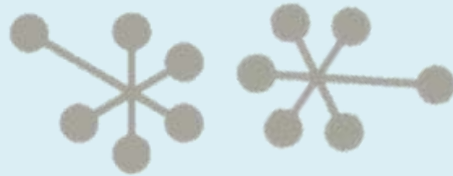


LIFE / FIT FOR REACH

Synthesis and Policy Recommendations Report



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Abbreviations

C&L:	Classification and Labelling
CC:	Climate Change
CIRCABC:	Communication and Information Resource Centre for Administrations, Businesses and Citizens
CLP:	Classification, Labelling and Packaging
CoRAP:	Community rolling action plan
CRM:	Chemical Risk Management
DNEL:	Derived No-Effect Level
EC:	European Commission
ECETOX TRA:	Targeted Risk Assessment (TRA) tool calculates the risk of exposure from chemicals to workers, consumers and the environment
EEA:	European Environment Agency
EIA:	Environmental Impact Assessment
EMAS:	EU Eco-Management and Audit Scheme
ERC:	Emission Reduction Credits
EU:	European Union
GPP:	Green Public Procurement
ISO:	International Organization for Standardization
LCA:	Life Cycle Assessment
NACE:	Statistical classification of economic activities in the European Community
NGO:	Non-governmental organisation
PNEC:	Predicted No Effect Concentration
PPE:	Personal protective equipment
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
SCIP:	Substances of Concern In articles or in Products
SDS:	Safety data sheet
SME:	Small Medium Enterprise
SVHC:	Substances of very high concern
VOC:	Volatile organic compound

1 Introduction

The goal of Action B5 of the FitforREACH project (the Project) was to set policy recommendations based on the results of pilot cases, results from the work with SMEs and the experiences from contacts with other stakeholders. The policy recommendations document reflects the strengths and weaknesses of the REACH implementation and its enforcement in the Baltic States and makes proposals how to optimise it.

As a first step, findings of the project were derived mainly from the consultation activities of companies in Estonia, Latvia and Lithuania, participants of workshops and conferences organised by the Project and other related events during the Project implementation. In addition, research on specific issues was conducted, such as on the use of green claims, funding possibilities, and the environmental behaviour of SMEs. Furthermore, the findings are based on observations and feedback from training seminars as well as national round tables. Quotes of figures or, if specified the percentage of companies to which an observation applies, relate to the sample of companies that participated in any of the activities of the Fit for REACH project and do not refer to the total number of companies in the Baltic States. A more detailed background of the summarised findings is provided in the final report of the Project.

The findings and recommendations are structured according to the main areas of the chemical management:

- Awareness on and competences in chemicals risk management in companies
- Legal compliance
- Implementation of substitution and other risk management measures
- Corporate image and “green” markets
- Support infrastructure for companies
- Measuring chemicals risk management success
- Policy integration

Under each area, the types of challenges identified during the work are described. From this description of specific shortcomings and deficits in chemicals management in general and “greening industry” with a focus on chemicals recommendations are derived. The recommendations are directed toward the relevant group of actors and are specific in the type of necessary action to overcome the challenges identified. Where it was identified necessary to take action at EU level, respective recommendations are made to the EU policy makers and its institutions as relevant.

It is particularly important to stress that the recommendations are all interrelated. For example, industries in many cases are ready to produce safer products, but are concerned whether the public would buy them, thus recommendation for policy makers or educational institutions on public awareness raising directly correlates with the recommendations to industry on the hazardous chemicals substitution.

2 Awareness on and competences in chemicals risk management in companies

2.1 Findings

Managing chemical risks requires a basic understanding of what chemicals are, which potential hazards, exposures and risks they could pose and how this is generally communicated along the supply chain and to consumers. In addition, companies need to be able to identify hazardous substances in their raw materials, have an overview of their chemical uses and be able to communicate about chemicals with suppliers, customers and authorities. Hence, basic awareness and competences are needed to safely manage chemicals in companies.

