EUROPEAN PARLIAMENT

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Economic and Monetary Affairs

Employment and Social Affairs

Environment, Public Health and Food Safety

Industry, Research and Energy

Internal Market and Consumer Protection

The Consequences of REACH for SMEs

NOTE

EN

2013

The consequences of REACH for SMEs

EUROPEAN PARLIAMENT

DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY
INDUSTRY, RESEARCH AND ENERGY

The Consequences of REACH for SMEs

NOTE

Abstract

This note examines the consequences of REACH legislation for Small and Medium-Sized Enterprises (SMEs) since its entry into force in June 2007. It looks at impacts on the internal organisation of firms (including human resources), on strategy and on business activities. We also assess the experience of SMEs with available support and the perceived added value of REACH for SMEs. Our findings are based on a review of the literature and a set of interviews to a sample of firms.

IP/A/ITRE/NT/2012-12 October 2013

PE 507.486 EN

This document was requested by the European Parliament's Committee on Industry, Research and Energy

AUTHORS

Prof. Jacques Pelkmans
Dr. Lorna Schrefler
Drs. Ineke Gubbels
CEPS

RESPONSIBLE ADMINISTRATORS

Frédéric Gouardères
Signe Jensen
Fabrizio Porrino
Policy Department A: Economic and Scientific Policy European Parliament
B-1047 Brussels
E-mail: Poldep-Economy-Science@ep.europa.eu

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

To contact the Policy Department A or to subscribe to its newsletter please write to:
Poldep-Economy-Science@europarl.europa.eu

Manuscript completed in October 2013.

This document is available on the internet at: http://www.europarl.europa.eu/studies

DISCLAIMER

CONTENTS

LIST OF ABBREVIATIONS

ACEA	European Automobile Manufacturers' Association
BOM	Bill of Materials
CBI	Confidential Business Information
CEFIC	European Chemical Industry Council
CEPS	Centre for European Policy Studies
CHESAR	Chemical Safety Assessment and Reporting tool
CSES	Centre for Strategy & Evaluation Services
ECHA	European Chemicals Agency
EEA	European Economic Area
ESDS	Extended Safety Data Sheet
ETUC	European Trade Union Confederation
EU	European Union
FTE	Full-Time Equivalent
DG	Directorate General
ITRE	Committee on Industry, Research and Energy of the European Parliament
IUCLID	International Uniform Chemical Information Database
LoA	Letter of Access
NGO	Non-Governmental Organisation
PPORD	Product and Process Orientated Research and Development
R&D	Research and Development
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
SIEF	Substance Information Exchange Forum

SIN	Substitute It Now
SME	Small and Medium-Sized Enterprise
SVHC	Substance of Very High Concern
UEAPME	European Association of Craft, Small and Medium-Sized Enterprises

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

Background

The Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a very demanding system for any business either large or small. At the first registration deadline of 2010, only 13% of the registrations submitted were done by companies fulfilling the Small and Medium-Sized Enterprises (SME) definition. Hence, to date most experience with REACH was built up within larger companies. It is suspected that the 2013 and especially the 2018 registration waves may well be different: more chemicals may be involved with incomplete knowledge or even largely unknown properties; also, far more SMEs will be registering substances.

Aim

This note examines the impact that REACH legislation has had and will continue to have on SMEs since its entry into force in June 2007. Our findings are based on a review of existing reports and literature covering the experiences of SMEs, as well as on a set of semi-structured interviews to a sample of SMEs in the chemical sector. In particular, this report discusses four aspects: 1) the impact of REACH on the internal organisation of SMEs and the potential consequences for the overall functioning of a company insofar as REACH compliance is concerned; 2) the impact on business activity; 3) the support available to SMEs to better cope with REACH and the views or perceptions of (interviewed) SMEs; and 4) the value-added of REACH for SMEs nearly six years after the entry into force of the legislation. We conclude with some suggestions.

KEY FINDINGS

- REACH is widely regarded as expensive by SMEs.
- The overall (direct) cost estimates of REACH specified in the 29 October 2003 Impact Assessment turned out to be an underestimate by nearly one half. By 2012 the difference added up to around EUR 1 billion; by 2018 this might have gone up to EUR 1.5 billion or possibly much more.
- REACH might well lead to changes in market structure. Withdrawals of some chemicals may have consequences in this respect, but the complaints are also about price increases and about the risk of losing market share vis-a-vis non-EU producers.
- While the reduction of registration fees of March 2013 for SMEs is a welcome step, it is also perceived as a symbolic gesture by many companies, as fees are only a minuscule fraction of overall compliance costs.
- The perceived added value of REACH for SMEs, so far, is very limited. Many SMEs discern none up to now. Some acknowledge that knowledge is increasing and that this might be used later. It remains to be seen how the overall SME-landscape in the chemical sector will look like after the third final deadline for registration in 2018.

1. INTRODUCTION

This note on the consequences of the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals[1] (hereinafter, REACH) aims at assessing the impact that REACH legislation has had and will continue to have on Small and Medium-Sized Enterprises (SMEs) since its entry into force in June 2007. Our findings are based on a review of existing reports and literature covering the experiences of SMEs, as well as on a set of semi-structured interviews to a sample of SMEs in the chemical sector.[2]

Chapter 2 sets the scene in explaining why the impact of REACH on SMEs has proven to be a genuine concern. The report will subsequently discuss four aspects. Chapter 3 deals with the impact of REACH on the internal organisation of SMEs and the potential consequences for the overall functioning of a company insofar as REACH compliance is concerned. Chapter 4 discusses the impact on business activity. This section will demonstrate a number of practical problems or costs of REACH for SMEs, which may affect business activity.[3] Chapter 5 analyses the support available to SMEs to better cope with REACH and the views or perceptions of (interviewed) SMEs.[4] Chapter 6 comprises a search for the value-added of REACH for SMEs nearly six years after the entry into force of the legislation.[5] Chapter 7 concludes. Annex I describes our approach to interviews and provides an anonymized list of interviewees (Tables 1); Annex II contains a step-by-step exposition of all the costs that a hypothetical SME has to incur to become and remain REACH-compliant (Tables 5 and 6). Finally, Annex III contains the questionnaire that was used as a basis for the interviews.

