different categories of users;
The usefulness and relevance of information provided currently on chemical labels;
The assessment of labelling requirements and needs of users;
The analysis of existing IT solutions available for e-labelling;

Identification of information that should remain on the physical label and suggestions of information to put on an e-label for chemical products.

In total 41 interviews have been conducted with the following categories of stakeholders:

- European and national authorities;
- 11 NGOs, including 8 consumer associations;
- 25 Business representatives (from business associations and companies).

While all categories of stakeholders targeted for this stakeholder consultation have been reached, it must be noted that, among the respondents, a majority of them are representing the interests of the industry. This imbalance and the interests represented by this category of stakeholders have been taken into account in the analysis of the findings of the interviews.

**Behavioural experiment**

The aim of the behavioural experiment was to investigate consumers' understanding of chemical and detergents labels, the importance of different label elements as well as their interpretation with respect to safe use. Furthermore, the experiment tested potentials ways to simplify labels and whether the introduction of digital tools could support consumers.

Therefore, a state-of-the-art online experiment was designed that included six treatments, i.e. two different products (laundry detergent and glue) as well as three different labelling options (Status Quo Label in accordance with current regulation, Simplified Label with QR-Code and No Label Baseline). Participants were incentivised for taking part in the study as well as for their decisions in the different tasks. Furthermore, treatment assignment was fully randomised.

Although representative products and labels were used in the experimental design and participants were tracked when consulting the labels presented on screen, it must be noted that the experiment can only mimic reality, i.e. a situation of consulting a label in

everyday life. Main data collection was conducted in four Member States, i.e. Germany, France, Romania and Greece, and a total of N=4,003 consumers took a part in the study.

Participants were recruited from an actively managed online panel and quotas to reach representativeness of the country-specific samples were used.

**Public Consultation - Simplification and digitalisation of labels on chemicals**

This consultation, run by the European Commission, aims to gather experiences and opinions from various stakeholders (consumers, professional and non-professional product users, industry, civil society organisations, national authorities and any other interested stakeholders) on a possible introduction of digital labelling of many daily used products such as glues, laundry and dishwashing detergents and fertilising products, under the Regulation on Classification, Labelling and Packaging of substances and mixtures ('CLP'), the Detergents Regulation and the Fertilising Products Regulation.

The findings presented in this synopsis report and integrated in the report represent an analysis of the responses collected on 17 February, with 205 respondents.

These answers have been divided by stakeholder categories: 141 from the private sector (companies, business associations, trade unions), 11 from public authorities, and 53 from consumers' representatives (48 citizens, 4 consumer association and 1 NGO). Similarly as the interview analysis, the imbalance of representation among stakeholders groups and their different interests has been taken into account when processing the answers.

**Online survey on policy options**

This consultation, run by VVA, aimed at gathering the opinion of the various stakeholders (consumers, professional and non-professional product users, industry, civil society organisations, national authorities and any other interested stakeholders) on the latest version of policy options analysed in this study. This survey allowed stakeholders to provide a punctual opinion on the measures taken into consideration for this analysis.

The answers have been divided by stakeholder category: 1414 member state authorities, 6767 industry representatives (industry associations, businesses).

**Online survey for professionals and industry users**

The aim of the survey was to collect information from the stakeholders representing professionals and the industry on the importance of having certain pieces of information[1]

[1] Name of the product; Address and telephone number of the supplier; Instructions for use; Dosage recommendations; Marketing information; Quantity; List of ingredients contained in the product, such as allergens, preservatives or enzymes; Weblink to receive full ingredients list; Information relevant in case of intoxication e.g. poison centre telephone number; UFI-code etc.; Hazard pictogram; Signal word, i.e., "Warning" or "Danger"; Statements on the products hazards for human health environment and physical hazards; Statements on the precautions to be taken on the use, storage and disposal of the product; Statements on how to prevent and minimise adverse effects when accidentally exposed.

on the packaging of the specific chemical products[2] as well as the easiness to understand the information concerning these elements in these products.

In total, 50 stakeholders participated to this survey: 11 Member States authorities, 10 industry associations, 28 enterprises, and 1 consumer organisation.

### MAIN STAKEHOLDER FEEDBACK PER CONSULTATION ACTIVITY

## Interviews

Consumers' understanding of chemical labels

First of all, during the interviews, stakeholders were asked about their perspectives on the current level of understanding of chemical and detergents labels by the various categories of product users (e.g. consumers, industrial workers, professional users).

A majority of stakeholders from both the business sectors (22 out of 24) and consumer associations (6 out of 10) believes that, the chemical labels (including detergents) as they are now, are not well understood by consumers, for a variety of reasons. First of all, the main arguments highlighted that would explain a poor understanding of chemical labelling by consumers rely on the fact that consumers do not spend enough time reading the label (only a few seconds, except in case of accidents), and interpret them quickly and intuitively. Moreover, the overloaded character of labels and the long texts in small prints (as highlighted by all categories of stakeholders) reduce the readability and understanding of labels. Secondly, stakeholders from all categories have also underlined the use of technical terminology (e.g. chemical names) as an obstacle for consumers' understanding. Finally, while stakeholders from the business sector also argued that GHS pictograms are not well understood by consumers, stakeholders representing national authorities and consumers associations underlined the fact that consumers know pictograms and that they are better understood than texts. However, it must be noted that consumers' understanding of chemical labels can be very heterogeneous across Europe, with, for example, two stakeholders from Denmark highlighting the fact that there is a high awareness and understanding of chemical labels among consumers, especially thanks to a highly-educated population, consumer associations and national authorities actively informing consumers.

Secondly, understanding of chemical labels can be very heterogenous between on one hand consumers, and on the other hand professional users and industrial workers. Indeed, stakeholders from all categories have pointed out a clear difference in understanding of hazard and safety instructions communicated on chemical labels. This difference is explained by the fact that professional and industrial workers get training to understand information and have access to additional tools in addition to chemical labelling (e.g. the Safety Data Sheet).

Usefulness of information provided on chemical products labels in general

[2] Laundry detergents; Cleaning detergents; Glues; Paints; Sealants or fillers.

During interviews, stakeholders have been asked to discuss, among the information currently provided on labels, which information they found particularly important to be provided for consumers' use and safety, and which information they deemed non-essential. This section discusses the feedback received from stakeholders on the usefulness of different types of information provided on chemical labelling in general, meaning for all types of chemicals according to the labelling requirements provided in the CLP Regulation.

First of all, stakeholders from all categories agreed that hazard information (encompassing notably the hazard statements) was one of the most useful information to be conveyed to consumers. However, they also noted that in some cases there could be an overlap or a redundancy of information given between the hazard statements and the precautionary statements, and that this redundancy could be addressed to simplify and optimise space on the label, by testing for example if only one of the statements is enough to convey safe use instructions to consumers, or if a more meaningful combination of hazard and precautionary statements could be put in place.

Indeed, communicating information on the safe and appropriate use of products to consumers – notably through precautionary statements – was agreed by all stakeholders to be the most important type of information to be communicated on chemical labels, including information related to the safe (and sustainable) use (e.g. purpose of product, how to use the product, and with which equipment), information on safe storage of the products (e.g. keep away from children), and information in case of emergency situations. However, it was also argued by several industry representatives that the pictograms developed by A.I.S.E and used on a voluntary basis on chemical products could replace or complement a number of precautionary statements, and communicate the required information as effectively (or more), while also avoiding the issue of translating. The idea is that pictograms communicating certain risks are very important because consumers notice them first and can be seen as precautionary statements but in an improved format. Indeed, some stakeholders from both the business sectors and consumer associations explained that, as they are now, some precautionary statements are presented on the label as long sentences in small font, which are not easy to read and or understand, and could therefore be displayed differently (better wording, illustration with pictograms…). Overall, regarding precautionary statements, the main idea emerging from interviews is that, while their content constitutes one of the main information to be communicated to consumers (safe use of the products), the form could be improved.

Thirdly, the presence of pictograms on chemical labels reached a consensus among stakeholders about their usefulness and therefore the need to be favoured over texts. A couple of stakeholders from the industry and national authorities raised doubts about consumers' understanding of GHS pictograms. Nonetheless, several consumer associations pointed out that their usefulness also lies in the fact that they are important for catching the consumers' attention and prompt them to read the hazard statement.

Regarding the communication on chemical labels of the ingredient lists and information on ingredients, all types of stakeholders agreed about the importance to communicate classified ingredients to consumers, especially sensitizing substances when contained in some specific product categories. However, concerning the communication of the full list of ingredients, stakeholders from the industry suggested that not all consumers are interested in chemical ingredients, read, or understand them. Therefore, it was suggested

that the ingredients information may not be the most useful element on the physical label and could be better provided on an e-label together with additional explanations about why they trigger classification and what are their properties. To the opposite, it has also been suggested by a consumer association that the full ingredients list should be disclosed on chemical labels (as is the case for cosmetics), as it is very important for consumers and for the authorities to be able to know exactly which chemicals are contained in which products. If maybe most consumers indeed do not look at the list, but it is still important for them to know that there is a full disclosure accessible on the physical label of the product, and to have access to it in case of emergency.

Then, the presence of the recently added UFI code was deemed most useful to be communicated on chemical labels. Indeed, if alone it does not give any information to the consumers, when there is an accident, it is essential for consumers to be able to find it easily to be able to communicate it to the poison centre.

