



# IMPACT ASSESSMENT REPORT

2023



The Project LIFE AskREACH (No. LIFE16 GIE/DE/000738) is funded by the LIFE Programme of the European Union sofia zero.



The Project LIFE AskREACH (No. LIFE16 GIE/DE/000738) is funded by the LIFE Programme of the European Union



## CONTENTS

Gloss	ary and abbreviations
1.	Introduction7
1.1.	Monitoring concept
1.2.	Data sources
2.	Prologue
3.	Indicators assessment
3.1.	App roll-out in Europe – facilitated by networking15
3.2.	Activating the consumers – challenges and impact16
3.2	2.1 Reaching out to the masses
3.2	2.2 Uptake and use of the app17
3.2	2.3 Impact on behaviour23
	3.2.3.1 Information, perception and practices23
	3.2.3.2 Presence of SVHCs in articles25
	3.2.3.3 The right-to-know
	3.2.3.4 Consumption decisions
3.3.	Activating article suppliers
3.3	3.1 Reaching out to companies and capacity building
3.3	3.2 Uptake and use of the AskREACH tools
3.3	3.3 Compliance with REACH Art. 33
3.3	3.4 Costs of SVHC communication
3.3	3.5 Article sales
3.3	3.6 Substitution
4.	Socio-economic impact
4.1.	Governance towards traceability of chemicals40
4.1	.1 Cross-sectoral governance of supply chain communication41
4.1	2 Theory of Change for traceability42
4.2.	Business opportunities through improved competitiveness42
4.3.	Innovation environment
5.	Environmental impact
6.	Conclusions
7.	References
8.	Annex
8.1.	Socio-economics from the consumer survey49
8.2.	Questionnaire for consumers – App survey
8.3.	Qualitative interviews for consumers54
8.4.	Questionnaire for SFE registrants
8.5.	Questionnaire for advanced article supplier interviews
8.6.	Questionnaire for retailer interviews

#### **Impact Assessment Report**

Julian Schenten<sup>a</sup>, Susana Fonseca<sup>b</sup>, Rebecca Niebler<sup>a,</sup> Martin Führ<sup>a</sup> supported by project partners collecting data

- a Society for Institutional Analysis sofia, at Darmstadt University of Applied Sciences
- b ZERO Associação Sistema Terrestre Sustentável

Darmstadt, 09.10.2023

## **GLOSSARY AND ABBREVIATIONS**

Article	Object, which during production is given a special shape, surface or design, which determines its function to a greater degree than does its chemical composition. <sup>1</sup> Chemicals and mixtures thereof, such as cosmetics or household detergents, are not covered by the article definition and neither is food
B2C	Business to consumer
CEAP	A new Circular Economy Action Plan, COM(2020) 98
CBI	Confidential Business Information
Complex object	Article incorporating more than one individual article
CSS	Chemical Strategy for Sustainability, COM(2020) 667 final
DB	Database
Dkk	Danish krone
EAN	European Article Number
ECHA	European chemicals agency
EDC	Endocrine disruptive chemicals
EU	European Union
FMD	Full Material Declaration of supplied (parts of) articles down to basic substance level, i.e. declaration of all used substances in their respective physical and chemical states upon delivery
GDPR	General Data Protection Regulation
GEPIR	Global Electronic Party Information Registry
HCL	Harmonized Classification and Labelling (CLP Art. 36)
IEC	International Electrotechnical Commission
INCI	International Nomenclature of Cosmetic Ingredients
IPC	Association Connecting Electronics Industries
ISO	International Organization for Standardization
m.	Million
MDS	Material Data System for standardised exchange and management of material data
MRSL	Manufacturing Restricted Substance List (process-oriented)
NGO	Non-governmental organization
PACT	Public activities coordination tool
Producer of an article	any natural or legal person who makes or assembles an article within the Community. <sup>2</sup>
RCD	Regulatory Compliance Declarations
REACH	Regulation (EC) No 1907/2006 c oncerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
RSL	Restricted Substances List (article-oriented)

<sup>1</sup> REACH Art. 3(3).

<sup>2</sup> REACH Art. 3(3).

SCIP	Database for information on Substances of Concern In articles as such or in complex objects (Products)
SFE	Suppliers Front End (of AskREACH database).
SIN-List	Substitute it Now-List
SME	Small and medium-sized enterprises
SPI	Sustainable Products Initiative
SRL	Substance Reporting Lists
Supplier of an article	any producer or importer of an article, distributor or other actor in the supply chain placing an article on the market. <sup>3</sup>
SVHC	Substance of very high concern as legally defined by REACH Art. 57 and identified by public authorities in a formalised procedure. SVHCs include substances, which are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative (PBT/vPvB), substances that are carcinogenic, mutagenic or toxic to the reproductive system (CMR) and substances with properties of equivalent concern, e.g. endocrine disrupters (ED) or respiratory sensitisers. Due to their problematic properties, SVHCs may cause damage to human health, wildlife and/or the functioning of ecosystems. The group of PBT/vPvB substances are of particular concern for the environment, because they persist and accumulate in certain environmental compartments and in the food chain. The latter is also leading to considerable exposure of humans to SVHCs and potential adverse health effects.
WFD	Directive 2008/98/EC on waste
w/w	weight by weight

<sup>3</sup> REACH Art. 3(4).

## **1.INTRODUCTION**

The LIFE AskREACH project (September 2017 – August 2023) has aimed to reduce the release of SVHCs to the environment by increasing consumer demand for articles free of SVHCs and creating incentives for the substitution of SVHCs in articles. The project facilitated these effects by establishing a central European IT system (app and database) for B2C communication in terms of REACH Art. 33(2) regarding SVHCs in articles, accompanied by comprehensive awareness campaigns. In addition, the project sought to foster supply chain communication on SVHCs in terms of Art 33(1) by promoting a respective tool which could be used free of charge by the companies during the project and providing trainings. This report provides an ex-post assessment of the project's impact.

The following sections outline the monitoring approach and the data used. Chapter 3 provides an in-depth analysis of the project's impact as measured by the indicators. This comprises any effects on behavioural change to which some of the indicators relate. Drawing on this, Chapter 4 seeks to describe the project's socio-economic impact and Chapter 5 the impact in terms of the environmental problem. Chapter 6 provides the overall conclusions. Before going into the impact assessments, the "prologue" in Chapter 2 describes how unforeseen external factors affected the impact of the project (pandemic, war, legal developments).

### 1.1. Monitoring concept

The intended impact with regard to the target groups of consumers and article suppliers can be described as follows. Consumers are more aware, have access to information on SVHCs in articles and do not buy articles containing SVHCs > 0.1% w/w. This, eventually, leads to a change of market shares with an increase in SVHC free articles or articles with SVHCs < 0.1% w/w and a decrease of articles containing SVHCs > 0.1% w/w. Companies gain a better understanding of SVHC presence in their articles, the role of substitution and appropriate management approaches. At the same time, they are more pressed to communicate the contents of SVHC and, in order to avoid the associated loss of reputation, they substitute SVHCs with less harmful alternatives.

The AskREACH impact monitoring approach focuses on socio-economic factors and relates to stakeholder awareness and behaviour, whereas behavioural changes in the desired direction are an indication of reduced pressure on the environment. A set of indicators facilitates measuring the impact (Table 1).

Table 1: LIFE AskREACH impact monitoring indicat	ors

No.	Indicator	Approach	Sec- tion in Report
1	Number of Member States in which the app is available and connected to the database.	Monitors the implementation of the app in the EU and beyond.	3.1
2	Number of new tool users	Monitors app downloads over the entire project term. Com- paring country-specific downloads, this indicator gives insights into the awareness levels for issues related to substances in articles in the countries where the app is implemented. It also supports evaluation of the project campaigns.	3.2.2
3	Number of individual scans launched via the apps	Expresses the total amount of scans launched during the proj- ect term. It is based on the scans of each individual app user.	3.2.2
4	Number of individual arti- cles scanned	Records the number of individual articles, which have already been scanned (i.e. not identical to indicator 3).	3.2.2
5	Number of article sup- pliers (article producers, importers, retailers) pro- viding input (bulk article registration) to the data- base	Determines how many article suppliers have uploaded bulk in- formation about their articles to the database, whether articles have been scanned by consumers or not.	3.3.2
6	Number of article suppli- ers providing individual answers to consumer re- quests without storing in- formation in the database	Monitors the number of article suppliers that respond to the consumer requests (following step after scanning) without providing data to the database.	3.3.2
7	Number of articles regis- tered in the database for which SVHC information is available	Counts the number of individual articles for which information on SVHC presence or absence is available in the database.	3.3.2
8	Costs of article suppliers to respond to a consumer request	Monitors the expenditures of article suppliers to respond to consumer requests, whereas the project assumes cost reductions enabled by the tools.	3.3.4
9	Costs of article suppli- ers to manage chemicals used in supply chains (in- cluding compliance with Art. 33(1) REACH)	Monitors the costs of the 'pilot companies' participating at the project's supply chain action to manage substances used in their articles. The project assumes cost reductions enabled by the tool.	3.3.4
10a	Consumers being more aware of the risks from SVHCs	Monitors the development of consumers' level of information about SVHCs in articles.	3.2.3
<b>10b</b>	Consumers being more aware of right to know	Determines the share of consumers in the partner countries, who claim to be aware of their right to know on SVHCs in arti- cles; and related developments.	3.2.3
11	Article suppliers compli- ant with REACH Art. 33(2)	Indicates the compliance rates with REACH Art. 33(2). The aim is to increase the compliance rates of suppliers using the project tools (app and database).	3.3.3
12	Article suppliers along the supply chain compliant with REACH Art. 33(1)	Assesses the extent to which suppliers of 'pilot companies' par- ticipating at the project's supply chain action meet their report- ing obligations under REACH Art. 33(1).	3.3.3

13	Number of events organ- ised to raise awareness of article suppliers	The project partners organise info days for companies, con- tribute to industry newsletters and journals and promote the database in business portals; they are also working with na- tional multipliers such as chambers of commerce and industry associations to encourage industry to fill the database.	3.3.1
14	Number of events organ- ised to raise awareness of the general public	The project partners are organising a series of events. The teams in each country organise info days and set up exhibition stands, hold seminars and participate in events with fitting thematic focus organised by others.	3.2.1
15	Number of events organ- ised to raise awareness of public authorities	Annual roundtables in each of the 13 partner countries as well as international seminars and conferences address awareness of public authorities.	3.1
16	Number of individuals surveyed	Overall total number of individuals surveyed (online or face-to- face questionnaires, interviews etc.).	1.2
17	Number of website visi- tors and duration of their stay	Number of visitors to the project website and duration of stay.	3.2.1
18	Number of tool users not buying articles contain- ing an SVHC above 0.1% w/w	Estimates the number of tool users who do not buy articles for which the app provides information that an SVHC is contained (and if an alternative is available).	3.2.3
19	Number of article suppli- ers having substituted or initiated substitution of SVHCs	Collects data on article suppliers that have substituted or initi- ated a substitution process regarding SVHCs in articles.	3.3.6
20	Decline in sales of articles containing SVHCs above the 0.1% w/w threshold	Assesses impacts on sales of articles containing SVHCs in the database.	3.3.5
21	Change of sales trend in articles without SVHCs above 0.1% w/w	Assesses impacts on sales of articles not containing SVHCs in the database.	3.3.5
22	Change of inspection strategies by 2027	Determines whether the project has a long-term impact on inspection strategies (e.g. as regards inspection focal points).	(out of scope)
23	Number of interest groups involved	Monitors interest groups (i.e. organisations committed partic- ularly to consumer, environment or economic goals, including NGOs and other lobby groups) involved in the project's activ- ities	3.1
24	Number of article suppli- ers (producers, retailers, importers) approached	Monitors article suppliers approached, contributing to aware- ness raising.	3.3.1
25	Number of competent au- thorities involved	Monitors the number of involved REACH Competent Authorities.	3.1
26	Number of other relevant public entities involved	Monitors the involvement of REACH Helpdesks, environment and health authorities, consumer protection agencies etc.	3.1
27	Number of articles, in which SVHCs are substituted	Complementing indicator 19 in terms of article numbers.	3.3.6
28	Number of staff of com- panies trained	Collects the number of persons along the supply chains of the 'pilot companies' and retail shop assistants trained during the project.	3.3.1
29	Number of members of interest groups trained	Collects the number of members from the partner interest groups trained during the project campaigns.	3.1

### 1.2. Data sources

The impact assessment takes into account four types of sources:

- statistics and documentation from the AskREACH business logic (e.g. number of article scans, number of uploaded articles),
- additional tools for data tracking and analysis, e.g. "Matomo" and with regards to the campaigns, "Talkwalker", and
- information and activity reports provided by the project partners (e.g. tracking of networking events, articles sent for chemical testing)
- surveys (quantitative questionnaires and interviews) among consumers and company representatives.

The following table provides an overview of the surveys conducted:

Survey name	Timeframe	Type of survey	Surveyed individuals
Baseline survey consumers	Jun – Jul 2018	written	14,465
	(Serbia: Jan 2019 – Feb 2019)		
Baseline survey companies	Jul – Sep 2018	written	183
	(Serbia: Jan – Feb 2019		
Consumer survey in the app	Jan 2021 – Feb 2023 (3 surveys)	written	3,804
Registration survey companies (Supplier Front End (SFE) survey)	Launch of the app –12.2022	written	22
Qualitative consumer interviews	First and fourth quar- ter of 2022	interview	158
Retailer survey	Jun 2021-Dec 2022	written/interview	5
Company substitution survey	Oct 21 – Jan 23	written/interview	13
Total (without baseline)			4,002
Total (with baseline)			18,650

Table 2: List of surveys conducted during the project

The project aimed to survey at least 1,000 individuals (indicator 16) and far exceeded this goal. In addition to the empirical work to establish a baseline for some of the indicators - 14,465 consumers and 183 companies surveyed<sup>4</sup> – the report draws on the following survey data:

<sup>4</sup> Schenten et al. 2019, 17, 25.