[1] European Parliament and Council Regulation (EC) No 1907/2006 (Corrigendum 29 May 2007).

[2] It should be noted that the timeframe for this report was four weeks, which provided very little time to approach SMEs and get their cooperation, structure the interviews (with a detailed questionnaire as a guidance), conduct the interviews and summarize them in a structured way. For further details, see below.

[3] Unfortunately, the literature has not yet reached a sufficient degree of detail to enable a differentiation by subsectors

[4] Only a few interviews could be held in such a short time-span and, despite our efforts to approach SMEs in different countries and activities, our sample cannot be considered “representative”. The interviews serve more as a reality check. List of interviewees in Annex I.

[5] It should be realized that it is rather early to make such an assessment because in 2010 only 13 % of the registrations came from SMEs. The bulk of SME registrations is expected in 2018. SWD(2013)25 of 5 February 2013, General report on REACH, accompanying COM (2013) 49, page 26.

2. WHY THIS REPORT: THE IMPACT OF REACH ON SMES IS A GENUINE CONCERN

REACH is a very demanding system for any business either large or small. It is expected that larger companies will have more resources available in comparison to small ones. At the first registration deadline of 2010, only 13% of the registrations submitted were done by companies fulfilling the SME definition. Hence, to date most experience with REACH was built up within larger companies. The substances registered by the 2010 deadline included many where the 'information gap' was minimal. It is suspected that the 2013 and especially the 2018 registration waves may well be different: more chemicals may be involved with incomplete knowledge or even largely unknown properties; also, far more SMEs will be registering substances.[6] In 2010, the Danish report 'SMEs and the environment in the European Union'[7] indicated the following: "*The level of information and specific knowledge among SMEs about environmental legislation in general is low and lacking. Few SMEs consider REACH a main issue that is related to their activities. This can be explained by information asymmetry provided by national competent authorities, but also due to lack of capacity in SMEs, which means that they seldom have an overview of sources of support (legal, technical) and how these can be used strategically. There is a lack of support for companies to implement the changes imposed by existing or new environmental legislation. Therefore, many SMEs are incurring extra costs to hire external environmental consultants and experts*".

Although it has meanwhile become clear that awareness and knowledge of SMEs on the regulation have improved since 2010 – a finding supported by the results of our interviews as well -, at the same time, concerns about the ability of SMEs to comply with REACH increased in parallel. A recent Commission consultation on a top-ten list of most burdensome pieces of EU legislation found that SMEs consider REACH the no.1 of this list.[8] Also the Stoiber High level Group on Administrative burdens[9] has drawn attention to REACH as burdensome.

There are two principal reasons why there is genuine concern for SMEs when having to comply with REACH:

1) The first is related to an uneven share of the costs. There is a range of non-trivial aspects to REACH which may cause SMEs to be relatively disadvantaged (compared to bigger or very large firms), now and possibly even more so in future, particularly as they tend to deal with lower volumes of chemicals than bigger firms.

[6] On this point see also the recent presentation from the European Chemicals Agency's "SME Ambassador" at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-herdina_en.pdf.

[7] Danish Technological Institute and PLANET S.A (2010):10.

[8] See Commission Memo/13/168 of 7 March 2013 ; and Results of the public consultation on the TOP10 most burdensome legislative acts for SMEs, see: http://ec.europa.eu/enterprise/policies/sme/files/top10report-final_en.pdf

[9] For further details on the mandate and composition of the Group, see: http://ec.europa.eu/dgs/secretariat_general/admin_burden/ind_stakeholders/ind_stakeholders_en.htm. For recent (i.e., January 2013) HLG debates on REACH, see: http://ec.europa.eu/dgs/secretariat_general/admin_burden/docs/130307_minutes_hlg_ab_20130131_en.pdf

This fear is not new at all. Indeed, the European Parliament has successfully insisted on mitigating measures right from the start, for example in differentiating the fees structure, making it less disadvantageous to SMEs.[10]

2) Second, SMEs and downstream users in the chemical industry represent a large number of activities ranging from manufacturing, formulating to producing and selling 'articles'. Some 27 500 companies in EU chemistry are SMEs (96% of all firms) and although impact of REACH on their activities may differ significantly, the relative disadvantages multiply over a large set of enterprises representing a huge total turnover and many workers.

In 2009, SMEs accounted for 28 % of EU sales and 35 % of all jobs in the chemical sector. In the EU more generally, SMEs tend to be important engines for job creation: some 85 % of all new jobs in the EU generated between 2002 and 2010 were created by SMEs, with a relatively stronger contribution by young SMEs.[11] Although these labour market data are not chemistry-specific, there is no obvious reason why they would not apply, approximately, to this large and so far successful EU sector as well.

The dynamism of young SMEs generates yet another concern about the impact of REACH, although it takes more the form of a forewarning than – at this moment in time – hard empirical evidence. Young SMEs are driven by entrepreneurialism, something that the EU economy not only badly needs but is often held to be in short supply (at least, compared to the US, for example).[12] The heavier the absolute efforts and costs of REACH, the greater the risk that young entrepreneurs are discouraged and forego market entry. This may lead to impairment of innovation, less green chemistry and less attention to new fields like nano-technology, areas where young chemical SMEs are expected to find niches that are not yet filled by their big competitors. Since decisions of (would-be) entrepreneurs not to enter are almost impossible to measure properly, the forewarning can unfortunately only be underpinned with anecdotal interview evidence and the like.

Concerns about the impact of REACH on SMEs will be documented in this briefing paper to the ITRE Committee in considerable detail and in accordance with the Terms of Reference. However, we would like to emphasize a major caveat when focusing solely on the concerns or costs when discussing REACH. There is the general axioma of 'better regulation' that the attention ought to go first and foremost to the benefits of REACH or any other EU regulation. If there are few or no or very uncertain benefits, why regulate in the first place?