Finally, the role of the marketing information on chemical products was also debated. As mentioned above, it is very important for the industry to dedicate significant space to this type of information, however several consumer associations put in evidence that it reduces the room for other more important information about safe use. They suggested that, in the first place, it should be ensured that all the essential information for the safe and appropriate use of the product should be presented in clear and legible manner (with the possibility to have a minimum font size), and then the remaining room would be dedicated to marketing information.

Usefulness of information detergents' labels

This section will discuss the feedback received from stakeholders on the usefulness of different types of information specifically on detergents, where additional requirements can exist on top of those provided in the CLP Regulation coming from the Detergents Regulation.

First of all, the dosage instructions were considered most useful by all types of stakeholders to be conveyed to consumers, in order to guide appropriate use of the product, since this can have an impact on the product performance and also on the environment (risk of overdosing). However, it has also been suggested that it could be simplified compared to how it is presented now (e.g., the obligation to have a dosage grid based on water hardness), for example by providing on the physical label one example of dosage for the general use of the product, and provide more detailed information online (such as instructions for different machines, load and water), and to adapt standard dosing advice to the current use.

Secondly, information on allergens and sensitisers which can be contained in detergents, was also considered to be of the utmost importance by most stakeholders. Indeed, the information about the presence of allergens and sensitisers in a product is deemed essential also by business operators because it would be well understood by the concerned consumers. Contrary to average consumers, persons concerned by an allergy or a sensitivity to a specific substance will look for the presence of these substances and most likely understand the information on the label. However, stakeholders from business the sector argued that concerning the communication of ingredients information, there is no need to have other requirements in addition to the ones from the CLP Regulation (e.g. the

Detergents Regulation requires to name the substance group such as anionic surfactants, or the amount/percentage of substances in the product). A couple of representatives of national authorities agreed to some extent to this point, to the exception of allergenic fragrances in the case that they are not already labelled according to CLP, since lower concentration limits are set under the Detergents Regulation, information on whether detergents contain added perfumes. This point showed a divergence of opinions among consumer associations. Indeed, a couple of them agreed that the list of all substances and ingredients communicated, especially on detergents due to additional requirements, is too long, never read and not understood, and therefore could be simplified. However, other consumer associations argued that the full ingredient lists (as for cosmetics) are needed and getting information on ingredients should be a common way for products, easily accessible. For now, they pointed out that consumers do not even know that this information is accessible on manufacturers' websites (for detergents, according to the Detergents Regulation).

Finally, some products can also contain biocidal substances and therefore need to comply with the requirements of both the Biocidal Products Regulation and the Detergents Regulation. In these cases, biocidal information was also considered as most useful by stakeholders to be conveyed on chemical labels.

Feedback on chemical labels design (including detergents)

The quantity of information on the label is not the only factor that can have an impact on consumers' understanding and appreciation of chemicals' labels. To this regard, during interviews, stakeholders have been asked to give their opinions on label design (e.g. font, colour, size…) and in particular to suggest what could be removed, changed, or added to improve users' understanding and appreciation of labels.

First of all, all types of stakeholders have pointed out the issue of font size and colour of texts on chemical labels. Indeed, texts are often written in small prints on packages and/or in different colours, which can hamper their readability. To this regard, stakeholders from consumer associations and national authorities have pointed out that mandatory rules on minimum font size, and to some extent regarding text and background colours, contrast, or bold text, could be useful for the overall readability of labels. Moreover, it has been argued that rules on minimum font size for texts on chemicals' labels could also be useful to reduce the abusive addition of languages by industry representatives.

Secondly, all types of stakeholders have also highlighted the possibility to use more pictograms, and/or to make them bigger, especially since they are attracting the eyes of the consumers to read the label. In particular, stakeholders from the industry have argued that the pictograms developed by A.I.S.E communicating hazard and safety information are well understood by consumers and could be put forward.

Finally, stakeholders have also made several suggestions regarding the structure of safety and hazard information on labels, such as the possibility to develop dedicated areas for communicating safety and hazard information vs. safe use instructions, to make safety and hazard information more prominent, or to make website links (or other data carrier to a digital environment) more noticeable to encourage consumers to seek complementary information. It has also been suggested by a consumer association that grouping

information by languages is also a good way to improve readability, since consumers would not have to look at different places on the label to get all the information provided.

Perspectives on multilingual labels

The legal requirements under the CLP Regulation specify that information on labels should be available in the official language(s) of the country in which the product is distributed. This makes multilingual labels mandatory in countries with more than one official language. Nonetheless, multilingual labels are a common practice in the industry across all countries.

Business representatives explained that multilingual labels are used to achieve economies of scale, and one business association also mentioned e-commerce which must accommodate the needs of consumers coming from a wide range of countries. According to businesses and business associations multilingual labels allow the industry to produce one label for several countries, which is particularly useful when businesses have to distribute a product in countries with a low population and different languages (e.g., Baltic countries). They also mention that scale through multilingual packs saves money and materials, allows a bigger flexibility in planning, and reduces scrapping. In addition, stakeholders from the business sector explained that if companies had to produce quantities of products separately for each and every market, the exercise would be so complex that companies might abandon smaller markets, thus depriving consumers from future innovations.

However, it must also be noted that a couple of stakeholders from the chemical industry acknowledged the issue caused by too many languages on chemical labels, leading to their illegibility, and called for more guidelines and/or rules, for example on required font size, or on a maximum number of languages authorised. The latter suggestion was strongly opposed by other stakeholders from the business sector, who have argued for a freedom of the industry on this point as long as the principles of accessibility and readability are respected.

Finally, in order to reduce this tension between the ultimate objective to communicate effectively hazard and safety information as well as use instructions to consumers, and their need to produce multi-lingual labels, stakeholders from the business sector explained that the simplification of labels, in other words the optimisation of labels with less information provided on pack was essential in their opinion.

On the other hand, national authorities put in evidence that featuring multiple languages makes labels hard to read at the expense of communicating important safety and hazard information. In their view reducing languages on the label would allow more room for presenting essential information in a clear and legible manner. For this reason, they also suggested establishing rules on how many languages can be presented on labels. One advisory authority believes regulation should focus on specifying the minimum font size rather than directly limit the number of languages. Moreover, these stakeholders pointed out that while they acknowledge situations where multi-lingual labels are interesting and needed for consumers (e.g. second and third languages spoken in Germany are Turkish and Arabic), often, in reality, when manufacturers put multi-lingual, it is only driven by economic reasons, and not to help consumers. In their opinion, while it is true that multi-lingual labels contribute to further complete the single market and can be beneficial

economically, when it clashes with readability and conveying safety information, the functioning of the single market has to take a step back.

Consumer associations had similar views to those of the national authorities in this regard, highlighting also that the purpose of multi-lingual labels would be to meet consumers' needs in the specific countries, and proposing to add additional languages only if there is adequate space left on the label after essential information for safety and hazard was included in a readable manner in the official language(s) required. Furthermore, while understating what are the needs of the industry with multi-lingual labels, stakeholders from consumer associations suggested to limit the number of languages to be provided on chemical labels (in between 2 or 3 depending on stakeholders).

Feedback on the potential use of IT tools for chemical labelling

Finally, the second part of the interviews focused on the potential use of IT tools to communicate hazard and safety information to consumers. We have discussed with stakeholders about the different IT tools existing for e-labelling and which ones would be the most interesting to use for chemicals, including both data carriers such bar codes, 2D codes (QR codes and data matrix), NFC and RFID, or image recognition and virtual reality, and end-users touch points such as websites, web applications or mobile applications.

About digital carriers, it emerges from the interviews that bar codes and 2D codes (QR codes and data matrix) were recognised by stakeholders as the most popular and probable to be used for e-labelling of chemicals. On one hand, bar codes have the benefits of being already on the products' labels, cost effective to develop and easy to use. On the other hand, QR codes were also praised for their cost-effectiveness, growing awareness among consumers and ease of use. Because QR codes are bigger than data matrix, they are easier to find on the labels and to scan. However, data matrix, being smaller, can be put on labels with ease and have the benefits of being used for logistics purposes. Whether it is for bar codes or 2D codes, it has been pointed out that digital carriers must be designed in a way to direct consumers directly to the information on the digital environment, and not to a home page, to avoid drop-out.

Regarding the use of wireless IT tools for e-labelling, such as RFID/NFC, despite the fact that they are popular in some countries (e.g. in Denmark to pay for example), it has mostly been pointed out that they are expensive for manufacturers and raise concerns for recyclability.

Finally, the use of more innovative technologies such as image recognition and augmented reality was also discussed, but were mostly deemed to be not attractive, because chemical labelling needs to fulfil the purpose of informing consumers (not 'play with bottles'), and could be inconvenient in practice for manufacturers since sometimes they do not change the packaging, but change the formula. Therefore, a code would be preferable rather than information based on packaging.

Considering end-user touch points, stakeholders from all categories pointed out the growing development of mobile applications, with the benefits they present for e-labelling: high-use of smartphones, easy to scan bar codes or QR codes, advantages of for visually impaired people for example (consumer-friendly presentation, easy to zoom etc.),

and possibility to customise information provided according to consumer's needs (if specific consumer profile created in the app). However, with the proliferation of mobile applications in Europe over the last years, it is also needed to ensure that accurate and scientifically based information are reaching consumers.

Finally, the question of a database to store the data contained on e-labels was also put forward by some stakeholders from the industry side, mainly arguing that a centralised European database with all information for chemicals e-labels would not be the way to go, because companies would be forced to go with a digital solution for which the structure is managed externally, and therefore dependent on the people managing it. Moreover, since all companies are working differently, it could therefore take a long time to establish such a centralised database.

