

# **Evaluation of the SCIP database**

Experiences of use by Swedish waste treatment operators

The Swedish Chemicals Agency is supervisory authority under the Government. We work in Sweden, the EU and internationally to develop legislation and other incentives to promote good health and improved environment. We monitor compliance of applicable rules on chemical products, pesticides and substances in articles and carry out inspections. We review and authorise pesticides before they can be used. Our environmental quality objective is A Non-toxic Environment.

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Article number: 511 466

## **Preface**

This study was commissioned by the Swedish Chemicals Agency and conducted by Ramboll. This study is a part of the governmental assignment – Non-toxic from the start – which aims to strengthen the work for a non-toxic circular economy in Sweden, within the EU and globally.

The aim of this study was to collect views and experiences on waste treatment operators' use of the SCIP database. The information will be used to present conclusions on how well the SCIP information and format serves its purpose in assisting waste operators to identify and effectively treat SVHC waste and to suggest possible improvements.

There has been a continuous dialogue between the consultant and the Swedish Chemicals Agency throughout the project period. However, the analysis, reasoning and conclusion presented in this report is the sole responsibility of the author, Ramboll. Any opinions and conclusions expressed in this report are those of the consultant and do not necessarily reflect or represent the views or opinions of the Swedish Chemicals Agency.

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## Glossary

CPW	Interface between chemicals, products and waste legislation
EEE	Electric and Electronic Equipment
ELV	End-of-life vehicles
EWC	European Waste Catalogue
RFID	Radio Frequency Identification
SCIP	Substances of Concern In articles as such or in complex objects (Products)
SVHC	Substances of Very High Concern
WEEE	Waste Electric and Electronic Equipment
WFD	Waste Framework Directive, Directive 2008/98/EC on waste

Waste operator. In this report, the term “waste operator” refers to all actors in the waste chain, from collection and transport, pre-treatment, sorting and material recovery (recyclers). It does not include other treatment and recovery operations such as incineration since these actors have not been included in the study.

## Summary

The requirement to register articles and products containing substances of very high concern (SVHC) in a concentration exceeding 0.1% by weight to the SCIP database came into force on January 5<sup>th</sup> 2021. The requirement was introduced through an amendment in the EU Waste framework Directive. One of the aims behind the introduction of SCIP was to assist waste operators to identify and effectively treat waste containing SVHC substances. The aim of this study was to compile the experiences and opinions of Swedish waste operators on the SCIP database and to evaluate whether the database has contributed to the purpose described above.

The study includes interviews and survey responses from recycling operators, industry associations and municipalities. The selection of stakeholders was based on the materials most frequently found in SCIP notifications as well as the material and product streams prioritized in EU policy documents such as the new Circular Economy Action Plan. Stakeholders from eight different recycling sectors were included in the study: construction and demolition, EEE, glass, metal, plastics, rubber, textiles and vehicles.

The response rate and interest from the contacted stakeholders has generally been low, 30% for the surveys, with some exceptions. Many stakeholders did not consider themselves to be the correct target group for SCIP and some stakeholders did not consider themselves to be dealing with waste but rather with materials even though they both technically and legally are. Within the waste sector, knowledge and experience of SCIP is low, which is thought to be due to several reasons. Waste operators are still mostly dealing with older products that are not registered in the database and in those cases where representatives have tried to search SCIP, the experience is that it is not user-friendly enough. Another reason for not using the database is that waste operators consider that it would take too long to use the database as it is difficult to examine individual items and that it is more adapted to products and not waste. Some waste operators, however, believe that the database could be useful in the future but that it would then be very dependent on all producers registering their items.

One suggestion for improvement that has been raised is to be able to search on relevant categories, such as building materials or summaries of content in specific materials (e.g. polyester) to be able to see risks related to SVHC content. For the database to be useful, stakeholders should be able to automatically scan products and link to SCIP. To reduce the risk of SVHCs in circular flows, the inclusion of hazardous substances in new products should be limited by design and the control of products placed on the EU market, including imported products, should be increased.

## Sammanfattning

Kravet på att registrera varor och produkter som innehåller särskilt farliga ämnen (SVHC) i en koncentration som överstiger 0,1 viktprocent till SCIP-databasen trädde i kraft den 5 januari 2021. Kravet infördes genom en ändring i EU:s ramdirektiv för avfall. Ett av syftena bakom införandet var att hjälpa avfallsoperatörer att identifiera och effektivt behandla avfall som innehåller SVHC-ämnen. Syftet med den här studien var att sammanställa svenska avfallsoperatörers erfarenheter och åsikter om SCIP-databasen och utvärdera om databasen bidragit till ovan beskrivna syfte.

Studien omfattar intervjuer och svar på enkätundersökningar med återvinningsaktörer, branschorganisationer samt kommunala avfallsorganisationer. Urvalet av intressenter baserades på de material som främst förekommer i SCIP-registreringar samt de material- och produktflöden som prioriteras i EU:s strategidokument såsom den nya handlingsplanen för den cirkulära ekonomin. Återvinningsaktörer från åtta olika sektorer inkluderades i studien: bygg, elektrisk utrustning, glas, metall, plast, gummi, textil och fordon.

Intresset från de kontaktade intressenterna har generellt sett varit lågt, med några undantag. Svarsfrekvensen i enkätundersökningarna var 30 procent. Många återvinningsaktörer ansåg sig inte själva som rätt målgrupp för SCIP och vissa intressenter ansåg sig inte hantera avfall utan snarare material, även om de tekniskt sett och enligt lag hanterar avfall. Kunskapen och erfarenheterna av SCIP är låg vilket bedöms bero på flera anledningar. Avfallsoperatörerna hanterar än så länge mestadels äldre produkter som inte finns registrerade i databasen och de som i studien angivit att de försökt söka i SCIP upplever att den inte är tillräckligt användarvänlig. En annan anledning till att databasen inte används är för att avfallsoperatörerna anser att det skulle ta för lång tid att använda sig av databasen då det är svårt att undersöka enskilda föremål samt att den är mer anpassad för produkter och inte avfallsflöden. Vissa aktörer anser dock att databasen kan vara användbar i framtiden men att det då är väldigt beroende av att alla producenter registrerar sina varor.

Ett förbättringsförslag som har lyfts är att kunna söka på relevanta kategorier, till exempel byggmaterial eller att kunna få sammanfattningar för specifika material (t.ex polyester) för att kunna se risker relaterat till SVHC-innehåll. För att databasen ska vara användbar bör aktörer kunna scanna produkter och koppla till SCIP med hjälp av automatiserade lösningar. För att minska risken för SVHC i cirkulära flöden bör det begränsas vilka farliga ämnen som får inkluderas i nya produkter samt öka kontrollen av produkter som släpps på EU-marknaden, däribland importerade produkter.

# Introduction

## Aim

The purpose of this study is to collect views and experiences on waste treatment operators' use of the SCIP database. The information will be used to present conclusions on how well the SCIP information and format serves its purpose in assisting waste operators to identify and effectively treat SVHC waste and to suggest possible improvements.

## Background

One of the major pieces of European Union's legislations of chemicals is the REACH Regulation (EC) No 1907/2006<sup>1</sup> (Official Journal of the European Union, 2006). There are four fundamental processes of REACH, namely the registration, evaluation, authorisation and restriction of chemicals, all dependent on information on the substances. The Regulation also calls for the progressive substitution of the most hazardous chemicals (referred to as "substances of very high concern", SVHC) when suitable alternatives have been identified. The substances in question are those that meets the criteria laid down in Article 57 and identified in accordance with the procedure in Article 59(1) of Reach. Ever since it entered into force on June 1<sup>st</sup>, 2007, the Regulation has in its Article 33 laid down requirements for suppliers of articles on the EU market to communicate information on substances in articles to the recipient of those articles. The requirement concerns the obligation to communicate any content of SVHC substances provided that the content exceeds 0.1% weight by weight. Although initially interpreted differently among Member States, the European Court of Justice concluded in its ruling <sup>2</sup> (CJEU, 2015) that the obligation to supply information for articles combined to complex products is applicable for all articles in that product. This means that all articles as such, even when assembled into complex products, maintain their article status. Hence, the weight-by-weight content and duty to inform following SVHC concentrations exceeding the threshold is applicable for each separate article.

Despite that the duty to inform is applicable to all suppliers of articles, the compliance with this requirement has been limited. The Swedish Chemicals Agency concluded in its 2015 report (KEMI, 2015) concerning the development of Reach that *"There is also currently a marked absence of awareness of the information requirements that apply amongst article suppliers."*

The above-described information requirements are only applicable to articles. For substances and mixtures, requirements can be found elsewhere in Reach. But as soon as the articles end their product life-cycle and become waste, those requirements are no longer in force. Reach is a product legislation and in its Article 2(2), it is specified that it does not apply to waste. This has the consequence that waste operators and recyclers that receive articles containing SVHC substances has no legal right to obtain information on that occurrence. In a linear economy, this may or may not be a concern as many waste products are incinerated. Although this kind of waste treatment has its own challenges, both in terms of resource efficiency and potential to contribute to pollution, the SVHC content of articles is not recirculated. In a circular

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<sup>1</sup> Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1907&from=SV>

<sup>2</sup> Case C-106/14, <https://curia.europa.eu/juris/document/document.jsf?jsessionid=5F9B272748A41E0D49D7272037FF0CF7?text=&docid=167286&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=9672767>



economy however, the content of SVHC is more important since reused or recycled material may end up being used for applications that could lead to human or environmental exposure with potential negative effects.