[10] See for instance Council of the European Union, 14228/05 JCD/lsd of November 25, 2005 and the debate surrounding amendment 379, available at: http://register.consilium.europa.eu/pdf/en/05/st14/st14228.en05.pdf

[11] All data mentioned in this paragraph are from the Single Market, Competitiveness and Innovation section of the Commission background report on REACH. SWD(2013)25 of 5 February 2013, General report on REACH, accompanying COM (2013) 49 of the same date.

[12] See also the important contribution by Veugelers & Cincera (2010) on young and innovative SMEs (called 'yollies') and their role in stimulating economic growth in the EU.

And by implication, if a regulation is very imposing – and that is certainly the case for REACH - the societal benefits for the EU, which may justify the burden on business, should clearly be outweighing both one-off fixed costs (e.g. consultancy costs to prepare registration dossiers) of the regulation as well as variable costs over time (e.g. cost of additional testing of substances, costs for responding to request for additional information from public authorities[13]). Moreover, and as will be explained below, several costs tend to become recurrent over the long term, for instance when submitted dossiers need to be updated e.g. due to changes in the tonnage band or availability of new information on use. In the case of REACH, precisely the identification and the (very rough) magnitude of benefits have been a major problem from the start.[14] Recently, more efforts have been undertaken to appreciate the long-run benefits of this piece of legislation.[15] However, the 2013 REACH Review still speaks about benefits in only ten to twenty years and acknowledges that the short-run benefits do not seem to match the short-run costs for business. This constellation exacerbates the skepticism in business circles, not least among SMEs.

[13] On this point, see UEAPME's contribution to the "Technical Workshop on the follow-up to the Review of REACH" organised by the European Commission on 27 June 2013, at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-susnik_en.pdf

[14] The Commission Impact Assessment of 29 October 2003 has less than half a page on benefits (in a 30 pages document) and only at the end(!) as an afterthought, based on a very simple back-of-the-envelope calculation and with assumptions lacking any substantiation from prior EU research (the reports commissioned at the time were all on technical issues or costs). Moreover, in a single line the text acknowledges that no benefits are known in the environmental area (only in public health), although the Environment Commissioner was co-proposing the draft Regulation.

[15] Following the 2007 baseline report of EUROSTAT, an update was published in 2012 as an Eurostat Methodologies and Working paper (see Oekopol, Ineris et al, 2012) on the quality of data and the risk reduction; and a report on health and environmental benefits by RPA, Oekopol and DHI, 2012.

3. IMPACT ON THE INTERNAL ORGANISATION OF SMES

As far as the authors know, there have been only two systematic attempts to document the intra-firm responses of SMEs to the challenges of REACH.[16] The first report addresses REACH obligations in general and will be used for the present section, whereas the second one deals with innovation (see next section). The official 'REACH Review from the European Commission of 5 February 2013'[17] leans heavily on these two reports and contains no information (on this question) additional to these reports.[18]

CSES (2012a) finds that 35% of small and micro firms created a dedicated REACH-unit, in contrast to 63% of surveyed large firms. The report also specifies that companies have allocated 1 to 5 full time equivalents (FTE)[19] to REACH compliance, but smaller companies allocate less than 1 FTE, with the relevant person having also other responsibilities for health and safety within the company. Costs or resources for REACH compliance are mostly linked to registration activities, as pre-registration was reportedly rather quick and not so demanding in terms of extra staff and additional costs. Overall, in monetary terms, CSES estimates that additional human resources costs range from EUR 25 000 to EUR 50 000 for a small firm. Most SMEs use consultants, and CSES suggests a strong replacement (of using internal staff) effect due to outsourcing. We come back to this point below. The CSES study[20] does not provide specific figures on consultants' fees but finds that the costs of consultants correspond to some 10% of registration costs, at times more like 10% - 25%.

In terms of job creation, CSES reports some informal evidence indicating that new positions have been created in 'technical and legal consulting services'.[21] Another source of new jobs comes from the establishment of 'Only Representatives', although many of them "*were already active in... the chemicals industry*".[22]

[16] Centre for Strategy & Evaluation Services (CSES), "Interim Evaluation: Functioning of the European chemical market after the introduction of REACH", 30 March 2012 (hereinafter, CSES 2012a); and "Study on the impact of REACH Regulation on the innovativeness of the EU chemical industry", 14 June 2012 (hereinafter, CSES 2012b).

[17] Commission Staff Working Document accompanying the General Report on REACH. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions in accordance with article 117(4) REACH and article 46(2) CLP, and a Review of Certain Elements of REACH in line with articles 75(2), 138(3) and 138(6) of reach. SWD(2013)25, of 5 February 2013.

[18] Some additional data on the experience of SMEs were presented during the "Technical Workshop on the follow-up to the Review of REACH" organised by the European Commission on 27 June 2013, Brussels. Further details available at: http://ec.europa.eu/enterprise/sectors/chemicals/reach/events/index_en.htm.
See for instance UEAPME's presentation at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-susnik_en.pdf, and CEFIC's presentation at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-annys_en.pdf

[19] A Full-Time Equivalent of 1.0 indicates that the person is equivalent to a full-time worker, 0.5 FTE indicates half-time work.

[20] CSES (2012a), p. 40.

[21] CSES (2012a), p. 71.

[22] CSES (2012a), p. 72.

Finally, REACH-related 'regulatory jobs' are presented as a potential long-term opportunity for graduates. The European Trade Union Confederation (ETUC)[23] is reportedly not concerned about job losses and sees REACH as a good means to maintain quality jobs for skilled and highly skilled labour in the EU, which is also reflected by the many universities that offer REACH related education[24].