Stakeholders also put forward additional considerations concerning the use of digital tools for chemicals' labelling, such as the need to follow industry standards to encourage consistent reporting/provision of information in a standard form. In this regard, GS1 is a non-profit organisation, well-implemented in Europe, which does not provide data carriers themselves, but a GS1 standard based web enabled syntax, which is applied to, and therefore works in conjunction with existing data carriers printed on product packaging (EAN/UPC barcodes, 2D barcodes, RFID/NFC, digital watermarks…). Furthermore, industry representatives argued that they should be free to choose which digital solutions they want to use (option approach). Indeed, e-labelling solutions are evolving quickly, new tools are continuously being designed, and it is therefore essential to remain flexible. If now, barcodes and QR codes are the most commonly used ones, in the future it could very well be NFC, RFID, watermarks (companies are creative and continuously find new ways to use IT tools). Moreover, some companies are more interested to go in this direction than others, and therefore the solution needs both direction and flexibility to accommodate them all. To this regard, a good e-labelling solution would not focus on the technology being used, but on a list of information that should be provided with this tool (meeting the requirements of informing the customer properly).

The perceived readiness of consumers to use digital tools to access information on chemicals was very heterogeneous among stakeholders. The majority of stakeholders from the industry argued that consumers seem ready now to use IT tools to access information on a digital environment. To this regard, they pointed out the high awareness of QR codes (especially since the COVID-19 crisis and the increase in their use in day-to-day activities to limit physical contact). This claim has been supported by a couple of stakeholders from consumer associations, also highlighting the role of the COVID-19 crisis in speeding up the process of the transition to digital tools, as well as the popularity of e-labels in other sectors (cosmetics, food and beverages).

However, several stakeholders from all categories have argued that consumers were not ready to shift their habits and use IT tools in their day-to-day lives when it comes to buying and using chemical products. First of all, they have pointed out that consumers' readiness can vary widely depending on age groups (young people being more ready than older consumers), on country, education, and training. Moreover, several other issues have been highlighted, such as the lack of internet coverage in some geographical areas, the fact that not every consumer owns a smartphone or has an easy access to internet at home, as well as the need to educate consumers at national level about the possibilities to access information digitally and benefit from the presence of e-labels. Ultimately, in order to

avoid inequalities between consumers regarding access to information, these stakeholders argued that only complementary information could be provided on e-labels (keeping therefore all essential information on hazard and safety on physical labels), and that strong backup solutions for more vulnerable consumers should be developed (e.g. scanning devices to access digital information in shops).

Benefits and drawbacks of e-labelling

Considering all the points discussed above, stakeholders were asked to provide their views on what information could be included on an e-label, and what information should remain on the chemicals' packaging. In this regard, it must firstly be noted that a couple of stakeholders (1 business association and 1 consumer association) argued that all information provided now on chemicals' labels (according to CLP Regulation) are necessary and should not be removed. Rather, it is the form that could be simplified and improved in order to better convey the information and improve their understanding.

Considering what should remain on the physical label, stakeholders from all categories agreed that the most important is to have information needed to make an informed choice to buy the product, as well as to use the product safely and efficiently. In other words, it is essential to have the right information at every stage: information about the function of the product when buying, then about the risks and risks management measures before using (as well as how to use).

Then, there were several suggestions coming from stakeholders of the business sectors, to move some information only to the e-label in order to simplify and reduce the overload character of the physical label, including:

- To move the full ingredient list online, with only some categories of ingredients to be provided on pack (e.g. allergens, sensitisers). For detergents, the additional information required by Detergents Regulation (e.g. full lists of preservatives, anionic surfactants) could be moved online, because if they are classified as sensitisers under the CLP Regulation, they would be already mentioned.

- To move some of the P-statements online, when they duplicate the information given by the H-statements, because they are sometimes displayed with long sentences in small font which are not easy to comprehend.

- To move detailed information related to product use (e.g. detailed dosage instructions, while keeping a simplified version on pack), since they are looked at only after purchase and therefore with an easier access to online information than in a store).

Furthermore, it was argued that e-labelling must bring added value to consumers rather than just putting information online because there is not enough space on pack. E-labelling should be used to bring more information to consumers, such as:

Information customised to consumer needs (e.g. for people with allergies very interested in function of ingredients, with personalised profiles on a mobile application);

Detailed instructions on product use, especially for products with small packaging. For example, for certain use instructions (e.g. glues), the explanations on correct use have to be a bit broader. Short description on the mode of use (on the physical label) and then a longer description on the internet (additional use);

Information on product sustainability or sustainable use and package recycling: additional information to be provided online, because these issues are complex and multi-factorial and need space to be explained properly;

the list of ingredients (as mandatory), but with additional information and explanations, for example with toxicological information explaining why some precautionary statements are there, of with explanations on voluntary certifications provided on the physical labels.

However, business representatives also underlined some pitfalls of e-labelling. Firstly, all information going on a digital environment would have to be based on scientific research, and not be too simplified. Secondly, there is also a risk of putting too much information online, which leads to labelling overload and unreadability for consumers. E-labelling should be consumer-friendly.

To summarise, there are several benefits for the industry. Firstly, they would avoid frequent reprinting of labels due to carrying out less changes of the physical label by adapting to regulatory changes. Secondly, the use of e-labels to improve consumers' understanding about the safe and appropriate use of products, including the opportunities for digital tools to provide better explanations (video, animation…), would enable manufacturers to customise the access to information, and to improve accessibility to all consumers (e.g. those blind or with low vision). To sum it up, digital labelling should not just be seen as replication of on pack labelling but instead as an improvement that would allow for intelligent use of the data that is made available: an online repetition of this information would also likely be ignored while there is an opportunity to improve hazard and safety communication for consumers.

On the other hand, stakeholder representatives of consumer associations and national authorities mainly emphasised the idea that e-labels must feature additional information complementing the physical label, in other words that it should give extra-information, in addition to the essential elements currently provided on pack. Examples of ways to use e-labels to bring added value to consumers given by these stakeholders were the following:

To customise information according to consumers' needs: if a consumer is allergic to some ingredients, they can put it on their profile, and then, when scanning products, this information is specifically highlighted;

To provide information already on the physical label also online, in order to allow for better readability (bigger letters, possibility to zoom in etc.);

To support the same information of the label but presented in a more consumer-friendly way;

To have complementary information for interested people who want to know more (information that is not on the label), such as complementary information about the ingredients' purpose in the products, environmental impact of the product etc.

Overall, for consumer associations, digital tools can be useful to improve the communication of hazard and safety information to consumers. However, as a first step label elements should not shift from physical to digital, but rather work at least until digital means demonstrate to be trustable and effective. In other words, the first step of e-labels should be to support the physical label, and once this step is solid, it can maybe go further (gradual approach).

**Behavioural experiment**

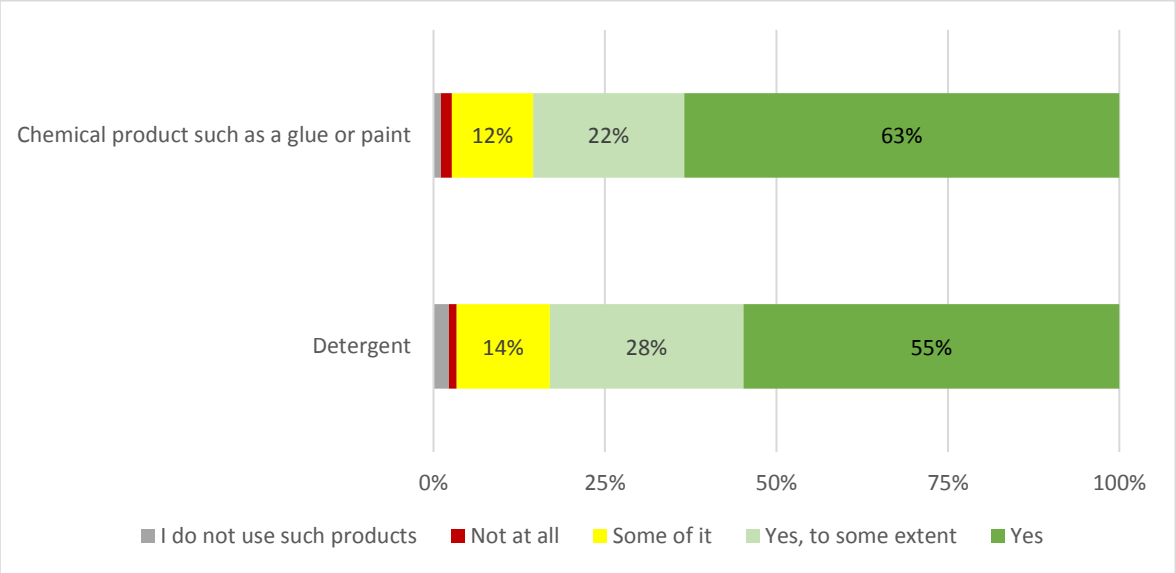
Overall, the behavioural experiment shows that the Status Quo and Simplified Label with QR-code perform better than the No Label Baseline w.r.t. labelling understanding. Furthermore, the Status Quo and Simplified Label perform equally well. Although, it must be noted that average understanding of labels is generally not good. Subjective risk interpretation of the Status Quo and Simplified Label is in line with the actual dangers of products. Furthermore, subjective ratings of understandability and ease to find of label elements are not different between the Status Quo and Simplified Label.

The full analysis of the results by research questions can be found in Annex 3.