With increasing awareness of the need for more circular material flows, an effort to bridge the information gaps described above introduced the requirement for producers of articles to provide the information pursuant to Article 33(1) of Reach to the European Chemicals Agency (ECHA). This was introduced by an amendment<sup>3</sup> (Official Journal of the European Union, 2018) of Article 9 of the Waste framework Directive (WFD), Directive 2008/98/EC<sup>4</sup> (Official Journal of the European Union, 2018). In addition to the requirement for companies to provide the information, ECHA was also tasked to establish a database and to make the contents of that database available to “waste treatment operators” and to consumers upon request. The term waste treatment operator as such is not defined in the WFD but Article 3(14) of the Directive defines treatment as;

*‘treatment’ means recovery or disposal operations, including preparation prior to recovery or disposal;*

The database was created and named SCIP (Substances of Concern In articles as such or in complex objects (Products)). The obligation to notify to SCIP came into force the 5<sup>th</sup> of January 2021. The information requirements for articles that are to be submitted to SCIP are more detailed than what is outlined in Reach Article 33(1). The following minimum information should be provided for SCIP notified articles<sup>5</sup> (ECHA, 2019);

- i) information relevant to the identification of the article;
- ii) name, concentration range and location of the SVHC;
- iii) where information in point ii) is not sufficient, other information on the safe use of the article, in particular, available information that is relevant to ensure proper management of the article as waste.

The above information is aimed to provide the waste treatment operators with enough information to enable them to identify and effectively treat waste containing SVHCs<sup>6</sup> (European Commission, 2019).

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<sup>3</sup> Directive (EU) 2018/851 amending Directive 2008/98/EC on waste. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0851&from=EN>

<sup>4</sup> Directive 2008/98/EC on waste. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008L0098-20180705&from=EN>

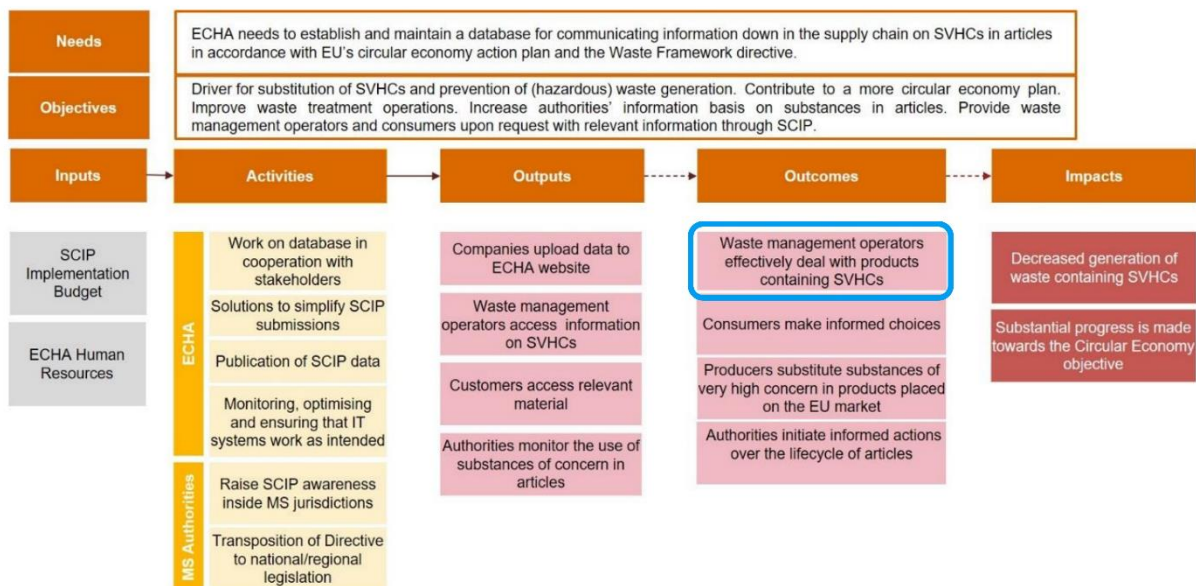
<sup>5</sup> ECHA, 2019. Detailed information requirements for the SCIP database. [https://echa.europa.eu/documents/10162/28213971/scip\\_information\\_requirements\\_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d](https://echa.europa.eu/documents/10162/28213971/scip_information_requirements_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d)

<sup>6</sup> For more information, see the Commission’s “Non-paper on the implementation of articles 9(1)(i) and 9(2) of the revised Waste Framework Directive 2008/98/EC” Ares(2019)3936110.

## Previous evaluations of SCIP

At the time of writing this report, the requirement to notify to the SCIP database has been in force for less than two years. This is most likely the reason why very little information has been found that investigates the functioning of SCIP and evaluating its performance this far. In October 2022, ECHA published its first ex-post evaluation of SCIP (ECHA, 2022). The purpose of the evaluation of chief interest for this report was to assess the extent to which the objectives of the implementation of the SCIP database have been met. The intervention logic for the ECHA evaluation is presented in Figure 1. The previous SCIP evaluation (ECHA, 2022) identifies four outcomes that SCIP is intended to have; allowing waste management operators to effectively deal with waste, enable consumers to make informed choices, trigger producers to substitute SVHCs and to allow authorities to initiate informed actions. The scope of the ECHA evaluation is therefore broader compared to this current report focusing only on the outcome directed towards waste operators, see blue circled box in figure below.

Figure 1. Intervention logic of SCIP evaluation with outcome directed towards waste operators encircled in blue. Amended from (ECHA, 2022).



In the ECHA ex-post evaluation of SCIP, a survey was performed in March 2022 to collect input from stakeholders. Of the 397 respondents that completed the survey, only 2% attributed their responses to the role as waste operator and of these, half were industry associations. In addition to the survey, four interviews with stakeholders representing waste operators were performed. The results of the ECHA report presented below will focus on the waste operators views on SCIP.

The report concludes that SCIP offers reliable data on SVHC content in articles that cannot be found elsewhere. The waste operators were however of the opinion (5 out of 6 respondents) that the information available in the SCIP database is not useful to the performance of their operations. The reason for this is stated to be that the information in the database could not be linked to the reality that waste operators face, with complex waste streams and objects that may contain thousands of individual articles. Furthermore, the waste operators highlighted the granularity and lack of aggregated data together with absence of classification by waste

streams will hinder the usefulness of the data to improve policies and management of waste. Waste operators do however point out that the overall objective of the SCIP database is aligned with their need for information about SVHC content in articles.

The report also concludes that users, other than duty holders i.e., manufacturers and importers of articles, are of the opinion that the database in its current form is more tailored to enable the submission of notifications rather than to make use of the information in it.

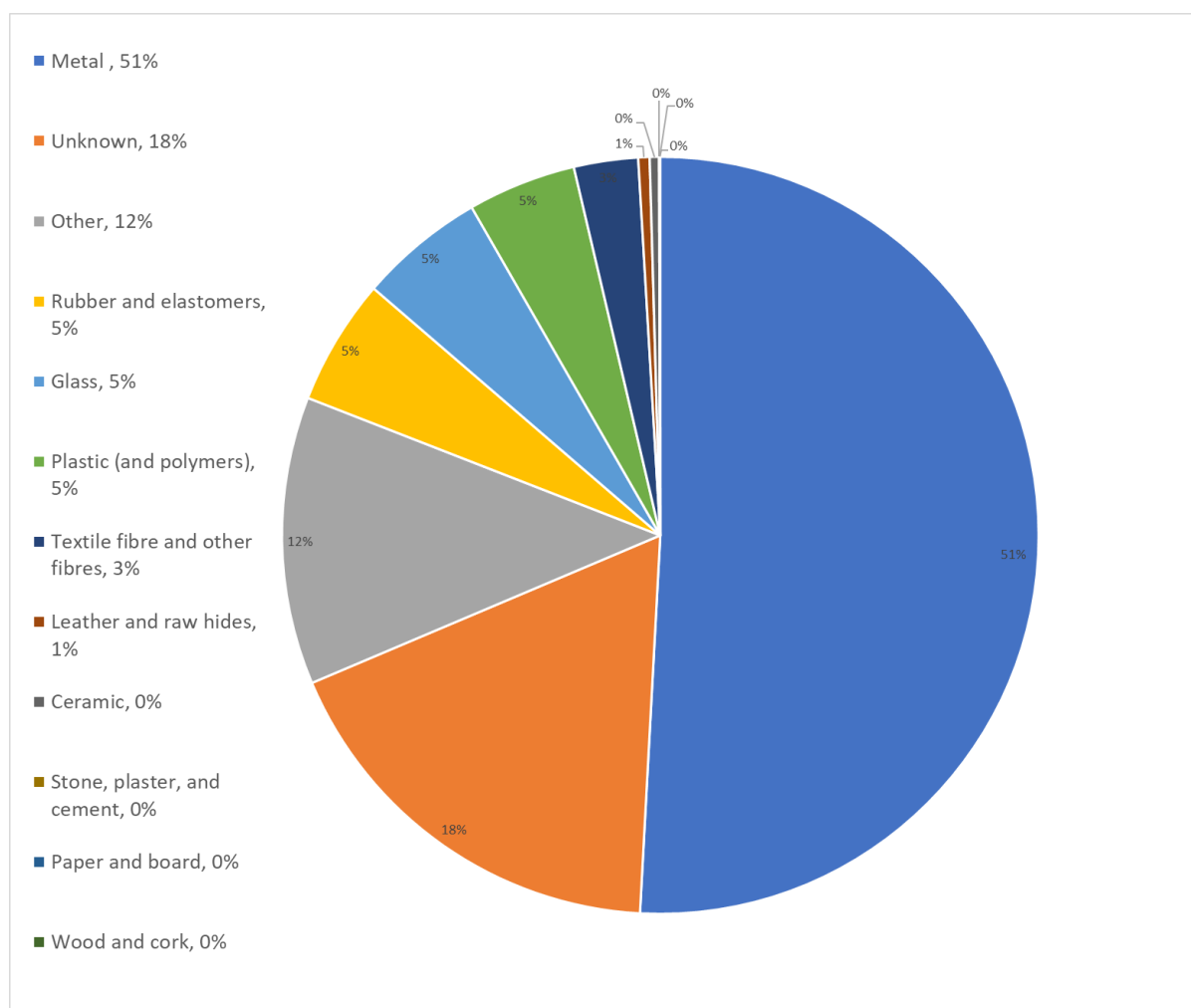
Based on the conclusion in the ECHA evaluation, the most beneficial outcome of the SCIP database seems to be as a tool for authorities in monitoring the use of SVHCs in articles and initiate appropriate action.