#### Consumers

Following the launch of the app, the project assessed for the first time in Q1 2021 what users think about the app, how and when they use it and how they perceive chemicals in articles and their right to know if an article contains substances of very high concern. To this end, users of the app were offered the opportunity to participate in a short online survey. 1,726 users took part in the survey. This same exercise was repeated another two times, the last survey ended in February 2023. In the second survey 796 answers were obtained and in the last round, there were 1,282 responses. Of the 3,804 answers collected during the three rounds of app surveys, 1,554 had no specification of the country (Table 3).

Qualitative interviews provided an in-depth insight into the users' perspectives. The main objective was to understand users' perceptions of the app's features and areas for improvement. In total, 139 interviews took place in the first and fourth trimesters of 2022 in the 12 partner countries (Spain is considered as a replication country in this case) and another 19 in Serbia (1) and in three replication countries (Estonia - 9; Hungary - 4; Spain - 5). Table 3 shows the distribution of interviews per country.

	Online surveys		Qualitative Interviews	
Country	Number of participants	%	Number of participants	%
Austria	113	3	14	9
Croatia	45	1	7	4
Czech Republic	90	2	8	5
Denmark	450	12	8	5
France	203	5	6	4
Germany	630	17	20	13
Greece	113	3	14	9
Latvia	45	1	10	6
Luxembourg	23	1	7	4
Poland	90	2	25	16
Portugal	90	2	11	7
Serbia	270	7	1	1
Sweden	90	2	9	6
Replication countries (Es- tonia, Hungary, Spain)	0	0	18	11
Total country specified	2,250	59	158	100
Not specified	1,554	41	-	-
Total	3,804	100	158	100

Table 3: Distribution of answers per partner country (%) – Online surveys and qualitative interviews of consumers

#### Companies

Companies that want to use the AskREACH system register with the supplier front end (SFE). Upon registration, a company was invited to participate in a short online survey. 22 companies from various sectors took part in this activity (Table 4).

Table 4: SFE survey participants' sectors of activity

Sector	Number
Do it yourself (wood, flooring, tapestry, tools, etc.)	4
Electronics (computers, televisions, washing machines, blenders, smartphones, etc.)	8
Furniture (tables, chairs, closets, beds, sofas, etc.)	2
Household articles (other than electronics) (kitchen utensils, decorative products, etc.)	4
Sporting goods and outdoor (including textiles) (tennis shoes; soccer ball; gymnastic/fit- ness apparel, windbreakers, etc.)	1
Textiles, clothes, shoes and accessories (other than Outdoor)	7
Toys and childcare	5
Other	3

There have been two series of interviews (written or face-to-face) with representatives from 18 companies (Table 5). Approaching the end of the campaigning activities, the project sought targeted feedback in interviews from companies about their SVHC substitution activities and related matters. Besides, a series of interviews accompanied the retailer campaign.

#### Table 5: Overview of interviewed companies

Sector	Country	Interview context
Retailer (food and non-food)	Austria	Substitution
Fashion textiles	Austria	Substitution
Technical textiles	Czech Republic	Substitution
Retailer (Outdoor)	Czech Republic	Retailer
Retailer ("greener" products, e.g. cutlery, bottles, cotton bags)	Czech Republic	Retailer
Retailer (shoes)	Germany	Substitution
Producer of shoes for children	Germany	Substitution
Retailer (kitchen ware)	Denmark	Substitution
Retailer (Books, office supplies, games and toys)	Denmark	Retailer
Retailer (not specialized)	Denmark	Retailer
Producer of shoes for children	Croatia	Substitution
Products for industry and consumers (e.g. DIY articles)	Luxembourg	Substitution
Producer of Wood based panels	Latvia	Substitution
Producer of high-quality furniture	Latvia	Substitution
Outdoor apparel	Poland	Substitution
Textiles	Poland	Substitution
Textiles	Portugal	Retailer
Retailer (food and non-food)	Serbia	Retailer
Electronics (mobile phones)	United Kingdom	Substitution

## 2. PROLOGUE

The LIFE AskREACH project brought together 20 partners from 13 countries, all united in the goal of establishing a consumer app that was meant to become a game changer in terms of SVHC awareness on the EU market. The partners succeeded. In 2019, the project stepwise launched the app that is today being rolled out to large parts of Europe. Large campaigns targeting consumers – "use your right to know!" and companies – "enhance transparency on SVHCs!" – accompanied the launch.

Scanning the barcode of an article with the app can trigger two events. Either the app immediately shares with the user the information on the article available in the AskREACH database, i.e. whether SVHCs above 0.1% w/w are present and safe use information in accordance with Art. 33 of REACH is provided. Or, in most cases, the app informs the consumer that no information is available and offers to send a request. Suppliers have the legal duty to inform the consumer upon request only if the article contains SVHCs in concentration over0.1% w/w.

This request needs to be addressed to the supplier of the article in question, i.e. contact data is required. Few suppliers actively registered for the database and left a contact address. In addition, the AskREACH partners manually added contact addresses. If no contact data is available, the users need to research and add the data if they want to send a request.

Requests sent via the AskREACH system highlight to suppliers the benefits of uploading article data, whether it contains SVHCs or not, to avoid receiving more requests for the same article from different consumers. Suppliers uploading article data need to keep the information up-to-date, particularly taking into account the biannual addition of new SVHCs to the candidate list. The supplier frontend for data upload by suppliers offers several options to facilitate bulk uploads of article data. For very large quantities of data, it offers **barcode range declarations.** This tool allows a company to declare large quantities of articles as not containing SVHCs above 0.1% w/w, however not by uploading actual article data but by linking this information to whole ranges of barcodes.

The idea of AskREACH was to equip consumers with an app to send masses of SVHC requests and thereby create incentives for companies to proactively upload their article data to the AskREACH database in order to avoid individual communication with every requesting consumer. The more article data available in the database, the higher the chances that the app can offer SVHC information upon scanning and that consumers keep on using the app – and send new requests where needed.

#### *Box* 1: How the AskREACH system works

Then, in early 2020, the global COVID-19 pandemic took the momentum out of the campaigns. Public authorities in all partner countries imposed disease control measures, ranging from distance keeping and hygiene requirements to shop closures and lockdowns of entire districts or regions. Social distancing measures promoted remote socialising, enabled by digital tools. At some point everyone was "online" and the target group of companies as well as other stakeholders (NGOs, public entities) in fact became technically easier to access; these developments facilitated the projects' networking and some of the campaigning activities. However, COVID-19 restrictions had a severe impact on the heart of the campaigns. Distancing measures not only created physical barriers for consumers, who could no longer go to shops, touch any article they wanted, and scan the barcode. While these actual barriers were mostly for a limited period, the whole situation more fundamentally altered consumption patterns at least during the core period of the AskREACH campaigns between 2020 and 2022: it reinforced the trend towards online shopping, i.e. the mainly barcode-free zone. The discussions in society revolved around the life-threatening subject of the pandemic (and climate change), with other issues taking a back seat.

The Russian attack on the sovereign state of Ukraine was obviously another shock of global proportions that deeply affects the project. Existential fears in Eastern partner countries and uncertainties connected with rising energy prices and inflation all over Europe are still having their effect on consumers, who are buying less and concentrating on other subjects than chemicals in articles.

These and other instances of force majeure, including the 2020 Zagreb earthquake, which impeded the Croatian campaigns, prevented the project from activating millions of consumers to download and use the app, thereby creating a Europe wide impetus for avoiding SVHCs as projected by the proposal.

In fact, by August 31, 2023 some 28,000 app users have sent around 50,000 requests via the app to nearly 39,000 suppliers. These values indicate that companies did not perceive too much pressure from AskREACH users. Rather, if companies expect to receive one, five or even 25 requests for their articles, answering them individually is cheaper in the internal benefit-cost-analysis compared to proactively uploading articles, not least given data base entries require maintenance (Box 1). Hence, given the limited consumer activity, only a few companies uploaded article data, making the app in turn a less attractive tool for consumers.In addition, about one year after the project started an amendment to the Waste Framework Directive became effective introducing a new notification duty on article suppliers.

Starting from January 5, 2021 they have to report to a central ECHA database called SCIP whether SVHCs above 0.1 % w/w are included in articles placed on the market. This information shall become available to recyclers as well as to consumers upon request. Thus, a new legal duty exists to submit SVHC information to a database, also to benefit consumers. The project experienced that article suppliers focussed their action on complying with this new WFD obligation, while the voluntary task of uploading SVHC information to the AskREACH database was rated secondary by many of them. However, even the compliance with the WFD obligation is far from satisfying.<sup>5</sup>

AskREACH is in close contact with the ECHA SCIP team, which has not yet implemented a solution to disseminate the information from the SCIP database to consumers. The AskREACH consortium discussed with the ECHA SCIP team during the development of the SCIP system and aimed to achieve interlinks between both databases and approaches. For instance, the AskREACH database (DB) could mirror all relevant article information submitted to ECHA. Besides, ECHA could connect its DB with the AskREACH app to establish a request format for consumers. However, ECHA has not committed to interlinking the systems by the beginning of 2023.

Incentives to proactively upload article data were thus missing. For all of the reasons mentioned above companies have been reluctant to engage with the project's empirical work (surveys, interviews).

Finally, the assumption at the beginning of the project was that the AskREACH app could use the contact details of companies from the GS1 GEPIR database. GS1 is the global organisation that sells barcode numbers to companies. After the General Data Protection Regulation GDPR came into force, this assumption was shattered, resulting in the additional task for the project partners of researching the contact details of the companies themselves and adding them to the system.

<sup>5</sup> PWC, 2022, p. 43.

## **3. INDICATORS ASSESSMENT**

The following sections aim at describing the projects' impact in terms of the Europe-wide app rollout (Section 3.1) as well as the activation of consumers (3.2) and article suppliers (3.3).

### 3.1. App roll-out in Europe – facilitated by networking

Implementing the consumer app in 13 partner member states and promoting its transfer to another 8 countries (i.e. a total of 21 countries, indicator 1) are among the key objectives of AskREACH. By the end of the project, the app is available in 13<sup>6</sup> partner states (Figure 1, green countries) and in 8 replication countries (blue).



Figure 1: Map of countries with status of app implementation

This success required mastering inter-organisational challenges. The project had to build-up networks with and capacities of actors from NGOs and public authorities – within the core team of partners and beyond. The cooperation of these actors was needed not only to implement the app but also to support the campaigning activities (see below).

<sup>6</sup> During implementation Spain dropped out as a full partner and became a replicator at a later stage.

The project involved all REACH competent authorities in the EU (as projected, see indicator 25) in discussions concerning the implementation of the app and concerning potential synergies between AskREACH and the authorities' daily work (e.g., enforcement). In addition, the partners involved at least 55 other public entities, such as REACH Helpdesks, environmental and health authorities, ministries, and enforcement authorities (projected at 50, see indicator 26).

The project partners organised more than 746 events to raise awareness of public authorities (indicator 15) about the shortcomings of REACH Art. 33 implementation, to discuss what AskREACH can do about it, and consider options for supporting the project. This includes the 68 events projected by the indicator concept, comprising 65 annual roundtables in the 13 partner countries, international seminars in Riga (2018) and Vilnius (2019) and the final conference in Brussels (2023). Additionally, it

includes webinars, conferences, newsletters, or journal contributions organised or created by partners and addressing public authorities, often besides the target group of companies and other actors.

Furthermore, the partners actively involved more than 130 interest groups (82 projected, indicator 23), i.e. organisations committed particularly to consumer, environmental or economic goals, including NGOs and other lobby groups. Therefore, they organised more than 814 events. In order to ensure that staff from partner NGOs are up to the task of campaigning in line with the project proposal, some of them (projected 16, indicator 29) should receive special training. In practise, more than 1,010 individuals from all sorts of interest groups (project partners or not) benefited from various training and capacity building measures, not only related to campaigning techniques but also related to REACH Art. 33 compliance, interview methods, etc.

#### 3.2. Activating the consumers – challenges and impact

The project has made great efforts to raise awareness among consumers (Section 3.2.1). Partly due to external factors (cf. Section 2), the numbers of those using the AskREACH tools

#### 3.2.1 Reaching out to the masses

The partners organised more than 1200 events addressing the general public, such as exhibition stands at fairs or malls, contributions to newspapers, podcasts and appearances on the radio or TV (projected at 195, see indicator 14).

The partners also managed to have considerable traffic on their websites in terms of visitor numbers and duration of their stay (Table 6; projected at 300,000 per year with a 2-minutes stay, indicator 17).

however remained well below expectations (Section 3.2.2). Nevertheless, the project could have a considerable impact on participating consumers (Section 3.2.3).

Given the pandemic situation, partners had to move campaigning activities from the streets to social media. Looking at the activities on Twitter and Facebook only,<sup>7</sup> the articles/posts with the project's hashtags potentially reached 31 million (m.) people, while those with the project's keywords even potentially reached 45 m. people (see Figure 2 and Figure 3).

<sup>7</sup> Additional activities on YouTube are negligible. The tool used by the project does not support the monitoring of activities on other platforms.

	Total visitors	Average Duration/visitor, sec.
askreach.eu	31,988	70
Austria	36,163	78
Croatia	6,165	109
Czech Republic	29,711	30
Denmark	17,475	60
France	11,115	297
Germany (BUND)	79,697	98
Germany (UBA)	19,050	87
Greece	2,295	170
Luxembourg	3,691	87
Poland	57,431	302
Portugal	10,425	660
Serbia	1,617	55
Sweden	11,465	130
Total	318,288	(=148 sec. ~2.5 min.)

Table 6: Website visitors (01.05.2019.-31.08.2023)

The above figures indicate a high level of visibility for the AskREACH project, while being seen by very large numbers of consumers is of course the first crucial step in the journey of creating impact.