**Public Consultation - Simplification and digitalisation of labels on chemicals**

The analysis of the answers provided to the public consultation show that, when asked if they usually understand the information provided on the label of a chemical product, over two-thirds of stakeholders answered “Yes” or “Yes to some extent” (115/141 of stakeholders representing the private sector, and 38/53 of stakeholders representing consumers), showing a relative good understanding of the current chemical labels. The OPC also focussed on products falling under the Detergents Regulation. To the question regarding the understandability of the labels on detergent products, a large majority of stakeholders replied positively (97/129 of stakeholders representing the private sector and 36/50 stakeholders representing consumers).

*Figure 85: Do you usually understand the information provided on the label of a:*




*Source: Open public consultation for the Impact Assessment Study on the simplification of the labelling requirements for chemicals and the use of e-labelling*

More specifically, the understanding of information on chemical labels can be broken down into different categories of information.

Regarding the chemical products, first of all, the majority of stakeholders from both categories estimate that the information on chemical label properly inform them about:

the dangers or risks of the product (89/141 stakeholders representing the private sector and 39/53 of stakeholders representing consumers answered "yes" or "yes to some extent");

safe use of the product (81/141 stakeholders representing the private sector and 34/53 of stakeholders representing consumers answered "yes" or "yes to some extent");

incentives to take preventive measures (75/141 stakeholders representing the private sector and 29/53 of stakeholders representing consumers).

However, a majority of stakeholders answered either 'not always' or 'not at all' to whether information on chemical labels help them select less hazardous products (70/141 stakeholders representing the private sector and 42/53 stakeholders representing consumers), and to whether it would prevent them from using the product (81/141 stakeholders representing the private sector and 40/53 stakeholders representing consumers), suggesting room for improvements in the communication of these information.

To the question of whether they are currently accessing any product information via IT solutions or digital tools, the majority of stakeholders across all stakeholder groups gave a positive answer (90/141 of stakeholders representing the private sector, and 30/53 of stakeholders representing consumers), showing an apparent readiness and interest of respondents to e-labelling of chemical products.

This conclusion can be moderated by the answers provided to the following question, when ask how they would evaluate if some information was removed from on-pack label and could be obtained via digital tools, views are mixed among stakeholder groups. On one hand, over two-thirds of stakeholders representing the industry (98/141) evaluate it either 'very positively' or 'moderately positively'. On the other hand, views are mixed among stakeholders representing consumers, with 24 consumers answering either 'very positively' or 'moderately positively', 25 consumers answering either 'moderately negatively' or 'very negatively' and 3 consumers answering 'neither positively nor negatively'. These findings can indicate the need to pay specific attention to which information are removed from on-pack label and accessible via digital tools in order to not lower consumer protection.

To this regard, respondents were asked to evaluate to what extent different kind of information could be removed from the on-pack label of a chemical product and be transferred to a digital IT solutions.

On one hand, some categories of information were assessed as necessary to remain on pack, such as:

- pictograms showing the risk of the product (45/69 stakeholders representing the private sector, and 29/40 stakeholders representing consumers);
- hazard statements or signal words (43/69 of stakeholders representing the private sector and 25/42 stakeholders representing consumers);
- identification code for poison centers (43/69 stakeholders representing the private sector and 22/42 of stakeholders representing consumers).

On the other hand, mixed views were given concerning precautionary statements on how to store, dispose, prevent accidents etc., the majority of stakeholders representing the private sector indicated the need to keep basic information on pack and provide more detailed online (35/69), which was agreed by a third of stakeholders representing consumers (17/42), while 13/42 of stakeholders representing consumers expressed the need to keep it on pack, agreed by 18/69 of stakeholders from the private sector.

Finally, the majority of stakeholders from both categories provided that information on the name of chemicals causing the hazard could be moved online, either fully (19/67 stakeholders representing the private sector, and 16/42 stakeholders representing consumers) or with a combination of basic information being kept on pack and more details provided online (31/67 stakeholders representing the private sector, and 11/42 stakeholders representing consumers).

Overall, respondents believe that the most effective method to increase the communication of information on labels of chemicals is by simplifying the text on labels, having less information on the on-pack label and instead of providing full details via digital labels, and by using more pictograms or graphic symbols instead of text. In addition, answers given by consumer representatives show that reducing the number of additional languages on labels would be most effective to improve the communication of information.

The majority of the respondents (124 out of 174) have currently accessed product information via IT solutions or digital tools. More specifically, around 78% of respondents

from the industry answered positively to this question , and 62% of respondents representing consumers.

The majority of the respondents look for product information online (for any product) daily or weekly . Only two respondents look for product information online (for any product) once a year or less. This finding can be mitigated when looking specifically at answers given by respondents representing consumers. Indeed, about a third of those look for product information online only a few times a year.

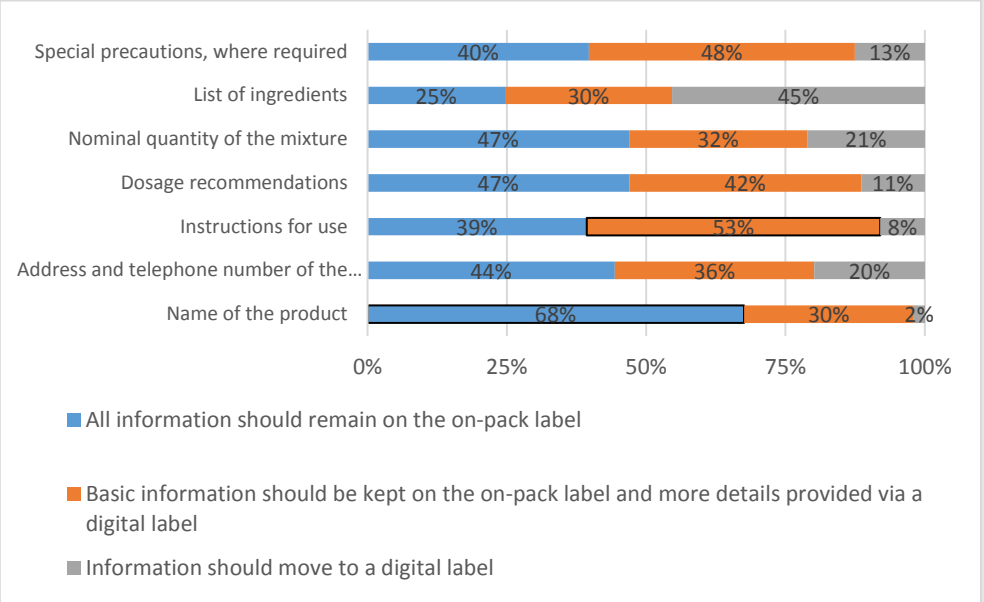
The most popular choices for the products to use to access the labelling information via IT solutions were smartphones, laptops, tablets, and desktop computers . The analysis of answers given by consumer representatives also found the same most popular choices within this stakeholder group. Regarding touch-end technologies, close to two-thirds of the respondents would prefer to use QR codes and website address to access the information online, while around 13% of the respondents do not have a preference for the digital solution as long as it would work with their preferred device. The analysis of answers given by consumer representatives also found the same most popular digital solutions within this stakeholder group.

It must however be noted that the majority of the stakeholders also assessed that the biggest challenges of presenting some label information via digital labels would be the difficulty to access information (e.g. poor internet connection, lack of electricity), the potential differences between the information displayed on the on-pack label and via digital labels (e.g. due to updates, inconsistencies), and, and creating inequalities for certain population groups.

Concerning detergents labels only, the majority of the respondents believe that the name of the product should remain on the on-pack label , while for use instructions, the majority of the respondent indicated that basic information should be kept on the on-pack label and more details could be provided via a digital label . Similarly, the majority of the respondents stated that basic information on special precautions, where required, should be kept on pack while the details should be moved to a digital label.

In regards to the other parts of the information, the respondents had different views on what kind of information should remain on the on-pack label, should be kept on the on-pack label and more details provided via a digital label, or transferred to a digital label completely. For none of the items there was a majority to move all information to a digital label though for the list of ingredients this group was particular large. The full overview of the responses to this question is provided in the table below.