The industry work in the project showed various awareness levels in companies ranging from very low, i.e., not realising that chemicals are used in a company, to very high, i.e., having differentiated management routines in place which are regularly checked, implemented and improved beyond the legally required minimum. Low awareness and competences of chemicals risk management (CRM) were observed at all levels of the supply chain. Along the supply chain the awareness and competences have a tendency to decrease. Moreover, company size also matters – small downstream user companies are on average less aware than large chemicals formulating companies.

Companies and authorities stated general education and professional training to insufficiently provide information and competences on chemicals in general. New employees from university have little knowledge on practical chemicals management and legal requirements according to the national round table discussions.

The following issues were observed in the Fit for REACH project:

1. Many downstream users at the end of the supply chain are unaware of chemicals and in particular their hazardousness. Downstream users that are aware tend to pay little attention to existing hazards, as CRM is perceived as less important than other activities or too costly.
2. Companies value their skills, knowledge and abilities quite well (i.e., know what they can or cannot do). However, there is a tendency that companies value their overall environmental performance better than it actually is.
3. It is only possible to work on CRM and substitution if the top management of a company is involved. Usually, top managers can be convinced by good assessments of the problem and a clear argumentation. The top management may initiate such processes if they are made [more] aware of the issue.
4. Several companies have not clearly allocated internal responsibility for CRM. If a responsibility is assigned, the person frequently has also many other tasks, e.g., on environmental or workers protection. If CRM responsibility is assigned, the overall CRM performance is better than in companies that have no clearly allocated tasks.
5. Basic knowledge and skills in CRM were frequently missing, including on chemicals classification and labelling, safety data sheets (SDS) and basic rules for practical chemicals handling.
6. Most companies know their right to request and obligation to have SDSs. While safety information in SDSs tends to be understood (firefighting, first aid, PPE) the remaining information (including on the composition and hazards of mixtures) is less frequently used due to lack of understanding and competences. Many companies seem to see SDSs as unnecessary bureaucracy.

7. Companies with existing CRM systems use SDSs. The most important sections appear to be those on workers protection (personal protective equipment) and/or how a chemical should be stored.
8. It is very challenging for authorities and other state actors to get access to companies, which do not report to the national chemicals' registers. The direct contact to the companies is crucial to make them interested in events. The project team invested considerable efforts in identifying [new] companies for participation in awareness raising or trainings workshops on CRM topics. New companies were reached by activities in the regions (with usually less such offers), by cooperation with universities and chambers of commerce and due to individual (internet) research of company contacts.
9. Awareness raising and training events are attractive for Baltic companies if the agenda is actual and relates to legal requirements or if the speakers/trainers are trusted, have a reputation or are members of the authorities, e.g., inspectors.
10. Once made aware and trained, many companies are motivated to improve their performance. However, if measures are implemented depends also on the availability of resources, agreement of the management etc.
11. Companies and authorities stated that the education on chemicals management as well as chemicals legislation is not sufficient. It is difficult to find competent personnel; new employees (from university) have no practical knowledge on CRM and authorities lack competent contact persons in the companies.
12. There is a high demand for information on legal requirements and how they are interpreted and implemented, in particular from the national authorities.

The following recommendations stem from the findings above. Stakeholder groups, for which a recommendation is relevant, are marked in the table below.

2.2 Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Consider establishing or improving reporting requirements on the use of (hazardous) chemicals for all companies that register . This way, registers can be built that support targeted contacting of companies. The information to report may include roles under REACH, types of products, use of SVHC, contact person (to be kept up-to-date), interest in information on chemicals etc.	V						
Consider making the existence of a chemicals officer obligatory in each company handling chemicals, and to require at least this person to take specific training on a regular basis.	V						
Provide specific training on establishing and using chemicals inventories as a key element of CRM, thus highlighting the benefit of good information and how it can be used.	V	V		V			
Offer training and information days, in particular in regions and for downstream users on chemicals risk management in general as well as on chemicals communication (C&L/SDSs).	V			V			
Develop good practice examples, targeting the top management , of CRM, to raise general awareness and point out benefits for companies.			V	V			
Consider awareness raising campaigns for non-industrial companies , such as those active in the tertiary sector. The aim would be to raise awareness of chemicals use, including in articles.	V	V		V			
Consider building up a network for advertising chemicals related (training) events , into which also universities (in particular those with chemicals-related studies), chambers of commerce and other multipliers are included. Companies having participated in an event should in the optimal case get a follow-up reminder to offer further support and get a feedback on the offer.	V	V		V	V	V	V