#### 3.2.2 Uptake and use of the app

AskREACH achieved a rather limited uptake of its tools among consumers. Until August 31, 2023, the consumer app had been downloaded over 147,000 times (Table 7). There are however more mobile phones on the EU market that are connected to the AskREACH system. To enhance its impact, the project integrated the SVHC functions of the German consumer app ToxFox<sup>8</sup> into the system. Therefore, all users of ToxFox – approximately 2.5 m. – are now able to use the AskREACH functions.

Besides, since the launch of the AskREACH campaigns, there have been about 750,000 downloads of ToxFox, part of which can certainly be attributed to the project (Table 8). Taking all downloads since the launch into account, a total of 897,000 downloads can be claimed during the project period. Looking at the devices that can potentially use the AskREACH functions, the total of 2,647 m. devices is considerable (projected at 3.12 m., see indicator 2). However, the ToxFox is probably primarily downloaded by consumers because of a different function it provides: information about endocrine disrupting chemicals (EDCs) in cosmetics.

<sup>8</sup> By AskREACH partner organization BUND.

#### HASHTAGS - REACH OVER TIME



#### Potential Reach

#### - German (Potential Reach) --- German (Potential Reach) - Polish (Potential Reach) --- Polish (Potential Reach) - Danish (Potential Reach) --- Danish (Potential Reach) - Portuguese (Potential Reach) --- Portuguese (Potential Reach) - English (Potential Reach) --- English (Potential Reach) - Croatian (Potential Reach) --- Croatian (Potential Reach) - French (Potential Reach) --- French (Potential Reach) --- Czech (Potential Reach) Czech (Potential Reach) - Swedish (Potential Reach) --- Swedish (Potential Reach) - Other (Potential Reach) --- Other (Potential Reach)

Potential Reach

Figure 2: Social media potential reaches, according to hashtags (source: Talkwalker)

#### **KEYWORDS - REACH OVER TIME**



#### Potential Reach

- German (Potential Reach)
- Polish (Potential Reach)
- English (Potential Reach)
- Spanish (Potential Reach)
- Portuguese (Potential Reach)
- Danish (Potential Reach)
- French (Potential Reach)
- -Swedish (Potential Reach)
- Greek (Potential Reach)
- Other (Potential Reach)

#### Potential Reach

- --- German (Potential Reach)
- --- Polish (Potential Reach)
- --- English (Potential Reach)
- --- Spanish (Potential Reach)
- --- Portuguese (Potential Reach)
- --- Danish (Potential Reach)
- --- French (Potential Reach)
- --- Swedish (Potential Reach)
- --- Greek (Potential Reach)
- --- Other (Potential Reach)

Figure 3: Social media potential reaches, according to keywords (source: Talkwalker)

Country	Downloads (until 31.08.2023)
Austria	8,597
Croatia	3,892
Czech Republic	4,567
Denmark	26,552
France	11,898
Germany (without ToxFox)	35,050
Greece	2,991
Latvia	838
Luxembourg	2,215
Poland	5,158
Portugal	4,119
Sweden	27,510
Spain (data both as partner and as replicator later-since August 2022)	825

Point of reference	Number	
AskREACH app downloads (in all MS)	ca. 147,000	
ToxFox downloads before launch of AskREACH campaigns	ca. 1,750,000	
ToxFox downloads since launch of AskREACH campaigns (in May 2019)	ca. 750,000	
Sum of downloads (AskREACH and ToxFox) during project period	897,000	
Total sum of downloads (AskREACH and ToxFox)	2,647,000	

Table 8: Number of app downloads, with ToxFox

#### **Replication countries and others**

Belgium (since July 2023)	61
Bulgaria (since July 2023)	5
Estonia (since 01.11.2020)	321
Hungary (since February 2022)	1,173
Lithuania	591
Serbia	10,679
Total	147,042

Table 7: Number of app downloads (without ToxFox) and geographic distribution

By August 31 2023, users of the app had scanned close to 290,000 barcodes and 1,603 articles were searched via the web app, a value that remains well below expectations (projected at 31.2 m., indicator 3). This corresponds to approx. 108,000 individual articles scanned (projected at 24.96 m., indicator 4). Scanning does not yet involve interaction between the consumer and a company. In terms of impact, therefore, the number of SVHC requests sent is more relevant. By the same date, the system documented 49,965 requests sent. Comparing the rates of scans ending up as requests over a long period shows that the project could improve its performance remarkably, starting at less than 10% in the beginning and ending up with over 50% at the end (Figure 4). However, the high share of requests also means that in all of these cases the database could not provide the requested article information to the scanning consumer. The numbers mentioned so far include the ToxFox numbers since its connection to the AskREACH system, i.e. from 01.01.2022 to 31.08.2023.



Figure 4: Scans and Requests total in all countries 2019-2023

The more supplier contact data is available via the Scan4Chem app, the easier it is for users to create the request, and the higher the chances of users sending requests. Given the very low number of companies registering in the SFE, manually adding company contacts to the system became a significant part of the partners' maintenance work. As of August 31 2023, there were 363 self-registered suppliers compared to 14,419 manually added contacts. The number of contacts added by Germany was exceptionally high at 8,167. Figure 5 shows that the availability of contacts may have had a positive effect - albeit delayed - on the number of enquiries.



Figure 5: Share of requests in scans for Ger in comparison with suppliers added

In absolute terms, the number of requests remained rather low, which is the prime explanation for the rather low volume of article data available in the database (see details in Section 3.3.2). 57% of respondents in the user surveys state that they receive information on SVHC presence from the AskREACH database in fewer than 50% of all cases after scanning the barcode of an article.28% did find such information in 50% of the cases.

The user surveys showed that the longer the app is on a mobile phone, the less likely it is that it will be used – a general tendency for apps. At least 25% of users who have had the app on their phones more than three months and 20% of those who have had the app for less than three months (but more than a week) use the app at least once a month. In these categories, we can also find 8-9% of users for whom the app is useful on a weekly basis. Looking at the available statistical data, Figure 6 shows identical numbers for requests and unique requesters (users sending at least one request) in the early project period, meaning that these users apparently send exactly one request. In the later project periods, users have sent several requests.<sup>9</sup>





<sup>9</sup> Schenten et al. 2020, 9 provide a more nuanced assessment of requests launched with the ToxFox.

One reason for this were the numerous campaigns the partners carried out during the project. Almost all partners organised contests in which they called on people to send REACH requests with the app to several suppliers. The scanning contests not only increased awareness but also resulted in higher scanning numbers during the period of implementation. Some partners (mostly Austria) worked closely with schools and developed a curriculum for teachers on SVHCs in articles. As young people appear to be very open towards the use of smartphones, the app became a hit among these students.

To reach people, generate awareness for the issue of SVHCs in articles and promote the app, the partners worked together with influencers or conducted TV interviews and features. Whenever partners appeared on TV, it resulted in an increase in app downloads and interaction

with interested citizens via social media, emails and phone calls. However, the increasing download numbers were no guarantee for high scan numbers.

One explanation for the gaps between the actual values as regards downloads and article scans and the targets is that the project overestimated the latter. When deriving the target value, the project used as a starting point the download numbers of the ToxFox. At the time of writing the proposal, ToxFox had been downloaded approx. 1 m. times, which equals 1.23% of the German population. The project used these figures to estimate the download potentials for AskREACH, the tool's use and also its impact on companies. ToxFox at this time was however most famous for its scanning function for cosmetic products.

For these products, different "societal" and legal framework conditions apply compared to the REACH right-to-know. First, most consumers of cosmetic products are very cautious about their ingredients. Second, as a normative response to these societal requirements, EU law stipulates that cosmetic products need a (INCI) list of ingredients to guide consumption decisions. The ToxFox added value was an interpretation of this data to determine whether or not endocrine disruptive chemicals (EDC) are present in the formulation – an issue that received and still receives remarkable media coverage. The app retrieves information from a large product database maintained by crowd sourcing.

After scanning a cosmetic product ToxFox will, in most cases, immediately provide information on the presence of EDCs in this product, which is desired by the already cautious consumer. In contrast, the app to send the right-to-know request is in most cases not a mere "service tool", because the SVHC information is not readily available and has to be requested first. In a number of cases, the consumers even have to research contact data of the supplier before they can issue the request:<sup>10</sup> Looking at the user surveys, around 50% of respondents say the app provides contact data upon scanning less than half the times, a perception that has not changed between the first and the last app survey.

Besides, consumers are not as determined about the issue of SVHCs in articles (Section 3.2.3) in comparison to their caution regarding EDCs in cosmetic products. These are two key differences as regards the mobilisation potential between ToxFox for cosmetics and the AskREACH app that have been underestimated by the project.

<sup>10</sup> This conclusion is backed by the observation that better contact data availability, hence "service", seems to correlate with the number of requests.

#### 3.2.3 Impact on behaviour

The following sub-sections summarise findings from app user surveys and consumer surveys regarding the project's impact in terms of information, perception and practices (Section 3.2.3.1), awareness of SVHCs in articles (Section 3.2.3.2), the REACH "right-to-know" (Section 3.2.3.3), and consumption (Section 3.2.3.4).

#### 3.2.3.1 Information, perception and practices

This first part is dedicated to understanding perceptions, knowledge and actions of consumers and the Scan4Chem users regarding chemical substances of concern in articles.

When evaluating how app users perceive risks related to the presence of SVHCs in articles, it became clear that concern about the presence of problematic chemicals (carcinogenic, toxic for reproduction, harmful to the environment, etc.), usually SVHCs in consumer articles (like toys, shoes, clothes, electronics, furniture, etc.), is very high among the general public and the users of Scan4Chem. This could already be seen in previous studies carried out by the AskREACH project and the Eurobarometer. The fact that more than 90% of respondents in the various rounds of the survey expressed a high to medium level of concern with this issue clearly shows the relevance of this topic for Europeans: 50% were very concerned and 44% were concerned in the third online survey (Figure 7).



Figure 7: In general, do you feel concerned about the presence of problematic chemicals (SVHC) in consumer products (N – 1,035; 3rd round survey)? (%)

Although differences in concern are not apparent when age and education are considered, there is a small difference in terms of gender. In fact, it is more common among respondents who identify themselves as women to express higher levels of concern (very concerned) (Figure 8).



Figure 8: Level of concern about the presence of problematic chemicals (SVHC) in consumer products according to gender (N - 1,245)? (%) – Online Survey

When we consider the relationship between the level of information and the level of concern, there is no specific trend. Therefore, these results point to a generalised concern with the presence of chemicals of very high concern in articles, at least among this particular group, irrespective of the extent of information they feel they have on the subject.

In fact, a clear majority of respondents in the qualitative interviews indicated that they consider the presence of chemical substances as a relevant factor in their purchasing decisions when buying articles such as clothes, shoes, toys, furniture etc. Most consider this aspect regularly (58%), but for a smaller group (13%) this concern is mostly related with specific products. Indeed it is quite common for respondents to express different degrees of concern about chemicals depending on the product. However, there is more interest and concern regarding products that are ingested or used on or close to the skin (such as clothing, cosmetics and especially food) or are intended for children. Those are also part of the main item categories most frequently scanned by app users. Kitchen utensils, shoes and electronics are also among the most frequently scanned items.

The remaining 29% of respondents do not consider the potential presence of chemical substances in articles a priority criterion when purchasing articles in daily life. The reasons range from lack of information or awareness on the risks and what to do about them, to prices (the need to choose products that are cheaper and usually less sustainable), or even the recognition of the limited capacity an individual has to act and control these types of aspects of daily life.

Particularly among those attaching more relevance to considering the presence of chemical substances prior to a purchase, concerns about the impact on health and the environment were the most recurrent answers.

Not all participants were clear when asked about how long they have been concerned about these issues. For that reason, the answers were grouped in broader categories: 15 or more years; 10 to 15 years; 5 to 10 years; and less than 5 years; and also what participants characterised as a "long time" or "for a while", without specifying the number of years (Figure 9).



Figure 9: How long this concern exists? - Qualitative Interviews

The factors initially leading to this concern were, as expected, quite diverse and reflected specific backgrounds and experiences. The general concern about the environment and health issues is still most frequently cited, to justify the interest in knowing more about the presence of chemical substances in articles.

When asked about the most important criteria they consider when choosing a product when shopping, respondents in the qualitative interviews referred to price and quality (Figure 10). Furthermore, they mentioned material, brand, durability, sustainability and origin. When a brand is mentioned, it is often related to its known quality, its reputation or even because of fairtrade issues. Quality is often linked with the durability of a certain product.



Figure 10: Purchasing Criteria (numbers of times mentioned) - Qualitative Interviews

#### 3.2.3.2 Presence of SVHCs in articles

When asked in the online survey about how informed they feel about the presence of problematic chemicals in products, again the large majority of respondents consider that they lack information, with 21% considering that they have no information at all and 57% feeling that they are not well informed. Only 22% consider themselves to be well informed (17% are rather well informed and 5% are very well informed) (Figure 11).



Figure 11: How informed do you feel about the presence of these problematic chemicals (SVHCs) in products (N - 1,030)? (%) – III online survey

Considering the baseline assessment<sup>11</sup>, the project assumed that 14% of consumers in the partner countries are feeling very well or rather well informed about the presence of SVHCs in articles.18% of respondents in the 1<sup>st</sup> survey stated they felt quite informed, and 20% in the 2<sup>nd</sup> survey. The third survey shows again a small increase in the level of information, with 22% stating that they are rather well or even very well informed about the presence of these problematic chemicals (SVHC's in articles) (projected at 28%, see indicator 10a). Although this is only a moderate increase, it is important to highlight it. The interviews in particular show that it is not easy for respondents to feel some kind of control over the situation when it comes to the presence of hazardous chemicals in articles. It is not possible to grasp it with the usual tools (the senses, information on packaging, labels, etc.).The increase is also relevant because the interviewees gave a very positive feedback about the impact of the project (not only the app) on their level of information and awareness. They state that they will use the app as a tool among different strategies to raise awareness. The app is presented as relevant, even for those with a background in chemistry.