## Method

In this study waste operators were identified and contacted to collect their knowledge and experience regarding the SCIP database. The selection of waste operators was made based on two criteria:

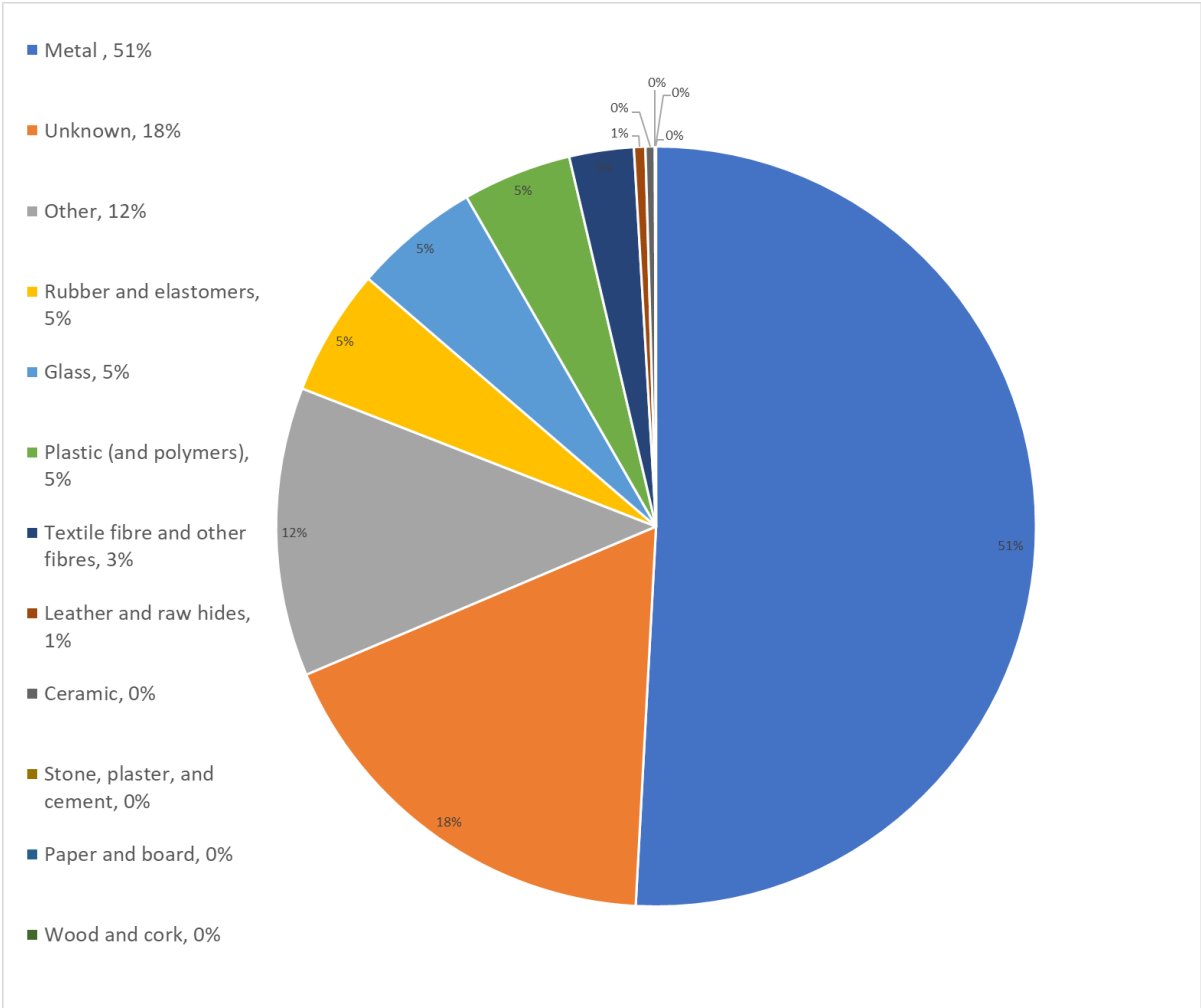
1. the most common materials in articles that contains SVHC substances registered in the SCIP database this far and;
2. the prioritized product value chains in the circular economy action plan.

To find the most common materials in articles registered in the SCIP database, the filter “Material & Mixture Category” was used.<sup>7</sup> The distribution of the most common identified materials in the database are: Metal, Rubber and elastomers, Plastic (and polymers), Glass and Textile and other fibers (as of 2022-09-27). The distribution of SCIP notifications is shown in Figure 2: Distribution of SCIP notifications according to the material and mixture category in SCIP.

