

Nordic Working Paper

Nordic project on enforcement of internet trade

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Nordic project on enforcement of internet trade

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Glossary

Word	Explanation
Articles	The Reach definition of articles is: “an 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.” Examples are dolls, clothes, electrical products, home styling products, sports equipment, bags, jewellery, gifts etc.
Chemical product (CP)	Chemical substances and mixtures
Cosmetic and hygienic product (CHP)	Any substance or preparation intended to be placed in contact with the various external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance and/or correcting body odours and/or protecting them or keeping them in good condition.
Biocidal Product (BP)	According to the Biocidal Product Regulation (BPR), a BP is: “any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action.”
Global marketplace	An international service provider, which allows the consumers to conclude online purchases on the online marketplace's website. The marketplace do not own the products they sell, they just provide them. Global means that the marketplace act on a global scale and not just in one country or region. Examples are Amazon, E-bay, Wish, Alibaba etc.
Golden sample	If companies are aware that the purchase is for enforcement purposes, they may not send their typical products but rather send better quality samples.
National Marketplace	Marketplace that are based in one of the Nordic countries and are acting in only that country or on the Nordic market. Examples are Fyndiq (Sweden), CDON (Sweden), Nicehair.dk (Denmark), Finn.no (Norway)
(Online-) Marketplace	A service provider ¹ , which allows the consumers to conclude online purchases on the online

¹ Defined in point (b) of Article 2 of Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce').

	marketplace's website ² . In this project we define it as a marketplace that can be global or national.
Mystery shopping	Various explanations are used for the term "mystery shopping". In this project, the term is used for when sampling from authorities have been conducted without informing the companies that the purchases are for market surveillance activities (the name of the authority is not included when completing the order).
Online sales	Online sale is a form of electronic commerce, which allows sellers to sell goods or services directly to a buyer over the internet.
Plant Protection Product (PPP)	According to the Plant Protection Product Regulation, a PPP is a product: "consisting of or containing active substances, safeners or synergists, and intended for protecting plants or plant products against all harmful organisms or preventing the action of such organisms, unless the main purpose of these products is considered to be for reasons of hygiene rather than for the protection of plants or plant products"
Web shop	Covers all websites that directly sell goods (and services) online. It includes direct sale websites of own products and retail web shops of different suppliers. In this report, it does not include marketplaces.

² Definition based on the Regulation (EU) No 524/2013 on online dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Regulation on consumer ODR): <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0524&qid=1559056501498&from=DE>

Summary

Online sales are increasing rapidly and for market surveillance authorities this entails special challenges and need for new ways of enforcing this growing market. Enforcement needs to be conducted not only against domestic companies but also against companies based in other countries, within or outside EU. In order to enforce these type of companies, authorities from different member states must cooperate more closely than before and also work with new enforcement measures.

In this joint Nordic enforcement project, 361 products from 161 companies were investigated. The Nordic inspectors checked articles (including toys, electrical products and other articles), biocides, chemical products, cosmetic and hygienic product and plant protection products. Legislation that were enforced were the CLP Regulation, the Plant Protection Products Regulation, the Reach Regulation, the Biocidal Products Regulation, the POPs Regulation, the RoHS Directive, the Toy Safety Directive and the Cosmetic Products Regulation.

Results from the project show that products bought directly from companies outside EU had more than double the amount of non-compliances compared to products bought from companies within EU. One reason for the result could be that companies from outside EU selling directly to consumers often do not consider that the products should be compliant with EU legislation. Another reason could be that many of the non-EU companies in this project were online marketplaces. These companies may consider that they are not legally responsible for the compliance of the products, but that the actual seller of the product is the one responsible.

When comparing different kind of internet trade, webshops have a higher compliance rate than marketplaces (both global and national) and there is an indication that national marketplaces has better compliance than non-EU marketplaces.

For chemical products, biocidal products and plant protection products, the results show a high rate of non-compliance with the commercial rules (information about products hazardous properties or certain information required for biocides and plant prodctions products). Almost none of the products controlled in this project complied with the commercial rules.

Articles were the most investigated products (66 percent) and the results show that compliance rate was lowest for electrical products (57 percent non-compliance), followed by toys and other articles that had around 23 percent non-compliance for restrictions. Common violations were lead in solders in electrical products, boron migration in slime toys and SCCPs in soft plastic. Candiate List substances, especially phthalates, were found in around 20 percent of the tested articles.

Almost all EU companies were responsive and communicative and removed non-compliant products or changed incorrect information on their website. When companies did not comply, the matter was handed over, either by the baton feature in ICSMS or by email to the responsible authority in the country. Cooperation between authorities worked well and the responsible authority solved almost all issues. Some of the non-EU companies did not respond to enforcement requests, and the follow-up revealed that these companies continued to sell non-compliant products.

The results from this project show a high non-compliance rate for all regulations controlled. This indicates that it is important to include internet-based companies in enforcement projects. These companies often have websites that appear to be located nationally, but are in fact based in another country, which emphasizes the need for close collaboration between the Nordic and European enforcement authorities.

One important objective of the project was to develop a methodology for enforcement of products sold online. During the inspections, the participants tested different technical tools and strategies. For example, the use of stealth computer (with hidden IP address) and different key words were investigated. The participants used ICSMS and email as tools for communication between member state authorities and in general, the cooperation worked well and cross-border cases could be dealt with smoothly.

Please note that the results presented in this report are not based on random sampling, and therefore should not be considered to be applicable to the entire market. The selection of samples is based on risk products and experience from previous enforcement.

1 Background

1.1 About the Nordic cooperation

The chemical authorities in the Nordic countries have for many years co-operated in various enforcement projects, to ensure greater impact, quality and practice of the interpretation of harmonised EU legislation in the field of chemicals.

The Nordic enforcement projects are run by the Nordic Enforcement Group, which is a subgroup under the Nordic Chemicals Group under the Nordic Council of Ministers who authorises the projects. The main purpose of the Enforcement Group is to exchange experience on the enforcement of the chemical legislation and prepare common enforcement projects. We meet once a year in a joint meeting for knowledge sharing, discussions of practical issues, and exchange of information from national enforcement projects.

We launched this control and enforcement project in early 2019 and it will be finished in mid-2020. The focus of the project is to establish and practice online enforcement methodology as well as enforce chemical rules on companies that sell products online.

The main responsibility for the project was allocated to the Swedish Chemicals Agency and the project leader was Markus Klar. Participants from the other Nordic countries in the project group were Kim Holm Boesen, Kenneth Ebert and Gudrid Christiansen from the Danish Environmental Protection Agency, Frida Ramström and Karin Rumar from the Swedish Chemicals Agency, Lotta Kaila from the Finnish Safety and Chemicals Agency (Tukes), Ingvild Kvien and Jenny Skytte af Sättra from the Norwegian Environment Agency and Björn Gunnlaugsson from the Environment Agency of Iceland.

1.2 Why do a joint enforcement action on internet trade?

About 60 percent of the Nordic population (18-79 years) bought products from the internet in 2018. The total turnover was just over €23 billion, which is more than a threefold increase since 2008³. For Sweden, representing about 40 percent of the Nordic market, model estimations predict that e-commerce will account for 22-33 percent of all commerce in 2025⁴. Together with the digitalisation in general, it is the most significant structural transformation of retail trade in the last 50 years. With small inter-country variations, the development is the same throughout the Nordic region.

Internet-based businesses and commerce do not only mean that the sheer number of traditional physical stores is decreasing. From the enforcement authorities' point of view, it means that the economic and legally responsible actors behind the companies can trade in a country without being within the jurisdiction of the national enforcement authorities.

Concisely, this means that the authorities' traditional instruments for increased regulatory compliance sometimes become ineffective. In parallel with this development, new types of players, e.g. online marketplaces such as eBay and Amazon, have grown in importance to which the enforcement organisation must adapt in order to be effective.

Because e-commerce enables a short distribution chain, for example direct contact between manufacturers and consumers via a marketplace, the supply of goods and chemical products

³ https://www.emota.eu/media/1217/e-commerce-in-the-nordics-2018_eng_low.pdf

⁴ https://www.svenskhandel.se/globalassets/dokument/aktuellt-och-opinion/pressmeddelande/rapport_det-stora-detaljhandelsskiftet_2018-digital-version.pdf

The span depends on varying assumptions in different model scenarios.

can change faster as compared to traditional commerce. This means that also the enforcement response must be faster. Hence, traditional control involving analysis of chemical content is not always an appropriate method of proof, and the enforcement methodology need to be adapted to the conditions that characterise e-commerce.

To sum up, traditional instruments for control of regulatory compliance and product safety are not fit for the internet trade conditions; there are no indications of a slowdown regarding the increasing importance of internet trade or digitalisation in general; and some enforcement signal lower compliance in internet-traded goods⁵. Moreover, the trans-border nature of internet trade makes well developed communication and cooperation among member states a crucial component in successful enforcement. A common Nordic enforcement project would facilitate the needed adaption of enforcement authorities to these new conditions, and thereby control the risks for health and environment as effective as possible.

1.3 The Nordic context

As argued above, there is a need to adapt each country's enforcement according to the changed conditions that the growing internet-based trade entails.

A collaborative project where each country in the Nordic region contributes with their respective best practice for enforcement of e-commerce would probably involve great synergies:

- 1) knowledge exchange – the experiences within this field varies among the Nordic countries. An exchange of information would thus be of benefit for the entire region.
- 2) harmonisation – the project provides an unusual opportunity to be able to harmonise methodology and tools between the Nordic countries at an early stage.
- 3) operational enforcement - since this type of trade is cross-border by nature, rapid communication and cooperation between countries (market surveillance authorities) is even more crucial for an effective enforcement. This builds on the experiences of the former joint Nordic give-away project.

1.4 Objectives

The main objective of the project was to learn and develop a methodology for enforcing internet-based trade. This included for example a fast and harmonised communication between the Nordic countries and establishing enforcement methods. As a means to practice and develop methodology and at the same time enforce chemical legislation, the project controlled compliance of articles, chemical products (CP), plant protection products (PPP), biocidal products (BP) and cosmetic and hygiene products (CHP) sold on the internet. The intention was to have a comprehensive scope covering those legislations that are relevant to the competent authorities participating in the project as well as different types of actors from different geographical, jurisdictional business type contexts. With such a scope, we would gain experience from a variety of different situations where different strategies need to be tested in order to be successful.