It is, however, a misunderstanding that the total amount of resources (both human and financial) necessary to achieve REACH compliance is inversely related to the size of a company. The number of substances (dossiers) and the number of products produced, imported or formulated determine the size of tasks foreseen to a large extent. This leads to an imbalance between the efforts of large companies versus SMEs, as is also reflected by the number of registrations expected to be made by SMEs (82% of the pre-registering companies were SMEs.[25] Therefore it may be expected that the impact on the internal organisation for SMEs is substantial.[26]

Yet, from the interviews it was found that, so far, the internal organisation of many SMEs seems not to have changed significantly with the implementation of REACH. The feedback we gathered seems to confirm that between 0.5 and 1 full-time equivalent is *de facto* dedicated to REACH, as far as the registration deadlines of 2010 and 2013 are concerned. When probed about possible changes in view of the 2018 deadline, when several interviewees plan to undertake most of the registration efforts, no significant changes in human resources were foreseen. Overall, interviewees reported that REACH compliance has essentially resulted in an internal re-allocation of tasks to certain members of staff. However, some firms have hired a dedicated person, most often in the position of 'regulatory manager'. In general, REACH was not seen as a driver for job creation among SMEs. As regards job losses, most of our interviewees indicated that conclusions can only be drawn after 2018, with some fearing a non-trivial fall-out for SMEs.

As mentioned, a trend that has clearly emerged from the interviews is the widespread (and often unavoidable) use of external consultants.[27] Consultants can either be employed in lieu of internal staff to take care of the entire registration process for their client, or as a complement to own human resources, to ensure e.g., the legal or scientific soundness of the reports prepared by the SME. These two roles may have different consequences for the company, particularly as regards learning and the development of in-house REACH know-how. After all, REACH compliance does not end with registration, but requires sustained attention over time.[28] A representative from Belgian sectoral association VLARIP-Essenscia[29] explained that "*the smaller the company, the higher the tendency to look for external help*".

[23] www.etuc.org
[24] See http://echa.europa.eu/documents/10162/13602/universities_with_reach_courses_en.pdf
[25] COM(2013) 25.
[26] See also the presentation of SME-Case 2 at the "Technical Workshop on the follow-up to the Review of REACH" organised by the European Commission on 27 June 2013, at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-vanloon_en.pdf
[27] One of the interviewees rather colourfully described REACH as "a bonanza for consultants".
[28] For further details on this point, see Annex I, Tables 1 and 2.
[29] http://www.essenscia.be

4. IMPACT ON BUSINESS ACTIVITY

The essence of REACH is to pursue two pairs of central objectives (cf. Art. 1 of the REACH Regulation): "*a high level of protection of human health and the environment, as well as enhancing competitiveness and innovation*".
It is an extremely difficult balancing act to avoid or to overcome 'trade-offs' between these two pairs of central objectives. To date, from the perspective of SMEs, competitiveness seems to be the main loser in this equation, particularly as the benefits in terms of human health and environmental protection are expected to materialize only in the longer term. As a result, REACH may prove to lead to a competitive disadvantage for SMEs, due to costs, training, resources required, etc.

Costs and time (to-market) are important restrictions for market access for SMEs.[30] For instance, testing, risk assessment and letters of access within SIEFs (Substance Information Exchange Forum) tend to be very expensive in absolute terms. Given that, for SMEs, such costs have to be spread over many substances, each with a relatively small volume of production, the unit costs for SMEs are pushed up, much to their disadvantage. The effect of volume on costs per unit is shown in table 1. This explains the effect of many low volume substances on overall costs. In addition, the time necessary to become and remain compliant e.g. fulfill processes like volume tracking, submission/maintenance of registrations, preparation of Safety Data Sheets (SDS) with exposure scenarios and communication up and down the supply chain is expensive and may draw attention and resources away from other business processes.

Table 1: Estimated testing costs per tonne of an average substance (in EUR)[31]

Scenario	1-10 tonnes/year	10-100 tonnes/year	100-1000 tonnes/year	> 1000 tonnes/year
Minimum test needs	285	135	43	6
Average test needs	404	244	54	7
Maximum test needs	548	506	81	9

Based on averages of 3, 30, 300 and 3000 tonnes/year respectively.
Source: Van der Jagt et al. (2004) in Geldsetzer (2008), p. 28.

Existing reports[32] and our interviews raise several issues as regards the current and future impact of REACH on SMEs. The available space does not allow us to cover each point in detail; we will therefore focus on some key areas.[33]

[30] COM (2013)25, p. 127.
[31] Calculations on the testing costs per tonne of an average substance estimated assuming the production of 3, 30, 300 and 3000 tonnes per year respectively, and that the relevant costs would be distributed equally over 10 years. SMEs generally produce a less substances than larger companies and also produce lower tonnages, hence the costs per tonnage band are proportionally higher for SMEs than for larger companies.
[32] E.g. CSES (2012a) and CSES (2012b), Danish Technological Institute and PLANET S.A (2010).
[33] For a more detailed review of each point, see CSES (2012a and 2012b).

4.1 Impact on internal processes and costs (not linked to own human resources).

The cost of REACH compliance is seen as considerable, at times throttling, to smaller firms. CSES (2012a) compares the estimated aggregated direct costs of REACH foreseen in the impact assessment of 29 October 2003 with current cost estimates. CSES shows that, with only some (mid-range, as they call it) registrations done so far, the overall costs are clearly higher than expected: some EUR 1.1 billion (in Euros of 2011) in 2003 as against some EUR 2.1 billion today. The underestimation is nearly one-half and can be traced back to two reasons: (a) Quantitative structure-activity relationship models (QSAR) were expected to save some EUR 1.3 billion in testing costs, but current experience shows that almost no savings were made in this respect;[34] (b) the Letter of Access (LoA) costs were not foreseen. Assuming that these figures remain valid for 2013 and 2018, the direct 'cost overrun' compared to the initial impact assessment of 2003 might easily be as high as EUR 1.5 billion or more. Such an overrun is particularly 'painful' in a system like REACH, where the costs come first (and even higher than foreseen), while the benefits are not known and, if they materialize, this will happen much later. When expressed as a percentage of the yearly turnover of a firm, these costs amount to 0.1% at times up to 0.5-1%.[35]