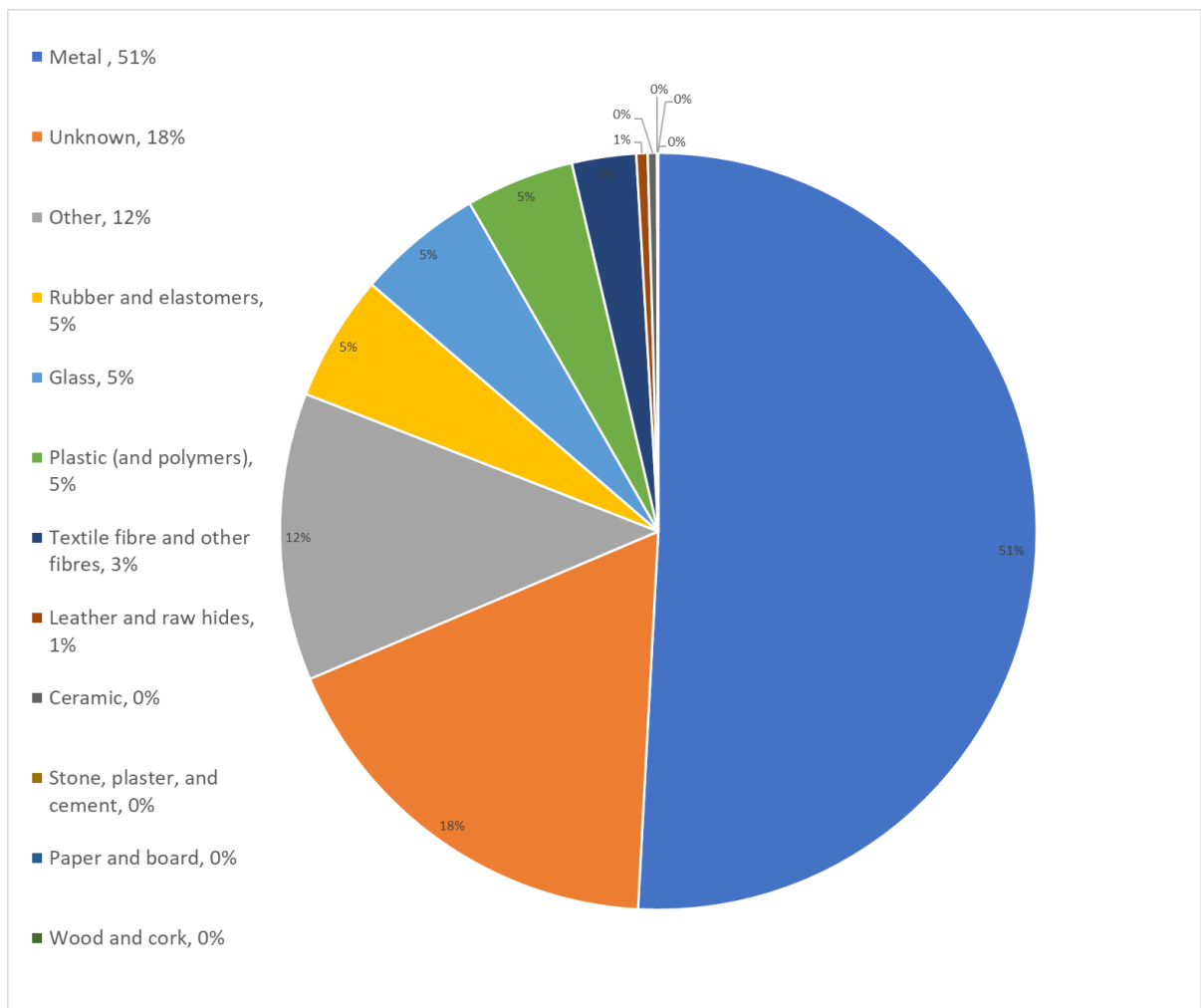


<sup>7</sup> Since it was not possible to obtain the total number of registrations in the metal category, the compilation is based on the number of registrations in its subcategories. Hence, there is a risk that the total number of registrations for metal is not fully accurate.

Figure 2: Distribution of SCIP notifications according to the material and mixture category in SCIP.



As can be seen in Figure 2: Distribution of SCIP notifications according to the material and mixture category in SCIP.



materials identified as “Other” represent 12% and “Unknown” represent 18% of the total registration. These fractions are not included in the study since it was difficult to identify which types of waste were included. The material and mixture category “Other” mainly consists of electronic devices registrations including lead. The 18% representing “Unknown” is the difference in the total number of registrations in the database compared to the sum of all material and mixture categories. This category does not exist in the SCIP database, but is defined by the project group to describe the discrepancy in numbers. It is not possible to determine where the registrations in the category “Unknown” come from or what the registrations include.

According to EU policy, it is prioritized to increase recycling of material from electronic, construction, plastic, textile and vehicles<sup>8</sup> (European Commission, 2020). Based on these priorities and the most common materials registered in articles in SCIP, waste operators from the eight following sectors or materials were chosen to be included in this study:

- Construction and demolition
- EEE
- Glass
- Metal
- Plastic

<sup>8</sup> European Commission, 2020. A new Circular Economy Action Plan For a cleaner and more competitive Europe. COM(2020) 98 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>

- Rubber
- Textile
- Vehicles

Other types of waste materials or streams, e.g., paper, wood, stone and cement, have not been included in the study as these materials only occurs to a very small extent in the SCIP database and are therefore assumed to be less problematic in terms of SVHCs.

In order to find relevant waste operators, searches were carried out for each sector and waste flow type. A search was also performed using the Swedish website "Allabolag" (Allabolag, u.d.) (name in English "All Companies") to identify waste companies with a turnover above SEK 500 000 per year to ensure that all major waste operators were included. For each category, an attempt was made to include waste actors from the entire recycling chain; from collection and transport to sorting, pre-treatment and recycling. This is to capture whether awareness, experience and usefulness of the SCIP database differs within the different stages of the value chain. All contacted waste operators are listed in Table 5. Co in Annex 2.

In the study, we also chose to contact five municipal waste operators and ten relevant business associations. See all contacted municipal waste operators and business associations in **Fel! Hittar inte referenskölla.** and **Fel! Hittar inte referenskölla.** in Annex 2. The selected business associations represent the areas/industries listed below. Two actors were contacted for "tyres" and "waste & recycling":

- Construction
- Glass
- Iron and steel industry
- Pulp, paper and wood industry
- Textiles
- Tyres
- Vehicles
- Waste & recycling

In Sweden, municipalities are responsible for collecting and treating municipal solid waste (household waste). Municipalities themselves must decide how to organize the waste management, e.g. through self-administration, a municipal enterprise, joint board or municipal association. Household waste may not be that problematic in terms of content of SVHC but with an increasing demand for circularity of products and materials of waste, more and more municipal waste operators are working on reuse, especially at their recycling centers where households bring in their bulky waste. This means that municipal waste operators need to consider which items are suitable for reuse and recycling and which are not. Municipalities also collect hazardous waste and waste that falls under extended producer responsibilities (e.g. EEE, tyres, batteries), sort and store this waste until collected for further treatment by recycling operators.

## Data collection

Data collection has been done through semi-structured interviews and questionnaire surveys. Interviews have been conducted with one or two representatives from each selected sector/material and with four of the five municipal waste operators. The other waste operators, including business associations, have been asked to answer a questionnaire by e-mail. The questions for each group can be found in Annex 1. Questions to participants.

The contacted stakeholders were thus divided into four groups based on the type of actor and the data collection method used:

- Waste operators – interview
- Waste operators – survey
- Business associations – survey
- Municipal waste operators – interview



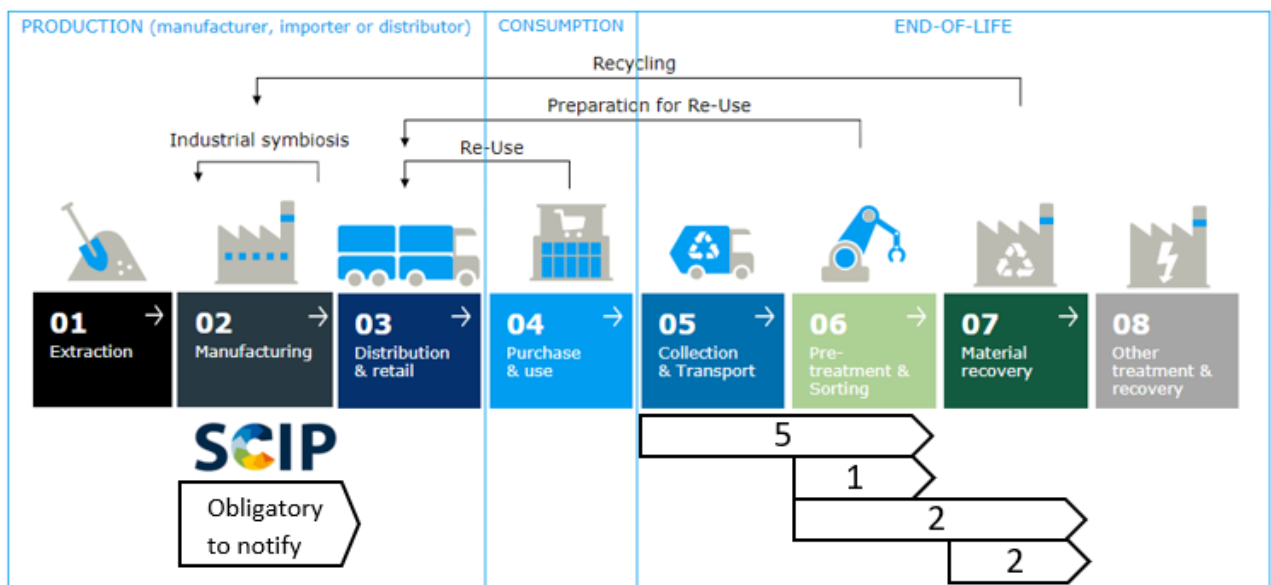
# Results

The results from the different activities carried out within this project to collect and collate the opinions and experiences from waste operators and recyclers on SCIP and its functioning is presented in this section. As a general remark, the response rate and the interest from the stakeholders to reply and contribute to this topic was perceived as very low. In the survey sent to recyclers and the business associations, 30% responded. There were nonetheless a few exceptions and some waste operators and trade associations showed great interest. Most emails went unanswered and telephone contact was the most successful way to reach respondents. Many of the companies expressed that they do not feel as if they are the target audience for SCIP and more than one stakeholder was even of the opinion that they do not deal with waste but rather material and resources, although they technically and legally are. The limited interest in participating may have several explanations but the most important one is likely that most have not heard of SCIP and hence, do not feel that there is much to discuss or to contribute with. Furthermore, the fact that SCIP does not involve legally binding requirements for waste operators, may explain why so few have heard of, or are using, the database. Despite the difficulties, the results below are assessed to be representative of Swedish waste operators.

## Recyclers – interviews

Companies working with waste can operate in more than one of the different steps of the value chain. Figure 3 below shows where in the value chain the interviewed companies in this study operate. Worth noting is that the value chains look different for different waste streams and for several of them there are relatively few actors involved. To successfully design policies and tools for circular and non-toxic resource flows suitable for each of the different waste streams, further and more in-depth studies may be needed.

Figure 3. The figure depicts where in the value chain the responding companies operate. The number in the arrows corresponds to the number of replies.