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Devote resources and time for public awareness raising regarding the hazardous substances and related substitutions. Industries should be aware of the safety of their workers, products and environment and communicate to the public and/or their customers in the supply chain about chemicals that are present in their products.	V	V	V	V	V	V	
Integrate and/or strengthen control of the supply chain communication (SDSs, obligations according to the Article 33 of REACH Regulation) in the work of controlling authorities using supportive approach, and sanctions only if a company does not show efforts to change. Supply chain communication is a crucial issue, involving retailers, thus should be checked whether it works properly.	V	V	V				
Downstream users should allocate responsibilities for chemicals risk management and provide sufficient resources to ensure their staff is adequately trained and competent to carry out their tasks.			V				
Include chemicals risk management as a priority in a company's policy and integrate it into company's management systems.			V				
Use media to advertise the importance of the chemicals risk management and control.	V	V	V	V	V	V	V
Support companies, in particular SMEs, by organising trainings, workshops, participation in various assistance programmes etc. on duties related to the chemical management, green procurement etc. Include chambers of commerce and universities also in identifying potential participants to the trainings.	V	V		V		V	V
Assess educational programmes and, based on the results, propose changes adequately reflecting the need to improve the situation with the chemicals management.	V		V	V		V	V

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
<i>Integrate chemical safety as a topic in the natural sciences classes in pre-, primary and basic schools.</i>	V						V
<i>Include one base course/educational unit on hazardous substances, covering information on what hazards they could cause, how they are determined and communicated as well as on the regulatory background of the CLP regulation and how to read product labels (pictograms etc.) in all chemistry and chemicals-related classes in higher education levels.</i>							V
<i>Include training on chemicals legislation in practical professional courses; handling of chemicals is relevant in almost any sector and profession. These courses should focus on the legal rights of a chemicals' user (e.g., requesting SDSs, asking SVHC information in articles) but also on understanding chemicals information.</i>	V						V

3 Legal compliance and policy integration

3.1 Findings

CRM is a cross-cutting policy issue and affects almost any economic activity. This is a challenge because chemicals are addressed in many different pieces of legislation and tools. It is also an opportunity, as better CRM may leverage improvements also in many other areas.

Companies must be aware of the legislation that applies to them, be able to interpret and understand the specific obligations they must fulfil and have the competences and resources to implement them. With a view to substitution and chemicals use reduction, legislation is a driver of innovation and change processes.

The project work showed that many companies are not [fully] aware of and therefore also not [fully] comply with the legal requirements. This applies more to companies at the end of the supply chain than to chemicals producers and more to small than to large companies. In addition, legislation was found to be one important trigger for substitution both in the partner companies as well as the other companies the Project worked with. Restrictions and REACH candidate listing, requirements on VOCs, food contact material, workplace exposure limits could be identified as one of the reasons to phase out substances, as were knowledge of a hazard classification.

The following issues were observed in particular:

1. EU chemicals legislation guides decision making in the national authorities and companies; however, its implementation and the related support activities differ across the Baltic States and are based on specific national implementation, infrastructure and traditions.
2. CRM is not sufficiently considered in environmental management systems (EMAS, ISO 14.000, corporate sustainability reporting etc.).
3. Improved CRM and substitution frequently involve reduction in hazardous waste; this interlink and would lead to savings in waste treatment costs what is not always obvious for company representatives.
4. Workers protection is a strong driver for improvement in companies; here some synergies between legislation exist.
5. The project partners and stakeholders stressed that communication among national authorities could always be improved. Not in all the Baltic States ministries do agree on chemicals policies and take proper responsibilities for coordinating chemicals management work.
6. The incentives to improve CRM are low.
7. Several companies, in particular the downstream user industries, were not aware of some requirements under chemicals legislation and hence partly breached requirements. Examples of incompliance include missing SVHC communication according to REACH Art. 33 and breaches of restrictions.
8. Although chemicals inventories are legally required in the Baltic States, some companies do not have them at all, have incomplete or do not update it. Inventories are not systematically used to ensure legal compliance with [other] legislation.
9. Many SDSs that were assessed during the consultations were found to be incompliant (not in national language, not updated, incomplete or included inaccurate information).