As noted by the European Association of Craft, Small and Medium-Sized Enterprises (UEAPME)[36], the major sources of costs relate to testing, consultants and other forms of support to navigate through REACH's complexity and complete a registration dossier.[37] According to CSES,[38] 93% of surveyed SMEs reported that they always or sometimes rely on external laboratories for testing. For some firms, a major cost item is also the need to restructure existing plants in order to comply with stricter requirements for containment systems as REACH allows safe use only.[39] This cost item might well become more important after 2013 and 2018. WKO[40] (National industry association from Austria) as well as UEAPME explained that in some cases, misunderstandings of REACH obligations by SMEs led to the establishment of costly compliance mechanisms that were wrong and needed to be corrected or scrapped, thus resulting in lost investments. Finally a more trivial point, some reported that travel costs (to meet with consortium partners, attend courses, etc.) proved to be much higher than expected for an SME-budget.

[34] Opinion of the authors: this may also be caused by the numerous and very strict scientific prerequisites that ECHA (the European Chemical Agency) has set to allow the use of "validated" QSARs (see guidance on information requirements R6 QSARs and grouping of chemicals). To be fair, even the European Commission in 2003 had expressed doubts of the magnitude of cost savings from QSAR.

[35] CSES (2012a), p. 45.

[36] www.ueapme.com

[37] UEAPME (2013), *Position paper on the REACH review*, forthcoming. The authors are grateful to UEAPME for sharing an early draft of the paper, ahead of publication.

[38] CSES (2012a), p.50.

[39] Safe use will lead in most cases to more stringent production processes limiting human and environmental exposure. These processes will be laid down in exposure scenarios that are included in the extension of the SDS and need to be followed in order to become REACH compliant.

[40] http://portal.wko.at/

Another issue, widely reported elsewhere,[41] and confirmed both by industry associations and interviewed firms, is the diversion of R&D resources to REACH-compliance, which hampers innovation. Besides for direct work on compliance, resources from R&D are also increasingly used for investigations on substitution of raw materials, for instance to replace a non-REACH compliant supplier with a REACH compliant one. As a result, time is spent in market search and identification of a suitable supplier, not in research itself, let alone innovation. A similar pattern is reported when R&D is devoted to replacing a hazardous material with a supposedly non-hazardous material. This process may, but need not, imply innovation.

Box 1: Selected quotes on the impact of REACH on business activities

"We spent much more on human resources than pre-REACH. The cost of registration is more the time and resources than money."

"There is a misconception that REACH and innovation go hand in hand. Innovation cannot be stimulated by law…with the exception of dangerous substances."

"*One aspect [to improve the situation, the authors] would be just to give us a bit more time. For instance with a new substance, we could have 1 year so that an SME can put the substance on the market, without the data, be given some leniency for 10-20 tons per year and then start registration*".

"*I have to be stricter in monitoring production just to remain in the right tonnage band, if I get more orders it can be a problem."*

Due to the obligations to communicate within the supply chain, relationships between suppliers and downstream users have changed, and in the process, many companies struggle with their confidential business information (CBI). This is mentioned by some of our respondents (formulators) as an issue, because their business depends on secret recipes (a specific feature of a mixture, e.g. viscosity is determined mainly by the precise constituents present in the mixture and perhaps the presence of one very specific chemical). Knowledge gained by either customers or suppliers on the specific chemicals present in a mixture due to communication in the SDS may provide competitors with sufficient information to copy products. Although our respondents did not voice any particular concerns as regards the treatment of intellectual property and confidential business information in the context of the SIEF, it may thus be an issue in the communication along the supply chain.

The management of significant information flows relates to the preparation of Safety Data Sheets and Extended Safety Data Sheets (eSDS). The SDS in itself is not new: it existed before REACH. Industry associations (e.g. UEAMPE, and the European Chemical Industry Council–CEFIC)[42] explain that there are several problems in this area today, not so much in connection to the SDSs *per se* but rather linked to the underlying communication flows.

[41] CSES (2012a), p. 49. CSES (2012b) finds that 63% of surveyed firms reported a diversion of R&D resources from "truly" innovative research after REACH entered into force (although the figures do not distinguish between small and large firms).

[42] For further details, see www.ueapme.com; and www.cefic.org

To name but a few: the level of response from downstream users ranges from little or mere limited reactions to an overload of requests for reassurance (e.g., request for confirmation that the supplier will register a substance; request to substitute a substance that is on the candidate list of Substances of Very High Concern (SVHC)) beyond what is necessary; when asked to communicate usages, suppliers were provided with non-usable information by their downstream clients, or instead asked to register 'all possible uses under the sun' just to be on the safe side. This complex web of interactions and information exchange triggers the need for IT tools to manage these streams adequately and provide insight in the bill of materials.[43] These tools are available in the market, but are expensive and need to be tailor-made for the company. SMEs often have less overview of their tasks and may look for cheap solutions that in the end meet only part of their specific needs.

Box 2: Selected quotes on communication in the value chain and SDSs

"One of the main changes are SDSs. The level is still not right, [the enforcement authorities, the authors] should improve communication, especially downstream. We could lose market if our customers are not compliant with the regulation. There is no problem with the suppliers, they are better informed."

"Companies have to adapt the information for all their SDS for each formula. A lot of work without a software behind…if there is a change in the format, as in December 2012, there was not so much content change, but companies had to re-fill the same information according to the new format."

"It is difficult to work out what information should be in a SDS, it's difficult to put it into a usable document. The quality also varies: some are too thin, others way too long…"

"I have noticed a lack of chemical know-how to fill the 'use descriptor'. Wrong codes are being used, we try to educate our customers, but sometimes even language is a problem."

"We had a lot of communications with people downstream…it was important to standardize our communications. Most of our customers were large companies with sufficient knowledge of REACH. In the case of SME customers, we chose the top-down approach. In order to explain the reason for that decision, we downloaded the CEFIC model letter and modified to our own situation."