Although difficult, the project also had the ambition to get a better estimation of the actual level of internet trade as well as the compliance with different chemicals legislations. The

⁵ <https://www.kemi.se/global/tillsyns-pm/2019/enforcement-3-19-enforcement-of-e-commerce-2018.pdf>

project also tried to identify the reasons for non-compliance and what the most effective corrective actions are.

The more detailed objectives of the project were:

- Develop a methodology for enforcing internet-based trade.

The methodology will include search methods, identifying companies, secure evidence and communication. More details in Methodology, section 2.

- Increased co-operation among the Nordic countries.

A smooth co-operation between the national authorities is key to an effective enforcement. Since our experience within this type of enforcement field is limited, the ambition is to start at a basic level, and at least part of the monitoring should be limited to Nordic operators, if possible. This way we can test the co-operation and communication among the participating countries. For BP (biocidal products) and PPP (plant protection products), this Nordic enforcement approach fits well and is a good starting point.

- Get experience on internet-based companies outside the EU/EFTA.

Some countries (especially for articles) will enforce companies outside the EU/EFTA. The reason is that the market for articles is much more international with a large part of the trade from countries outside the EU/EFTA. The challenge is how to reach that market and make the products safer. That experience can then be used in the Forum REF-8⁶ project about e-commerce. Regarding BP and PPP, the work will have a more exploratory nature. The ambition is to map trade patterns of BP/PPP on the large marketplaces, and thereby gain experience in targeting illegal products and communication with these actors.

- Use and get increased experience of ICSMS.

All the cases with significant non-compliances were to be reported to ICSMS. Hence, we would learn to use a common EU-tool and communication will be harmonised. Our Nordic example could encourage other MSs to start using the database more frequently.

- Network building.

Includes establishing communication pathways to enforce violations as well as encourage internet-based companies to have a proactive work concerning product safety in terms of routines and basic knowledge. Especially important if the company is outside competent authority jurisdiction.

As mentioned above, there is during 2020 an ongoing EU REF-8-project, in which all member states are invited to jointly enforce chemicals legislation in internet trade. As part of

⁶ The Forum for Exchange of Information on Enforcement (Forum) is a network of authorities responsible for the enforcement of the REACH, CLP, and PIC, POP and Biocidal Product regulations in the EU, Norway, Iceland and Liechtenstein. Ref-projects are joint enforcement projects in Forum.

REF-8, a comprehensive and systematic practical guide on how to enforce chemical rules when products are sold via the internet will be launched. Instead of producing a very similar Nordic best practice document within this project, it was decided to refer to the REF-8 manual. Since the two documents largely would have been overlapping, double work is avoided, and having one instead of two practical guides is probably better from a methodology harmonisation point of view.

2 Methodology

2.1 Legislative scope

The scope of the project is to check compliance of products sold online that fall under the chemicals legislation listed in table 1.

Table 1. The legislations and specific articles in the legal acts that are in scope of the project.

Legislation	Articles / Paragraphs
CLP Regulation	48.2 – commercial rules
Plant Protection Products Regulation	28 – authorisation, 66 – commercial rules
Biocidal Products Regulation	17 – authorisation; 72 – commercial rules
Cosmetic Products Regulation 1223/2009	13 - notification; 14 - ban on hydrogen peroxide; 19 § 5 - labelling.
Danish Administrative order BEK nr 803 af 21/06/2013	§ 3 of the Danish administrative order – language used in labelling
REACH Regulation	67 and Annex XVII – restricted substances 33 – information about Candidate List substances
POPs Regulation	3 – restricted substances
Toy Safety Directive	10 – migration of certain elements 16 – CE-marks, 4.6 and 6.3 – contact information
RoHS Directive	4 – restricted substances 7 and 9 CE-marks and contact information

One important aspect of this project was to cover as many chemical legislations as possible, in order to investigate what methodology is most suitable for enforcement of the different legislative acts when performing controls of products sold online. The participating member states controlled different types of products, and thus, different legislations were controlled.

In some of the legislations, there are specific rules that apply when a product is sold online, below called “commercial rules”. These rules are rather simple to enforce, since they can be controlled directly on the screen without purchasing a sample or ask the vendor for more product information. To be able to inspect immediately on-screen in order to match the high turnover rate of goods in e-commerce, the commercial rules were included in the PPP, BP and CP controls. For BP and PPP, the requirement of authorisation was also included. For these types of products, it is the most important control point, and may also be controlled online or else in the subsequent correspondence with the vendor.

For some legislations, mostly those relevant to articles, there are no specific rules that can be controlled just by looking at the online sales information. In these cases, the inspector needs

to get access to samples for chemical analysis of the product and/or ask the vendor for product information.

More about the legislation that is relevant can be found in Appendix 1.

2.2 Inspection procedure

One purpose with this project has been to develop methodology for enforcement of products sold online. In this section, the methodology and the most important steps in the inspection procedure are described.

2.2.1 Selection of companies

In this project, e-commerce companies are defined as companies that primarily sell via the internet. It can be companies that sell their own products in their own web shop, as well as companies that provide a marketplace for other companies' products. The latter are referred to as "online marketplaces".

Based on what regulatory area and product type the member states chose to inspect, the inspectors searched the internet for companies that market this type of product. It was decided that inspectors could, and preferably should, choose and include companies based on its location: in their own member state, in other EU member states or outside the EU. Companies that sell via market places as well as pure web shops were included. This way, inspectors would gain experience from varying situations and companies with differing ability for the authorities to impose their measures upon.

The easiest way to find companies that sell a particular type of product on the internet is to use a search engine, and that was the most common method for finding products in this project. For articles and biocidal products, selection of companies were mostly based on utilisation of search engines and appropriate words, keywords, for the search (see annex 2). When performing online searches, the inspectors chose the keywords that was believed to get hits for the type of products that was in scope of the project, e.g. "cheap toys", "plastic doll" or just "slime" (see also 2.2.1.1). Sometimes, a keyword was used to find an appropriate web shop to control and after that the filtering facilities of the web site were used to find specific products/articles.

Since the search results is affected by your location and previous search history, this method gives you most hits for companies in your own region or with similar products you searched for previously. It is more difficult to find companies in other countries without refining the search. Therefore, in this project, it was suggested that the inspector cleared the search history and used "incognito mode" when performing searches.

Since searches are based on keywords that target types of products that are believed to have a relatively high level non-compliances, the results must not be considered a representative sample of the market.

In some cases, it may be suspected that a company is actively hiding their web site from authorities. In these cases, a "stealth computer" can be used, if the national legislation allows it. Using the Stealth, the company cannot detect the IP address of the authority. Equipping a computer with the software "Freedome", thus hiding its IP (stealth characteristics), we wanted to test if this computer generated a different search results when run in parallel to an ordinary computer. If there are differences, one might suspect that the company has blocked pages for authority IP:s. The stealth computer was also used in the follow up phase to evaluate if the

inspected companies were covering up their non-compliances after being aware of the authorities' presence.

We also used two advanced search functions, "site" and "image" in Google. These search methods were not systematically used, but considered to be useful complement to ordinary search.

Another way to find companies that sell a certain type of product is to screen different open forums on the internet where users are advising each other on different web sites on which the products are sold.

Around twenty of the companies selling articles, BPs and CPs, were not included via search on the internet, but as a follow-up from a previous project or came to our knowledge from the tip inbox.

2.2.1.1 Specific to biocidal products

Regarding BPs, the approach was to include keywords (see annex 2) targeting "problem solving" BPs primarily in product types that need authorisation, such as rodenticides, insecticides and wood preservatives. Consumers facing a problem that they do not approach every day and need a quick-fix to solve the problem, may be prone to screen the internet for efficient unauthorised BPs. Substances that are restricted in Reach for use in biocidal products were also included as a keyword when searching for non-compliant products.

A list of 57 key words in 17 different categories were used systematically (see appendix 2). Each word category represents a theme, e.g. disinfection, including variants of words on that theme – "desinfektion", "desinfektionsmedel", "desinficerar", "disinfectant", "pool". Each word usually generates hundreds of hits, and for practical reasons the keyword was discarded if no biocidal product was found within the first 20 hits.

2.2.2 Finding contact information for e-commerce companies

When performing an inspection, it is crucial to identify the company that are placing the product of interest on the market. Enforcement of online sales differ from enforcement of traditional sale with physical shops in the matter of how difficult the contact information may be to obtain. Furthermore, the cross-border nature of online sales contributes to this matter.

By law, all online stores within the EU are required to display their name, organization number, address and e-mail address on their website⁷. However, in many cases this information is missing or is difficult to obtain in an enforcement situation. It can be even more difficult with companies located outside the EU. In this project, these methods were suggested to be used in order to get contact information:

1. The company name and contact information can be found on the first page or under "contact us".
2. Find "General terms", "Terms & Conditions", "Delivery information", "Return address" or the like. The name of the company is often visible in these texts.
3. Start shopping for a product without completing the purchase. Sometimes the company name appears in the payment steps.

⁷ DIRECTIVE 2000/31/EC of on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0031&from=EN>

4. Check if the company is active in social media and shows its contact information there.
5. Contact those who manage the domain names. On these websites, you can search on a particular domain name and in many cases find the company that has registered the domain name.
6. Contact the customer service or make a review of the product and write that the authority wants to get in contact with the company.

2.2.3 Requiring samples

For some types of controls, in general all article inspections, it is required that the enforcement authority obtains one or more samples of the product in order to perform a compliance control. This could either be done by requesting the sample for free (if this is approved by national legislation and internal procedures) or by purchasing the samples.

Some market surveillance authorities have experienced that some companies send them “golden samples”, which are samples that are modified to comply with the legislation, and not the real products that are being sold. To avoid this, so called “mystery shopping” is recommended to make enforcement as efficient as possible, if the national legislation allows it. Mystery shopping is when the name and address of the authority is not used when purchasing the sample.

Since the legislation varies among the Nordic countries, different approaches had to be used. For articles, mystery shopping was used by Norwegian authorities, but in Denmark and Finland, mystery shopping is not allowed. Sweden used the credit card from the authority and ordered in personal name and delivery address was in the authority’s name. Since it was decided that the approach of the Finnish and Danish authorities was to include analysis in their inspections, samples of the products had to be sent to the authorities upon request.