<sup>11</sup> Schenten et al. 2019.

"The **app works in a set of other initiatives** that **promote knowledge** about this problem of chemicals. It's a tool, but in the context of other initiatives." (46-60 years, Portugal)

"Yes, I absolutely have. **But not just the app itself**. But to gain some knowledge that there may be some bad chemicals in goods. Once you find out that there is such a thing and hear about it in the media, you react." (20-30 years, Sweden)

"Definitely! I know exactly what SVHC are, to more details, I know more about them now. I know what I should do and avoid as a future mother. I know that various organizations and legislations are working on this. I learned it in a very simple way, a way suitable for a layman." (31-45 years, Czech Republic)

*"I heard about plasticizers years ago. Other harmful substances are rather unknown to me....project AskREACH made me aware of it." (31-45 years, Germany)* 

"Yes, this educational aspect of the app **made me think more carefully about my purchase decisions.** Now I don't just look at whether a product is recyclable but I look a little deeper." (20-30 years, Poland)

"**Because of this project I learned a lot about this.** They never taught us about this in **university** and I think they should have. If chemists don't know about this, who does?" (28 years, Croatia)

#### 3.2.3.3 The right-to-know

The following question of the online survey addressed the right to know, a right that was established in Article 33(2) of the REACH Regulation, which is the basis for the Scan4Chem app. It is therefore important to understand whether the app users already knew of such a right prior to using the app. The results from the third app survey show that almost three-quarters (71%) of the app users participating in the survey had no knowledge of this right before they heard about the app (see Figure 12). Of those that aware of the right to know before using Scan4Chem (29%), most of them got the information from the media (33%), social media (19%), in a professional environment (19%), or through NGO/consumer organizations (10%). These results differ from those obtained in the first app survey, where the professional environment was the most common reason given for previous knowledge on the right to know.

The fact that 29% of respondents state that they knew about their right to know before using Scan4Chem shows that the LIFE AskREACH campaign for consumers has had an impact, making media and social media the most common sources of information on this very relevant citizen's right. Previous studies, for example in Germany, had shown that only 15% of respondents know what the right to know is. However, these studies were conducted with non-representative samples that can be assumed to be more interested and knowledgeable than the general public and were asked more specific questions about the right to know. Although it is difficult to quantify, a response rate of 26% in this category is stimulating to continue the communication work done so far so that public awareness of the right to know gradually increases.



Figure 12: Before using the app Scan4Chem, did you know that every European citizen has the right to ask the producer or retailer, if a product contains any of these problematic chemicals (SVHCs)? (N – 1,020) (%) – III Online survey

Similarly, 24% of interview participants (37 interviewees) were aware of the right to ask. Only 11 of the 37 participants who were aware of this right had already acted on it before downloading Scan4Chem. Of those who mentioned how they used it, some used it through ToxFox app, others sent letters or e-mails to companies, and for some the interactions had been related with work. So, even among those who already knew about Article 33, only a minority got to exercise this right and never on a regular base, a clear indication of the burdensome aspects associated with it.

The project expected, in the baseline assessment, to have 10% of consumers in the partner countries aware of their right to know about SVHCs in articles, considering that even among more aware groups, the numbers are only slightly higher (15% in a German study)<sup>12</sup>. In the 1<sup>st</sup> survey, 26% of respondents state they were quite aware, and 30% in the 3<sup>rd</sup> survey (projected at 35%, see indicator 10b).

But what is also clear, from both the Eurobarometer studies and the interviews, is that there seems to be a generic perception of the 'right to know'. Not the specific right to know as it is laid down in REACH Art. 33, but rather a shared view that producers and retailers have the general obligation to be transparent regarding the products they sell.

Hence, most users did not know of the right before using the app. Those who already knew did so mostly from a occupational background, but many recognised the contribution of the AskREACH project.

"But **I didn't know** about the right to know concerning specifically SVHCs. I did know before that in general we **as consumers have the right to request information from producers** about the composition of the product." (31-45 years, Poland)

"I didn't know there were laws or some EU directives, but as a consumer I felt this was something that should have been available to me." (20-30 years, Croatia)

"I have always been quite rights oriented, I know consumer law, so I thought I would have those rights, but I had not thought about it at all because I thought that EU regulations only allow safe products on our market." (31-45 years, Latvia)

"I did not know this right, and I thought that these substances were not present, being dangerous, they do not have to be in the articles I consume." (31-45 years, France)

"No, and to be honest I thought that what is sold is not harmful by definition." (31-45 years, Luxembourg)

<sup>12</sup> Hartmann and Klaschka (2018).

#### 3.2.3.4 Consumption decisions

One of the underlying arguments to justify the relevance of the app Scan4Chem is the documented interest of consumers in having more information on the presence of SVHCs in articles so that they can make more informed choices and avoid contact with such substances. Therefore, it is relevant to ask app users what they will do if confronted with the information that a certain article actually contains substances of very high concern.

Among the respondents of the survey, the most frequent answer is to clearly say that they would never buy an article that contains an SVHC (50%) (as projected, see indicator 18). For 23%, it will depend on the product. For 18% of respondents, looking for an alternative would be the first option, but if they could not find it, they would buy the article despite the presence of such substances. It is also worth noting that only 1% claim that despite having the information about the presence of SVHCs in an article, they would buy it as usual, which shows that knowing about the presence of such substances in articles triggers the need for consumers to reflect on their purchasing behavior, even if the final decision can vary (Figure 13).



Figure 13: If you find out a product you are about to buy contains these problematic chemicals what do you do? (N - 1,029) (%) – III online survey

Among those stating that they would never buy a product that contains SVHCs, it is far more common to find women (54%) than men (39%). Conversely, men are more likely to buy the product if no alternative is available (27% versus 18%).

Opting not to buy a product that contains SVHCs is also more common among people between 31 and 60 years old (53% from 31 to 45 years; 48% from 46 to 60 years), whereas younger people (38%) and older people (29%) chose this option less often.

Among participants, there is a widespread recognition of the influence of the project and the app on their shopping behaviour. Users acknowledge an increased awareness about chemicals in products, but are also conscious of the limitations of the app.

"Yes, it has had an **influence on my knowledge** of categories of substances and **made me more aware** when looking for and **purchasing products**." (31-45 years, Luxembourg)

"Yes, yes, yes. I think this is a plus of **knowledge towards being able to decide**, of course." (+60 years, Spain)

"It influenced me in the case of **kitchen utensils**, now I would probably focus on **more trusted and higher quality products**." (20-30 years, Czech Republic)

"They influenced a lot. **I was not aware that the problem** of chemicals was so present. Almost everything we come into contact with in our daily lives, be it packaging, batteries, treatment given to materials that may be natural, but are then chemically treated... it is an extremely widespread problem and **has definitely influenced the way I consume**." (46-60 years, Portugal)

"Yes, in the way that **I question what I buy**... Can I look the product up in an app or online. I often tell my friends that they **have to check their products** with the apps." (31-45 years, Denmark)

"The **45 days is actually a problem**, normally I don't wait that long until I buy something. Because if the answers are already in the database, it is really helpful, because then I can get information within a short time, that there is no problem with a product." (46-60 years, Austria)

So far, the results presented closely follow previous studies done on these issues, showing great concern among Europeans about the presence of SVHCs in products, the recognition that they lack information about it, and that although they are not very knowledgeable of their own right to information, most are willing to act if they come into possession of such information.

### 3.3. Activating article suppliers

The project has made great efforts to raise awareness among article suppliers (Section 3.3.1). However, due to rather low consumer pressure, besides some external factors (Section 2), the numbers of suppliers using the AskREACH tools remained well below expectations (3.3.2), which also affected the project's impact on REACH Art. 33 compliance (3.3.3), on costs of SVHC communication (3.3.4), market developments (3.3.5), and on SVHC substitution (3.3.6).

#### 3.3.1 Reaching out to companies and capacity building

The partners organised more than 860 events to raise the awareness of suppliers (projected at 200, indicator 13) about their REACH Art. 33 obligations and how AskREACH can support the implementation. This includes conferences, webinars, industry newsletters, and journal contributions. In these events, the partners at least approached 6,110 article suppliers (projected at 2,000, indicator 24) inviting them to use the project tools. Moreover, nearly 1,600 individuals from companies have received training regarding Art. 33 compliance, supply chain management, or the use of the AskREACH tools (projected at 350, indicator 28). The strong increase in willingness over the course of the pandemic to participate in webinars, which are less burdensome than participation in physical events, made it possible to achieve these values (see Section 2). The training sessions were of particular interest to the companies when the information on Article 33 REACH was combined with information on other relevant EU legislation (cosmetics and biocidal products).

Targeted emailing was quite successful in creating a closer relationship with the companies and, therefore, higher impact for the project, like the registration of the company in the database or participation in other activities. It could include partners to prepare companies for certain actions, such as upcoming scanning campaigns. Getting in touch with article suppliers was particularly effective after chemical testing of their articles. It was a good starter for communication that led in a few cases to the withdrawal of the articles from the market but also to the registration of other articles in the database. In addition, the publication of the testing results was always a good

communication tool to raise awareness and attract further companies in general. Collaborating with certain multipliers can help to build trust with a new network of companies. For example, through the collaboration with the Centre of Chemical Substitution in Sweden to organise an event on their platforms, the project benefited from their large audience. The same applied when communicating the findings and news to different national multipliers. As a result, this has been a powerful means of extending outreach to businesses.

#### 3.3.2 Uptake and use of the AskREACH tools

By August 31, 2023, 38,587 suppliers had received 49,965 requests, i.e., statistically 1.3 requests per supplier. Section 3.2.2 develops hypotheses for the limited app user activities. Lack of consumer activity in turn reduced the incentive for companies to adopt and use the AskREACH tools.<sup>13</sup> By the said date, the database contained 52,567 article entries and declarations for barcode ranges covering 12.5 m. barcodes (projected at 6.26 m., indicator 7). This data was provided by 363 companies. This rather low number is in strong contrast to the 19,613 suppliers responding to consumer requests without providing data to the database.

Compared to the projected 150 article suppliers providing individual answers to consumer requests without storing information in the database (see indicator 6) 19,613 appears to be a stunning out performance, however, the low target value can be explained with an assumption of how the system would work that later turned out not to be feasible. When writing the proposal, it seemed appropriate to define the answer to the consumer request via database as the default option. The advantage of this option is that it increases incentives for companies to fill the database with article information. However, the companies have sole responsibility for the correctness of the data they store in the AskREACH database and they have to update this data regularly. They have to register in the database before they are allowed to upload any data. Their registration has to be verified by the AskREACH regional administrators so that no impostors can register. Given the limited number of consumer requests it is more resource intensive for companies to upload and regularly update data in the AskREACH database than to respond to the requests directly by email. Finally it would be questionable from a legal point of view to set the response via the database as a default. Due to all these reasons, it was not possible to set this default so direct emails without leaving information in the database became companies' preferred way of answering requests.

50 companies performed bulk uploads of 200 or more articles, and an additional 20 companies used the barcode range declaration (see definition in Box 1). More than 12.5 m. barcodes have been declared. The actual number of articles behind those declared barcodes could potentially be 12.5 m. Yet, inquired declaring companies estimate that actual article numbers are high while not that high. It thus seems appropriate to allocate the barcode range declarers to the bulk uploaders. All in all, 70 companies used the option of uploading large amounts of information (projected at 100, see indicator 5).

#### 3.3.3 Compliance with REACH Art. 33

Lack of practical implementation of and lack of compliance with REACH Art. 33, was one of the reasons to develop the AskREACH project. ECHA reported in 2016 about "clear indications that the information on substances is not adequately communicated in the article supply chains"<sup>14</sup>. At the beginning of the project, a baseline assessment was conducted to better understand the scale of the problem. Of the 183 companies participating in the baseline survey, only 47% felt at least rather well informed about the presence of SVHCs in their own articles. Of the companies

<sup>13</sup> Cf. on costs section 3.3.4.

<sup>14</sup> See ECHA 2016, 120.

that had received SVHC requests, nearly half did not have the information required to provide an immediate response in most cases.<sup>15</sup> Meanwhile, quantitative data from market surveillance is available.<sup>16</sup> Notably, an ECHA FORUM pilot project involved 15 Member States on the harmonised enforcement of substances in articles provisions. Authorities inspected 682 articles, of which 55 contained SVHCs above 0.1% w/w. For these 55 articles, the information obligation was fulfilled in 24 cases and not fulfilled in 31 cases (56%). With regard to companies, 43 were obliged to answer, of which 21 complied with this obligation and 22 (51%) did not.<sup>17</sup>

AskREACH aimed to contribute to increased compliance among those suppliers uploading article data or being addressed by consumer requests sent with the app (projected 20% increase, see indicator 11). To gain insights in this respect, the project took two approaches, although both have certain drawbacks. First, the share of answered consumer requests can be seen as an indication of compliance behaviour.



Figure 14: Number of requests sent and number and percentage of requests answered by suppliers for all AskREACH countries



Figure 15: Number of requests sent and number and percentage of requests answered by suppliers for Germany

<sup>15</sup> Schenten et al. 2019, 7, 28.

<sup>16</sup> Market surveillance focusses mostly on high risk articles or materials and targets only a few SVHCs. Findings from market surveillance therefore do not usually allow to draw general conclusions on the situation of articles on the EU market.

<sup>17</sup> ECHA 2019. See also the summary on Art. 33 implementation at European Commission 2020, 30.

Suppliers are only obliged to answer a consumer request where the article in question indeed contains an SVHC above the 0.1% w/w limit. At least that is how the enforcement authorities currently interpret Art. 33. Therefore, a missing reply to a request by no means constitutes evidence of non-compliance.