*Table 144: Overview of responses*

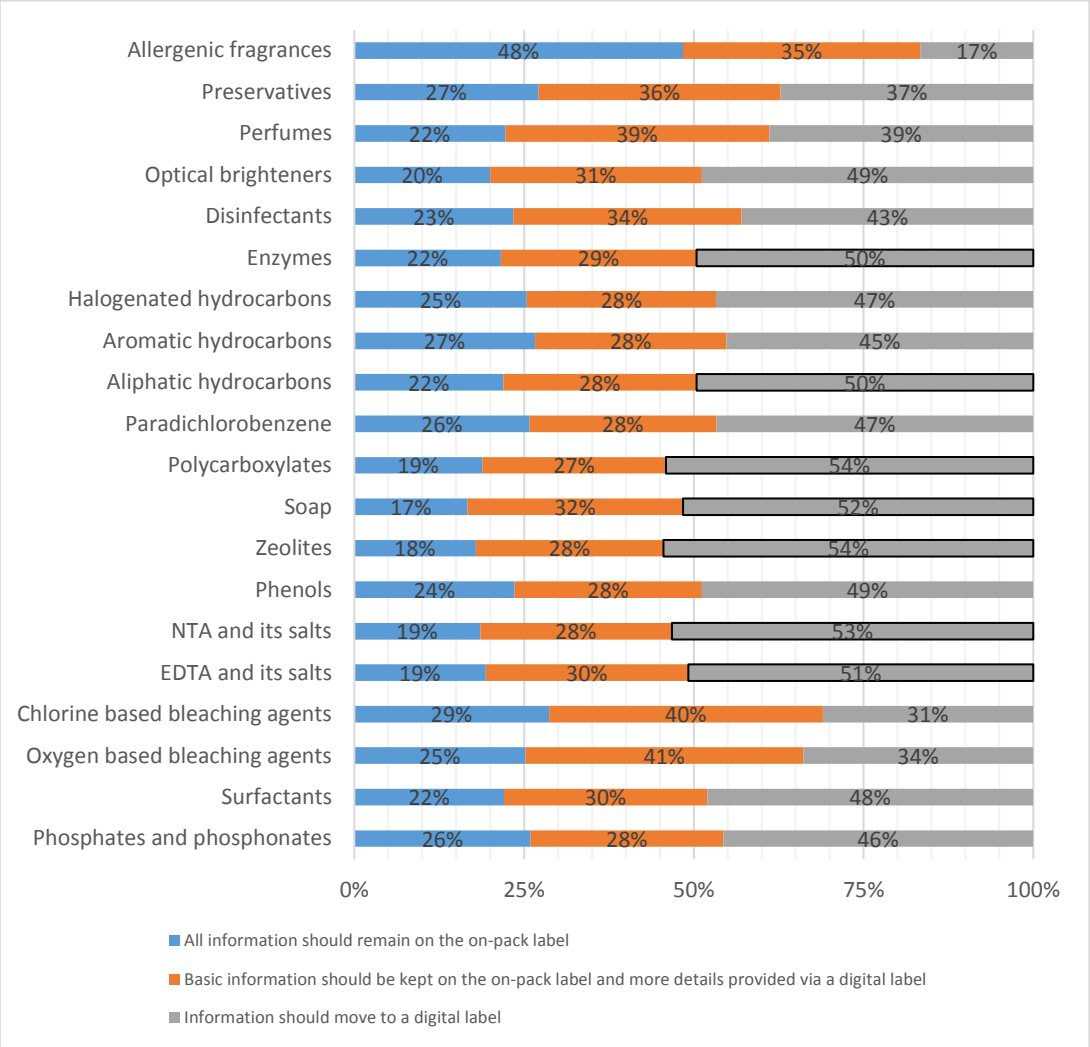



This finding needs to be mitigated by the answers given specifically by consumer representatives only, less inclined to move information online. Indeed, within this stakeholder group, the majority of respondents indicated that all information should remain on pack for the following categories of information: name of the product , instructions for use , dosage recommendations , nominal quantity of mixtures , and special precautions . Finally, consumer representatives had different views on whether to keep on pack, provide basic information on pack and more details digitally, or completely move to a digital label the following information: address and telephone number of the manufacturer and list of ingredients.

Around half of the stakeholders believe that the information from the on-pack label of a detergent should be moved to the digital label for the following ingredients: Enzymes; Aliphatic hydrocarbons; Polycarboxylates; Soap; Zeolites; NTA and its salts; EDTA and its salts.

In regards to the other ingredients, the respondents had different views on what kind of information should remain on the on-pack label, should be kept on the on-pack label and more details provided via a digital label, or transferred to a digital label completely. The full overview of the responses to this question is provided in the table below.

*Table 145: Overview of responses*




However, the analysis of answers given by citizens and consumer organisations indicates less willingness to move information to a digital label. No categories of information received a majority of answers to move information online. The only consensus expressed within this stakeholder category is the need to keep allergenic fragrances on pack.

**Online survey for professionals and industry users**

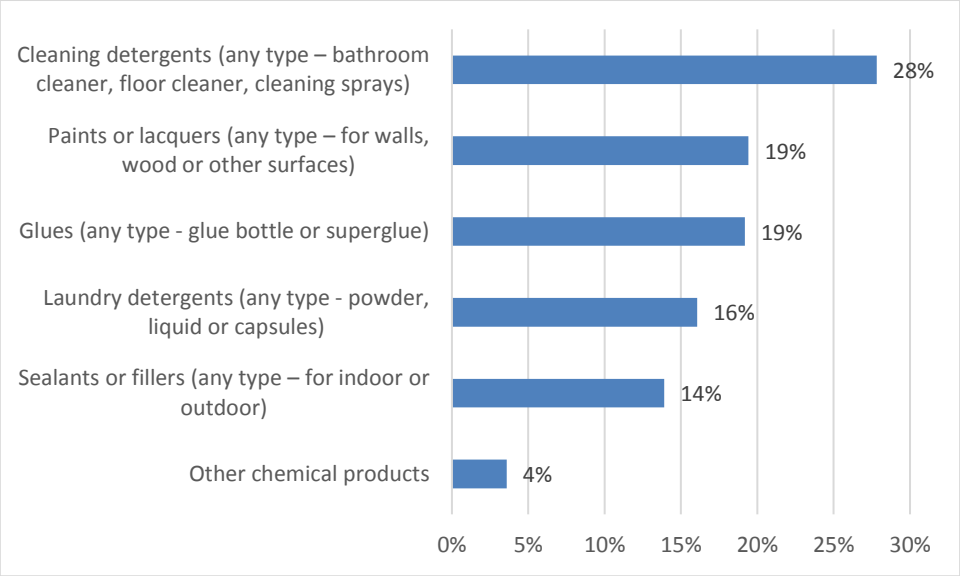
In total, the survey has collected responses from 206 stakeholders from four countries (France, Germany, Greece, and Romania) and three sectors (construction, hotels & restaurants, and manufacturing). More than half of the survey respondents[3] were from micro & small companies (less than 49 employees), around one-quarter[4] were from medium size companies (between 50 and 249 employees), and the remaining respondents[5] represented large companies (more than 250 employees).

[3] 114 out of 206.
[4] 54 out of 206.
[5] 36 out of 206.

80% of the respondents (164 out of 206) have answered that the companies they represent are involved in preparing the definitions of the usage guidelines of chemical products used by workers. In addition, around one third of the respondents (136 out of 204) mentioned that have received training on chemical products or substances, e.g. on hazards or precautions of safely using these products.

When asked to indicate the three most-used products at work, respondents have identified cleaning detergents[6] as the most often used products at work followed by paints or lacquers[7], and glues[8].

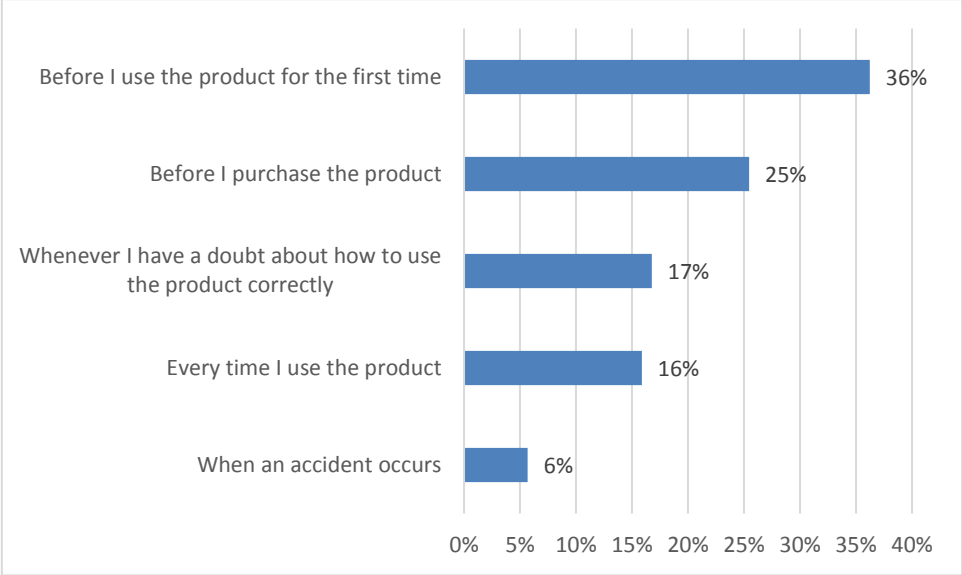
*Figure 86: Could you please indicate the 3 mostly used products at work? (multiple choices question)*




When asked to identify the time when do they usually read the safety information on a label of a chemical product, the majority of the respondents answered that they typically read the safety information on a label either before they use the product for the first time[9] or before they purchase the product[10].

[6] 116 out of 417 total choices.
[7] 81 out of 417 total choices.
[8] 80 out of 417 total choices.
[9] 121 out of 334 total choices.
[10] 85 out of 334 total choices.

*Figure 87: When do you usually read the safety information on a label of a chemical product? (multiple choices question)*




In terms of rating the importance of certain pieces of information concerning the packaging of the afore mentioned products, the respondents have rated the signal words[11] (i.e., "Warning" or "Danger") and instructions for use[12] as the most important elements of information on the package of the product, whilst marketing information[13] seems to be of the least importance to the respondents. According to the results from the survey, in general, having all the pieces of information seems to be most essential to laundry detergents[14], while having all of the pieces of information on the package present in the glues[15] seem to be the least essential overall. More detailed results concerning the importance of having certain pieces of information in the different categories of chemical products is available in the table below.

[11] Across the five products, respondents have rated the importance of this piece of information as "Absolutely Essential" or "Very Important" 350 out of 400 times.
[12] Across the five products, respondents have rated the importance of this piece of information as "Absolutely Essential" or "Very Important" 349 out of 401 times.
[13] Across the five products, respondents have rated the importance of this piece of information as "Absolutely Essential" or "Very Important" 175 out of 397 times.
[14] Across the 14 pieces of information, respondents have rated the importance of the pieces of information to this product as "Absolutely Essential" or "Very Important" 761 out of 934 times.
[15] Across the 14 pieces of information, respondents have rated the importance of the pieces of information to this product as "Absolutely Essential" or "Very Important" 795 out of 1085 times.