2.2.4 Documentation of information on websites

When reviewing products sold via the internet, it is very important to document what is shown about the company and the products, in order to have the timing and proof of the non-compliance for later prosecution. One way to do that is to take "print screen" images or use other tools to document the information about the product. It can be good to document the different steps at the purchase. From previous e-commerce projects, we have learned that it is a good idea to save the web address (URL) of the product because sometimes the company needs it to identify the product.

Before the inspection phase started, we compiled a reporting template with all the categories of information/data that the project group considered essential to the scope of this project. In addition to the above, the template contains miscellaneous information (about company/product/web page), the non-compliance, the enforcement measures and the methodology, including communication.

2.3 Market surveillance

When a non-compliant product or a non-compliant marketing of a product is found, the authority needs to take some enforcement action. Therefore, it is crucial to decide if the product is placed on the EU market, and thereby obliged to comply with the EU legislation.

There are several factors to consider when to judge if the marketing of a product is aiming towards your national EU market:

- the use of one or more of the national language(s) on the site;
- the, provision of means of payment allowing purchases from your country, possibly also with your currency
- a delivery offer including your territory
- web page (URL) ending with your country's domain name, e.g. .se

If it is obvious that the marketing on the web page is targeting your own country and citizens, the company behind it should be considered to be within your authority's jurisdiction, and hence, it is possible to impose relevant sanctions or actions. The authority's possibility to use different measures depends on the national legislation and the location of the company.

In the project, we decided to follow the approach suggested by the EU Commission⁸. The procedure is as follows:

- 1) If the company is located in the same member state as the inspecting authority, normal enforcement procedures were followed. One common approach is to inform the company about the non-compliance detected and to let the company take voluntary measures, such as withdrawal of the product from the market or change the marketing of the product.
- 2) When a non-compliance was discovered at a company in another EU member state, our procedure was to inform the company about the non-compliance and, in most cases, the company took voluntary measures. If the company did not take measures or did not respond, we contacted the responsible authority in that member state in order to hand over the case to them.
- 3) In the cases where we found non-compliance at companies located outside of the EU, the procedure was to inform the company and encourage them to take measures. In cases where we did not get any response or when the company did not take appropriate measures, we could not go further.

In the case of marketplaces, i.e. a company offering other companies an online marketplace to sell their products, they normally do not place any products on the market. Therefore, the procedure of finding the company that actually is responsible, involves the additional step of gaining the contact details from the marketplace. Since the legal requirements for the marketplaces are limited, especially if the marketplace is located outside the EU, success in the job of getting hold of these contact details normally involves a fair bit of network building and goodwill.

The different types of sanctions that authorities can apply depend on national legislation. Some examples of sanctions are sales ban of a product, prosecution and fines. Normally, it is only possible for an enforcement authority to impose sanctions on companies located in the country of the inspecting authority. In Sweden, however, it has been decided that it should be possible to proceed with some enforcements instruments if a company is clearly marketing non-compliant products towards the Swedish market, irrespective of the location of the company. For example, if the .se-domain is utilised or if the marketing on the webpage is in Swedish, the marketed products are considered to be placed on the Swedish market, and hence, within the jurisdiction of the market surveillance authority. In these cases, the Swedish authority can report the offence to a Swedish prosecutor that could investigate the case. Enforcement instruments that may be applied, but not enforced through injunction with fine,

⁸ Commission notice on the market surveillance of products sold online
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2017:250:FULL&from=SV>

are requirement of payment for the costs of sample analysis and banning of a product from the Swedish market.

2.4 Collaboration and communication between the countries

Since e-commerce is often cross-border to its nature, it is highly important to have an effective cooperation with authorities in other member states. Often, the company that are selling the products of interest is located outside of the inspection authority's country.

In this project, it was decided that the participants with the possibility to use ICSMS⁹, should use this system as one way to inform other member states about their findings of non-compliant products. It was decided to use ICSMS to report all serious non-compliances, such as unauthorised pesticides and findings of restricted substances in articles. The so-called baton function in this system can be used to officially hand over a case to the responsible authority in another member state if the company does not respond or does not take appropriate measures. Non-compliant products with risk for human health and the environment were also reported to Safety Gate¹⁰. Products reported to this system are published to the common public every week by the European Commission. We also used email for direct communication between authorities and inspectors for issues concerning less serious offenses.

2.5 Evaluation of results

The results of methodology and surveillance are presented with simple descriptive statistics such as numbers of fails, percentages and sample size. When feasible, significance of differences in number of compliances and non-compliances among the different categories are tested by two-sided Fisher's exact test utilising the web based statistical analysis free ware QuickCalcs¹¹, assuming random and independent sampling. Since searches are based on keywords targeting the types of products that are believed to have a relatively high level of non-compliances, the results must not be considered a representative sample of the market in general. However, the sampling is still assumed to be random within the group of products that the project *a priori* focused on due to its higher level of non-compliance in previous projects. Moreover, although methods beforehand are harmonised as far as possible, it must be borne in mind that comparisons across product types, involve reported control results from different legislations and rules, as well as inspectors from different countries, this may have led to some deviances in the reported data and the observed patterns should only be viewed as indicative.

3 Results

All in all, more than 361 products were controlled at 161 companies with 10 different nationalities. Table 1 shows what type and number of products that each member state have controlled. As a general approach, results are compared at the product level, with the exception of plant protection products (PPP). 44 PPP companies have been controlled and at least 44 PPPs. Several products were controlled at each company, but the level of compliance was compiled and reported at the company level with an unknown number of controlled

⁹ Information and Communication System on Market Surveillance – a system in which supervisory authorities in the EU report controlled products.

¹⁰ Safety Gate has previously been called Rapid Alert and Rapex. It stands for "Rapid Alert System for non-food dangerous products" and is a system in which supervisory authorities in the EU report dangerous products.

¹¹ <https://www.graphpad.com/quickcalcs/contingency1/>

products. Therefore, PPPs have been excluded from the analyses when product types are compared in this report.

Table 2. Overview of the number of inspected products in the different product categories controlled in the project. For PPPs, 44 companies were inspected meaning that at least 44 PPPs were controlled. Three toys are also electrical products and one toy is also a chemical product. These are included in the toy category.

Type of product	All	SE	NO	FI	DK
Biocidal product (BP)	40	40			
Plant protection product (PPP)	44			44	
Electrical product	47	29	18		
Toy	94	52	42		
Chemical product (CP)	33		13	20	
Cosmetic and hygienic product (CHP)	5				5
Other type of article	98		83	15	
Total number	361	121	156	79	5

3.1 Results methodology

The primary focus of this project was to gain experience, and if possible, evaluate different strategies on internet trade inspections, with the ambition to make the procedure as fit for its purpose as possible.

In this section, statistics comparing different choices of scope, search strategies, and finding contact information are presented.

3.1.1 Choice of scope when inspecting internet trade

The most obvious difference between companies is of course the geographic location of the company that places the product on the market. As described in the previous section, the enforcement possibilities of the authorities varies among the three types of companies:

- 1) national companies within the market surveillance authority's "normal" jurisdiction (225 products),
- 2) EU-companies within the joint jurisdiction of all EU member states (78 products), and
- 3) companies from outside the EU (58 products), from so called third countries for which we have no possibilities to enforce measures unless we can be assisted by authorities in that country

In addition, we also defined three different groups based on business type – *national marketplaces* (25 products), *global marketplaces* (51 products) and *web shops* (285 products). The first two groups have a similar business idea and also displays the geographical aspect, which must be accounted for when analysing the results. Differences among actors that provide a marketplace may relate to their liability in terms of product and consumer safety, which in turn affects the possibility for authorities to impose enforcement measures. In this project, marketplaces were notified about the non-compliances and were asked to remove the offer from the website. Analysing aspects about their liabilities, however, are outside the scope of this project and are not discussed further.

3.1.1.1 Is compliance rate depending on location of company

A comparison of proportion of compliant products marketed by companies situated within or outside the EU is shown in fig. 1. The non-compliance rate for articles and chemical products sold by companies outside the EU was 78 percent (n=58), and within the EU 32 percent (n=206). That is, 129 of the EU articles and CPs were compliant and 66 were not; 13 of the non-EU articles and CPs were compliant and 45 were not. A p-value of <0.0001 indicates that there is a significantly higher non-compliance rate in articles and CPs purchased outside the EU than within the EU. PPPs, BPs and CHPs have not been investigated outside EU and are therefore not included in this analysis, and hence, only articles and chemical products are included in fig. 1. In articles, both restricted substances and labelling requirements of toys and electrical products were compared and results are presented in fig. 1. For chemical products, only restricted substances were included in the comparison. Note that EEA countries are included within EU in this report.

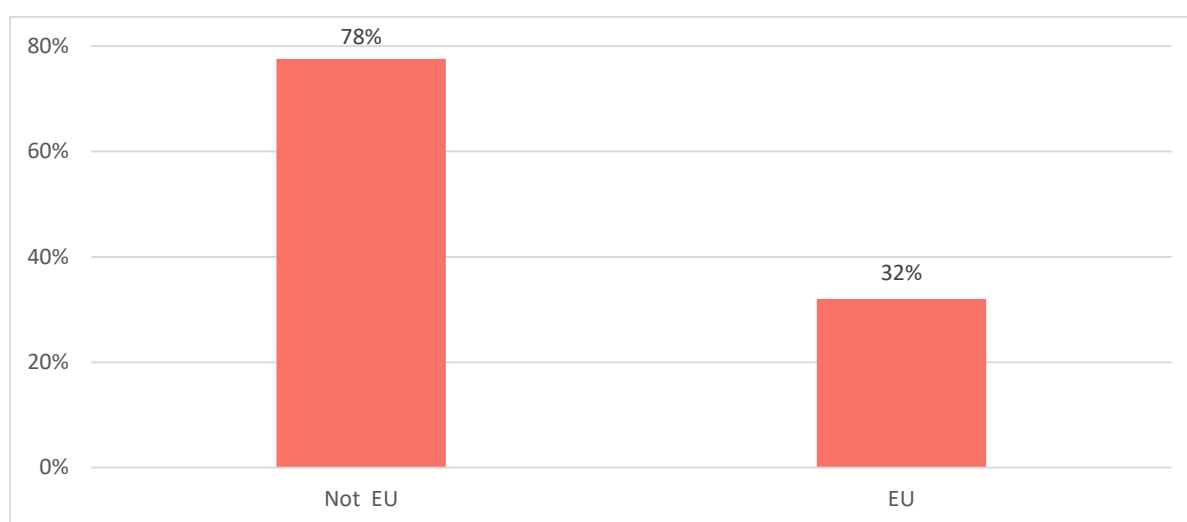


Figure 1. A comparison between the proportion of non-compliant articles and chemical products sold within the EU (n=206) versus products sold outside the EU (n=58). PPPs, BPs and CHPs are excluded.