Figure 14 shows for all project countries (total), an increase in the number of requests answered in absolute numbers and in relative terms in the course of 2019 to 2023, in relation to the number of requests (except for the last period in 2023). This trend is even clearer when looking at the values for Germany (Figure 15). The increased numbers of replies shown in Figure 14 and Figure 15 are most likely (also) illustrative of the two positive trends intended by REACH Art. 33, namely that suppliers of articles with SVHCs become more compliant and that suppliers of articles without SVHCs become more proactive.<sup>18</sup> As for Germany, where the positive trend is particularly visible, the project is confident that the company's campaigning activities (Section 3.3.1) had their intended effects. In recent months, unfortunately, the trend is reversing again. We will continue to monitor this in the After LIFE phase and try to counteract it.

The second approach to gaining insights into compliance behaviour relates to chemical testing. The different partners purchased products reported in the AskREACH database and products from the EU-market and had their content of SVHCs analysed by an accredited laboratory<sup>19</sup>, based on jointly developed criteria. The testing action was closely linked with the campaigns, which therefore guided the selection of sample products. Generally, these tests could only constitute random checks that are meant to create credibility linked to evidence rather than statistically valuable data. In the course of the project, the focus of the testing activities shifted more towards testing non-database products from the EU-market, mainly for two reasons: There were difficulties with buying articles from the database (i.e. very small numbers of articles being entered in the database in the first years, and very limited availability of these articles in (online) shops), and the campaigns greatly benefitted from testing products from the open market (Table 9).

Series	Product focus	Time	Inspected	No	Articles	Test
		ITAILE	articles		SVHCs	report
1	Christmas decoration and artificial Christmas trees 31	01.11.2019- 31.12.2019	DB articles	0	-	Link
			Non-DB articles	26	13	
2	Sport articles	1.9.2020- 31.1.2021	DB articles	0	-	Link
			Non-DB articles	82	9	
3	Database articles	1.9.2021- 31.1.2022	DB articles	49	0	<u>Link</u>
			Non-DB articles	0	-	
4	Database articles & Sum- mer-related products (gardening, swimming and DIY products)	1.4.2022- 31.7.2022	DB articles	25	1	<u>Link</u>
			Non-DB articles	106	10	
5	Fairy lights	1.10.2022- 31.1.2023	DB articles	0	-	<u>Link</u>
			Non-DB articles	11	4	

Table 9: Overview and results of AskREACH article test series

<sup>18</sup> Note that the responses also contain auto-responders ("Thank you for the email"), which could not be extracted for technical reasons.

<sup>19</sup> Only in the trial round (first round) a different, but also accredited laboratory conducted the tests.

A consumer "right to know" request predated any of the article tests. None of the supplies of articles with SVHCs above 0.1% w/w provided this information to the enquiring consumer. Therefore, the project assumes<sup>20</sup> all the articles in which SVHCs have been detected are noncompliant. The results indicate high compliance of the articles uploaded to the database, with only one of the 73 tested articles assumed non-compliant. However, tests of the nondatabase articles create a mixed picture with assumed non-compliance rates of 10% to 50%. Furthermore, the test reports reveal additional compliance issues regarding, for example, REACH restrictions, RoHS, and the POPs Regulation.

The project also expected contributions to increased compliance rates of suppliers participating in the Material Data System

#### 3.3.4 Costs of SVHC communication

At the time of planning the project, most companies did not receive a relevant number of SVHC requests from consumers. The project expected that these numbers would rise in the countries where the AskREACH app became available. For companies uploading their article data to the AskREACH database and (MDS) towards traceability case studies subject to the supply chain action (projected at 40%) increase, see indicator 12). Traceability of chemicals shall mean the capacity of companies to trace back chemicals present in products. The MDS approach supports companies in this capacity, by facilitating SVHC data flows in the supply chains using IT solutions. Due to a lack of maturity on the part of the industry, the practical implementation of the case studies addressed another operational level that was less detailed than initially planned. The case studies, therefore, rather showed the general feasibility of the MDS approach towards traceability but did not allow for identifying non-compliance. Furthermore, as one of the drivers in the discussions towards cross-sector governance of supply chain communication, the project focus took a new direction (see Section 4.1).

thereby avoiding the individual processing of large numbers of consumer requests one by one, the project assumed a 30% reduction of communication costs (see indictor 8). A retailer from Serbia outlines its REACH Art. 33(2) process that at the same time appears representative for larger companies:

"[...] all these requests [...] arrive at the office, then the person from the marketing who processes the complaints, forwards the request to us [= Sustainability and Environmental Protection Department]. Then we contact our commercial department to have them check that with their supplier, because we do not have contact with that supplier. After that, they forward the request to the supplier, give us feedback, and then we respond to the consumers."

Similar to the findings from the baseline assessments,<sup>21</sup> the empirical data indicates that companies are struggling to determine the costs of SVHC communication, separated from other costs incurred by chemicals management activities (e.g., product tests, other services). In almost all cases, the staff in charge of SVHC communication does not do this exclusively, so that allocating working time costs to this specific task is challenging.

<sup>20</sup> The project partners are not legally entitled to determine compliance.

<sup>21</sup> Schenten et al. 2019, 30.

The rolling SFE survey asked companies to "estimate the actual or conceivable cost savings enabled by the AskREACH database". Responses received show that there is uncertainty as to the answer (6 state "don't know"), and that companies expect no impact (6 answers) or a little impact of less than 5% (3 answers).<sup>22</sup> This is not surprising because, given the low consumer activities, respondents could not experience or expect high costs incurred by progressing individual consumer requests. Given the very low participation rate, these numbers need to be interpreted with caution.

The feedback from the qualitative interviews is more optimistic, to the extent that one half

of the interviewees can imagine cost savings enabled by the project tools. Some also expect communication costs to rise in future. For now, many of them, however, believe that when only a few consumers are sending requests, it is more cost-effective for companies to reply to them individually instead of uploading information in advance and then having to update this regularly.

The number of requests needed before a company identifies proactive data upload as the more cost- effective option depends on many factors, particularly the number of articles potentially in question and the number of staff working on consumer communications. Retailer from Denmark (nearly all article categories):

"We do not find that it is in any sort of way worth it to upload all articles to the database. It would be much heavier for us. When you think of all the articles in just one of our stores – that is a lot of articles to handle twice a year and this year we've only had 25 requests from January till now, that's all. So that is a far easier process to reply to each than having to keep the database updated."

A large retailer from Austria reported having received' 84 requests in 2020: 30 for the packaging of food and drugstore products and 54 for articles (and their packaging). It received some of these requests via Scan4Chem. The company does not think the tools provided by AskREACH could (potentially) help reduce costs. According to the company, the costs incurred by requests vary greatly depending on the product category and the involvement of the suppliers.

In the interviews, a retailer (of books, office supplies, games and toys) from Denmark estimates the costs of its business to process and answer a consumer request at roughly 1,000 dkk (approx. EUR 135). The involvement of upstream suppliers can be a major cost factor. Companies that are aware of REACH Art. 33 usually implement policies in their supply chains relevant for SVHCs to the effect that suppliers have to declare that these substances are not used in supplied products or are not present above certain thresholds. The interviews showed cases where companies, on the one hand, referred to these approaches when asked about their management of SVHCs. The same companies, on the other hand, might send articles subject to a consumer request to the lab for chemical testing. For example, one company claimed to rigorously send every article subject to a request to the testing lab, each time incurring costs of EUR 1,000-2,000 for a child's shoe. This approach reveals that companies are not confident concerning the SVHC related declarations they are collecting from their upstream suppliers and that the quality of supplied products and parts is not as well documented. Moreover, this approach appears manageable only when there are a low number of requests or of articles offered by the supplier.

<sup>22</sup> No participant chose the options 5% to 15%, 15% to 25% or 25% to 35% of cost savings.

Of course, the AskREACH article database cannot help to reduce these testing costs. In contrast, the MDS approach towards traceability used in the supply chain action is expected to allow for cost savings in the long run. The idea behind this approach is that companies get to know all chemicals present in their articles, which allows them to monitor regulated substances, e.g., SVHCs. The MDS tool tested in the project provides for plausibility checks of supplied data and supports upstream supplier evaluations (determining the risk that upstream suppliers deliver articles containing SVHCs or make incorrect declarations). Having this kind of information readily available reduces testing needs and thus allows for cost reductions. The

#### 3.3.5 Article sales

The idea of REACH Art. 33(2) is that consumers refrain from buying articles with SVHCs >0.1% w/w when equivalent articles without or with < 0.1% w/w SVHCs are available. Seeking to increase transparency of SVHCs, the project expected the sales of articles containing SVHCs > 0.1% w/w to decline by the end of the project (projected at 20% see indicator 18). As a complementary trend, the project expected an increase of sales of articles without SVHCs above 0.1% w/w (indicator 21).

To generate empirical insights, the project sought to contact companies that uploaded articles with SVHCs to the database, and compare sales data from the moment of upload to the end of the project. As of December 31, 2022, 9 companies uploaded data on 103 articles that do contain SVHCs above 0.1% w/w. While two companies out of the six accepted the project's interview inquiry, both could not provide evidence as to whether the SVHC status had an impact on sales.

project aimed to have an effect on the costs to manage chemicals used in articles at the companies testing the approach in the project (projected at 5% cost reductions, indicator 9). However, the practical implementation of the case studies ultimately operated at a different level. The lack of maturity in the industry meant that the case studies tended to demonstrate the general feasibility of the MDS approach to traceability. It was therefore not possible to make concrete assumptions about potential costs and cost savings. Furthermore, as one of the drivers in the discussions towards cross-sector governance of supply chain communication, the project focus took a new direction (see section 4.1).

It is reasonable to assume that the extent of the effects on article sales will correlate with article categories. Companies in the interview mentioned the following categories as standing more or less in the spotlight when it comes to SVHCs: textiles, apparel, toys, furniture, food contact materials, child care articles and articles for very vulnerable people and, those that come into direct contact with skin.

This perception of the companies is in line with the findings of the consumer surveys. When app users were asked in the qualitative interview about the specific products they use the app for, some of the article categories they mentioned were toys/children's products, clothes, shoes, kitchen supplies/ products, electronics, furniture/ home appliances, textiles, sports supplies/ products and some did not report a specific category they use it for (Figure 16).



Figure 16: Categories of products used in the app (number of times mentioned) – Qualitative consumer interviews

When company interview participants were asked if information of consumers about hazardous substances in an article could trigger a decline in sales of that article, almost all **company interview** participants answered this question with "yes" (N=9). The same number of interviewees answered "yes" when asked whether information from consumers about the absence of hazardous substances in an article could trigger a (positive) change in the sales trend of that article. SVHCs fall into the scope of hazardous substances, whereas the interviewees do not expect special effects with regard to these substances. When sharing their expectations, most interviewees had particular "sensitive" article categories in mind (Figure 16). Some interviewees, while acknowledging the likely sales trends at the same time state that these may depend on the consumers' capacities, which can be challenged in times of increasing energy prices, for example. When asked if there are differences between countries, most agreed that consumers in Western and Scandinavian countries have higher quality requirements and more money to spend.

Small surveys implemented at the AskREACH "Compliance Digital" conferences hosted by UBA illustrate clear expectations among the participants (mostly from company representatives) that in the future sales trends for articles with and without SVHCs will change. As for the question of how participants observe the current sales, the figures show a rather mixed picture (Figure 17-20).



Figure 17: Mentimeter survey 1, 2021-10-21 (N=20)



Figure 19: Mentimeter survey 3, 2022-09-07 (N=18)



Figure 18: Mentimeter survey 2, 2022-03-10 (N=67)



Figure 20: Mentimeter survey 4, 2022-12-01 (N=19)

Overall, the empirical data suggest that companies expect sales trends to decrease for articles that contain SVHCs above 0.1% and to increase for articles that contain SVHCs below 0.1%. This is especially true for some sensitive item categories. In terms of the desired market

#### 3.3.6 Substitution

"Substitution of SVHCs" refers to various scenarios, all of which have the same outcome: a reduced amount of SVHCs present in a particular article. This could be done by substituting SVHCs with other, less hazardous substances or by applying alternative technologies<sup>23</sup> and materials. Market advantages in providing high-quality and more sustainable products, improved worker health and air quality at production sites, and minimised amounts of hazardous waste are motivators for companies to initiate chemical substitution. For SVHCs in articles, transparency rules pursuant to REACH Art. 33 (and WFD Art. 9(1)(i)) and the eventual inclusion of SVHCs in REACH Annex IVX with substances subject to authorization are legal substitution drivers.24

By pushing the transparency mechanisms of REACH Art. 33, the project is expected to have an impact on the substitution activities of companies. It aimed at a certain number of article suppliers had initiated or carried out substitution of SVHCs (projected at 25, see indicator 19) affecting certain number of articles (projected at 1,000, see indicator 27).

Assessing the project's effects on substitution is methodologically challenging, though, not least due to the lengthy substitution process, which usually exceeds the 5-year time frame (in which AskREACH operated).<sup>25</sup> On the other hand, early announcements of the project idea might already have had a pre-effect on substitution activities, which are not possible to detect. conversion, this is already a success, which is partly due to the AskREACH project, which has helped raise awareness about REACH Art. 33. To what extent this perception has an impact on article design and the handling of SVHCs remains to be seen.

One assessment approach refers to monitoring articles in the AskREACH database i.e. the project could identify articles that switched from an SVHC positive status to a negative status, thereby indicating substitution activities. As of August 31, 2023 the database contains entries for 52,567 articles and barcode range declarations for over 12.5 m. barcodes. Of these, according to the information provided by the suppliers, only 125 contained SVHCs above 0.1% w/w. In all of these cases, the positive SVHC status remained static. Neither did the case studies of the supply chain action identify SVHCs that could have become another starting point for monitoring.

It should be noted, though, that the product tests commissioned under the project (Section 3.3.3) resulted in some products being withdrawn from the market (three each for Austria and Czech Republic, one each for Luxembourg, Poland and Sweden).

In the series of interviews, the companies did not expect the project to have an impact on their own or other companies' substitution activities. Two interviewees regard such impacts as rather likely – if the project increase its visibility.