Four of the ten interviewed stakeholders state that they have limited knowledge of SCIP but none of them regularly uses it, see Table 1. The textile recycler Renewcell<sup>9</sup> has tried to search SCIP in order to identify SVHC content in the textile waste, primarily cotton or cellulose based, that is being recycled in their process. The results were however not useful to them as it was not possible to filter out information based on relevant materials in reported products. The result was the same for one of the EEE recyclers that concluded that it was very difficult to navigate the database and that it offers limited benefits for their dismantling operations.

Amongst the actors that are familiar with SCIP but do not use it, there are several reasons for the lack of usage. For some, it is the length of the product's life cycle that does not make SCIP suitable, at least not up till now since most products notified under SCIP have not yet ended their life cycle. For others, it is the fact that there are no systems available that could scan articles or parts of articles automatically and retrieve SCIP information. To manually look for this information is not possible and would lead to an overwhelming workload with no economic benefits.

*Table 1. Distribution of responses regarding knowledge and use of SCIP amongst interviewed recyclers.*

<b>Number of stakeholders interviewed</b>	10
<b>Awareness of SCIP</b>	4
<b>Has used SCIP at least once</b>	2
<b>Uses SCIP regularly</b>	0

### **Stakeholders' need for information on SVHCs in waste**

One of the interviewed EEE recyclers mention that work is continuously ongoing to detoxify the material cycle by removing hazardous substances. The focus of this work is mainly on legal requirements, such as substances/components listed in Annex 1 to NFS 2018:11<sup>10</sup> (Naturvårdsverket NFS 2018:11, 2018) and on RoHS metals. The company has built up considerable experience and knowledge of where these substances can be found, for example through the use of XRF scanners. The need to have information on hazardous substances therefore exists, but is largely based on legal requirements (e.g. brominated flame retardants in the POPs Regulation) and on customer requirements. A similar answer was given from the recycler of refrigerators and freezers, there is an internal know-how of how to treat the waste and what to remove before mulching and sorting into material fractions. In this case, the material is sent to the mother company, and it was not known if further sorting/testing of the material was performed before selling it to customers.

Also, for metal recyclers, there is a need to have knowledge about the contents of both incoming and sold material. Much of this knowledge has however come from experience and from the use of XRF analysis that can be utilized if there's an uncertainty about a certain material's content.

<sup>9</sup> In this study, the identity of the interviewed companies have not been disclosed other than in cases where a written consent has been received.

<sup>10</sup> NFS 2018:11 Naturvårdsverkets föreskrifter om yrkesmässig lagring och behandling av elavfall som omfattas av producentansvar (Regulations on the professional storage and handling of electrical waste). <https://www.naturvardsverket.se/globalassets/nfs/2018/nfs-2018-11.pdf>

For glass waste streams, the interviewed stakeholder does not experience any issues with SVHCs or hazardous substances in general. The recycler in question exclusively deals with sheet-glass and windows from end-of-life vehicles (ELVs). There have been discussions related to older window cassettes containing a hazardous insulation gas and hence, such windows are not accepted for recycling. For the accepted types of glass, the stakeholder knows of no known issues with SVHCs. In sheet-glass and windows from ELVs lead is not an issue, which is the most common SVHC in glass. Mercury can also be an issue when recycling glass from light sources, but this fraction is avoided by the interviewed company due to this issue and the low volumes.

The interviewed plastics recycler deals with mixed fractions from e.g., municipal plastic waste. The company is restrictive when it comes to certain plastic packaging used for hazardous chemicals or mixtures e.g., strong acids or bases, if they are not cleaned before handling. When they have large industries supplying material, they know exactly what materials and packaging that are being delivered. For some waste flows deemed to be problematic or require special treatment, the company charges an additional fee to accept the waste. If there are suspicions of problematic content in certain waste streams, those materials are removed before recycling. The company deals with SVHC content by performing chemical analysis on their output material. Some fractions are also avoided either due to its possibly hazardous content e.g., plastics from Waste Electric and Electronic Equipment, (WEEE) or because it's dirty e.g., artificial grass/turf.

Tire recyclers claim that SVHCs are normally not an issue based on their experience. It does occur that smaller tires from e.g., wheelbarrows or non-European manufactured car tyres contain phthalates or other SVHCs but this is such a small part of the total waste flow that it is negligible and will not lead to elevated concentrations.

For the textile recycler, SVHCs are only partly relevant in terms of substances of concern and the company therefore uses the AFIRM Restricted Substances List (AFIRM, 2022) to create requirements towards suppliers. Risk assessment and chemical analysis are used to ensure compliance.

For construction and demolition waste, the responding company collects, sorts, and redistributes waste for further processing. The company does not see a need for them to investigate the composition of waste and that this is the responsibility of those performing the actual recycling. The company furthermore mentions that old buildings can be an issue in terms of SVHCs and that for reuse of whole/functioning products, use of SCIP may be relevant.

Interestingly, during the interviews, one company mentioned that dilution of certain batches or waste flows with a known problematic content can occur to ensure low enough content of SVHCs. This is not allowed for waste classified as hazardous. Whether waste containing SVHCs above 0.1% should be classified as hazardous or not is not always easy to determine and the assessment can vary between waste holders. Depending on which property that triggered the classification as SVHC, it could lead to classification of a waste as hazardous, which would have implications for the waste treatment. The interface between chemical, product and waste legislation is also something that has been addressed by the Commission in its CPW roadmap (European Commission, 2017).

### ***Usefulness of SCIP***

In this project, all interviewees were asked whether they see that a database (SCIP) containing information on SVHCs would be useful to their business. Common to all the recyclers

interviewed is that none of them currently sees any direct benefit from using the SCIP database. One of the respondents that had tried to search SCIP stated that the database appeared to have been designed for products and not waste. A few of the stakeholders mentioned that while they do not currently see the need, this may change, especially if the legal requirements change in the future. One of the EEE recyclers was ambivalent as to whether a database is useful seeing that the knowledge of where problematic substances/articles can be found is part of their business concept and a trade secret that distinguishes respectable companies from less respectable ones. Their worry is that if the whole process would be simplified too much, this could offer opportunities for unserious or even fraudulent companies to establish themselves on the market. For tyre recycling, a greater transparency in terms of the content in tyres would be welcome since the confidential and ever-changing composition is problematic for recyclers. This is however not related to SVHCs and thus, SCIP is not a solution.

For the plastics recycler dealing with mixed municipal plastics, all material is pre-sorted by hand, and it is according to the company impossible to control all items. Furthermore, scanning of individual items would be very difficult due to these being defect/broken. For these reasons, SCIP is not seen as useful for them.

One of the reasons for the low interest in SCIP is the difficulty highlighted by the stakeholders regarding connecting contents in a certain article with that of a waste item. When handling large volumes of waste, it is simply not possible to research the content of individual waste items if this is not done automatically.

#### **Example of improvements of the database**

Re:newcell is a textile recycler contributing to this project. They recycle post-consumer textile waste and industrial textile waste into high quality textile raw material. Re:newcell mention in the interview that they may be offered deliveries of e.g., face masks which they are not able to accept since they cannot ensure its content. In such cases, the SCIP database could have been more useful if it would be possible to search and find summarized information on SVHCs in specific materials and not just products. In the textile industry, the SCIP database would in such case be a complement to the currently used restricted substance lists to provide better understanding and control of SVHC substances in textiles.

#### ***Technical aid or labelling for identifying SVHC containing articles***

As a follow up question, all stakeholders were also asked if there are technical aids or labelling available today to help identify particularly hazardous substances in parts/components. One of the EEE recyclers mentioned XRF as a helpful tool but also that certain types of cables have ID labelling due to problems with theft. The same stakeholder also mentioned that the EWC (European Waste Catalogue) codes used to classify waste can be useful since they help distinguish between non-hazardous and hazardous waste. It was however also mentioned that the waste classification differs between different actors which can be problematic. Another EEE recycler has been involved in several research projects with the aim to introduce labelling allowing the identification of individual waste items, e.g., using QR-codes. The perception was however that it has not yet had any impact and that one of the difficulties using a visual label like the QR code is that it must be legible even after having

served more than one owner and gone through waste handling operations. For large EEE such as freezers and refrigerators, no such systems were known to the recycler and no need for it was seen. For glass, the situation was the same and no need for labelling system was identified. In the case of windows from cars, there are only a few manufacturers which would facilitate communication if needed.

For tyres, Radio Frequency Identification (RFID)-chips ( ) are currently being used. This is commonly used for tyres for heavy vehicles (trucks, busses) but RFIDs are increasingly used also for passenger car tyres. The reason for using RFIDs is the possibility to securely identify the tyre data and thereby improve traceability. According to the representative from the tyre recycling industry, there is a potential to increase the information stored in the RFID also for e.g., SCIP purposes.

## Recyclers – questionnaire

Eight out of forty contacted recyclers answered the questionnaire, and five of eight recyclers were aware of the SCIP data base. However, none of the recyclers uses SCIP on a regular basis, see Table 2. One recycler mention that they associated SCIP with REACH and that they recognize the term “SCIP database”. The reason why the database is not used is because they do not consider their material as a waste but rather as a raw material or product and that the materials they handle has a low risk of containing SVHC. One recycler mention that they use another IT tool for chemicals which includes a list of hazardous chemicals, including those on the candidate list. They were however not aware about the SCIP database.