3.1.1.2 Is communication depending on location of company

In general, the communication with inspected companies went relatively smoothly irrespective of location. One month or more after the first control, some companies were controlled if they had taken measures. This revealed that some had not implemented the proposed measures. There were no indication of correlation between location of company and willingness to follow the proposed measures from authorities. Moreover, there are no data indicating whether the cases of violation was due to poor communication or if these actors just ignored the urged measures from authorities.

3.1.1.3 Is compliance rate depending on the type of business

The proportion of compliance for articles and chemical products sold in webshops versus marketplaces are compared in fig. 2. The non-compliance rate for articles and chemical products sold by web shops, national marketplaces and global marketplaces were 33 percent (n=206), 57 percent (n=7) and 78 percent (n=51) respectively. That is, 139 of the web shops

articles and CPs were compliant and 67 were not; 3 of the national marketplaces articles and CPs were compliant and 4 were not; 11 of the global marketplaces articles and CPs were compliant and 40 were not. When comparing non-compliance rate among the different business types, there is a significantly ($p < 0.0001$) higher level of non-compliance in articles and CPs purchased on global marketplaces than web shops. There was no significant difference in compliance in articles and CPs purchased on national marketplaces when compared with purchases on web shops ($p = 0.46$) and global marketplaces ($p = 0.34$). The reason is the low number of samples from national marketplaces ($n = 7$), which only give an indication concerning the non-compliance rate for national marketplaces.

PPPs, BPs and CHPs are excluded from fig. 2 since these products were not controlled at global marketplaces. In articles, both restricted substances and labelling requirements of toys and electrical products were compared and results are presented in fig. 2. For chemical products, only restricted substances were included in the comparison. Note that EES countries are included within EU in this report.

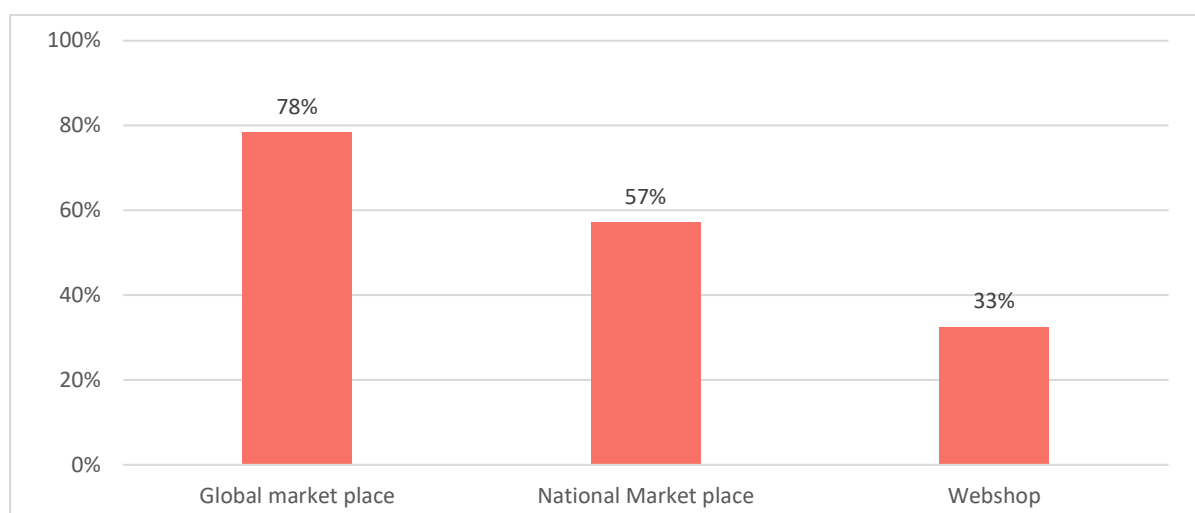


Figure 2. A comparison between proportion of non-compliant articles and chemical products sold via web shops ($n = 206$) and national ($n = 7$) and global marketplaces ($n = 51$). PPPs, BPs and CHPs are excluded.

3.1.2 Search strategies

3.1.2.1 Stealth computer

Inspections under a hidden IP using a so-called *stealth computer* were performed in parallel to an ordinary computer at 15 companies from seven different nationalities (one from outside the EU). The stealth computer was also used in the follow-up phase for 22 companies of eight nationalities. No differences in search results were observed for any of the companies. The sample is small, but indicates anyhow that companies are not trying to hide their business to the authorities. This is probably not a big problem in market surveillance on the internet for this kind of products.

3.1.2.2 Keywords

47 different keywords/combinations of keywords were used to find 192 of the controlled products (see appendix 2).

3.1.2.3 Mystery shopping

125 articles were purchased by Norwegian authorities through mystery shopping, and 84 articles were purchased by Swedish authorities using an authority credit card (not mystery shopping). The non-compliance rate was 36 percent (mystery shopping) and 63 percent (without mystery shopping), indicating that the risk with companies sending golden samples to the authorities is low. In addition, 85 percent of the articles in the mystery shopping category originated from EU companies, compared to 35 percent in the other group, the result is more likely depending on the location of the company (see 3.1.1.1), than the method of purchasing. Hence, in this study, it may be concluded that golden samples are probably not a big problem with these types of articles and mystery shopping is not a vital surveillance tool.

Regarding other product types than articles, either purchasing was not necessary since chemical analysis was not in the scope for the inspection, or the option of mystery shopping was not applicable since it is prohibited in the national legislation.

3.1.3 Contact information

Almost half, 46 percent, of the companies displayed their contact detail information on the *main page*, and the other, 46 percent, under *terms and conditions*. Three percent did not show any contact details and in two percent of the cases, the identity of the company was unknown until the purchase stage. In two out the 89 companies that were included in this comparison, the company identity was found in social media (about half of the companies were deemed unsuitable for the analysis due to reporting issues). Hence, these results indicate that the vast majority of internet based companies seem to follow the requirements regarding transparent information about the accountable company.

3.2 Results market surveillance

3.2.1 All products

The overall picture of the control is that 169 products (53 percent) of the 317 controlled products were non-compliant (fig. 3). PPPs are not included in the results (see 3. above).

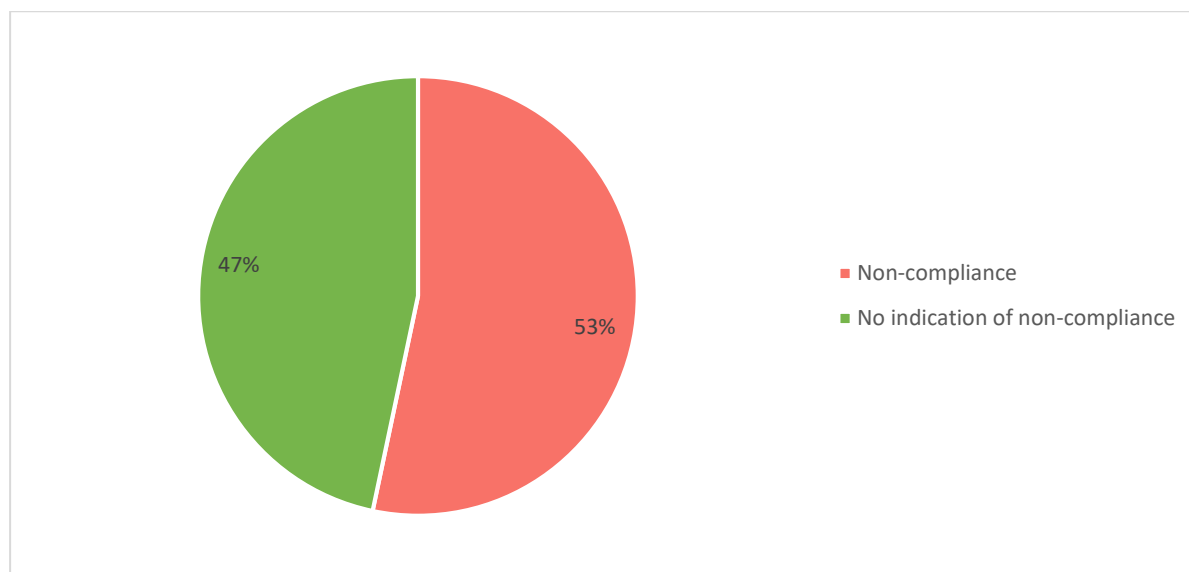


Figure 3. Proportion of the non-compliant products found in the project. PPPs are not included.

The total number of the different non-compliances and content of Candidate List substances is shown in fig. 4. Note that one product can have several non-compliances, and that this figure for that reason cannot be compared with any other figure in this report.