10. Some chemicals were found not to be correctly labelled (by the suppliers). In addition, companies refilling chemicals internally (e.g., from larger to smaller containers) not always apply correct labels to the new packages.
11. Although SDSs were found to be non-compliant, the chemicals users frequently do not communicate with their suppliers and request improvements. Communication along the supply chain is not understood as a good means to improve the information basis and/or get help. This may partly be due to suppliers frequently not responding to customer requests.
12. Regulatory activities announcing a potential future legislation (e.g., candidate list, CoRAP, food contact materials or VOCs) may trigger substitution or are used to prioritise chemicals for risk management.
13. .Data on the national level usage of chemicals is not comparable among the Baltic States. There is no chemicals register in one of the Baltic countries at all.

3.2 Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Secure information about the amounts of hazardous chemicals used by companies in chemicals register.	V		V				
Improve the REACH data base. Data in this base is available, but not sufficient in terms of chemicals hazards.	V						
Develop more efficient and comprehensive enforcement strategies and increase their resources to implement them. Enforcement should be framed in a way which supports companies by providing advices and thus increasing their capacities and understanding of the REACH requirements and practical implementation. It is recommended to include more downstream users in enforcement of chemicals legislation.	V	V					
Review legal requirements on chemicals inventories and their content to ensure that they are sufficient to actually make inventories useful for the downstream users to implement, amongst others, a systematic compliance monitoring, priority setting on CRM action needs and other tasks. Legislation may have to be revised accordingly.	V						
Enforce the implementation of chemicals inventories and provide respective support.		V					
Build up and use chemicals inventories and make them an essential element of the (chemicals) management systems of downstream users.			V				
Regularly inform downstream users about their right to request compliant Safety Data Sheets (SDS) from chemicals providers and encourage them to start communication if these are not provided and to clarify CRM issues with their suppliers.		V					

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Offer regular information events on the current and new legal requirements on chemicals , in particular for downstream user companies and in the regions, where less offers exist.	V			V			
Support companies in their communication efforts , facilitate networking of downstream users in this regard and enhance communication efforts to important (common) suppliers if needed.				V			
Substance manufacturers and formulators should provide all information necessary for safe use in the main body of the SDS in a concise and understandable way and in national language. A contact person should be indicated in the SDS who is competent, motivated and has sufficient resources to involve in customer communication.			V				
Ensure that the staff communicating with suppliers is competent in chemicals information and makes clear requests for the needed information or advice. They should emphasise that information is part of the purchased chemicals and should demand be as high quality as the technical performance of the product.			V				
Strengthen capacities of the governmental institutions of the Baltic States on the REACH.	V						
Better communicate and integrate among the environmental, health, social security, labour, economic, consumers protection and agricultural sectors.	V						
ISO should develop guidance on how chemicals risk management can be integrated into the ISO 14 000 procedures , including providing guidance on differences and commonalities with environmental management and referring to relevant implementation tools. This includes also training of auditors on the topic.	V		V	V	V		

4 Implementation of substitution and other risk management measures

4.1 Findings

Basic risk management measures in companies include a chemicals inventory and knowledge of hazardous substances in input materials, of exposures and potential risks. In addition, procedures should be in place to identify priorities for risk management, to assess and decide on the implementation of risk management measures. The latter includes substitution, use reduction of hazardous substances, technical or organisation means to reduce exposure, use of personal protective equipment as well as provision of good safety information and training of workers or downstream users. Substitution eliminates risks at the source and hence is the most fundamental and effective option to reduce risks. However, it may be cumbersome and complicated to implement.