<sup>23</sup> ECHA 2018, 5.

<sup>24</sup> ECHA 2020, 18 et seq.

<sup>25</sup> ECHA 2020, 24 et seq.

In the company interviews, the project also sought to better understand its effects on the extent to which SVHC identification triggers substitution. Most of the companies are trying to avoid SVHCs by defining relevant specifications that they expect to be followed by their upstream suppliers, e.g., ban on SVHCs, ban on SVHCs above 0.1% w/w, or a ban on SVHCs above 0.1% w/w for which safe use instructions that would go beyond telling the name of the substance must be communicated. How rigorous companies' SVHC policies are designed depends on various factors, notably the specific company strategy, the product category, and how companies perceive consumer attitudes in these sectors (Section 3.3.5), the availability and prices of substitutes, and whether these could compromise the properties and features

## **4. SOCIO-ECONOMIC IMPACT**

The prime objective of AskREACH is to improve information and communication as regards SVHCs in articles in order to enable industry and consumers to avoid these substances in production and consumption. To this end, it has developed a number of activities that are beneficial to society. These are, in particular, its merits in creating and implementing a

#### 4.1. Governance towards traceability of chemicals

Industries are facing new challenges from

- communication of substances in articles arising from customer demands,
- information requirements under the REACH Regulation,
- SCIP,
- other legislation in the EU and around the globe,
- as well as from the normative objectives to achieving a non-toxic, resourcepreserving, and climate neutral circular economy, as outlined by the European Green Deal.

of the product. Suppliers of toys or clothing for children or articles marketed as "ecological" usually follow a zero-tolerance approach towards SVHCs. Suppliers of electronics, in contrast, are accepting some SVHCs in their products, citing a lack of alternatives.

A remarkable detail is that none of the interviewees confirmed that their approaches to managing SVHCs takes earlier signs in the process of SVHC identification into account, such as an entry in the public activities coordination tool (PACT)<sup>26</sup> or in ChemSec's SIN-List.<sup>27</sup> Besides, all companies apparently lack capacities to evaluate the overall impact of chemical substitution, i.e. there are no mechanisms in place to avoid regrettable substitution.

governance framework for future-proof supply chain communication on substances in articles (Section 4.1), improving the competitiveness of article suppliers (Section 4.2) and, in connection with the two aforementioned aspects, the substitution-friendly innovation atmosphere that the project has created in society (Section 4.3).

Against this backdrop, the LIFE AskREACH supply chain action<sup>28</sup> aimed to test a substances in articles supply chain communications approach towards traceability of chemicals in articles: all suppliers shall report the chemicals present in (parts of) articles delivered, which is often referred to as a Full Material Declaration (FMD), as well as chemicals used during production in a MDS. This approach, which allows the companies requesting data to know the chemicals in their articles marks a shift in paradigm compared to usual supply chain communication approaches, based on compliance declarations provided by the upstream suppliers that certain chemicals are

<sup>26</sup> See <u>https://echa.europa.eu/de/pact</u>.

<sup>27</sup> See the list of candidate substances for the SVHC candidate list here: <u>https://sinlist.chemsec.org/</u>.

<sup>28</sup> See https://www.askreach.eu/supply-chain-tool/.

not present in the article above a certain level. In contrast, once they have the traceability data, companies do not need to chase upstream suppliers to provide new compliance declarations every six months when the REACH Candidate List and other regulatory lists are updated. Instead, the company's IT system can use the materials and substance information in the FMD system to calculate compliance against the substance categories in any declarable substances list (e.g. REACH, RoHS, etc.), both now and in the future, and report them in a compliance declaration.

Besides the introduction of SCIP into the WFD, the activities of the AskREACH supply chain action have been one of the triggers to initiate the Proactive Alliance<sup>29</sup>, a central player to push cross-sectoral governance of substances in articles communication (Section 4.1.1). Besides, the project promoted the issue of chemicals traceability in the context of Green Deal policy development (Section 4.1.2).

#### 4.1.1 Cross-sectoral governance of supply chain communication

AskREACH partner organisation and supply chain action lead research group sofia has been moderating this process. In the Proactive Alliance, representatives from industry and trade are working together in anticipation that inter-sector cooperation based on a common agreement will reduce the burdens placed on supply chain actors in terms of substances in articles communication.<sup>30</sup>

The group acknowledges that the more data demands are based on a common understanding, the stronger is the voice of the various sectors in obtaining a sufficient level of information from their upstream suppliers. The Proactive Alliance brings together representatives who view themselves as global players from various sectors, including chemicals, electrical and electronics, furniture, home textiles, textiles and sporting goods, medical devices, and insulation. In addition, a number of representatives from sectors such as automotive, aerospace and defence, and metalworking and metal articles have contributed as observers to the efforts of the Proactive Alliance. The Proactive Alliance participants have the joint aim of reaching cross-sectoral harmonisation on how to report on substances in articles along the supply chain at a global level.

In January 2021, the Proactive Alliance achieved its mission by releasing<sup>31</sup> a discussion paper with technical recommendations. The report discusses options for the harmonisation of criteria for Substance Reporting Lists (SRL) harmonisation of material reporting and standards. It is the vision of the group to ensure that any standard not only supports Regulatory Compliance Declarations (RCD) for regulatory obligations but is also compatible with reporting based on FMD, with a view to reducing the burden of complying with regulations on hazardous substances and creating values.<sup>32</sup> During its working period, the Proactive Alliance already supported the IPC-1752 standard to evolve into a global crosssector standard that is applicable to products across all industry sectors. In particular, Proactive Alliance participants have contributed to the development of the IPC-1752B standard that allows any company in any industry to exchange information with their supply chains in a format, which matches the data requirements of the ECHA SCIP database.33 Besides, Proactive Alliance participants are involved in the development of a new global cross-sector material declaration framework based on a new ISO standard (ISO 82474). This ISO standard is drafted<sup>34</sup> in the context of the IEC-ISO dual logo 62474 project.<sup>35</sup>

<sup>29</sup> Stringer 2018.

<sup>30</sup> See <u>www.proactive-alliance.info</u>.

<sup>31</sup> Proactive Alliance 2021.

<sup>32</sup> Proactive Alliance 2021, 11.

<sup>33</sup> Proactive Alliance 2021, 34.

<sup>34</sup> See https://www.iso.org/standard/85487.html.

<sup>35</sup> Proactive Alliance 2021, 36.

#### 4.1.2 Theory of Change for traceability

The EU Green Deal outlines a strategy that aims to transform the EU into a "modern, resourceefficient, and competitive economy where there are no net emissions of greenhouse gases in 2050"<sup>36</sup>. In the transition towards a resourcepreserving "clean and circular economy"<sup>37</sup> that is capable of avoiding risk cycles of (legacy) substances of concern, enhancing management and control of chemical substances in materials and articles will be key: Trustworthy traceability of chemicals along supply chains is one central enabler for a non-toxic, resource-preserving, and climate neutral circular economy.

Deal<sup>38</sup> Policies implementing the Green directly or indirectly touch upon the issue of traceability. They are developed in parallel to each other, and it is challenging to anticipate the impact and interplay across the policy fields. Thus, it is critical to gain a thorough systemic understanding of how the building blocks may interact to create the required traceability of chemicals - and how this translates into benefits for the actors along circular value chains. To this end, AskREACH conducted a Theory of Change workshop from May 31 to June 1, 2022 in Brussels with invited decision-makers and experts from EU industry and trade associations (raw materials, technology, furniture, and foreign trade), market leader brands (textiles and furniture), EU administration (European Commission) and Member State authorities (Austria, France,

Germany, Luxembourg, and Sweden), NGOs (waste and environment), and researchers.

The workshop aimed to explore how Green Deal policies influence each other in order to gain a better understanding of the necessary steps towards the vision of a non-toxic, resource-preserving, and climate neutral circular economy. In addition, the process of the workshop should motivate the participants to carry the insights forward in their area of responsibility and to initiate concrete change processes towards the commonly shared understanding of challenges.

The process and results are documented in a workshop report.<sup>39</sup> One key outcome of the process is that the participating organisations, representing many different interests and sectors, agree that traceability of chemicals is a key enabler for the circular economy. In order to implement this vision, specific steps have been defined for the legislators and industry to set frameworks that ensure the information flow throughout the entire circular value chains and that information is collected and targeted to the specific needs of the respective actors, ranging from downstream businesses, consumers, and authorities. The process thus creates impetus for the recommendations by the Proactive Alliance. The participants are willing to support the results of the workshop and to distribute them in their networks.

#### 4.2. Business opportunities through improved competitiveness

AskREACH contributed to the enhanced competitiveness of companies in the EU by building up SVHC management capacities, establishing new communication channels and routines and enhancing companies' performance in REACH Art. 33 implementation. Enhanced competitiveness may offer business opportunities to companies. The AskREACH company campaign reached thousands of article suppliers. Many of these were not aware of their legal obligations under REACH Art. 33 until they received information or even training from the project partners (Section 3.3.1). The data collected indicates that companies' response behaviour to consumer requests improved (Section 3.3.3), which should put them in better favour with

<sup>36</sup> COM(2019) 640, 2.

<sup>37</sup> COM(2019) 640, 7.

<sup>38</sup> E.g. Circular Economy Action Plan (CEAP), Chemical Strategy for Sustainability (CSS), Sustainable Product Initiative (SPI)

<sup>39</sup> Schenten et al. 2023.

consumers. Furthermore, the supply chain communication approach towards chemical traceability as put forth by the project provides leverage to enhance competitiveness in many ways (reduced compliance costs, improved article design, substantiation of green claims, etc.).

The strategy of many article suppliers is to offer articles that do not contain SVHCs. AskREACH provides a platform for these companies to improve their customer relationships and further develop their product brands, as has been confirmed in the interview series.

The small amount of collected data does not allow general conclusions to be made about (potential) cost reductions enabled by the AskREACH system for the mass of article suppliers. Given the limited consumer activities requesting SVHC information at the moment, it is likely that responding to the consumer case by case is more cost-effective than proactive uploading of article data (Section 3.3.4). However, since substances in articles may not only harm consumers and the environment, but also constitute a central barrier to circular economy business models (Section 4.1.2), emerging EU Sustainable Product Policies put a strong emphasis on this topic. Initiatives such as the Digital Product Passport, set out to be required<sup>40</sup> for the first product groups in 2024, are expected to push both, data driven consumption and awareness of SVHCs among consumers and industry. Hence, increased use of the AskREACH tools is a realistic future scenario, and companies will be able to cut costs by uploading their article data, avoiding the need for them to answer consumer requests.

The project creates structural benefits for companies avoiding SVHCs, perhaps including, job security. While it was not possible to evaluate direct effects on job creation, some observations have been made. The AskREACH campaigns enabled learning for many companies that were not aware of their legal obligations pursuant to REACH Art. 33, both regarding consumer communication and the duty to properly organise information flows in the supply chains. Many companies reacted by creating new roles for their staff, which might already have influenced decisions to hire new people. More importantly, however, the project observed a massive need for job creation in an industry where many downstream users lack chemical expertise. It is concerning that some 15 years after REACH cam into force some downstream sectors still do not accept the responsibility for active chemical management that follows from the economic activity of placing (consumer) articles on the market. Many are not even competent to check the plausibility of compliance declarations provided by their upstream suppliers. Companies can only "muddle their way through" because REACH provisions on articles are rarely enforced. It is therefore paramount that Member States allocate appropriate resources to enforcement agencies so they can fulfil their tasks as set out in REACH Art. 125 and 126. AskREACH has frequently raised the issue of enforcement deficits, notably in the network of **REACH** Competent Authorities.

<sup>40</sup> Cf. the draft Ecodesign for Sustainable Products Regulation COM(2022) 140 final.

### 4.3. Innovation environment

With its various activities addressing consumers, article producers, and suppliers, as well as supply chain actors and the policymakers, the project created a substitution-friendly innovation environment. The benefits of substitution were one focus of the communication strategies in the campaigns.

The AskREACH database contains over 50,000 articles and millions of barcodes for additional articles, of which more than 99% do not contain SVHCs above 0.1% w/w. This is showing the consumer the availability of such products thereby reinforcing preferences to buy products with SVHCs at levels below 0.1% w/w. This message to society at the same time creates incentives for article suppliers to avoid SVHCs.

The empirical data suggest that companies expect changing sales trends favouring articles with SVHCs < 0.1% w/w (Section 3.3.5). This is especially true for some sensitive item categories. In terms of the desired market conversion, this is already a success, which is partly due to the AskREACH project, which has helped raise awareness about REACH Art. 33.

Supply chain communication towards traceability of chemicals, as advocated by the project, would not only enhance compliance but also reduce transaction costs. Rather, knowing the chemicals in articles opens new perspectives for research and development as it makes it possible to innovate on article quality by avoiding substances deemed to have negative effects on health and the environment while focusing, on activities to enhance product durability or recycling. It also implies organisational innovation based on enhanced cooperation among supply chain actors both horizontally (at tier level) and vertically (downstream and upstream).

## **5. ENVIRONMENTAL IMPACT**

LIFE AskREACH aims to reduce the emissions of SVHCs to the environment. However, the impact of AskREACH cannot be measured in terms of changes in the air or in the soil due to a lack of data and methodological constraints. Changes in article composition and turnovers cannot be monitored, corresponding emissions are difficult to calculate, extrapolation is not possible and collecting enough information to overcome these obstacles would require enormous efforts and run into legal obstacles. Above all, the real impact will grow over the years and the LIFE AskREACH project is only the initial spark.

This is also the starting point of the project's indicator concept (see Section 1) and baseline report<sup>41</sup>. Hence, the AskREACH impact monitoring approach focused on socio-economic factors. All actions intended to increase the problem awareness of target actors (companies and consumers) and change their behaviour are an indication of the reduced environmental problem.