*Table 146: In general, on the packaging of the chemical products mentioned below how important do you rate having the following pieces of information?* [16]

| Piece of information | Laundry detergent | Cleaning detergent | Glue | Paint | Sealant or filler | **Average** |
|---|---|---|---|---|---|---|
| Signal word, i.e., "Warning" or "Danger" | 93% | 90% | 86% | 85% | 82% | 87% |
| Instructions for use | 93% | 89% | 80% | 86% | 88% | 87% |
| Dosage recommendations | 87% | 86% | 86% | 86% | 82% | 86% |
| Hazard pictogram | 90% | 83% | 83% | 79% | 75% | 82% |
| Statements on the products hazards for human health environment and physical hazards | 88% | 85% | 78% | 75% | 81% | 81% |
| List of ingredients contained in the product, such as allergens, preservatives or enzymes | 90% | 82% | 78% | 75% | 81% | 81% |
| Statements on how to prevent and minimise adverse effects when accidentally exposed | 88% | 84% | 77% | 81% | 74% | 81% |
| Quantity | 79% | 78% | 76% | 83% | 81% | 79% |
| Statements on the precautions to be taken on the use, storage and disposal of the product | 85% | 80% | 78% | 79% | 74% | 79% |
| Name of the product | 80% | 76% | 75% | 81% | 81% | 79% |
| Information relevant in case of intoxication e.g. poison centre telephone number, UFI-code etc. | 84% | 80% | 76% | 77% | 75% | 78% |
| Address and telephone number of the supplier | 64% | 76% | 63% | 72% | 72% | 69% |
| Weblink to receive full ingredients list | 75% | 74% | 62% | 55% | 70% | 67% |
| Marketing information | 47% | 41% | 37% | 44% | 56% | 45% |
| **Total** | 81% | 79% | 74% | 76% | 77% | 77% |

[16] % of survey respondents who have rated the following piece of information as "Absolutely Essential" or "Very Important".

Concerning the easiness to read the afore mentioned pieces of information in these products, respondents to the survey think that name of the product[17] is usually the most easy to understand piece of information of the product, while marketing information[18] seems to be the most difficult piece to understand. According to the respondents, the products that are most easy to understand concerning the information on the package are laundry detergents[19], while the most difficult to understand are glues[20]. More detailed results concerning the easiness to understand certain pieces of information in the different categories of chemical products is available in the table below.

*Table 147: From your experience with labels of the products mentioned below, how easy to understand do you find each piece of information typically included on the packaging?* [21]

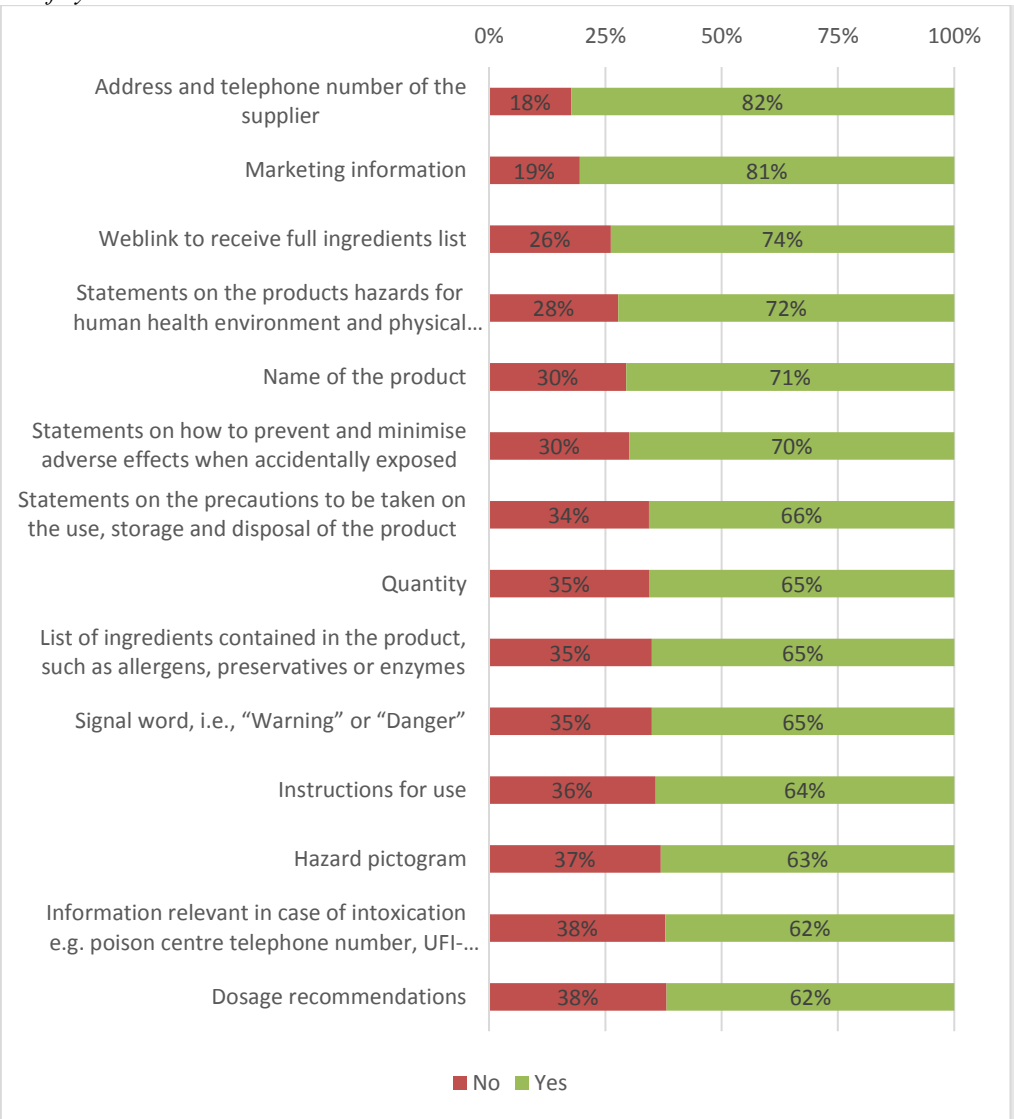
| | Laundry detergent | Cleaning detergent | Glues | Paints | Sealants or fillers | **Average** |
|---|---|---|---|---|---|---|
| Name of the product | 94% | 90% | 92% | 89% | 88% | 91% |
| Quantity | 91% | 85% | 82% | 80% | 88% | 85% |
| Instructions for use | 87% | 81% | 83% | 83% | 86% | 84% |
| Signal word, i.e., "Warning" or "Danger" | 87% | 82% | 81% | 80% | 79% | 82% |
| Dosage recommendations | 85% | 78% | 75% | 78% | 75% | 78% |
| Address and telephone number of the supplier | 83% | 82% | 66% | 74% | 70% | 75% |
| Statements on the products hazards for human health environment and physical hazards | 79% | 76% | 71% | 74% | 74% | 75% |
| Hazard pictogram | 85% | 72% | 70% | 71% | 72% | 74% |
| Statements on the precautions to be taken on the use, storage and disposal of the product | 75% | 70% | 73% | 79% | 67% | 73% |
| Information relevant in case of intoxication e.g. poison centre telephone number, UFI-code etc. | 73% | 70% | 69% | 64% | 74% | 70% |
| Statements on how to prevent and minimise adverse effects when accidentally exposed | 76% | 68% | 62% | 75% | 67% | 69% |
| Weblink to receive full ingredients list | 69% | 70% | 62% | 67% | 71% | 68% |
| List of ingredients contained in the product, such as allergens, preservatives or enzymes | 60% | 64% | 61% | 73% | 72% | 66% |
| Marketing information | 59% | 64% | 56% | 59% | 61% | 60% |
| **Total** | 79% | 75% | 72% | 75% | 74% | 74% |

[17] Across the five products, respondents have rated the easiness to understand of this piece of information as "Very easy to understand" or "Rather easy to understand" 361 out of 399 times.
[18] Across the five products, respondents have rated the easiness to understand of this piece of information as "Very easy to understand" or "Rather easy to understand" 233 out of 388 times.
[19] Across the 14 pieces of information, respondents have rated the importance of the pieces of information to this product as Very easy to understand" or "Rather easy to understand" 729 out of 926 times.
[20] Across the 14 pieces of information, respondents have rated the importance of the pieces of information to this product as Very easy to understand" or "Rather easy to understand" 793 out of 1107 times.
[21] % of survey respondents who have rated the following piece of information as "Very easy to understand" or "Rather easy to understand".

Regarding the respondents' opinion on the possibility of use of an online electronic label for chemical products, the majority of the respondents[22] view this possibility positively or very positively.

Moreover, the majority of the respondents think that moving all of the pieces of information currently available on physical labels to the online electronic labels would not impact detriment to workers' safety, with address and telephone number of the supplier[23], and marketing information[24] gaining the highest, and information relevant in case of intoxication e.g. poison centre telephone number, UFI-code etc., and dosage recommendations gaining the lowest support by the respondents[25].

*Figure 88: In case of use of an online electronic label of the chemical products that your company uses, in your opinion which piece of information currently on physical labels could be moved without detriment to workers' safety?*




[22] 147 out of 206 respondents have selected options "Positively" or "Very positively".
[23] 168 out of 204 respondents have selected option "Yes".
[24] 157 out of 195 respondents have selected option "Yes".
[25] Option "Yes" have been selected 123 out of 199 times for both pieces of information.