The safe use of hazardous substances was not always found to be ensured in the Baltic companies. The main reasons were a general deficit in awareness of chemicals risks and legal obligations as well as limitations of resources. Fortunately, not only the partner companies but also several other companies from all the three Baltic States substituted hazardous substances from their products and processes. The work showed that substitution is possible, including small and medium sized companies.

The following specific challenges and successes regarding the implementation of risk management measures in companies were observed during the work:

1. Companies inventories were of low quality or absent. Often, the companies did not use them to prioritise risk management and substitution needs.
2. As legislation is not always sufficiently known, substitution of restricted substances (in mixtures) is not started early enough leading to incompliance.
3. Several companies were interested in the project to better protect their workers and implemented respective measures. Workers protection was identified as one of the main substitution incentives.
4. There are different motivations to substitute hazardous substances, such as the legislation, customer demands and company image. EU legislation, in particular the candidate list for authorisation and restrictions, is an important substitution trigger.
5. Observed barriers to substitution include the need for larger investments, the lack of or the costs of alternatives, uncertainty of the performance of products containing substitutes, as well as deficits in the internal organisation, e.g., lack of responsible persons, internal communication, cooperation with purchasing department or management support.
6. Currently, alternatives of less hazardous chemicals or products are not easily available. Communication with suppliers is one way to get help.
7. Customer demands, certification needs, and industrial standards were observed to limit the types of possible alternatives, e.g., in the electronics industries and where certification of products play an important role.
8. Some companies refrained from substitution due to a technology lock, i.e., their processes/machines cannot be changed to produce or use alternatives. Here, substitution options are very limited, unless companies invest in changed/new technologies.

9. Some chemicals can be substituted at a comparably low cost, in particular if these are processing auxiliaries or one mixture can be exchanged by another. Substitution of hazardous substances in formulations creates more efforts as well as substitution of substances that are included in articles.
10. Direct benefits of CRM are not obvious for the companies regarding potential savings of risk management costs and/or reduced sick leaves of workers, potential market gains and/or reduced fees and charges on hazardous wastes or emission controls. Substitution examples outlining these cost savings are widely missing. In addition, the quantification of benefits for the environment is a complex task (cf. below on measuring risk management success).

4.2 Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
EU and national funding programmes should specifically target substitution of substances of concern ; this may include measures ranging from demanding that large research consortia include SMEs in their activities via respective funding requirements or establishing small-scale grant programmes with easy application and documentation procedures for targeted substitution cases.	V						
Invest in developing “substitution centres” to support companies in substitution. To enable access also for companies with little resources, these substitution centres should be independently funded, e.g. by substance manufacturers (fees).	V		V	V	V	V	
Increase competences to advice companies how to apply for funding to support substitution.	V			V			
Continue and increase efforts of Member States and the ECHA to identify SVHCs and restrict substances in uses causing unacceptable risks. To prevent regrettable substitution, grouping approaches should be used as much as possible.	V						
Intensify cooperation with research institutes to promote interaction between science and economy, development and implementation of promising technologies into knowledge-intensive businesses.	V		V	V		V	V
Develop targeted (and assessed) recommendations on potential alternatives, in particular SVHC, for “common substitution needs” in a sector.				V	V	V	
Assess existing priority setting and alternatives assessment tools, in particular regarding their applicability to mixtures. The tools should reflect revised/newly developed approaches and provide targeted, accessible and affordable training on substitution, including in-house, to enable specific discussions and avoid confidentiality concerns.				V	V	V	