*Table 2. Distribution of responses regarding knowledge and use of SCIP amongst recyclers responding to the questionnaire.*

<b>Number of stakeholders contacted</b>	40
<b>Number of replies</b>	8
<b>Awareness of SCIP</b>	5
<b>Has used SCIP at least once</b>	0
<b>Uses SCIP regularly</b>	0

One of the responding recyclers believe that they may benefit from a database containing data on SVHCs in order to promote recycling and reuse in the future. They need to keep track of the waste streams coming in since they do not want to handle waste containing SVHC. Three of the recyclers are working with textiles and they have mixed opinions about the use and future benefits of SCIP. Two of them believes that SCIP can be a good tool in the future but that they do not use the database today. One of these recyclers believes that SCIP could be useful for innovation and development of material sorting system. In such a future system the database can be linked to AI, allowing a product to be identified and excluded from the circular flow based on its content of SVHC. The third textile recycler is of the opinion that there’s no risk for SVHC in the textiles they are working with since they only work with certain textile flows, such as those labelled with e.g. The Nordic Swan Ecolabel. Recyclers believe that they benefit from knowing the chemical content at both item and material level. One recycler pointed out that if in the future, collection operators likely have an increased responsibility to supply raw materials for circular management, information on content will be an important part in excluding hazardous substances in material flows that is used in recycling.

The use of SCIP in the future would depend on the producer having entered useful information into SCIP. If the SCIP database is a reliable source of information, recyclers would not need to use technology that identifies hazardous chemicals in their processes. For this to occur, recyclers would have to rely on all producers actually using SCIP. It is also important to include information on all imported articles, as these will eventually end up as waste. Companies importing articles to Europe are perceived by recyclers to be less thorough in their chemical management compared to European manufacturers.

## Business associations – questionnaire

The use of the SCIP database is very limited amongst the responding business associations. Only four of the ten business associations contacted is aware of the SCIP database. This is partly due to the fact that the majority of operators do not consider themselves to be handling SVHC-related waste, see Table 3.

*Table 3. Distribution of responses regarding knowledge and use of SCIP amongst business associations responding to the questionnaire.*

<b>Number of stakeholders contacted</b>	10
<b>Number of replies</b>	7
<b>Awareness of SCIP*</b>	4

*\*This is an interpretation based on their answers, this question was not asked to business associations*

Electronics recyclers have used the SCIP database to a very limited extent, but the products currently handled are still too old for them to find any information in the database. This is also pointed out by vehicle dismantlers that handle a mix of new and old vehicles. Information about SVHC content in SCIP would only be available for very recently produced vehicles which is still a minority amongst items treated by the vehicle dismantlers. The SCIP database could therefore possibly be useful for dismantlers in a few years' time when current products become obsolete. The recycling process of vehicles is a complex process where dismantlers remove those fluids and items from the vehicles that they are legally required to in addition to those parts that they assess can be sold as spare parts. When this process is finalized, the scrap vehicles are transported to fragmentation facilities where the actual material recycling occurs. For dismantlers to increase their operations and remove vehicle parts that contain SVHCs in order to detoxify this waste stream, there is a need for them to be reimbursed for the additional time this would take since time (staff) is a significant cost. The current incentive for vehicle dismantlers to make use of SCIP is therefore low.

Steel producers in Sweden are largely unaffected by the SCIP database as, according to them, the steel produced in Sweden does not contain substances on the candidate list. Glass recyclers reply that they are not aware of SCIP. In general, the SCIP database seems to be used to a very limited degree or not at all. One of the respondents mention that SCIP has been referenced as a source of information about hazardous content in articles in reports concerning guides for reuse of construction products but not used in specific cases.

The very limited experiences of using SCIP conveyed by this group of stakeholders, is that it can be difficult to find the right information in the database and that it provides limited benefits for recyclers that are dismantling products. The database would have been more useful if it were made searchable by scanning products. Using the database to check individual parts would currently take too long.

## Municipalities – interviews

### **Awareness of SCIP**

Only one of the five municipal waste operators contacted is aware of and knows what the SCIP database is and none of the actors use SCIP in their daily work, see

Table 4. The person who does know about SCIP says that she would like to have time to get acquainted with how the database works in order to be able to use it in her work on identifying and sorting hazardous waste. The awareness of SCIP stemmed from that the person was looking for information on how to deal with a specific chemical and happened to find the database.

*Table 4. Distribution of responses regarding knowledge and use of SCIP amongst interviewed municipal waste operators.*

<b>Number of stakeholders contacted</b>	5
<b>Number of replies</b>	5*
<b>Awareness of SCIP</b>	1
<b>Have used SCIP at some point</b>	1
<b>Use SCIP regularly</b>	0

*\* One of the municipal waste operators replied by email that they are not familiar with SCIP and cannot answer our questions because they are only a contracting responsible authority for municipal waste and therefore do not have the practical responsibility for waste management.*

### **Benefits of SCIP**

The respondent who knows about SCIP thinks it is great that the database exists and that it contains a lot of information. This respondent however seeks better information on chemical substances and mixtures and hence, does not benefit from using SCIP.

Another municipal waste operator replies that the SCIP database could be useful for them, for example to determine which waste can be resold for reuse and which cannot. However, the database needs to be easy to use as the staff receiving and sorting waste at recycling centers are rarely chemists and therefore not familiar with technical terms.

The other two stakeholders interviewed do not currently see any direct benefit from the SCIP database. One of the operators refers to the fact that they buy a law-compliance service and thus get all information from one place. The other sees a risk that it could become cumbersome for them if they were to start to base their waste sorting on information in the SCIP database. At present, the sorting and intermediate storage system is adapted to the requirements of the contractors who will collect the waste. Therefore, in every tender, contractors are required to provide clear instructions on how to sort, store and pack the waste. This is important as the staff at the municipal recycling centers are not experts. However, over time they learn to recognise products and how to sort them. Although this operator does not see any benefit from the database now, it might be useful next year when they will start a reuse concept for electronic waste.

### **Improvements of the database**

The waste operator who has used SCIP experiences it difficult to find information in the database. The perception was that it is aimed at large industries rather than smaller recycling operators. For the database to be useful, it would be desirable to be able to search by different areas such as building materials and to be able to make searches in the search, where categories can be removed. It would also be useful if the SCIP database contained information on how to deal with substances/chemicals once they have become waste.

### ***Municipalities' needs to be able to handle content of SVHC in waste***

One respondent mentions that it is important to know how to deal with new items on the market and the potential content of hazardous substances once they become waste. Staff who receive waste are expected to have knowledge of this, but it can be difficult to know for those who are not chemists and actively work with chemicals. For staff at recycling centers, data needs to be searchable in Swedish since not everyone know chemical names in English.

Another municipal waste operator highlights that their need for support to manage hazardous substances in waste is from a work environment perspective and for the chemicals they purchase themselves. They do not treat or post-sort waste but only store it temporarily. Since the municipal operators act as a temporary storage site, it is important that they receive information from the waste collectors, preferably both pictures and text with chemical designations and description of how the waste should be sorted, stored, and packed for further transport.

Another example mentioned is that there is a need for several of the country's recycling centers to find ways to distinguish between pressure-treated wood that should be treated as hazardous waste and newer wood that is not classified as hazardous. This would facilitate recycling and reduce the work involved in hazardous waste management.

### ***Use of technical aid or labelling for identifying SVHC containing articles***

Municipal waste operators use safety data sheets, hazard pictograms and product hazard labels to get information on how to dispose of hazardous waste. Several respondents also have chemists (in-house or from a contractor) who visit the recycling centers to answer questions and help sort waste that the staff do not know how to handle. Having contracted law compliance services and searching for reliable studies done by others were mentioned as other examples of tools used.

In order for municipal waste collectors to resell products for reuse, it is important to know its content. One of the interviewees highlighted that in case of any uncertainty, they choose not to resell these products. In the case of wood recycling, there is now a barcode on each plank that can be used for identification. Older planks without a barcode and planks where the barcode has been sawn off are more difficult to recycle as the origin and contents are unknown.

One of the interviewed waste operators highlights the lack of support such as tools and training in this area. The waste regulation does not impose very high requirements for training in hazardous waste, but the requirements for traceability of hazardous waste have drawn attention to the issue.