Online survey on policy measures (also referred to as 'options' in this section)

In total, the survey has collected responses from 81 stakeholders from 22 countries[26]. Because of the significant differences in the number of responses collected from different type of stakeholders, the answers have been divided by stakeholder category: 14 respondents belonged to member state authorities, and 67 were industry representatives (industry associations, businesses).

**Overall assessment of the Policy Options**

Stakeholders were asked to rate their overall preference for the Policy Options of this study (for the description of the Policy Options, please see chapter 5). A rating of -5 is considered as least favourable, 0 as neutral, and +5 as most favourable. The analysis described in detail in the paragraphs below consists of the median rates given to the Policy Option by stakeholders.

Public authority stakeholders generally preferred Policy Options 1, 2, and 3 with no preference on proposed interventions either on CLP or Detergents Regulation considering Policy Options 1 and 2, and preference towards the proposed interventions on Detergents regarding Policy Option 3. Out of all the Policy Options considered, public authority stakeholders had the most negative opinion about Policy Option 4.

On the other hand, stakeholders from industry expressed their preference towards Policy Option 4 with a preference for proposed interventions on the Detergents Regulation. In addition, Policy Options 3 and 5 also received a positive feedback with a preference for the proposed interventions on the Detergents Regulation under Policy Option 3 and a slight preference for the proposed interventions on the CLP Regulation under Policy Option 5.

[26] Public authorities: 1 respondent each from Austria, Cyprus, Denmark, Finland, Norway, Poland, Portugal, Romania, Slovakia; 2 respondents from Slovakia; 3 respondents from Lithuania.
Industry: 1 participant each from Bulgaria, Croatia, Czech Republic, Finland, Lithuania, Slovakia, Switzerland; 2 participants from the Netherlands, 3 participants each from France and the United Kingdom, 5 participants from United States, 9 participants from Belgium, 10 participants from Spain, and 28 participants from Germany.

*Table 148: Stakeholders' opinion on the Policy Options*[27]

| Type of stakeholder | Policy Option 0 | Policy Option 1 | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|---|
| **Public authorities** | Overall: 2.5 | Overall: 4<br>CLP: 4<br>Detergents 4 | Overall: 4<br>Sub-option 2(a): 4<br>Sub-option 2(b): 4 | Overall: 4<br>CLP: 3<br>Detergents 4 | Overall: -2<br>CLP: -1<br>Detergents 2 | Overall: 2<br>CLP: 1<br>Detergents 1 |
| **Industry** | Overall: -1 | Overall: -3.5<br>CLP: -3<br>Detergents: -3 | Overall: 1.5<br>CLP: 3<br>Detergents 4 | Overall: 3<br>CLP: 2<br>Detergents 3 | Overall: 5<br>CLP: 4<br>Detergents 5 | Overall: 3<br>CLP: 3<br>Detergents 2.5 |

*Impact on the awareness of consumers about safe use of products and label readability*

Stakeholders were asked to rate the impact of the Policy Options from very negative (-2) to very positive (+2)[28]. The analysis described in detail in the paragraphs below consists of the median rates given to the Policy Option by the stakeholders.

Concerning the impact of the policy options on the awareness of consumers about safe use of products and label readability, public authorities had an overall positive opinion about Policy Options 1, 2, and 3 (besides neutral opinion the impact from the proposed interventions on Detergents Regulation). Public authorities had an overall negative opinion concerning Policy Options 4 and 5.

Industry stakeholders had an overall positive opinion about each Policy Options with the exception of Policy Option 1, which would have no impact on consumer safety. The proposed interventions under Policy Option 3 on the Detergents Regulation received the highest support from industry stakeholders as its impact on consumer safety was estimated as very positive.

[27] Public authorities: 12 respondents for Policy Option 0, 10 respondents for Policy Option 1 overall, and 9 each for CLP and Detergents, 11 respondents for Policy Option 2 overall and Sub-option 2(a), and 12 for Sub-option 2(b), 11 respondents for all the options under Policy Option 3, 11 respondents for Policy Option 4 overall, and 9 for CLP and Detergents, 11 respondents for Policy Option 4 overall, and 10 for CLP and Detergents, 11 respondents for Policy Option 4 overall, and 10 for CLP and Detergents.
Industry: 54 respondents for Policy Option 0, 38 respondents for Policy Option 1 overall, and 33 each for CLP and Detergents, 26 respondents for Policy Option 2 overall, 23 for Sub-option 2(a), and 21 for Sub-option 2(b), 38 respondents for Policy Option 3 overall, and 33 for CLP and Detergence, 31 respondents for Policy Option 4 overall, and 29 for CLP and Detergents, 30 respondents for Policy Option 4 overall, and 28 for CLP and Detergents, 30 respondents for Policy Option 4 overall, and 28 for CLP and Detergents.

[28] -2 =very negative, -1 = slightly negative, 0 = neutral, +1 = slightly positive, +2 = very positive.

*Table 149: Impact on consumer safety and label readability29*

| Type of stakeholder | Policy Option 1 | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|
| **Public authorities** | Overall: Slightly positive | Overall: Slightly positive | Overall: Slightly positive<br>CLP: Slightly positive<br>Detergents : Neutral | Overall: Slightly negative | Overall: Slightly negative |
| **Industry** | Overall: Neutral | Overall: Slightly positive | Overall: Slightly positive<br>CLP: Slightly positive<br>Detergents : Very positive | Overall: Slightly positive | Overall: Slightly positive |

*Impact on the well-being of consumers with impairments*

In terms of the impact of the Policy Options on the well-being of consumers with the impairments, public authorities considered Policy Option 1 as the most positive for consumers who are impaired. In particular, Policy Option 1 was considered to have a very positive impact on consumer who have cognitive/learning impairments. On the other hand, public authorities estimate an overall neutral or negative impact from the other Policy Options with the exception of Policy Option 4 and its impact on visually impaired consumers.

Industry stakeholders considered Policy Options 3 and 4 as most positive for impaired consumers. In particular, industry stakeholders estimated a very positive impact under Policy Option 4 for visually impaired consumers. On the other hand, industry stakeholders estimate an overall neutral or negative impact from the rest of the Policy Options with an exception of the positive impact on visually impaired consumers under Policy Options 1 and 5. In addition, none of the options were estimated to have an overall positive impact on consumers with mobility or physical impairments.

[29] Public authorities: 11 respondents for Policy Option 1, 12 respondents for Policy Option, 11 respondents for all the options under Policy Option 3, 11 respondents for Policy Option 4, 11 respondents for Policy Option 5.
Industry: 41 respondents for Policy Option 1, 26 respondents for Policy Option 2, 36 respondents for Policy Option 3 overall, and 33 for CLP and Detergence, 29 respondents for Policy Option, 28 respondents for Policy Option 5.

*Table 150: Impact on the well-being of consumers with impairments30*

| Type of stakeholder | Type of impairment | Policy Option 0 | Policy Option 1 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|---|
| **Public authorities** | **Vision:** | 25% | 55% | 64% | 45% | 45% |
| | **Colour blind:** | 27% | 62% | 36% | 18% | 27% |
| | **Cognitive/Learning** | 36% | 70% | 27% | 18% | 27% |
| | **Mobility/Physical** | 18% | 64% | 31% | 27% | 27% |
| **Industry** | **Vision:** | 13% | 53% | 65% | 77% | 61% |
| | **Colour blind:** | 12% | 29% | 56% | 50% | 37% |
| | **Cognitive/Learning** | 13% | 33% | 52% | 53% | 32% |
| | **Mobility/Physical** | 11% | 23% | 27% | 21% | 25% |

*Impact on the awareness of consumers about the effects of dispersion of harmful substances in the natural environment*

Stakeholders were asked to rate the impact of the Policy Options from very negative (-2) to very positive (+2)[31]. The results described in detail in the paragraphs below consist of the median ratings given to the Policy Option by the stakeholders.

Public authorities consider Policy Options 0, 1, and 2 as having an overall positive impact on consumer awareness about the effects of dispersion of harmful substances in the natural environment. Policy Options 4 and 5 are estimated to have a negative impact and Policy Option 3 is considered to have no impact in this area.

Industry stakeholders consider Policy Options 3 and 4 as having an overall positive impact on consumer awareness about the effects of dispersion of harmful substances in the natural

[30] Public authorities: **Policy Option 0**, Vision n=3 out of 12; Colour blind – 3 out of 11, Cognitive/Learning – 4 out of 11, Mobility/Physical 2 out of 11. **Policy Option 1**, Vision n=6 out of 11; Colour blind – 8 out of 13, Cognitive/Learning – 7 out of 11, Mobility/Physical 7 out of 11, **Policy Option 3**, Vision n=7 out of 11; Colour blind – 4 out of 11, Cognitive/Learning – 3 out of 11, Mobility/Physical 4 out of 13, **Policy Option 4**, Vision n=5 out of 11; Colour blind – 2 out of 11, Cognitive/Learning – 2 out of 11, Mobility/Physical 3 out of 11, **Policy Option 5**, Vision n=5 out of 11; Colour blind – 3 out of 11, Cognitive/Learning – 3 out of 11, Mobility/Physical 3 out of 11.
Industry: **Policy Option 0**, Vision n=6 out of 47; Colour blind – 6 out of 49, Cognitive/Learning – 6 out of 48, Mobility/Physical 5 out of 47. **Policy Option 1**, Vision n=21 out of 40; Colour blind – 12 out of 42, Cognitive/Learning – 13 out of 39, Mobility/Physical 9 out of 39, **Policy Option 3**, Vision n=20 out of 31; Colour blind – 18 out of 32, Cognitive/Learning – 16 out of 31, Mobility/Physical 8 out of 30, **Policy Option 4**, Vision n=24 out of 31; Colour blind – 15 out of 30, Cognitive/Learning – 15 out of 30, Mobility/Physical 6 out of 28, **Policy Option 5**, Vision n=17 out of 28; Colour blind – 10 out of 27, Cognitive/Learning – 9 out of 28, Mobility/Physical 7 out of 28.
[31] -2 =very negative, -1 = slightly negative, 0 = neutral, +1 = slightly positive, +2 = very positive.

environment, while the remaining Policy Options are estimated to have no impact in this area.