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Motivate companies to use their inventories to prioritise substitution needs. Promotion of existing prioritisation tools, such as PRIO ¹ , should be considered.		V		V	V		
Review internal communication processes in companies, in particular between the CRM personnel, the purchasing unit, the technology unit(s) and the product quality units to ensure good cooperation in the decision making on substitution needs and potential alternatives. Industry associations could develop respective guidance and advice on a good internal organisation.			V	V			
Consider workers health in prioritising substitution needs and involve workers representatives in the substitution process to ensure acceptance of changes.			V				
Dedicate sufficient resources and staff to build capacity on substitution. It is important that all persons involved in a potential substitution, including purchasers, health and safety managers, production technologies and salespersons cooperate to facilitate information collection and decision making on substitution.			V				
Provide training for companies on assessing costs and benefits of substitution to ensure good decision making.				V			V
Use substitution as a market advantage to advertise yourself. “Safe use” argument should be taken into consideration.			V				
Intensify and make more effective collaboration with international chemicals associations to receive relevant information on substitutes and alternatives to hazardous substances and pass it to national industries.			V	V			

¹ PRIO is a web-based tool that can help you to preventively reduce health and environmental risks from chemical substances. – at <https://www.kemi.se/en/prio-start>

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Continuously organise transfer of best practices examples on substitution to SMEs; they are extremely interested in best practice examples which could be “copied and pasted”.	V		V	V	V	V	
Engage with policy-makers – national and international – to continuously raise the importance of chemicals management, including the need to support substitution.	V		V	V	V	V	
Consider increasing the efforts to develop alternatives, in particular to SVHC, and make their availability known to all stakeholders considering substitution.	V			V	V		
Improve ECHA webpage by providing potential database on possible alternatives to chemicals and technologies.	V					V	

5 Corporate image and “green” markets

5.1 Findings

CRM and being “environmentally aware and sound” can be a marketing argument and could increase trust in a company as well as in its individual products. Several instruments exist to transport the message of being “green” to the market, such as environmental management systems (EMAS/ISO) or corporate sustainability schemes at company level as well as eco-labels, product certificates or other green claims. The relevance and advantages of chemicals and environmental soundness regarding the corporate image and/or the products differs across sectors and products.

In general, it is observed that Baltic companies are increasingly interested in and aim at a good environmental performance and communicating that to the market. In practice and with a view to the actual activities that can be and are implemented, the environmental (and particularly the chemical) performance ranges from “low and not important” to “high and very important”. Regarding the corporate image and activities to improve the environmental performance, the following issues were observed:

1. Being environmentally friendly is generally a high value for companies.
2. The companies’ perceptions of their performance level regarding the environment and chemical risks were not always shared by the consultant team and frequently not reflected in the actual activities.
3. Companies use environmental claims without sufficient proof (“Greenwashing”), i.e., requirements on green claims and/or fair marketing are not implemented. Several examples, also regarding chemicals, were identified.
4. Despite companies acknowledging that the (EU) market for environmentally friendly (with low chemical hazards/risks) products is increasing, they frequently do not invest in improving their products, e.g., to fulfil ecolabel criteria.
5. In some sectors, companies are eager to get eco-labels. This was observed in cases when customers demanded the label and for household chemicals and textiles.
6. Green Procurement is not obligatory for industries; however, most companies have some type of procurement system, which includes sustainability criteria to varying degree; however, these seldom relate to chemicals. Similarly, public authorities have green public procurement rules but usually lack chemicals-related criteria and/or competences to implement them.

5.2. Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Communicate the goal of a toxic-free environment and promote “green purchasing” as important tool to achieve it.	V						
Promote the value of ecolabels to companies.	V			V	V		
Support companies in obtaining ecolabels , e.g., by funding or with advice.	V			V			V
Public authorities should include and implement more stringent criteria into the green public procurement rules to create a significant market demand on products free from or with a low content of hazardous substances.	V						
Install appropriate monitoring systems to ensure the GPP is adequately implemented.	V						
Develop guidance and tools to support public purchasing departments to implement GPP.	V					V	V
Consider whether and how green purchasing could be enhanced in the private markets.	V						
Analyse possibilities to set stricter unified criteria for green claims. It is recognised by experts that undefined terms/descriptions have been in use for many years.	V						
Assess existing situation and examine possibilities to improve supervision and testing of products containing hazardous substances by consumer protection authorities and communicate this information to the public. In particular this is related to the fact that the EC is to propose a revision to EU Consumer Law, which may include the strengthening of consumer protection against greenwashing.	V	V					
Strictly implement increased transparency on the chemicals content of products for consumers envisaged in the Chemicals Strategy for Sustainability as well as via ECHA’s SCIP database.	V	V	V				