## Conclusions

- **Awareness and use of the SCIP database.** Only a few of the stakeholders that have participated in this study are aware of SCIP and what its purpose is. In many of these cases, the knowledge is limited and superficial and mostly related to having heard the name/acronym. Fewer still have tried to search the database and none of the respondents uses SCIP regularly. The results for those that have tried have not been successful in the sense that the information has either not been found or not considered useful to the waste operator. More than one stakeholder have also stated that they do not deal with waste but rather raw materials, something that could have other implications, e.g., for compliance with End-of-Waste criteria.
- **Benefits of the database for recyclers.** Respondents to this survey do not see much benefit from SCIP in its current form and with the legal requirements that exists in this area today. There seems to be a general opinion however that SCIP could become relevant in the future. The companies' work with removing hazardous substances is primarily focused on legal requirements and since SCIP does not encompass any legal obligations for waste operators, this may explain the low interest. Some stakeholders mention that the database may be more useful to assist in determining which products that are suitable to reuse and that can be resold.
- **Need for information on SVHCs.** Many of the actors in the waste chain do not see it as their role to remove certain items in their waste flow but rather to make sure that the waste is properly sorted according to type of product or material suitable for the recycler that is the final actor turning the waste into recycled material. The recyclers themselves perceive that they have a well-developed knowledge of which type of components or products that contain problematic substances, both through extensive experience and from using technical aids such as XRF or chemical analysis. This knowledge is an integral part of their businesses and important to be able to charge for material they receive and/or enable reselling it. Based on the information collected in this survey, some waste flows also do not appear to have any known issues with contents of SVHCs, e.g, glass (excluding lamps), tyres and certain EEE (refrigerators and freezers).
- **Possibilities for improving SCIP.** The very limited use of SCIP reported by the stakeholders in this consultation also means that there have been few suggestions on improvements. It has however been expressed that the format in SCIP is designed for the notifying companies rather than for waste operators. Interviewees highlighted that it would be beneficial to be able to search for relevant categories such as construction products or to see summarized information for materials, e.g., polyester and see the risk for SVHCs associated with that.
- **Connection products and waste.** One issue that has been mentioned repeatedly throughout this project is the difficulty to connect a certain waste item with data on contents of SVHCs in SCIP. Recyclers handle large volumes of waste in varying shapes and conditions, and it is not possible to spend time to manually research the content of each item. It appears as if the whole infrastructure needed for this to be successful is currently missing. Although research and pilot tests have been performed

with labelling and QR-codes and that the technique to do this may exist in theory, it is not yet developed or available to recyclers

- **Recyclers views on how to reduce the risk of recirculation of SVHCs.** A few of the interviewed recyclers mentioned the same measures to avoid recirculation of SVHCs; restrict the possibilities to include hazardous substances in new products and increasing enforcement of products placed on the EU market. Imported products was mentioned as especially relevant. Furthermore, the recyclers are of the opinion that there should be stricter requirements for recyclability of products and that focus should not only be on household packaging. Lastly, increased support, guidance and availability of tools and education when it comes to SVHCs was mentioned.

## Discussion

The introduction of the SCIP database had several purposes and from the ECHA ex-post evaluation (ECHA, 2022), the sought outcomes are summarized as; allowing waste management operators to effectively deal with waste, enable consumers to make informed choices, trigger producers to substitute SVHCs and to allow authorities to initiate informed actions. From the results of this study, it is evident that the aim to assist waste operators in dealing with SVHC containing waste has thus far not been successful. This conclusion is in line with and supports the results from the ECHA ex-post evaluation.

It is clear from the replies from waste operators that recyclers are those that primarily assume a responsibility for the chemical content of the output from their process. In the discussions and correspondence with these actors, there has been a notable absence of mentioning of client/customer demand for SVHC free material. Recyclers rather mention the legal requirements that they or their customers must fulfil, e.g., RoHS metal limit values or WEEE components that must be removed. It seems like the fact that SVHC content in articles and materials is not prohibited leads to a lower prioritization amongst recyclers despite the hazardous nature of these substances. Considering the volumes of waste and the lack of technical aids to assist in sorting and removing individual items, the waste stage is not the ideal location for carrying out material flow detoxification activities. Although necessary for older products and legacy substances, it is considerably easier and more efficient to ensure the substitution of these substances in the product design phase and not let them enter the material cycles in the first place.

Throughout this project, several respondents mention the possibilities to use SCIP to determine the suitability for reuse of SVHC containing articles rather than focusing on its usefulness for recyclers. This position may not be entirely understandable for someone working with these issues. Products containing SVHCs should, in the best of worlds, be safe to use due to the Reach risk assessment requirements. Even if this can be questioned, to end the life of a product and steer it away from reuse due to its content of SVHCs whilst at the same time a similar new product could lawfully contain the same substances appears irrational. For recycling on the other hand, the incentive to remove these substances appears more pressing since the recycled material could end up in a more sensitive use situation. It appears as if the knowledge of both SVHCs, legal requirements and SCIP is generally low.

For SCIP to be used the way it was intended in terms of waste operators, there seems to be a need to both raise awareness through information campaigns but also to increase the importance of SVHCs by introducing some kind of legal requirement. It would however not be fair to lay this solely on recyclers that have no possibilities to affect the content of the waste products that they are handling.

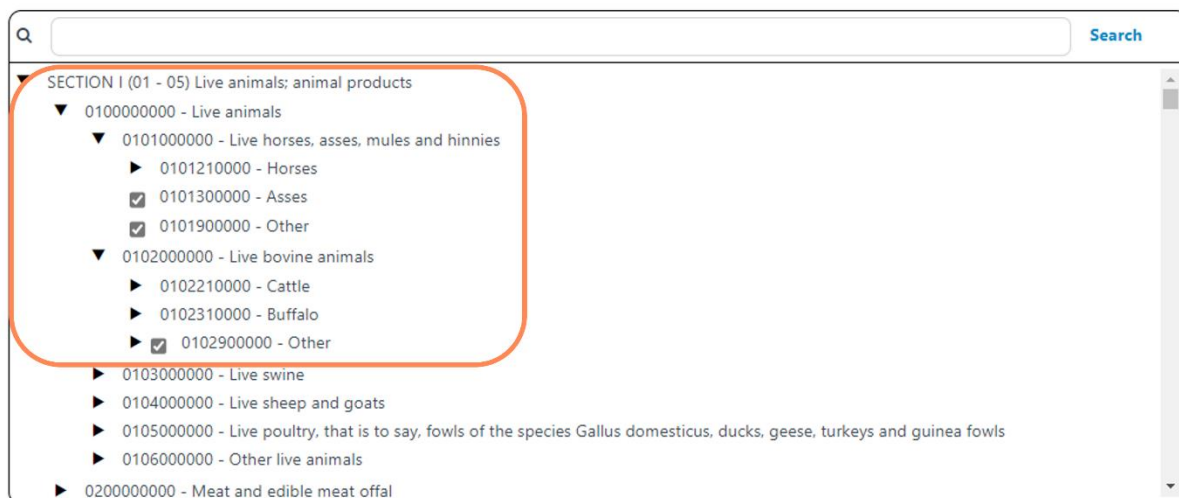
## Experiences from searching in SCIP

During the course of this project, the project team has performed searches in the SCIP database to retrieve statistical information on materials and number of notifications but also to get a feeling and understanding of the search itself and its usefulness for waste operators. Some of these searches showed that the database is still “immature” and not really a good alternative for waste operators to retrieve information about SVHCs in articles. Below is a reflection from the experience attained from the searches in this project in relation to previous experience and stakeholder information.

When it comes to the article search, there are a lot of options to choose from in terms of article identifiers, e.g., EAN nr, part number, article nr, brand, SCIP nr etc. This is valuable in the sense that most types of identifiers are searchable. There are however issues with this type of search that makes its usefulness questionable. For some products, it may be possible to use the identifiers on the product itself to find a notification in the SCIP database, e.g., a mobile phone. For many articles however, there is no labelling or identifier that could be used to search. This is not a mandatory requirement for most products and even when it is, information in the form of barcodes or QR-labels may be damaged from handling during the use phase and from the waste handling. Furthermore, even if the information is there and fully legible, it is uncertain how a recycler could make use of it. There does not appear to be any developed automated systems that could read the information, retrieve the information from SCIP and sort the waste accordingly, at least not on an industrial scale. Additionally, the waste articles are often labelled on one certain spot and to read the labelling, the waste may need to be positioned in a way that allows scanning. This is also not possible with the current technology.

When using the article category search function, there are a number of sections that all are divided into sub-categories. Each sub-category in turn contains further detailed categories. As a test, the first section was chosen to search for notifications that are located in sections that do not appear logical. The results from the first two subcategories of live animals including live horses, asses, mules and hinnies and live bovine animals, Figure 4 below, shows that there are 508 results (as of 2022-10-10). This result is surprising in the sense that live animals is not a category expected to be notified. Some of the articles listed in the search result are clearly misplaced, e.g., bicycles and skateboards. Other articles are tests or even nonsense. In some cases, there may be a confusion on behalf of the notifiers mixing up the end use with the article category i.e., some of these articles may be used for live animal purposes. This is however most likely a minority. This result indicates that there are presumably a lot of notifications that are misplaced and many that are not relevant at all. It could be questioned if certain article categories, such as the whole section 1 (live animals and animal products) should even be eligible for notification since neither live animals, meat or edible offal are articles in the sense of the Reach Article 3(3) definition.

Figure 4. Excerpt from the SCIP database article category search.



Another problem with the database and the registrations is that the variety of quality and amount of information. Some registrations have registered a concentration range of  $> 0.1\%$  w/w and  $\leq 100\%$  w/w, Figure 5 below. This type of information makes it difficult to use the registration.

Another problem is the material category "other". In that category, a large variety of registrations was found. In order to reduce the number of registrations in the material category "other", there should be a stricter information requirement to clarify why that category was chosen.