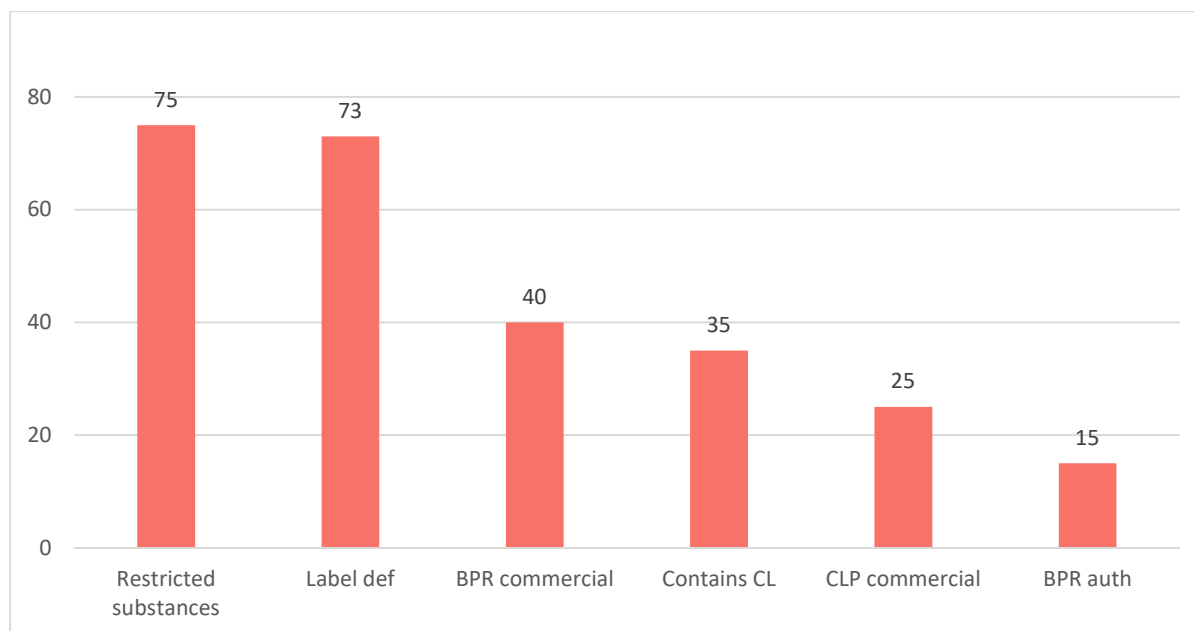


Figure 4. Number of non-compliance or content of Candidate List (CL) substances for the different categories of rules that were controlled (PPPs excluded).

3.2.2 Articles

239 articles were controlled in this project on restricted substances in the REACH Regulation, the RoHS Directive, the POPs Regulation and the Toy Safety Directive. Marketing of electronic products and toys are regulated by EU directives that also includes legislation regulating labelling. These aspects have been controlled as well.

The results on restrictions and content of Candidate List (CL) substances are included in fig. 5. Note that content of Candidate List substances is not non-compliant until the information duty is violated.

The electrical products controlled in this project have the highest levels of non-compliance regarding restricted substances (57 percent).

Examples of other articles in this project are beanbags, dog toys, wallets, yoga mats, shoes, air mattresses and sports equipment, often made of soft plastic material. For these articles, the non-compliance rate for restricted substances was 23 percent and the content of Candidate List substances were 22 percent (figure 5).

In toys, the non-compliance rate for restricted substances were 23 percent (fig. 5).

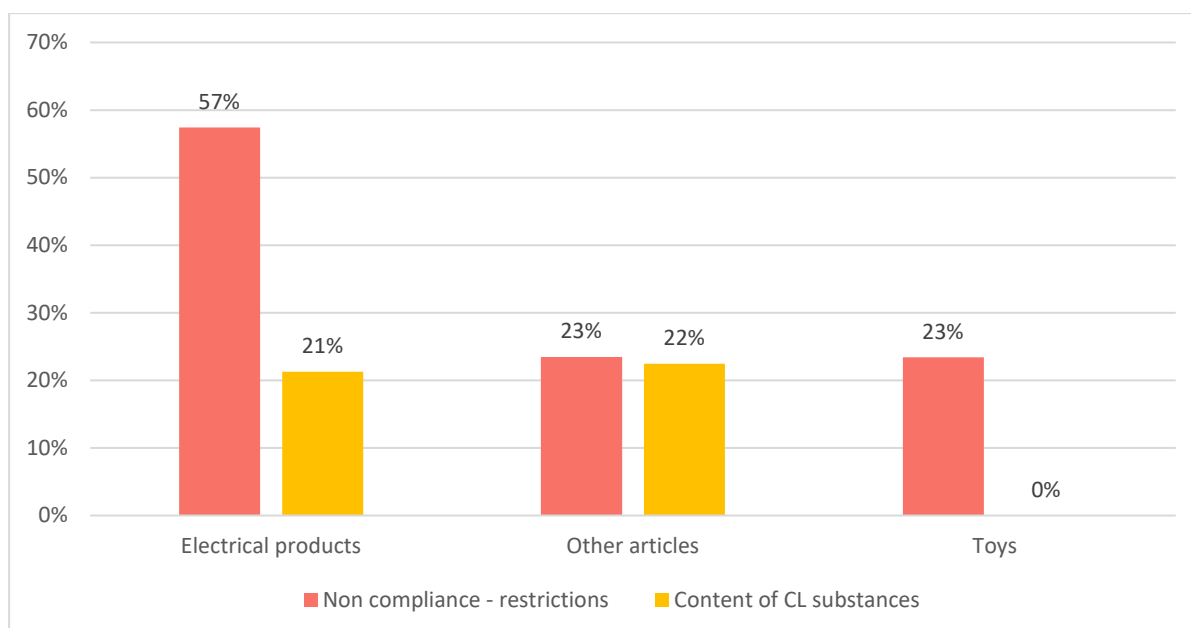


Figure 5. Different types of articles with the percentage of products that did not comply with restrictions or articles that contains Candidate List substances (CL). (Electrical products n=47, Other articles n=98 and Toys n= 94)

The number of non-compliance for the different legislations and articles are shown in figure 6. The most common violation for electrical products were non-compliance with the RoHS Directive where lead was found in solders. The violations of the Toy Safety Directive that we found was due to boron migration in slime toys. Other articles were in most cases made of soft plastic material and therefore the POPs regulation was the most violated because of SCCPs and they also had a high degree of phthalates on the Candidate List. Note that phthalates are restricted in the RoHS Directive since 22 July 2019. The controlled products where bought before that date.

Table 3 gives a more detailed view over the substances found.

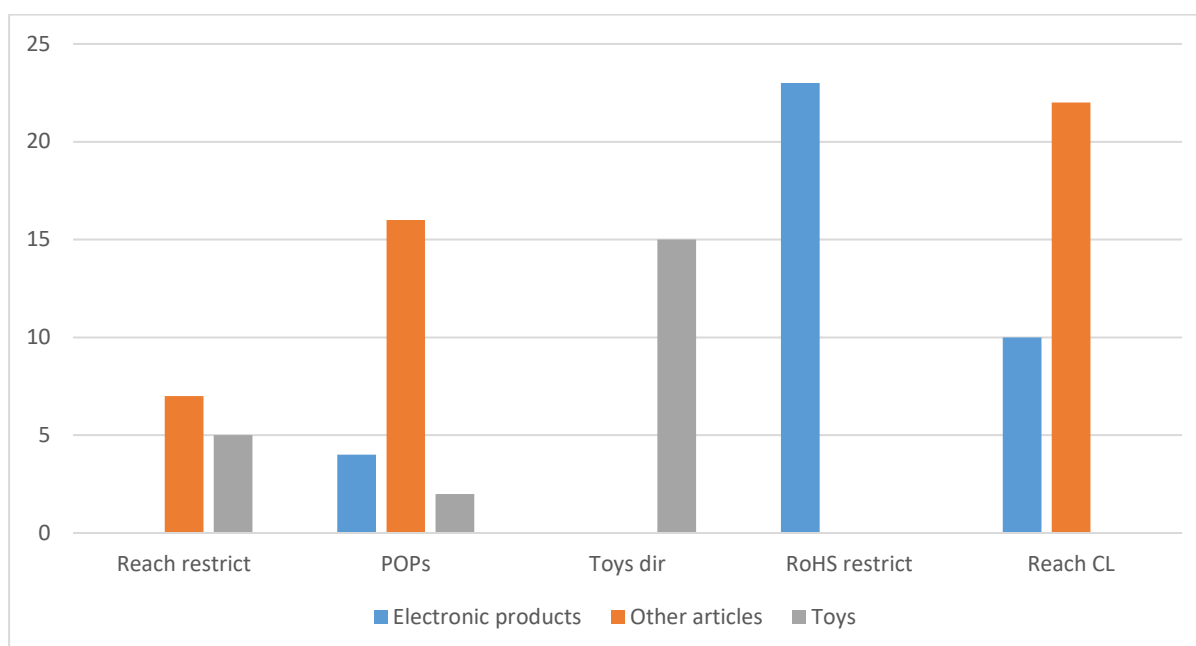


Figure 6. Number of non-compliances for different legislations in electrical products, toys and other articles, of restricted substances and Candidate List substances (CL).

3.2.2.1 Substances found in articles

In total, compiling restricted substances and Candidate list substances, the most common substance found was DEHP which was detected 23 times followed by lead in solders, boron in slime and SCCPs detected 19, 15 and 15 times respectively. SCCPs and phthalates are found in soft plastic material. Note that the numbers are not exactly the same in table 3 as in figure 6, due to the substances were collected after the reporting of the results and the connection to each product where lost.

Table 3. Number of articles that contains restricted substances or Candidate List substances and the type of substances found in the project.

Legislation	Number of articles	Substance
Reach restrictions	7	Lead
	6	DEHP
	3	Cadmium
	2	Chromium 6
	1	PAH
RoHS restrictions	19 electric products	Lead
	2 electric products	Cadmium
Toys restrictions	15 slime	Boron
POPs restrictions	13	SCCPs
Candidate List	17	DEHP
	6	DBP
	3	DINP
	3	DIBP
	2	SCCPs (between 0.1-0.15 percent)

3.2.2.2 Labelling of certain articles

In 41 percent of the toys (n=94) and 72 percent of the electronic products (n=47), the CE label or contact information on the product were missing (fig 7).