In terms of firm strategy and business models, the CSES reports do no find clear evidence of change in the business model among surveyed SMEs, but rather smaller effects on business operations. However, the absence of flexibility in REACH seems to be a central concern for SMEs. REACH is perceived as a constraint to innovation, affecting time-to-market and limiting the possibility to test new uses or substances.[44] Reportedly, companies 'take into account the REACH cost of any new idea', and discard more projects than before, as scaling up to test real market potential would automatically trigger the need to register.

[43] A bill of materials (sometimes bill of material or BOM) is a list of the raw materials, sub-assemblies, intermediate assemblies, sub-components, parts and the quantities of each needed to manufacture an end product.

[44] CSES(2012b), p.60.

The exemption included in the Product and Process Orientated Research and Development (PPORD) provision[45] is to date not used by many SMEs. Cost considerations related to REACH registration will increasingly play a role, as the registration deadlines for lower tonnage bands come closer. This year, but in particular in 2018 or just before, most SMEs will have to face tough questions of re-structuring of their portfolio, with some substances being dropped ('withdrawn') as they are not economically viable anymore. In addition, a side effect of REACH is that the candidate list and even other unofficial lists like the SIN (Substitute It Now)[46] list (from NGOs) and the European Trade Union Confederation (ETUC)[47] list amount de facto to a 'stigmatization list'.[48] Strictly spoken this is mistaken, because the authorisation for some applications may well be provided, dependent on the establishment of risks (in such applications) and the socio-economic importance of the usage(s).

But there is little doubt that this verification process is long and extremely costly, and requires considerable expert resources. And all the time, the substance is brandished as a SVHC, which is in fact frowned upon by prudent downstream users. These lists are already used by many companies in order to substitute raw materials, although not a single authorisation has yet been given or indeed refused. There is a general lack of experience with the (heavy) authorisation process and the uncertainty arising from the first day of a substance being listed, may lead to the disappearance of some substances from the EU market. When no comparable substitute exists, some businesses fear that downstream users might relocate part of the process outside Europe and re-import the finished product rather than incur the costs of registration. This is possible because companies established outside the EU can do what companies inside the EU cannot. If such relocation of the final part of the value chain to production sites outside Europe were to occur, it is likely to lead to job losses in the European industry. The painful aspect in all this is that the final product after REACH – as it is imported – would not change at all from that before REACH despite the substances on the candidate list. In other words, the job losses involved are not a sacrifice for the aim of safer chemicals: in fact, under relocation, the job losses are a pure loss of social and economic welfare for the EU (in analogy with 'carbon leakage' in climate strategy).

CSES notes that the financial situation of companies is made more difficult due to REACH, and this is likely to bear on strategy.[49] During our interviews, the recent financial and economic crises were not seen as a major problem in terms of REACH compliance and revision of business models, except for the limited availability of finance to fund testing. In any event, it is difficult to disentangle the effects of REACH compliance from the negative impact of the economic crisis.

[45] As explained in Art. 4 of the Regulation, the exemption concerns "any scientific development related to product development or the further development of a substance, on its own, in mixtures or in articles in the course of which pilot plant or production trials are used to develop the production process and/or to test the fields of application of the substance."

[46] http://www.chemsec.org/what-we-do/sin-list/sin-list-20

[47] www.etuc.org

[48] CSES (2012a) also indicates that there is a great degree of uncertainty surrounding the candidate list.

[49] CSES (2012a), p. 54-55.

Overall, and as confirmed by the (national and EU) associations contacted for this study, SMEs that display a 'proactive' attitude (e.g. split the registration process into various blocks across the deadlines, seek timely help from different sources and/or follow trainings, coordinate internally across the various departments to elaborate strategies for REACH-compliance) are likely to survive REACH. From our sample, and more generally, it is difficult to establish the overall proportion of this type of firms. A worrying feature that emerged as well from interviews and was already noted in the Commission's report[50] is that there are several companies not having started with REACH preparation. Such SMEs tend, as one company put it to us, "*to bury their head under the sand and hope that REACH will pass or deadlines will be postponed. They will wake up too late, and then?"* In addition, many companies that do not consider themselves as involved in chemicals may still be unaware of REACH and its potential influence on their compliance. These companies (except textile SME) were not part of the current interviewees and therefore it remains unclear how REACH will affect their business.

4.2 Future structure of the market

It is critical to distinguish chemical SMEs (upstream, such as integrators and formulators) and SMEs further downstream which make use of one or more chemical substances but otherwise mainly focus on their final product, which may be an article where the relationship with the chemical origin has disappeared. These products are in general not considered as chemicals (from textiles, cars, furniture and shoes, to airplanes, or house appliances, etc.). There are signals that the awareness amongst these types of SMEs leaves much to be desired. In addition, many SME traders importing articles from all over the world can be regarded as vulnerable. They are potentially affected by the notification of substances of very high concern present in their products. On the other hand, awareness among SMEs in the higher parts of the value chain seems to be less of a concern.

Generally, interviewees, both SMEs and sector associations for the chemical industry, expect that some SMEs (including, but not only, traders) will exit from the market by or shortly after 2018. This leads to lower numbers of substances, but also to a reduction of raw material suppliers and formulators. The effect on market structure will differ. In the case of companies, a reduction in number[51] is expected to lead to job losses in certain segments of the market, less competition and selected price increases. As mentioned, importers and traders of substances and raw materials coming from outside the EU are likely to be affected most.[52] From our limited sample, it appears that firms having a diversified portfolio and a client base in and outside the EU are better positioned than others to adapt to REACH-induced changes.

As regards the reduction in the number of substances on the European market, it is too early to draw conclusions, because of the uncertainty surrounding some substances and the authorisation process more generally.

[50] COM (2013) 49, p.6.

[51] As these considerations are drawn from a review of the literature and for interviews, we cannot provide exact figures on the expected reduction in terms of number of firms.