Figure 5. Example of concentration range in a registration in the SCIP database.



The screenshot displays the 'Candidate List substance info' section of the SCIP database. It features a table with the following data:

Substance name	EC N.	CAS N.	Reason for inclusion
Lead	231-100-4	7439-92-1	Toxic for reproduction (Article 57c)

Below the table, the 'Concentration range' is specified as '> 0.1% w/w and ≤ 100% w/w'. Under 'Material categories', the entry '1. other:' is listed.

## Discussion of method

Some methodological considerations may have influenced the results in this study. Before having scheduled interviews or received answers from questionnaires, requests for opinions on SCIP went out to the business organizations. These in turn, asked their members who mostly replied that they had little or no experience with the database. Some of these members turned out to be the same actors that were chosen for interviews or questionnaires and their willingness to participate was reduced as they already felt that they had contributed.

Considering many of the replies, it may have been possible to be clearer and more concise in the communication towards the waste operators on how this affects them and how they could contribute.

Despite the above, the results and the respondents are assessed to be representative for Swedish waste operators and considering the similarity of the replies, further increasing the number of interviews or questionnaire recipients would likely not lead to different results.

## References

- AFIRM. (2022). Retriected substances list version 07. Retrieved from [https://afirm-group.com/wp-content/uploads/2022/02/2022\\_AFIRM\\_RSL\\_2022\\_02161.pdf](https://afirm-group.com/wp-content/uploads/2022/02/2022_AFIRM_RSL_2022_02161.pdf)
- Allabolag. (n.d.). *allabolag*. Retrieved from <https://www.allabolag.se/>
- CJEU. (2015, 09 10). *InfoCuria*. Retrieved from JUDGMENT OF THE COURT (Third Chamber) in Case C-106/14: <https://curia.europa.eu/juris/document/document.jsf?jsessionid=5F9B272748A41E0D49D7272037FF0CF7?text=&docid=167286&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=9672767>
- ECHA. (2019, 09). Detailed information requirements for the SCIP database. Retrieved from [https://echa.europa.eu/documents/10162/28213971/scip\\_information\\_requirements\\_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d](https://echa.europa.eu/documents/10162/28213971/scip_information_requirements_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d)
- ECHA. (2022). *First ex-post Evaluation of SCIP*. Retrieved from [https://echa.europa.eu/documents/10162/6205986/scip\\_evaluation\\_report\\_en.pdf/2c677149-e876-f2b1-0ba7-3daca0a419ef?t=1665556373094](https://echa.europa.eu/documents/10162/6205986/scip_evaluation_report_en.pdf/2c677149-e876-f2b1-0ba7-3daca0a419ef?t=1665556373094)
- European Comission. (2020, 03 20). A new Circular Economy Action Plan For a cleaner and more competitive Europe. (COM(2020) 98 final). Brussels. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>
- European Commission. (2017). *Analysis of the interface between chemicals, products and waste legislation and*. Retrieved from [https://ec.europa.eu/smart-regulation/roadmaps/docs/plan\\_2016\\_116\\_cpw\\_en.pdf](https://ec.europa.eu/smart-regulation/roadmaps/docs/plan_2016_116_cpw_en.pdf)
- European Commission. (2019, 06 20). Non-paper on the implementation of articles 9(1)(i) and 9(2) of the.
- KEMI. (2015). *Developing REACH and improving its efficienccy - an action plan. Report 2/15*.
- Naturvårdsverket NFS 2018:11. (2018, 12 04). Naturvårdsverkets föreskrifter om yrkesmässig lagring och behandling av elavfall som omfattas av producentansvar (Regulations on the professional storage and handling of electrical waste) .
- Official Journal of the European Union. (2006, 12 06). REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1907&from=SV>
- Official Journal of the European Union. (2018, 05 30). DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 amending Directive 2008/98/EC on waste. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0851&from=EN>
- Official Journal of the European Union. (2018, 07 15). DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008L0098-20180705&from=EN>

# Annex 1. Questions to participants

## Interview questions for recycling operators

1. Are you familiar with the SCIP-database, yes or no?

If yes

- Do you use/have you used information from the SCIP database?
  - o If not, why not?
- What benefits did you derive from it/what was the outcome?
- How could it be improved to meet your needs?
- Is the information on the location/component of the hazardous substance useful?
- Does the need for information differ according to the complexity of the goods?
- Are there certain commodities/commodity groups for which the information works/does not work and why?
- Are there technical aids or markings that help to identify particularly dangerous substances in parts/components?
- Does the SCIP database contribute to raising waste management in the waste hierarchy?
- Does the SCIP database contribute to the detoxification of waste streams? If so, how and which flows?

If no

- Why not, do you think?
- What is your need to manage the content of substances of very high concern in waste?
- Do you see that you could benefit from a database containing information on substances of very high concern in articles?
- Are there any technical aids or labels currently available to help identify substances of very high concern in parts/components?
  - o If yes, please describe
  - o If no, is there a need?

## Survey questions to recycling operators

1. In which part(s) of the recycling chain does your company provide services?

- Collection and transport?
- Sorting and pre-treatment?
- Recycling?

2. Are you familiar with the SCIP database, yes or no?

If yes

- Do you use it?
- What benefits do you get from it?
- How could it be improved to meet your needs?

If no

- Why don't you think?
- Do you see that you could benefit from a database containing information on particularly dangerous substances in articles?

3. What is your need to manage the content of particularly hazardous substances in waste?

4. Do you benefit from information on chemical content at item or material level?

## Survey questions to business associations

- To what extent do your members use SCIP?
- Have you informed your members about SCIP and its purpose?
- What is the experience of its use?
- How could the information in the database be improved to make it more useful?
- Any other comments?



## Questions to municipal waste treatment operators

1. Are you familiar with the SCIP database, yes or no?

If yes

- Do you use it?
- What benefits do you get from it?
- How could it be improved to meet your needs?

If no

- Why don't you think?
- Do you see that you could benefit from a database containing information on particularly dangerous substances in articles?

2. What is your need to manage the content of particularly hazardous substances in waste?

3. Are there any technical aids or labels currently available to assist in the identification of particularly hazardous substances in parts/components?

4. How do you currently deal with hazardous substances in goods you collect and which are left by customers at the recycling center?

## Annex 2. Respondents/Contacted operators

Table 5. Contacted waste operators in the construction industry

<b>Construction</b>
Avfallsgruppen
Big Bag (part of Sortera Group AB)
Bobcon
CCBuild
Circla
Demontera Sverige AB
Joex
Junkbuster
Kuusakoski Recycling
Leo Söderberg AB
Miljö i Roma
NMT
Pixall
Ragn-Sells AB
Sortera
Stockholms Byggavfall
Turebergs
Wiklunds
Åkerisäcken (part of Sortera Group AB)

Table 6. Contacted waste operators in the metal industry

<b>Metal</b>
Enviro
Eskilstuna Metallåtervinning AB
HF Recycling
Järnmalmer T. Malmer AB
Lantz
Lantz Järn & Metall
Lindbergs
Kuusakoski Recycling
Metallåtervinning AB
Skattkärrs Metallåtervinning
Skrotfrag AB
Stena Recycling

Table 7. Contacted waste operators in the plastic industry

<b>Plastic</b>
Järnmalmer T. Malmer AB
Kuusakoski Recycling
Novoplast
Prezero Recycling AB
Recipo
Trioworld Industrier AB
Van Werven AB

Table 8. Contacted waste operators in the textile industry

<b>Textile</b>
Björkåfrihet
Reused Remade
Renewcell Ab
SIPTex (SYSAV)
Södra
Wargön Innovation

Table 9. Contacted waste operators in the electronic industry

<b>Electronics</b>
EI- kretsen
NG Metall
Recipo
Revac
Skrotfrag
Stena Recycling

Table 10. Contacted waste operators in the glass industry

<b>Glass</b>
Remondis
Scandinavian Glass Recycling, SGR
Veolia Recycling Solutions

Table 11. Contacted waste operators in the rubber industry

<b>Rubber</b>
EcoRub AB
Kuusakoski Recycling
Ragn-Sells Däckåtervinning AB

Table 12. Contacted waste operators in the vehicles industry

<b>Vehicles</b>
Skrotfrag Ab
Stena Bilåtervinning

Table 13. Contacted waste operators in the paper industry

<b>Paper</b>
Järnmalmer T. Malmer AB
Stena Bilåtervinning

Table 14. Contacted waste operators in the wood industry

<b>Wood</b>
Järnmalmer T. Malmer AB

Table 15. Contracted municipal waste treatment operators

<b>Municipal Waste Treatment Operators</b>
Kretslopp och vatten, Göteborgs Stad
Nacka vatten och avfall
VafabMiljö
VaSyd
Telge Återvinning

Table 16. Contacted business associations

<b>Business Associations</b>
Glasbranschföreningen
Återvinningsindustrierna
Avfall Sverige
Byggmaterialindustrierna
Däckbranschen Sverige
Bilåtervinnarnas Riksförbund
Jernkontoret
TEKO
Svensk Däckåtervinning
Skogsindustrierna

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