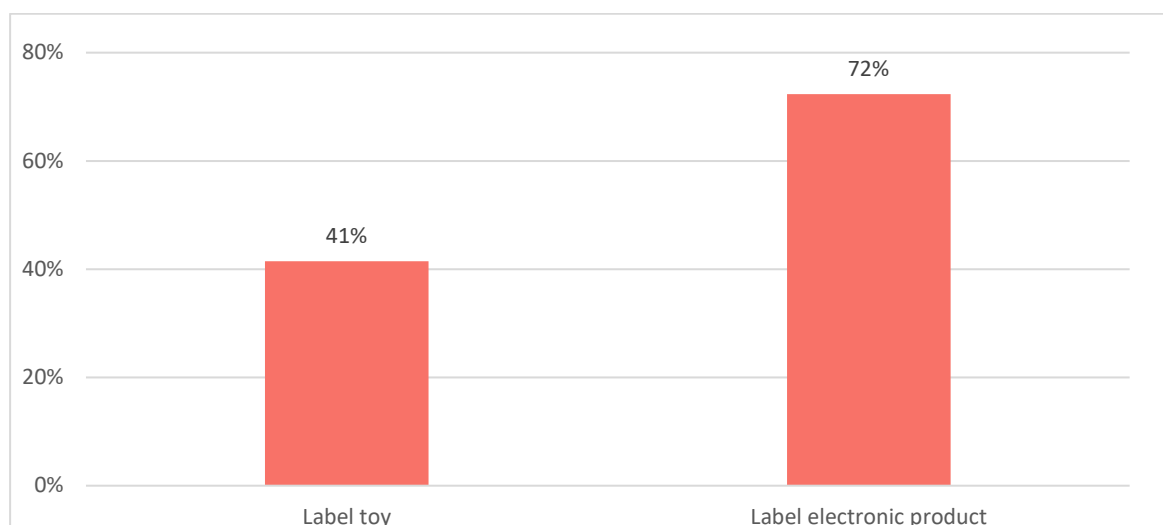


Figure 7. Proportion of non-compliance according to labelling requirements of toys (n=94) and electronic products (n=47) (CE label and contact details on the product)

3.2.3 Chemical products

33 chemical products, for example tattoo inks, glues and detergents, were investigated in this project. 13 CPs were controlled regarding commercial rules in the CLP regulation, of which none were compliant. Biocidal products are chemical products also, and need to fulfil the CLP commercial requirements. For biocidal products, the level of non-compliance were 67 percent (n=18)

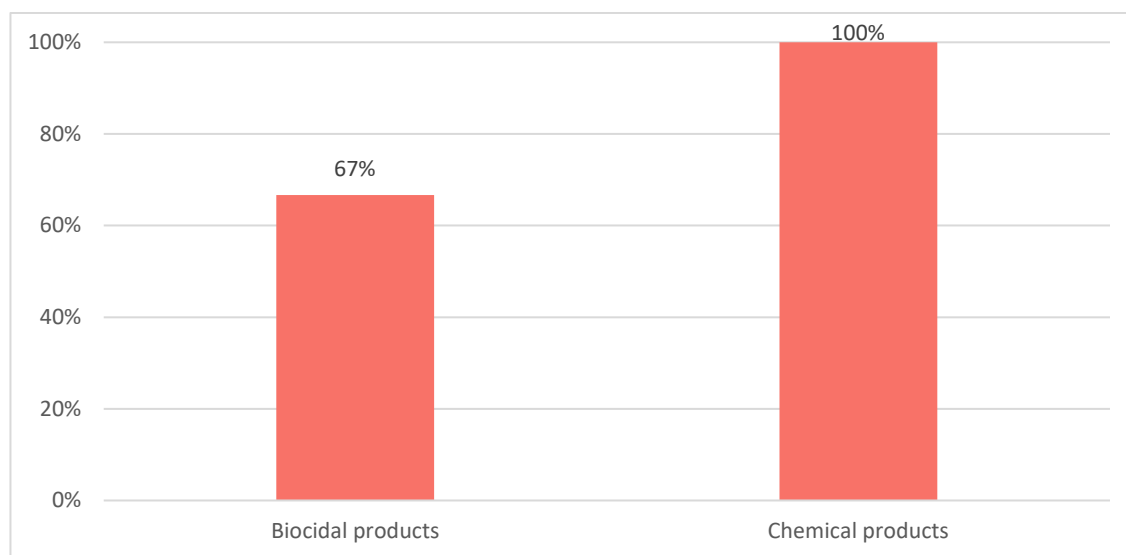


Figure 8. Proportion of non-compliance in CLP commercial information for biocidal products (n=18) and chemical products (n=13).

Tattoo and permanent make-up inks have been tested by Finland. Eight (40 percent) out of twenty products contained restricted substances (table 4).

Table 4. This table lists the substances found in the tattoo and PMU inks. More detailed results can be found on Tukes website¹².

Type of substance	Substances [CAS number]
PAH	Benzo(a)pyrene [50-32-8]
	Benzo(b)fluoranthene [205-99-2]
	Benzo(e)pyrene [192-97-2]
	Naphthalene [91-20-3]
	Benzo(a)anthracene [56-55-3]
	Chrysene [218-01-9]
	Benzo(j)fluoranthene [205-82-3]
	Benzo(k)fluoranthene [207-08-9]
	Dibenzo(a,h)anthracene [53-70-3]
Aromatic amines	4-Methyl-m-phenyle-nediamine [95-80-7]
	o-Toluidine [95-53-4]
	o-Anisidine [90-04-0]

¹² <https://tukes.fi/documents/5470659/9357216/Tattoo+inks+test+results/e79e4ccb-cc6b-193f-4eda-0350a42de36b/Tattoo+inks+test+results.pdf>

3.2.4 Plant Protection Products (PPPs)

PPPs were not reported per product, even though several products have been controlled per company. The results will therefore refer to the company level and the results cannot be compared to the other product groups in this report.

44 companies marketing plant protection products on the internet were investigated in this project. 14 percent of the controlled PPP companies marketed unauthorised plant protection products. 93 percent of the PPP companies did not comply with the information requirements in commercials for PPPs.

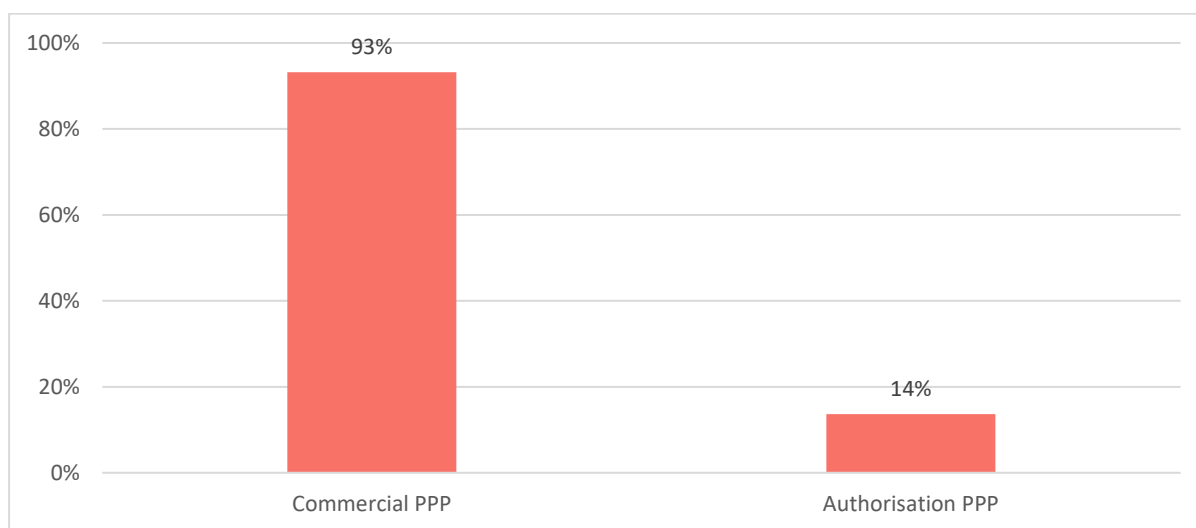


Figure 9. Proportion of non-compliance in plant protection product companies (n=44) regarding commercial requirements and authorisation.

3.2.5 Biocidal Products (BPs)

40 biocidal products, for example mosquito repellents and disinfectants, from 22 companies of eight nationalities were investigated in this project. All products were non-compliant with the information requirements in commercials for biocidal products. 18 (58 percent) out of 31 products for which authorisation status could be established were not compliant according to the rules of authorisation.

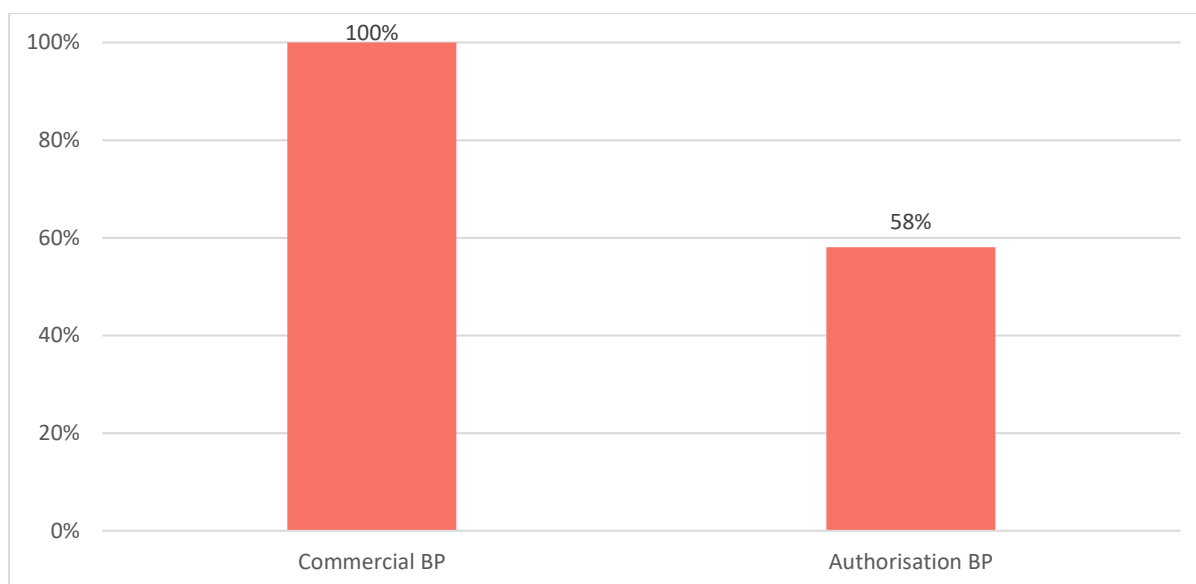


Figure 10. Proportion of non-compliance in biocidal products regarding biocidal commercial information (n=40) and authorisation (n=31).

3.2.6 Cosmetic and Hygiene Products (CHPs)

Five cosmetic and hygienic products were investigated according to the Cosmetic Regulation rules on ingredient list. All of these five were non-compliant. None of them complied with the requirement of language, and one product also contained 25 times the allowed amount of hydrogen peroxide. In other words, 20 percent non-compliance on products due to content of dangerous chemicals and 100 percent non-compliance due to labelling and information.