[52] For further details on the suspected impacts of REACH on different types of SMEs, see i.a., Geldsetzer (2008).

As mentioned several times, the deadline for registering lower tonnage bands is still ahead of us and outcomes in terms of substance numbers will become apparent after 2018. For the time being, several of our interviewees explained that they have reduced the volume they produce for some substances in order to preserve their ability to market them inside the EU (for a few more years) and postpone potentially tough decisions.

Prices are also expected to increase, although there are no firm conclusions on this point. So far, most respondents indicated that they absorb the costs of REACH rather than passing them on to their customers, in line with the findings of CSES on the topic.[53] Things might change after 2018 when 'who and what is left on the market' becomes clearer. Niche or specialized chemicals (provided they do not disappear due to rationalization) could be sold at higher prices, sometimes becoming a source of competitive advantage for SMEs who will face fewer competitors. For "commodity substances" however, raising prices seems to be an unfeasible option.
Insofar as a questionnaire can provide 'hard' evidence, it is clear from Figure 1 of the CSES study that some 13% - 18.5 % of companies increased the price (except distributors, where this figure is only 5 %).[54] Figure 2 is a little milder but still leaves a considerable share of firms having raised prices 'sometimes, frequently, always'.[55] Price increases are often in the range of 3% to 5%, at times 25%.

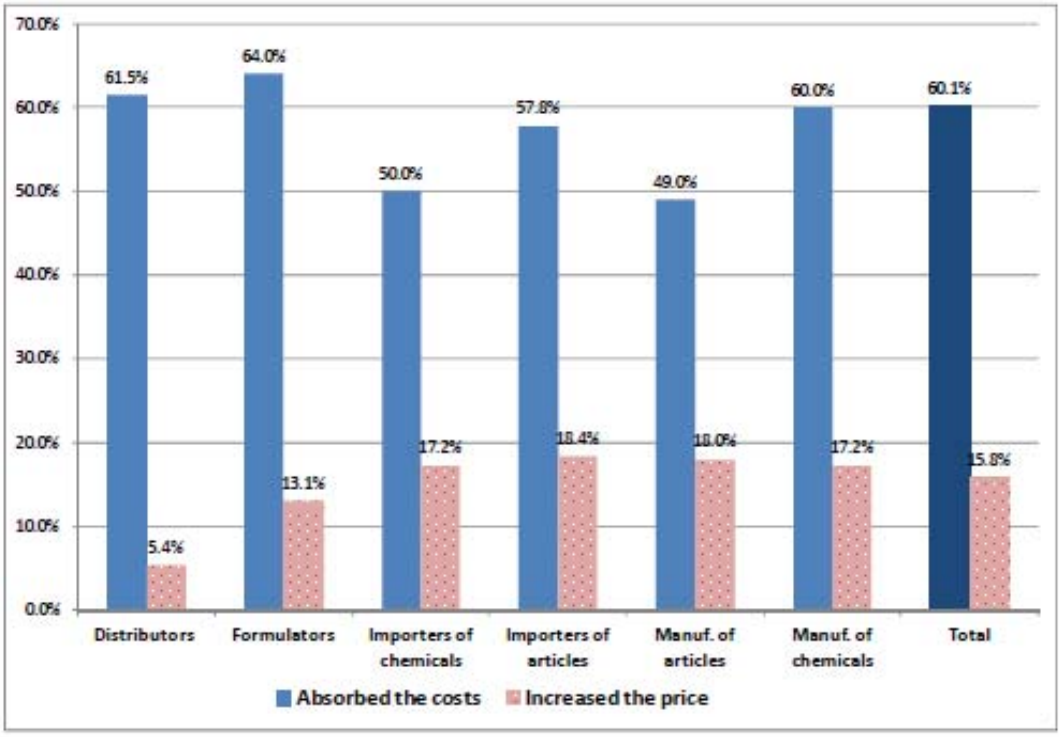
For article producers, this is not such a big problem because the chemical value-added in the overall product tends to be very small. On variety ('withdrawals'), CSES also brings evidence. Some 37% of respondents have already experienced withdrawals and another 30% expect this to happen in future.[56] Often, but not always, users can switch to another supplier. This will also lead to considerable costs as the product sold by the new supplier also needs to be tested to establish that it fulfils the product specification, i.e., the performance of the substitute is similar or better than the performance of the original. Well-known cases include chromium trioxide (used for surface coating on metals, in aerospace and defence products, where 11 withdrawals are reported) and certain types of dye and/or flame-retardants. A survey of distributors identified 300 withdrawals.[57] More often than not, withdrawals tend to lead to higher market concentration. Even cases of vertical integration have been reported.[58] The greatest incentives for withdrawals are the unit costs of registration and the listing of substances as SVHC on the candidate list.[59] However, substitution is not always possible or turns out to be very costly to explore. In addition, substitution may lead to replacement of chemicals that are hazardous by others that are slightly less hazardous.[60] Finally, there is a lingering fear that costs, withdrawals and problems of substitution together will cause a loss of market share vis-a-vis non-EU producers.[61] There is a direct connection to fears of relocation, already discussed above.

[53] CSES (2012a), p. 54.
[54] CSES (2012a), p. 54
[55] CSES (2012a), p. 56.
[56] CSES (2012a), p. 57.
[57] CSES (2012a), p. 59.
[58] For instance, a take-over of an upstream supplier by a downstream user, securing this supply to the user.
[59] CSES (2012a), p. 60.
[60] CSES (2012a), p. 67.
[61] CSES (2012a), p. 64-65.

For innovative SMEs involved in development of nanomaterials, either on their own or as subsidiary of a large company, the influence of REACH is expected not to differ significantly from the general picture as described here.