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Use the Green Procurement System as a tool for increasing environmental and health safety.	V	V	V	V	V	V	V
Check green claims and contact companies suspected of green washing to prevent unfair competition, and ensure consumer trust in product information.		V					
Launch campaigns for consumers on how to recognise chemically safe products , how to make requests according to REACH Art. 33 and how to use their market power to increase market demand for safer products.	V		V		V		
Revise company market and communication strategies and assess, how and about which issues of chemical safety the company and products on the market could be advertised, what practices and products need further improvement. Companies should include such considerations and goals into their sustainability/environmental reports.			V				
Continuously communicate about the benefits of safer products for human health and the environment in general, as well as the opportunities for innovation and product development in substitution. Encourage transparent communication on the “chemical quality”, among others using eco-labels, well substantiated green claims or environmental product declarations.	V	V	V	V	V		V
Inform clients (label) about greener product , for example, describe hazardousness of a concrete substance, removed from the product.			V		V		

6 Support infrastructure for companies

6.1 Findings

Companies can be supported in their CRM in various ways. They can receive advice and consultation on the implementation of legal requirements and CRM activities, be provided with tools, information, training programmes and guidance. They can also be given access to funding for research and development as well as larger investments. The REACH Help Desks are one of the elements of a support infrastructure.

Overall, the Fit for REACH project provided all the possible types of support to companies in order to promote substitution and/or contribute to improved CRM in companies. The successes of the work show that support is necessary and can be highly effective if companies are directly and specifically addressed. The following issues were observed during the project with regard to the (needed) support infrastructure for companies:

1. Seminars and workshops are an efficient means to inform companies. The topic should be interesting for companies and it is useful to follow-up on an individual basis to support a sustainable implementation of new knowledge, in particular for smaller companies. It is also important that the right persons of a company participate.
2. Companies are not always aware they may ask the Help Desk or are disappointed by the level of detail of their answers. Some try to get help and search experts via the internet instead of turning to the official support infrastructure. They frequently do not make renewed attempts and tend to stop actions rather than persisting with their requests.
3. Companies need guidance to work with CRM tools, even if they are simple and practical. Guidance and tools published on websites are hardly tried out on a company's own initiative. If the tool addresses a specific problem, companies are motivated to use it. Introducing tools in trainings is a good option to get companies interested.
4. Companies frequently have sufficient knowledge in technologies to implement substitution. What they lack is the support to identify substitution priorities, evaluate alternatives and organise the substitution process, i.e. management competences. The project team's work of "accompanying" the responsible persons and, if necessary, organising (additional, external) expertise was frequently sufficient to promote substitution.
5. Companies claim they are not seeking for external funds proactively, as it is too bureaucratic.
6. Some companies using ECHA's webpage emphasise that a lot of useful information is provided but fails to be easily accessible. The page is found too complex, with too many hierarchical levels and a non-intuitive structure.
7. The project team searched specific information and found out that some of the referenced information sources on the CIRCABC database were not accessible to the general public.

6.2 Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
The REACH Help Desks should make themselves more known to companies and clearly communicate on what support they can provide. The REACH Help Desks should check if and how they can improve their websites, e.g., by providing specific Information from ECHA’s website in national language or in a more accessible way to companies.	V						
Organize special top management meetings to make the non-technical people fit enough to ensure necessary and important routines and responsibilities in the company are assigned and implemented and sufficient resources are provided.	V	V		V			V
Establish [research] funding programmes specifically targeted as supporting substitution in SMEs. Any government funding programme should require demonstration from applicants that chemical safety is secured. If applications focus on technology and product development, no hazardous substances should be used.	V						
Simplify mechanism of receiving funds for assistance in the field of hazardous substances management. There should be opportunities for companies to get support also for path changes (i.e., new technology and not just incremental change to improve the situation). Specific funding instruments would be needed that are accessible also to smaller companies and accompany change processes also with technical know-how and expertise over a longer implementation period in the companies.	V						
ECHA should make its webpage more user-friendly.	V						

7 Measuring chemicals risk management success

7.1 Findings

Chemicals risks management should lead to improvements in human health and the environment and contribute to an overall societal “well-being”. Evaluating whether this is the case and/or identifying why an intended goal is not reached is important to steer decision making. Different tools are applied in the project to measure success, including comparing screening level risk characterisation ratios, life cycle assessments and socio-economic analyses.