3.3 Enforcement measures

Upon observation of a non-compliance, the company is notified and requested to give their opinion on the issue. The most common reaction (103 cases) were voluntary withdrawal followed by correction for less severe non-compliances (75 cases). The legislative possibilities to prosecute differs among the countries and only 21 notifications about a suspected crime were filed to a prosecutor. Sales ban was applied eight times and recall from the consumer was applied in one occasion.

In Sweden, it is possible to use some enforcement instruments also if the company is located outside Sweden. An example is a Danish company marketing products on a web site with Swedish language and Swedish domain (.se), which paid the costs of analysis. Out of the 12 companies that were notified to a prosecutor, six were non-Swedish. In addition to costs for analyses and notification to prosecutor, the Swedish authorities may ban products from the market. However, banning of products marketed by non-Swedish companies was not applied in this project.

3.4 Experiences in general

When shopping via online marketplaces, one experience that is important to keep in mind when ordering is that it is usually not the name of the marketplace that is the sender, or is mentioned on the package. The sender may be the distributing company that just uses the marketplace or the manufacturer. In some cases, the products may also differ in appearance

from the one that was ordered. Hence, it is sometimes impossible to figure out from what company the product has been bought. It is therefore wise, not to buy similar products via marketplaces at the same time, as there may be a mix-up of the products.

The information regarding the properties of products and articles can be limited in some web shops. For various articles, it was difficult to get information regarding what material the item contained. For biocidal products, it was sometimes difficult to find the active substance from the web page and in some of those cases also in the subsequent correspondence. For toys, it was sometimes difficult to get information regarding the properties of the toys. Allergenic fragrances used in toys are especially regulated through the Toy Safety Directive. The scope of one of the subprojects was to control the compliance of the fragrances used in toys. When purchasing samples, it was challenging to identify which toys that were added a scent. Thus, it was found to be difficult to conduct a market surveillance project to control the compliance of fragranced toys when sampling through e-commerce.

Another experience is that the size of the items not always corresponded to the expected size from pictures on the websites. In some cases, this limited the options for determination of the chemical content since the laboratories need a certain amount of the sample to conduct the measurements.

3.5 Communication

Other member states were notified about the non-compliances through ICSMS in 89 cases and through Safety Gate in 60 cases. To some extent, these cases are overlapping, i.e. the same product reported in both. The baton feature in ICSMS, i.e. when the inspecting member state needs assistance to enforce by another member state, were used four times. E-mail communication were only used occasionally.

A measure that reflects the level of severe offences in a better way for all the Nordic countries combined is the number of Safety Gate notifications that were executed in the project. All 60 Safety Gate notifications were due to detection of restricted substances in articles except eight cases of detection of restricted substances in chemical products. To be able to make robust comparisons, the eight cases of chemical products were excluded from further analysis within the Safety Gate-group. A total number of 239 articles were controlled in the project of which 53 articles (22 percent) originated from vendors outside the EU. To be compared with the group of 52 articles with non-compliances severe enough to warrant a Safety Gate notification, 50 percent, or 26 articles, were purchased from a company (WS and GMP combined) outside the EU. The probability of purchasing a Safety Gate-level non-compliant article online is 14 percent if buying from an EU company, and as much as 49 percent if it is bought from a company outside the EU. Both are high figures, but the consumer run about 3.5 times higher risk of ending up with an article that contains a restricted substance if it is bought from outside the EU. 40 and 60 percent of the non-EU Safety Gate notifications are related to companies in the USA¹³ or China respectively. The USA and China were the only countries from outside the EU included in the study.

¹³ Amazon, E-bay, Wish and Light in the box were referred to as companies from the USA, but are in fact global marketplaces. In reality, the origin of these products need not be the USA.

4 Discussion

The digitalisation has enabled a transformation in retail trade beyond comparison within the past 50 years. This transformation has caused structural changes in trade in a way that induces a need for surveillance authorities to adapt their operational mode, both qualitatively and quantitatively, in order to stay effective. The primary objective with this project was to start that adaptation – learn, develop and harmonise methodology for enforcement of internet-based trade, meanwhile monitoring the level of compliance and enforcing a wide scope of chemicals legislation on products sold via internet from all over the world. 361 products from 161 companies were controlled in the project and several legislations were covered. However this is of course nothing more than a pinprick related to all products on the market. When scanning the amounts of goods sold on the internet searching for non-compliant products, it is easily understood that manual inspection techniques can mainly be considered as a monitoring tool. This suggests that alternative policies, may be a more effective instrument in reducing chemical risks from products and articles. Nonetheless, this monitoring information is vital to guide authorities to make the right priorities, However, when it comes to increase the compliance through enforcement in order to be effective, the methodology needs to be developed further. We are not there yet, but authority surveillance is facing a necessary paradigm shift towards automation, which for the first time, is made possible by the digitalisation.

As has been displayed in the results section, the objectives of the project are mostly fulfilled, although not in all parts fully quantifiable. For example, it is inherent to cooperative initiatives like this project that knowledge is harmonised and increased among the participants albeit not quantified. To be mentioned here is for example the different ways of preparing the computer before searching in order to be as effective as possible. Moreover, during the progress of the project, there have been a considerable exchange of know-how between participants in this and the ongoing REF-8-project under the Forum. Synergies like those may be expected also in the continuation of the Forum project. The contact network of marketplaces has been established and broadened among the participating authorities, which will be useful in upcoming projects.

Due to the trans-border nature of e-commerce, facilitated communication across national borders was identified as one of the key components in successful enforcement. One goal was therefore to target companies that market their products to several of the Nordic countries. However, mostly the same companies were not selected in the different countries and they were in general cooperative. Also, different legislations were enforced. Therefore, during the operational phase, cooperation among the project members have not been taking place to the extent that was expected. However, when the errands had reached their finale stage about getting the companies compliant, some cooperation took place. Furthermore, many cases were reported to ICSMS and Safety Gate, which makes authorities in all EU-member states aware of the non-compliant products. Almost all companies within EU were responsive and communicative and the follow up performed by inspectors, launched sometime after the first contact with the company, show about 90 percent compliance in relation to the suggested measures from the authorities. When companies did not comply, the errands were handed over, either by the baton feature in ICSMS, or by a e-mail to the responsible authority in that country. That cooperation worked very well and the responsible authority solved almost all issues. However, some of the non-EU companies did not respond, and the follow-up revealed that the companies were still selling the non-compliant products. These cases were not followed-up further.

The results from this project show a high non-compliance rate for all of the regulations controlled. This shows that it is important to include internet-based companies in enforcement projects. Often, these companies have internet sites that seems as they are located nationally, but are in fact based in another country, which emphasizes the need for close collaboration between the Nordic and European enforcement authorities. The results from this project also indicate that products sold by companies located outside the EU have a higher non-compliance rate than products sold by companies located in the EU, when comparing similar products, although the number of products controlled were limited. The number of Safety Gate notifications were more than three times higher when comparing purchases of articles from outside the EU with those from within the union, and the non-compliance rate for products (articles and CPs) sold by companies outside the EU was 78 percent and for products sold by companies in the EU, the non-compliance rate was 32 percent. One conclusion from this is that customers take a higher risk when purchasing from companies outside the EU. Whether the enforcement authorities will focus their controls on products sold by companies located outside the EU, depends on the national enforcement strategy and may vary between the countries. It is still open for discussion whether it is appropriate to follow-up companies located outside EU, towards which we do not have any enforcement authority whatsoever. It may be better to address the situation by other measures than enforcement, for example by using information campaigns to consumers. Alternative policies are to continue the cooperation between the European and the non-EU authorities and to look at possibilities for better legislation covering this kind of purchases..

Why are products from non-EU companies less compliant? In general, meaning all products on the market and not only those purchased via internet, this is probably because companies from outside the EU are not liable to EU-law to the same extent as are EU companies. Of course, they are required to comply with EU requirements in theory if they wish to place products on the EU market, but in practice, the necessary measures are not applied since their local supply chain and production site is not subject to these requirements either. Additionally regarding e-commerce, the internet has made the European market and its customer available with a few clicks on the mouse. Hence, the supply chain is dramatically shortened with upside of cheap products, but with the downside that the possible filtration of non-compliant products by other economic operators in the supply-chain is lost. The 58 products that were purchased from outside the EU in this project, actually made the inspectors private importers, and in practice obliged to make sure the products comply with EU law before released into free circulation. To increase public awareness, there has been information campaigns about this issue in several of the Nordic countries.

Worth to discuss is also the observed differences in compliance between the different categories of business type - *global marketplace*, *national marketplace* and *web shop*. There is a significantly lower level of compliance among the articles and chemical products purchased from global marketplaces (78 percent) compared to those purchased from web shops (32 percent). However, only nine were purchased from non-EU web shops, so the majority of products from non-EU countries were from marketplaces. Since, EU companies are more prone to comply with EU-legislation than other companies, the observed difference in compliance did not relate to the type of business. The difference is more likely due to the nationality of the company running the web shop. An alternative explanation, however, could be that a search on the internet for a product generates hits of products/webs shops from that specific region. Hence, the distribution of web shop nationalities in the sample may be representative, concluding that it is safer to purchase from web shops than global marketplaces. Another result worth commenting relating to the nationality issue, is the fact that Chinese and American web shops and platforms represent 60 percent and 40 percent

respectively of the non-EU Safety Gate notifications. As noted in the results part, since marketplaces are nothing but a “marketplace”, the nationality of the company behind the marketplace does not say anything about the nationality of the company placing the product on the market or the origin of manufacture. On the other hand, the figures indicate that the risk of purchasing non-compliant products from global marketplaces is high irrespective of which global marketplace.

The purpose with the commercial rules in the CLP Regulation is to give the buyer information about hazardous properties with the product, so that the buyer is aware of the risks before the purchase. For biocidal products and plant protection products, there are some additional information that should be visible to the buyer before the purchase. When this information is lacking, as it is in most of the cases in this project, the buyer will not get important information about the product and the product may be marketed in an illegal way. The control of the commercial rules are in most cases not demanding a lot of resources from the enforcement authority, since the control may be done on screen without physical investigation of the product. The high non-compliance rate in this area and the relatively low resource-demanding control are two reasons for enforcement authorities to focus on this type of control. In addition, the poor results irrespective of company type also signals that the information given by the authorities do not reach all relevant economic operators. Launching of information campaigns about these requirements may be an alternative resource efficient instrument towards higher compliance.