- As for the consumers, the project determined a baseline value of 14% of consumers in the partner countries who feel informed about the presence of SVHCs in articles. In the 1<sup>st</sup> app user survey 18% of respondents stated they felt informed, and 22% in the 3<sup>rd</sup> survey. Interviewees in the qualitative survey mention using the app as a tool among different strategies to be informed about chemicals in articles. The baseline value for awareness of the REACH Art. 33(2) right to know was 10%. In the 3<sup>rd</sup> survey 30% (1<sup>st</sup> survey: 26%) of respondents stated they were aware of this right. Hence, most users did not know of the right before using the app, an indication of the project's impact. Moreover, 50% of app users state that they are not buying articles if they contain SVHC >0.1% w/w. The increases in awareness put consumers in a position to make informed purchasing choices as regards SVHCs in articles, to the benefit of the environment.
- As for the companies, by pushing the implementation of REACH Art. 33, the project aimed to reinforce the legislator's intention to create incentives for substitution of SVHCs in articles, likewise reducing the environmental pressure. AskREACH created a substitution-friendly innovation environment in society. In particular, the project supported capacity building for thousands of companies, many of which were unaware of their legal obligations. They learned about the benefits of substitution and how to implement it through appropriate supply chain management and procurement approaches.

<sup>41</sup> Schenten et al. 2019.

## **6. CONCLUSIONS**

The idea behind the LIFE AskREACH project (September 2017 – August 2023) was to equip consumers and companies with information and a better understanding about SVHCs in articles. Thus, creating a demand for articles with SVHC < 0.1 w/w, which sends a strong signal to companies creating incentives for substitution of SVHC in articles. Eventually, this should lead to a reduction in emissions of SHVCs into the environment.

To support this idea, the project implemented a central European IT system for B2C communication in terms of REACH Art. 33(2) regarding SVHCs in articles: a smartphone app for consumers that is linked to a database with article information. With the smartphone app, consumers can scan article barcodes. This can then be the trigger for one of two events. The app can either immediately share with the user data on the article available in the AskREACH database on whether SVHCs above 0.1% w/w are present and potentially provide safe use information in accordance with Art. 33 of REACH. However, in most cases, the app informs the consumer that information is not yet available in the database and offers to send a requestto the suppliers, who has the legal duty to inform the consumer on request only if the article contains SVHCs above 0.1% w/w.

Requests sent via the AskREACH system highlight to suppliers the benefits of uploading article data, whether it contains SVHCs or not, to avoid receiving more requests for the same article from different consumers. Suppliers uploading article data need to keep the information up-to-date, particularly taking the biannual addition of new SVHCs to the Candidate List into account.

Comprehensive awareness-raising campaigns aiming for consumers and companies accompanied the introduction of the system.

With the app, consumers should send masses of right-to-know requests. To avoid individual communication with each requesting consumer, the project expected that companies would proactively upload their article data to the AskREACH database. The more article data that is available, the greater the likelihood that the app can offer SVHC information about scanned products so that consumers will continue to use the app. This should eventually lead to a change in market shares with an increase in articles with SVHCs < 0.1% w/w and a decrease in articles containing SVHCs above this limit, providing an incentive for companies to substitute. Furthermore, the project provided an IT-tool and training to foster supply chain communications on SVHCs as defined in Article 33(1). Companies should gain a better understanding of the presence of SVHCs in their articles, of the role of substitution and of appropriate management approaches.

Bringing together 20 partners from 13 states with the aim of developing a European IT system was an organisational challenge. The project succeeded, it implemented the app in 13 partner states and 8 replication countries. The campaign to consumers and companies required close cooperation between the actors. The project built networks with actors from NGOs and public authorities, within the core team of partners and beyond.

However, the project's implementation was strongly influenced and partly inhibited by external factors of force majeure: COVID-19, the Russian attack on the sovereign state of Ukraine, and the 2020 Zagreb earthquake severely reduced the number of situations in which consumers would use AskREACH tools. Major limiting factors include disease control measures, such as shop closures and lockdowns, and increased costs of living due to the war.

In addition, the assumption made at the beginning of the project that the AskREACH app would be able to use the contact data of companies from the GS1 GEPIR database did not materialise. Finally, the SCIP database introduced by the Waste Framework Directive in 2018 presented itself as a competitor to AskREACH. The voluntary task of uploading information on SVHCs to the AskREACH database now seemed redundant compared to the obligation of the SCIP database. AskREACH aimed to achieve interlinks between both databases and approaches. However, until mid-2023, ECHA was unable to commit to interlinking the systems.

This required the project to adapt to the changed circumstances: moving campaigns mostly from

the streets to social media. Nevertheless, the project was able to organise nearly 1,200 events for the general public, which was even more than expected. At the same time, the project reached a very large number of people through numerous online campaigns and events. For example, articles/ posts in social media with the project's hashtags potentially reached 31 million (m.) people, while those with the project's keywords even potentially reached 45 m. people. The project raised awareness among a large number of people about their "rightto-know" as the strong increase in the number of scans resulting in requests indicates. Nonetheless, the absolute number of requests fell short of expectations (requests for nearly 50,000 individual items sent, projected were 24.96 m). Furthermore, the project's deep dives into consumer behaviour (surveys, interviews) reveal that many consumers do not (want to) think about SVHCs when buying: they firmly assume that products on the European market are safe and "not harmful by definition".

Due to the small number of requests sent to companies, the activities to create awareness among article suppliers were of even greater importance. The project therefore put in a lot of effort and organised more than 850 events, reaching at least 6,110 article suppliers to raise their awareness on their REACH Art. 33 obligations and how AskREACH can support their implementation. Trainings for nearly 1,600 individuals from companies regarding Art. 33 compliance, supply chain management, or the use of the AskREACH tools accompanied these activities. Targeted emailing often provided a first channel to get in closer contact with companies, creating a closer relationship and, therefore, a higher impact for the project. This was particularly successful when the initial contact was made in the context of the test action results.

The test actions also showed that articles placed on the EU market often lack compliance with REACH Art. 33. Several test rounds of articles that are registered and also articles that are not registered in the AskREACH database showed noncompliance rates with REACH Art. 33 of 10%-50%. Lack of understanding and control of a product's composition as well as the supply chains are drivers for non-compliance. Approaches such as the MDS approach to traceability could help companies to ensure compliance. Traceability of chemicals shall mean the capacity of companies to trace back chemicals present in products. The MDS approach supports companies in this capacity, by facilitating SVHC data flows in the supply chains using IT solutions. The AskREACH supply chain action tested the MDS approach in several case studies showing general feasibility.

Furthermore, the Life AskREACH project has achieved further impact in this field. The project was one trigger for the foundation of the Proactive Alliance, a central player to push cross-sectoral governance of substances in articles communication. An AskREACH project partner organisation moderated the group's process. Besides, the project pushed the issue of chemical traceability in the context of Green Deal policy development, i.e. by organising a series of events with decisionmakers who developed specific recommendations for industry and policy-makers.

Users of the AskREACH app became more aware of their right-to-know and gained a better understanding of the presence of SVHCs in articles. The tool puts consumers in a position to make informed purchasing decisions with regard to SVHCs in articles. Indeed, 50% of tool users would not buy articles that contain SVHCs.

The project trained thousands of companies on the benefits of substitution and how to implement them through appropriate supply chain management and procurement approaches. In doing so, the project supported capacity building for these companies, many of which were previously unaware of their multiple legal obligations. They learned about the benefits of substitution and how to implement this through appropriate supply chain management and procurement approaches.

At the same time, the project has also shown that further measures are necessary to foster the substitution of SVHCs in articles.

## 7. REFERENCES

ECHA (2016). Report on the Operation of REACH: Operation of REACH and CLP. Helsinki, Finland: European Chemicals Agency. <u>DOI: 10.2823/760148</u>.

ECHA (2018). Strategy to promote substitution to safer chemicals through innovation. Helsinki, Finland: European Chemicals Agency. <u>DOI: 10.2823/99862</u>.

ECHA (2019) FORUM substances In Articles Pilot Project Report Harmonised Enforcement Pilot Project on Substances in Articles. Helsinki, Finland: European Chemicals Agency. DOI: 10.2823/846508.

ECHA (2020): Impacts of REACH restriction and authorisation on substitution in the EU. Helsinki, Finland: European Chemicals Agency. DOI: 10.2823/39789.

European Commission (2019).Communication from the Commission, The European Green Deal. Brussels, 11.12.2019. <u>COM/2019/640 final</u>.

European Commission (2022). Communication from the Commission, On making sustainable products the norm. Brussels, 30.03.2022. <u>COM(2022) 140 final</u>.

Hartmann and Klaschka (2018). Do consumers care about substances of very high concern in articles? In Environmental Sciences Europe 30:29. DOI: 10.1186/s12302-018-0153-1.

Proactive Alliance (2021). Discussion Paper with Technical Recommendations. Link.

PWC (2022). European Chemicals Agency, First ex-post Evaluation of SCIP. Final report – May 2022. FWC ECHA/2018/452 SC02. Link.

Schenten et al. (2019). Awareness and Communication on SVHCs in Articles. Surveys among consumers and article suppliers. Informing the impact monitoring of the project 'LIFE AskREACH'. Link.

Schenten et al. (2020). Breathing life into consumer rights: smartphone tools facilitating the "right to know" on substances of very high concern in REACH articles. Environ Sci Eur 32, 114. <u>DOI:</u> 10.1186/s12302-020-00387-6.

Schenten et al. (2023). Traceability of Chemicals in Products for a Non-Toxic, Resource-Preserving and Climate Neutral Circular Economy. Policy Workshop for a Theory of Change. Darmstadt, 12 January 2023. Link.

Stringer (2018). Cross-sector initiative sets full materials disclosure goal. Could be key turning point for supply chain data exchange on chemicals. Chemical watch news, 14 June 2018. Link.

## 8. ANNEX

#### 8.1. Socio-economics from the consumer survey

As often happens on environmental issues, women where the majority of respondents on the online surveys (60%) (figure 1) as well as in the qualitative interviews. Of the 158 participants, 100 were women, and 58 were men (63% and 37%, respectively) (Figure 2).



In terms of age groups, most respondents to the third app survey are between 31 to 60 years old, whereas in the interviews, the most represented age group is between 31 to 45 years. Younger participants are more common in the surveys than in the interviews, as are those above 60 years old (Figure 3 and 4).



In terms of educational backround, the group of survey respondents and interviewees was unbalanced when compared with the usual school years distribution among the general public. 58% of those who answered the online surveys and this question and 78% of those interviewed have a university degree. Among the remaining participants we can find a technical education, or, as a minimum, a high school diploma (particularly among interviewees). Only 10% of the survey respondents have a basic education (figure 5 and 6).



## 8.2. Questionnaire for consumers – App survey

Thank you for participating in the Scan4Chem quick survey. Your opinion has great value to us.

We also take the protection of your data very seriously. We invite you to learn more about our privacy policy. By filling out this form you agree that we will process your data in line with it.

#### Part 1 - Perception, knowledge, action

- 1 In general, do you feel concerned about the presence of problematic chemicals (carcinogenic, toxic for reproduction, harmful to the environment etc.), usually described as Substances of Very High Concern SVHC) in consumer products (like toys, shoes, clothes, electronics, furniture, etc.)?
  - a. Very concerned
  - b. Concerned
  - c. Not that concerned
  - d. Not concerned at all
- 2 How informed do you feel about the presence of these problematic chemicals (SVHCs) in products?
  - a. Very well informed
  - e. Rather well informed
  - f. Not very well informed
  - g. Not informed at all
- 3 Before using the app Scan4Chem, did you know that every European citizen has the right to ask to the producer or retailer, if a product contains any of these problematic chemicals (SVHC)?
  - a. Yes
  - b. No
  - 3.1 If yes, where did you learn that? (Please choose one option)
    - a. In School
    - c. Media (television, newspapers, etc.)
    - d. Social media
    - e. Friends/family
    - f. NGO/Consumer Organizations
    - g. Retailers/Companies
    - h. Professional/Work environment
    - i. Other
- 4 If you find out a product you are about to buy contains these problematic chemicals what do you do? (Please choose one option)
  - a. I would buy the product as usual
  - j. I would buy the product but use it less often
  - k. If there is no better alternative available, I will buy it anyway
  - I. I would never buy a product that contains such chemicals
  - m. It depends on the product
  - n. I never found an article that contained problematic chemicals
  - o. Other: \_\_\_\_\_

- Part 2 Use/perception of the app
- 5 When have you downloaded the app?
  - a. Less than a week ago
  - p. Less than a month ago
  - q. Around three months ago
  - r. More than three months ago
- 6 How regularly have you been using the app?
  - a. Weekly
  - s. Monthly
  - t. Seldom
  - u. Never
- 7 How did you find out about the app? (Please choose one option)
  - a. Newsletters, websites
  - v. Social media
  - w. Flyers/posters/stickers etc.
  - x. Television
  - y. Newspapers/magazines
  - z. Radio
  - aa. Conference/ meeting/ event/ fair
  - ab. Apple/google app store
  - ac. Recommended by friends/relatives/colleagues
  - ad. Other
- 8 When you use the app, how often do you find information (presence of substances of very high concern) about the articles you are searching?
  - a. Less than half the times
  - ae. 50/ 50
  - af. More than half the times
- 9 When you use the app, how often do you find the contacts for sending requests about the articles you are searching?
  - a. Less than half the times
  - ag. 50/ 50
  - ah. More than half the times
- 10 How many requests of information have you sent?
  - a. Less than 3
  - ai. Between 3 and 10
  - aj. Between 10 and 20
  - ak. More than 20
  - al. None
- 11 Of the information requests sent, how often have you received an answer from producers or retailers on the presence/no presence of SVHC?
  - a. Every time am. 50/50 an. Sometimes ao. Rarely ap. Never