*Table 151: Impact on the awareness of consumers on the effects of dispersion of harmful substances in the natural environment*[32]

| Type of stakeholder | Policy Option 0 | Policy Option 1 | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|---|
| **Public authorities** | Slightly positive | Slightly positive | Slightly positive | Neutral | Slightly negative | Slightly negative |
| **Industry** | Neutral | Neutral | Neutral | Slightly positive | Slightly positive | Neutral |

### Coherence with the digitalisation trends of the market

Stakeholders were asked to rate each Policy Option in term of its coherence with the digitalisation trends in the market. A rating of 0 is considered as the least coherent, 5 as neutral, and 10 as most coherent. The results described in detail in the paragraphs below consist of the median ratings given to the Policy Option by the stakeholders.

Public authorities considered Policy Option 1 as the most coherent with the digitalisation trends in the market. Policy Options 3, 4 and 5 also received overall positive feedback, while Policy Option 2 was estimated to have no impact on coherence with digitalisation trends in the market.

Industry stakeholders considered Policy Option 4 as most coherent with digitalisation. Policy Options 3 and 5 also received overall positive feedback, while Policy Options 1 and 2 were estimated to have negative impact on the coherence with the digitalisation trend.

*Table 152: Coherence with the digitalisation of the market*[33]

| Type of stakeholder | Policy Option 1 | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|
| **Public authorities** | 8 | 5 | 6.5 | 7 | 7.5 |
| **Industry** | 2 | 1 | 7 | 9 | 7 |

[32] Comparison of median results. Stakeholders were asked to rate the coherence from very negative (-2) to very positive (+2)
Public authorities. 12 respondents, in total, under Policy Option 0, 12 respondents, in total, under Policy Option 1, 12 respondents, in total, under Policy Option 2, 13 respondents, in total, under Policy Option 3, 11 respondents, in total, under Policy Option 4, 11 respondents, in total, under Policy Option 5.
Industry. 51 respondents, in total, under Policy Option 0, 41 respondents, in total, under Policy Option 1, 19 respondents, in total, under Policy Option 2, 35 respondents, in total, under Policy Option 3, 28 respondents, in total, under Policy Option 4, 27 respondents, in total, under Policy Option 5.
[33] Public authorities. 12 respondents, in total, under Policy Option 1, 12 respondents, in total, under Policy Option 2, 12 respondents, in total, under Policy Option 3, 11 respondents, in total, under Policy Option 4, 12 respondents, in total, under Policy Option 5.
Industry. 44 respondents, in total, under Policy Option 1, 29 respondents, in total, under Policy Option 2, 35 respondents, in total, under Policy Option 3, 25 respondents, in total, under Policy Option 4, 27 respondents, in total, under Policy Option 5.

*Impact on the competitive position of EU firms with respect to non-EU competitors*

Stakeholders were asked to rate the impact of the Policy Options from very negative (-2) to very positive (+2)[34]. The results described in detail in the paragraphs below consist of the median ratings given to the Policy Option by the stakeholders.

Public authorities consider Policy Option 3 as having an overall positive impact with regards to the competitive position of EU firms with respect to non-EU competitors. Policy Option 5 is estimated to have a negative impact and Policy Options 2 and 4 are considered to have no impact in this area.

Industry stakeholders estimate that none of the Policy Options would have any impact on the competitive position of EU firms with respect to non-EU competitors.

*Table 153: Impact to competitive position of EU firms with respect to non-EU competitors35*

| Type of stakeholder | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|
| **Public authorities** | Neutral | Slightly positive | Neutral | Slightly negative |
| **Industry** | Neutral | Neutral | Neutral | Neutral |

*Impact on SMEs*

Stakeholders were asked to rate the impact of the Policy Options from very negative (-2) to very positive (+2). The results described in detail in the paragraphs below consist of the median ratings given to the Policy Option by the stakeholders.

Public authorities consider Policy Options 3, 4 and 5 as having an overall positive impact on addressing disproportionate costs for SMEs in comparison to larger enterprises, while Policy Option 2 is considered to have no impact on SMEs in this regard.

Industry stakeholders consider Policy Option 4 as having an overall positive impact on addressing disproportionate costs for SMEs in comparison to larger enterprises, while Policy Options 2, 3 and 5 are considered to have no impact on SMEs in this regard.

[34] -2 =very negative, -1 = slightly negative, 0 = neutral, +1 = slightly positive, +2 = very positive.

[35] Public authorities. 3 respondents each under Policy Options 2, 3, and 4, 1 respondents under Policy Option 5. Note: responses "I don't know" were not taken into consideration under the analysis here.
Industry. 26 respondents, in total , under Policy Option 2, 16 respondents, in total, under Policy Option 3, 11 respondents, in total, under Policy Option 4, 18 respondents, in total, under Policy Option 5. Note: responses "I don't know" were not taken into consideration under the analysis here.

*Table 154: Impact on SMEs*[36]

| Type of stakeholder | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|
| **Public authorities** | Neutral | Slightly positive | Slightly positive | Slightly positive |
| **Industry** | Neutral | Neutral | Slightly positive | Neutral |

In terms of the stakeholder perception on the costs-benefits ratio[37] under each Policy Option, public authorities consider Policy Option 2 as the most cost-effective Policy Option, while Policy Option 3 is estimated to be neutral in this regards, and Policy Options 4 and 5 appear to bring considerably more costs than benefits regarding the activities of the market surveillance authorities.

On the other hand, industry stakeholders estimate high benefits and low costs under Policy Options 4 and 5, while for Policy Option 3, industry stakeholders estimate that the costs under this option will slightly outweigh the benefits.

[36] Public authorities: 6 respondents, in total , under Policy Option 2, 4 respondents, in total, under Policy Option 3, 4 respondents, in total, under Policy Option 4, 5 respondents, in total, under Policy Option 5. Note: responses "I don't know" were not taken into consideration under the analysis here.
Industry. 13 respondents, in total , under Policy Option 2, 16 respondents, in total, under Policy Option 3, 11 respondents, in total, under Policy Option 4, 11 respondents, in total, under Policy Option 5. Note: responses "I don't know" were not taken into consideration under the analysis here.

[37] Ratio of stakeholders who've indicated that cost and benefits under the Policy Option are high or very high. If the ratio is negative it means stakeholders estimate higher costs than benefits under the option.

*Table 155: Stakeholders' perception on the cost-benefits ratio under the Policy Options38*

| Type of stakeholder | Policy Option 1 | Policy Option 2 | Policy Option 3 | Policy Option 4 | Policy Option 5 |
|---|---|---|---|---|---|
| **Public authorities** | Undefined | Overall: 27% | Overall: 0% | Overall: -14% | Overall: -16% |
| **Industry** | Undefined | Undefined | Overall: -7%<br>CLP: -7%<br>Detergent: -3% | Overall: 14%<br>CLP: 14%<br>Detergent: 7% | Overall: 34%<br>CLP: 35%<br>Detergent: 11% |

[38] Public authorities: **Under Policy Option 2**, 2 out of 12 stakeholders estimate high or very high costs, 5 out of 12 stakeholders estimate high or very high benefits**. Under Policy Option 3**, 3 out of 10 stakeholders estimate high or very high costs, 3 out of 10 stakeholders estimate high or very high benefits. **Under Policy Option 4**, 3 out of 11 stakeholders estimate high or very high costs, 1 out of 11 stakeholders estimate high or very high benefits. **Under Policy Option 5**, 3 out of 12 stakeholders estimate high or very high costs, 1 out of 12 stakeholders estimate high or very high benefits.
Industry: **Under Policy Option 3**, overall, 17 out of 26 stakeholders estimate high or very high costs, 19 out of 32 stakeholders estimate high or very high benefits. Under CLP, 17 out of 26 stakeholders estimate high or very high costs, 19 out of 32 stakeholders estimate high or very high benefits. Under Detergents Regulation, 8 out of 23 stakeholders estimate high or very high costs, 8 out of 25 stakeholders estimate high or very high benefits. **Under Policy Option 4**, overall, 16 out of 24 stakeholders estimate high or very high costs, 21 out of 26 stakeholders estimate high or very high benefits. Under CLP,16 out of 24 stakeholders estimate high or very high costs, 21 out of 26 stakeholders estimate high or very high benefits. Under Detergents Regulation, 8 out of 20 stakeholders estimate high or very high costs, 10 out of 21 stakeholders estimate high or very high benefits. **Under Policy Option 5**, overall, 9 out of 20 stakeholders estimate high or very high costs, 18 out of 23 stakeholders estimate high or very high benefits. Under CLP,9 out of 21 stakeholders estimate high or very high costs, 18 out of 23 stakeholders estimate high or very high benefits. Under Detergents Regulation, 5 out of 18 stakeholders estimate high or very high costs, 7 out of 18 stakeholders estimate high or very high benefits.