Please note that the results presented in this report are not based on random sampling, and therefore should not be considered to be applicable to the entire market. The selection of samples is based on risk products and experience from previous enforcement.

Appendix 1- Legislations

4.1.1 CLP – Regulation (EU) No 1272/2008

The CLP Regulation concerns the classification, labelling and packaging of chemical substances and mixtures which are placed on the EU market.

When chemical mixtures are marketed and sold online, there is a requirement in article 48.2 that customers are informed regarding the mixtures' hazardous properties. At least the hazard phrases should be visible on the website where the product is marketed. This shall provide customers with information regarding the dangers of the product before the purchase.

The member states that enforced chemical products in this project controlled if the online marketing was compliant with the commercial rules mentioned above.

4.1.2 Plant Protection Products Regulation (EC) No 1107/2009

The purpose of the Plant Protection Product Regulation is to ensure a high level of protection of both human and animal health and the environment and at the same time to improve the functioning of the internal market through the harmonisation of the rules regarding placing on the market and the use of plant protection products, while improving agricultural production. Active substances used in plant protection products need to get authorisation at EU level, while products need national authorisation (article 28) in most cases, if a union authorisation is not granted.

When plant protection products are sold via the internet, there is a requirement to inform the customers about the hazardous properties of the product. The information shall be presented on the website where the product is marketed, so that the customers receive this information before purchasing. Also, the advertisement for a plant protection product shall include the following text: "Use plant protection products safely. Always read the label and product information before use". Information that can be misleading about the hazards of the product may not be used in advertising. Examples of that are "non-toxic", "harmless", "natural", "environmentally friendly", or similar. These commercial rules can be found in article 66.

The control of plant protection products in this project focused on checking compliance with authorisation and the commercial rules in the PPP Regulation.

4.1.3 Biocidal Products Regulation (EU) No 528/2012

The making available on the market and use of biocidal products is regulated in the EU Biocidal Products Regulation. The aim of the Biocidal Products Regulation is to harmonise the rules on the supply and use of biocidal products and at the same time ensure a high level of protection for human health, animals and the environment. These provisions are based on the precautionary principle. The main rule is that biocidal products must be authorised before they can be made available on the market and used (article 17). Transitional authorisation requirements are relevant for some BP (article 89).

If biocidal products are sold via the internet, customers must be informed about the product's hazardous properties on the website where the product is marketed. This gives customers the necessary information about the hazardous characteristics of the product before the purchase. A website where products may be bought online is defined as an advertisement according to the BPR, and advertisements must include a phrase requesting the reader of the advertisement

to use the biocidal product safely and that the user should read the information on the packaging before use. As for plant protection products, expressions that may lead to underestimation of the hazard of the product cannot be mentioned in the advertisement. Examples of such expressions are "natural", "environmentally friendly" or similar. These commercial rules can be found in article 72.

In this project, the participating member states enforcing biocidal products controlled if they were authorised and if marketing was compliant with the commercial rules in the BPR as well as in the CLP regulation (article 48) since biocidal products are chemical products also.

4.1.4 Cosmetic Products Regulation (EC) No 1223/2009

Cosmetic products are defined as *any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours*. These products are regulated in the Cosmetic Products Regulation which, among other things, contains rules concerning ingredients, labelling and notification to an EU register.

In this project, one member state inspected cosmetic products (tooth bleaching products) and they controlled the presence of a restricted substance (hydrogen peroxide), labelling and a national rule regarding language of instructions, function and intended purpose of the product.

4.1.5 REACH Regulation (EU) No 1907/2006

The REACH regulation is the EU's most extensive regulation for chemicals and includes rules for individual substances, substances in mixtures and substances in articles.

Among other things, the regulation contains about seventy "restrictions" in which specific substances are restricted in some way in various kinds of products and articles. The REACH regulation also contains requirements for information about certain substances in chemical products and articles. For chemical products, there are rules about safety data sheets to provide users with information about protection, among other things. For articles, there is a requirement in article 33 that recipients of an article that contains more than 0.1 per cent by weight of a substance of very high concern (included in the so-called Candidate List), must be informed about this. Consumers have the right to get the information upon request within 45 days. Candidate List substances are substances of very high concern and constitute the bulk of substances from which the regulatory system of chemicals in the EU choose substances to be evaluated and authorised for further use within the union.

The member states that enforced REACH in this project checked compliance with restrictions, for example, phthalates in toys and hazardous substances in tattoo ink, and the information duty in article 33.

4.1.6 POPs Regulation (EC) No 850/2004 and (EC) No 2019/1021

This regulation restricts a number of persistent organic pollutants (POPs). The limitations apply to the pure substance, the substance in mixtures and the substance in articles. The substances that are regulated in this legislation comes from the international Stockholm Convention and the Convention on Long-range Transboundary Air Pollution (CLRTAP).

In 15 of July 2019, the 850/2004 POPs Regulation was replaced by a new version, called 2019/1021. The new version is adapted to the REACH Regulation and a new substance has been introduced. For products and articles placed on the market after the 15th of July 2019, the new version is applicable.

Examples of substances restricted in the regulation that were controlled in this project are short-chain chlorinated paraffins (SCCPs) and hexabromocyclododecane (HBCD).

4.1.7 2.7 Toy Safety Directive 2009/48/EC

The EU directive on toy safety includes a number of requirements for chemicals in toys. Among other things, there are limits for how much of certain elements can migrate from toys, restrictions on the level of CMR substances (classified as carcinogenic, mutagenic or toxic for reproduction) and fragrances. The directive also has requirements on labelling (CE mark, contact address to manufacturer/importer and identification number) and documentation for toys.

In this project, one member state controlled migration of certain elements (with focus on boron) from slime toys and labelling requirements for toys according to the rules in the Toy Safety Directive. The ambition of another member state was to control the compliance of scented toys according to the regulated allergenic fragrances. However, it was challenging to identify the toys with added smell when sampling on-line.

4.1.8 2.8 RoHS Directive 2011/65/EC

The RoHS Directive includes rules that restrict the presence of certain substances in electrical and electronic products. The substances that are restricted are cadmium, lead, mercury, hexavalent chromium and the two groups of brominated flame retardants, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs). The limit value is 0.1 per cent by weight for all these substances except cadmium, where the limit is 0.01 per cent by weight. From 22 July 2019, four phthalates are also restricted in products covered by this legislation (the limit value is 0.1 per cent by weight). The directive also has requirements on labelling (CE mark, contact address to manufacturer/importer and identification number) and documentation for electrical and electronic products.

The member states that controlled electrical and electronic products in this project controlled if the products contained substances restricted in the RoHS Directive and if the labelling was correct.

Appendix 2 – List of keywords

Table A2.1 The table shows successful keywords that were used in the online search for the products controlled in this project.

Product searched for	Keyword used
Biocidal product	Antibakteriell (antibacterial), desinfektion (desinfection), desinfektionsmedel (desinfectant), giftig färg (toxic paint), insekt (insect), mygg (mosquito), myggmedel (mosquito repellent), pool, triclosan
Chemical product	Kestopigmentointiväri (permanent make up color), Mokara Reed Diffuser, romduft (room fragrance), smelly, tatuointivärit (tattoo color)
Cosmetic and hygienic product	Tandblegning (dental bleach)
Electrical product	Batteries, cable, charger, headphone, cheap headphones, gummi (rubber), LED, PVC
Other articles	Bade (bath), gadgets, gadgets PVC, säkkituoli (beanbag), helmisavi (foam clay), imetystyyny (nursing pillow), PVC, saunatyyny (sauna pillow)
Toy	Doll, duft (smell), eple (apple), figur (figure), figurine, fragranced, gummi (rubber), jordbær, leker lukt (toys smell), lukt (smell), PVC, PVC figure, scent, slime, smell/smelly, squishy, toy

Table A2.2 List of keywords used by the Swedish Chemicals Agency when searching for biocidal products using the local search engine of the web shop or marketplace. 57 unique words in 17 identified (subjectively chosen) risk categories for biocidal products. **Two marketplaces** (13 companies) and **four web shops** were controlled systematically. Figures indicate the number of web shops/marketplaces that resulted in a successful finding of one (or several) relevant biocidal product. If the search did not result in finding a biocidal product after screening the first 20 hits of the search result, the inspector discarded the word and continued with the next one in the list.

Keywords	Marketplaces (n=2)	Web Shops (n=4)
Antibakteriellt, bakteriehämmande, antibakteriell (<i>antibacterial</i>)	1	3
Antifouling, båtbottnen (<i>hull</i>), bottenfärg (<i>antifouling paint</i>), påväxt (<i>fouling</i>), giftig färg (<i>toxic paint</i>), båtfärg (<i>boat paint</i>)	0	2
Biocider (<i>biocide</i>), biocidprodukt (<i>biocidal product</i>), biocid, bekämpningsmedel (<i>pesticide</i>)	2	3
Desinfektion (<i>disinfection</i>), desinfektionsmedel, desinficerar (<i>disinfect</i>), disinfectant, pool	2	4
Fungicid (<i>fungicide</i>)	0	1
Gift, giftigt (<i>toxic/poisonous</i>)	0	1
Insekticid, insektsmedel (<i>insecticide</i>), insekt (<i>insect</i>)	0	3
Vattenrening (<i>water cleaning</i>), kolloidalt silver (<i>colloidal silver</i>), silver, kolloidalt	0	2
Kreosot, creosote	0	0
Arsenik (<i>arsenic</i>), kvicksilver, mercury	0	0
Nonylfenol, nonylfenoletoxilat	0	0
Repellent, avskräckande (<i>repelling</i>), myggmedel (<i>mosquito agent</i>), mygg (<i>mosquito</i>), fästing (<i>tick</i>)	2	2
TBT, tennorganisk (<i>organic tin</i>), tributyltenn	0	0
Triclosan, triklosan	1	0
Träskydd, träskyddsmedel (<i>wood protection product</i>), impregnering (<i>impregnate</i>)	0	1
Råttmedel, rodenticide, råttgift (<i>rat poison</i>), warfarin, mus, musgift (<i>mouse poison</i>)	1	1
Kvalster (<i>mite</i>)	0	0