The development of specific indicators to measure activity and project success proved to be cumbersome, in particular regarding the need to gather specific data that relate to a particular process or product by the companies implementing risk reduction measures. In addition, the approaches chosen to measure success showed to be applicable to the area of chemicals risk reduction, however with some systematic challenges and limitations. Among others, the following issues were identified:

1. Hazard data on chemicals, in particular on DNELs and PNECs, is either not available, or available based on different effects and/or for different exposure pathways and durations. Therefore, RCRs can either not be derived at all or relate to different endpoints (and are hence not comparable).
2. RCRs for substances of very high concern could frequently not be established either due to a lack of no effect thresholds and/or because these effects were not the most sensitive endpoints, i.e., DNELs/PNECs referred to other endpoints. Although in these cases RCRs could be derived, they do not well reflect the substitution success.
3. ECETOC TRA is comparatively simple to use and based on limited data needs. However, as its use frequently resulted in unrealistically high RCRs, the results can hardly be communicated to a wider public without extensive explanation. Amongst others, this is because it is designed for a different purpose under REACH and therefore uses conservative emission models (ERCs/spERCs) which are little differentiated according to the mobility of substances. Furthermore, the lack of transparency of exposure calculations for workers and consumers hinders a proper interpretation of the results. Finally, the model is not designed for assessing SVHCs and cannot consider particularities of substances related to their activity and/or composition. LCAs on chemicals are frequently not possible due to a lack of information on individual substances in the LCA databases.
4. Companies frequently cannot separate resources (materials, energy, human input etc.) they use for production into separate portions related to a particular product. Therefore, it is difficult for them to provide data for life cycle assessments and economic analyses of the specific substitution.
5. The LCA resulted in some surprising changes in environmental impacts, which are difficult to understand without detailed information on the LCA-tools functioning.
6. LCAs on chemicals are often not possible due to a lack of information on individual substances in the LCA databases.

7.2 Recommendations

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Thorough impact assessments are needed before substitution takes place. Research institutes and/or public authorities should support awareness and competences of companies in using existing alternatives assessment tools.	V		V			V	
Initiate work / projects to assess existing situation and examine possibilities to establish new or improve existing risk assessment tools.	V					V	
ECHA should continue with the compliance checks with high priority substances.	V						
ECHA should consider making a “light” version of CHESAR available for use as risk assessment tools in the frame of substitution.	V						
ECHA should include information on the last dossier update in the “brief profiles” , develop an easy-to-understand indicator of the uncertainties related to a DNEL/PNEC (e.g., based on the safety factors applied or the number of studies available for the endpoint underlying the calculations), and properly enforce the updating of registration dossiers. Compliance checks should be implemented with high priority.	V						
Generate more lifecycle data for individual substances to be included in LCA databases.						V	
Make studies on how substances could be grouped into similar LCA ranges , so that information gaps could at least partly be closed using “similar” compounds.						V	
Downstream users using ECHA’s databases should communicate directly with registrants if they discover inconsistent, wrong or missing information and give feedback to ECHA on the usability of these databases.			V				

Recommendations	Stakeholder group						
	EU/national policy makers, competent authorities	Controlling authorities	Companies	Industry associations	Non-governmental organisations	Science, research	Educational institutions
Assess management approaches and routines, and integrate chemicals issues into them in companies, starting from a clear goal in the company policy and respective objectives on the avoidance and safe use of hazardous chemicals, respective purchasing criteria, substitution plans, internal communication and cooperation routines, measures at workplaces and regarding environmental and consumer protection, marketing as well as monitoring success.			V				