- 12 Regarding the use of the app, please share your opinion about the following features: (I agree / I disagree)
  - a. It is easy to use
  - aq. It empowers consumers to influence chemicals used in consumer articles
  - ar. It is useful for making decisions on what to buy
  - as. It feels good to be part of the app community, because together we can incentivize companies to stop using problematic chemicals in their products
  - at. It increases the knowledge consumers have on the risks of chemical substances for health and the environment
  - au. I would recommend it to friends
  - av. Other: \_\_\_\_:
- Part III Social Background
- 13 Please tell us how old you are
  - a. Less than 20
  - aw. Between 20 and 30
  - ax. Between 31 and 45
  - ay. Between 46 and 60
  - az. More than 60

#### 14 How many school years have you completed?

- a. Basic education (no high school diploma)
- ba. High school degree
- bb. Technical education
- bc. University education (Bachelor, Master, PhD)

#### 15 Country of residence

- a. Austria
- bd. Belgium
- be. Bosnia & Herzegovina
- bf. Croatia
- bg. Czech Republic
- bh. Denmark
- bi. France
- bj. Germany
- bk. Greece
- bl. Latvia
- bm. Luxembourg
- bn. Montenegro
- bo. Serbia
- bp. Poland
- bq. Portugal
- br. Sweden

#### 16 Gender

- a. Female
- bs. Male
- bt. Other / Rather not say

## 8.3. Qualitative interviews for consumers

- 1. When you do your shopping, what are the most relevant criteria for choosing a certain article or product instead of another one in the same category (particularly non-food products, like shoes; utensils; textiles; electronics, etc.)?
- 2. When you buy a T-shirt, a pair of shoes, a toy, furniture, etc., do you usually think about the possible presence of chemicals substances that might have an impact on your health or the environment (on other species; quality of the water, etc.)?
  - 2.1. If yes, what are your concerns and how do you try to deal with them?
  - **2.2.** If yes, when has this concern started? Is it something you have been doing for long? Is it recent? When has your awareness about the issue started? And why?
  - **2.3.** Are you familiar with any label/certification that somehow relates with the presence of chemical substances in articles/products?
- **3.** Before the use of the Scan4Chem app or heard of the project did you already know you had the right to request information about the presence of certain substances of very high concern (carcinogenic, mutagenic, toxic for reproduction, persistent and bioacumulative) to brands and retailers?
  - **3.1.** If yes, had you ever use it before the app?
  - **3.2.** But even if you didn't know about this specific right to send a request of information, did you believe you had the right, as a consumer, to know what was in the product? How do you imagine that right could materialize/be effective/be applied?
- 4. Right to know covers all articles, components and packaging (but excludes mixtures, like detergents, cosmetics, food, etc.). Brands and retailers have 45 days to answer your request of information and are only obliged to answer if the article indeed has an SVHC above 0,1% weight/weight. What do you think about this right?
- 5. What is your main reason to use the app? Do you use it for some specific product categories (more than others)?
- 6. So far, how would you describe your interaction with scan4chem regarding:
  - **6.1.** The easiness of use was it easy to navigate/use the first times?
  - **6.2.** Easiness of sending requests of information: how many have you sent? Did you include some information photo, contacts of the supplier, own message?
  - **6.3.** Regularity of use (number of scans/ number of requests sent)
  - **6.4.** Information retrieved (about contacts to send requests and/or about the articles themselves)
  - **6.5.** What do you usually do when the app does not provide you with the contact information of the supplier or information about the article?
  - **6.6.** Usefulness for informing your consumer decisions have you stopped buying certain products because you had no information or because you got the information that they contain SVHC?
  - **6.7.** Clarity of the information If you have received answers from supplier, do you think the information was clear and understandable?
  - **6.8.** Communication to supplier: what do you usually do when a request is not answered by the supplier? Drop it, resend it, contact supplier directly?
  - **6.9.** After receiving an answer by the supplier (producer/retailer/importer) are you available to continue communicating directly with the supplier via your personal email, or do you prefer to keep everything inside the app system?
  - **6.10.** Overall opinion of the app
- **7.** Do you think the App or the project influenced...
  - **7.1.** Your knowledge about SVHCs and their risks
  - **7.2.** How you perceive / purchase / consume products?

- **8.** Do you plan to continue to use the app and send further requests to companies in the future? If yes, why? If not, why not?
- **9.** Have you sent any requests when you bought something online? Do you plan to send requests when you buy something online?
- **10.** If you had the opportunity to convey a message to decision makers (at the EU and national levels) and to brands, about the issue of chemicals in products, is there something you would like to share with them?
- 11. Please tell us how old you are

a. Less than 20 bu. Between 20 and 30 bv. Between 31 and 45 bw. Between 46 and 60 bx. More than 60

- 12. How many school years have you completed?
  - a. Basic education (no high school diploma)
  - by. High school degree
  - bz. Technical education
  - ca. University education (Bachelor, Master, PhD)
- 13. Gender
- a. Female
- cb. Male
- cc. Other / Rather not say

## 8.4. Questionnaire for SFE registrants

Thank you for registering at the AskREACH-system! We would appreciate your opinion on our work – please click the link and answer a small questionnaire that will take no longer than 3 minutes to answer.

1 Company characterization

Please select the sector(s) of activity of your company (select all those applicable)

- a. Do it yourself (wood, flooring, tapestry, tools, etc.)
- h. Electronics (computers, televisions, washing machines, blenders, smartphones, etc.)
- i. Furniture (tables, chairs, closets, beds, sofas, etc.)
- j. Household articles (other than electronics) (kitchen utensils, decorative products, etc.)
- k. Sporting goods and outdoor (including Textiles) (tennis shoes; soccer ball; gymnastic/fitness apparel, windbreakers, etc.)
- I. Textiles, clothes, shoes and accessories (other than Outdoor)
- m. Toys and childcare
- n. Other.

Type of company (select all those applicable)

- a. Producer/manufacturer
- o. Retailer/distributor/wholesaler
- p. Importer

#### 1 Costs

More and more consumers are using their right to request SVHC information from companies. The database provided by the AskREACH project shall help companies reducing the costs of SVHC communication.

How many articles did you or do you plan to upload into the database?

- a. 1
- q. between 2 and 50
- r. between 51 and 200
- s. between 201 and 1.000
- t. more than 1.000
- u. None

Please estimate the actual or conceivable cost savings enabled by the AskREACH database.

- a. None
- v. Less than 5 %
- w. 5% 15 %
- x. 15% 25%
- y. 25% 35%
- z. More than 35 %

The answer to question 2.1 is based on... (select all those applicable)

- a. actual experience of my company
- aa. own estimation
- 2 Does the AskREACH project offer more benefits to your company? (select all those applicable)

- a. Understanding consumer concerns
- ab. Building a trust relationship with consumers
- ac. Marketing of articles that do not contain SVHCs above 0.1%
- ad. Improving awareness of SVHCs/of Art. 33 REACH within my own company
- ae. Improving awareness of SVHCs/of Art. 33 REACH of suppliers
- 3 Would you like to leave more feedback?
- 4 Please leave your e-mail address if you would like to be informed about the project future steps.

## 8.5. Questionnaire for advanced article supplier interviews

Incentives for substitution

- 1 Please briefly outline the chemicals policy of your company in case you have one.
- 5 Requests

Have you received requests of information on substances in articles from consumers? Have you received such requests via Scan4Chem or a similar app?

6 Costs and Tools

Please estimate the costs for your business to process and answer such consumer requests. Possible metrics for finding an answer could be working time (full time equivalent/ FTE), costs for licenses of tools, lab tests.

What system(s)and tool(s)are you using for providing response?

- 7 Do you think the tools provided by AskREACH could (potentially) help you reducing these costs?
- 8 Enforcement

Have you ever been approached by a legal enforcing authority(e.g. market surveillance) with regard to REACH and specifically Art. 33?

What was the result of this interaction?

#### Product design and substitution

9 SVHC status

Does the SVHC status of a substance –or earlier warning signs in this respect (e.g. PACT1, SIN-List by ChemSec of "candidates for the candidate list"2) –influence your product design specifications?

How? Could you please illustrate this with an example

10 Identification of SVHC

Would identification of SVHCs in your articles trigger any action? Which action? Under which circumstances?

11 SVHC and design

Did you ever change the design of an article because it contained SVHCs (above the 0.1 % threshold)?

Please explain the circumstances

- 12 Under what circumstances could identification of SVHCs in your articles trigger re-design/ substitution activities?
- 13 Which factors could constitute a barrier for re-design / substitution activities?
- 14 If there is experience with substitution, how do you avoid cases of "regrettable substitution", in terms of chemical risk or other environmental rebound effects?

#### Market developments

- 15 Can you think of product sectors (including but not limited to your own) for which SVHC substitution strategies are likely to be an issue?
- 16 Can you think of categories of companies for which SVHC substitution strategies are likely to be an issue?

- 17 SVHC in articles and sales
  - Do you think that when consumers are informed of an article containing hazardous substances, it could trigger a decline in sales of that article?
  - Do you perceive a decline in sales of articles perceived as containing hazardous substances?
  - Generally, do you perceive a decline in sales of articles containing SVHCs above the 0.1 % threshold?
  - Could you perhaps name an example of an article (category) where you know that such a decline happened or where you at least consider this very likely?
  - Do you think the situation in our country is different from others (how)?
- 18 SVHC free articles and sales

Do you think that when consumers are informed of an article NOT containing hazardous substances, it could trigger a (positive) change of sales trend of that article?

Do you perceive a (positive) change of sales trend of articles perceived free from containing hazardous substances?

Do you perceive a (positive) change of sales trend in SVHC free articles?

Could you perhaps name an example of an article (category) where you know of such a trend or where you at least consider this very likely?

Do you think the situation in our country is different from others (how)?

#### 19 Do you think the AskREACH project has any effect on

-chemical policies by your company and other companies?

- -specific substitution activities by your company and other companies?
- -decline in sales of articles perceived as containing hazardous substances/SVHCs?
- -(positive) change of sales trend of articles perceived free from containing hazardous substances/SVHCs?

### 8.6. Questionnaire for retailer interviews

- 1 Is your retailer chain/shop taking environmental responsibility activities/ having regular environmental reports? Please, justify your answer.
  - a. No, we have not thought about such aspect
  - af. Why not, what are reasons behind that ...
  - ag. Not yet, but we are planning to develop an Environmental strategy
  - ah. Yes, we have developed and comply with an Environmental strategy
  - ai. If yes, please, indicate which aspects are there included ......(e.g., saving energy, waste management, etc. try to find out if they include chemicals allergenic; SVHC; EDC; other specific chemical substances)
- 20 Purchase of articles

What are your key criteria/ considerations in making purchases of articles? Please, justify your answer.

Have you changed criteria recently?

- a. Low price
- aj. Fast delivery
- ak. We purchase from known suppliers
- al. Trendy/fashionable articles
- am. Suppliers provide information on substances in articles (SVHC; allergenic; EDC, others)
- an. Suppliers provide information on substances in articles and a proof for validity of this information (SVHC; allergenic; EDC, others)
- ao. Place of manufacture (local, national, EU, no consideration on the place of manufacture)
- ap. Ecolabels; certifications
- aq. Other: .....
- 21 Internal policy for chemicals

Do you have an internal policy regarding chemical substances in the articles/products you sell? Please, justify your answer.

Do you focus on specific chemical substances (EDC, Allergenic; SVHC), etc.?

- a. Restriction lists/ conditions in contracts with suppliers
- ar. They do nothing
- as. Regular testing of products
- at. Ask for ecolabels / certifications
- au. Ask for test reports from suppliers about articles tested
- av. Other...
- 22 Are you aware of the duty that the retailer has to communicate information on substances in articles to their customers? Please, justify your answer.
  - a. No, and there have not been any question on this
  - aw. Yes, this duty is set by the legislation
  - ax. If yes, please, specify on this .....
- 23 Article and SVHC
  - Do you sell articles containing an SVHC in a concentration above 0.1% (w/w)? Please, justify your answer.

Addition: Particular attention is paid to substances of very high concern (SVHC) that are defined to have one or several specific hazardous properties.

- a. Do not know, and I am not interested
- ay. Do not know, somebody else has to be contacted about this issue
- az. The articles we sell follows all fair trade principles
- ba. Predominantly not, because we receive trustful information from our suppliers on substances in the article
- bb. Predominantly not, but if that happens we are prepared with information obtained from our suppliers and we are ready to provide information to our consumers on this matter
- Did you ever de-list an article because it contained SVHCs above the 0.1 % threshold? Do you plan to de-list articles for which you find out that they contain SVHCs above the threshold?
- Do you perceive a decline in sales of articles perceived as containing hazardous substances? Generally, do you perceive a decline in sales of articles containing SVHCs above the 0.1 % threshold?
- Could you perhaps name an example of an article (category) where you know that such a decline happened or where you at least consider this very likely?
- Do you think the situation in our country is different from others (how)?
- Do you perceive a (positive) change of sales trend of articles perceived free from containing hazardous substances? Do you perceive a (positive) change of sales trend in SVHC free articles?
- Could you perhaps name an example of an article (category) where you know of such a trend or where you at least consider this very likely?

Do you think the situation in our country is different from others (how)

- 24 Do you experience difficulties in getting information from your suppliers on SVHC in articles? Do you have any concern regarding the reliability of the information you get form your suppliers about SVHC?
- 25 Requests, tools and costs

Have you received requests of information on substances in articles from consumers? What process/system and kind of tools are you using for providing the information to them? Please, explain briefly on this.

Can you estimate the costs for your business to process and answer consumer requests?

- 26 AskREACH Project
  - Do you think that AskREACH could help to improve good communication regarding chemical substances in articles?

The possibilities are to support for approaching suppliers, training to shop assistants, using info-materials (e.g., the leaflet is available, present the leaflet) Please, reflect briefly on this.

Do you consider sending a request to your suppliers to put the information about the articles they sell to you on the AskREACH database?

The Impact assessment report is created within the LIFE AskREACH project and the information and views set out in this report do not necessarily reflect the official opinion of the European Union.



The Project LIFE AskREACH (No. LIFE16 GIE/DE/000738) is funded by the LIFE Programme of the European Union