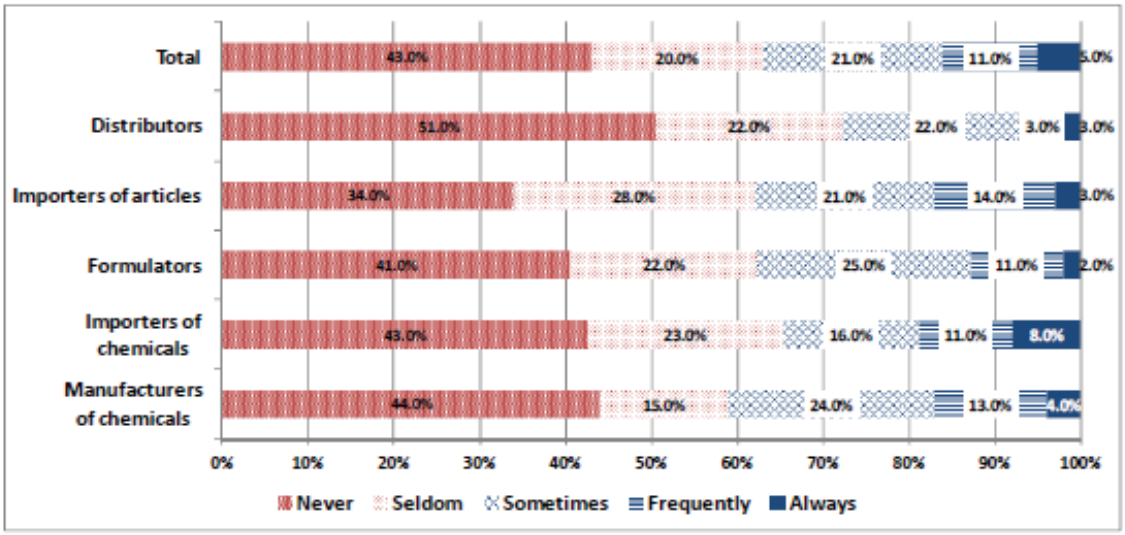
Since the requirements for registration of nanomaterials were included in the REACH guidance from ECHA, at least clarity has been provided. Although there are some differences in technical requirements, it is expected that the impact of registration costs, knowledge and other aspects discussed above for nanomaterials will be to the advantage of larger companies. None of the interviewees was actively involved in the development of nanomaterials, which allows no definite conclusions here.

Figure 1: Responses of firms to the increase of costs resulting from the REACH regulation (Percentage of responding firms indicating that they absorbed the costs or increase the price of their products/services frequently or always)



Source: CSES (2012a), p. 54.

Figure 2: Have you increased the price of your products in order to incorporate costs related to REACH? (Percentage of respondent indicating)



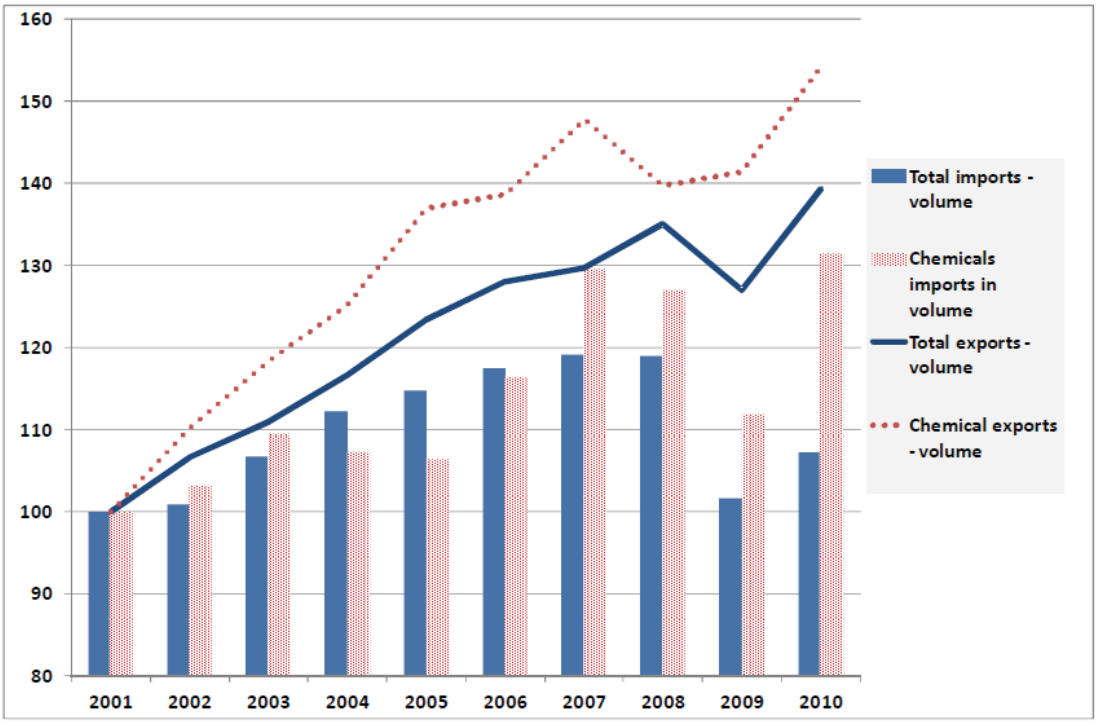
Source: CSES Survey

Finally, as regards import and export patterns in the sector (see Figure 3), CSES (2012a) holds that reduction of market shares vis-a-vis third countries is due to the adverse movements of relative prices.

However, later in the report a counterargument appears: REACH also forces importers to switch to EU manufacturers.[62] This last point was also mentioned by two of our interviewees, who explained that in the future they might decide 'to buy European' if the lower costs of third-country products are offset by expenses to prove that these products are REACH-compliant. Yet, there is not enough evidence to draw any firm conclusions on this aspect as of now.

[62] On this point, see also Table 4.10, p. 67 of CSES 2012a. Note however that in Chart 4.11 (p. 68) [on inside Europe] REACH is said to be irrelevant for entering other (EEA) markets or not.

Figure 3: Evolution of Volume of EU27 imports and exports in the chemicals sector in comparison to total level of trade (2001=100)

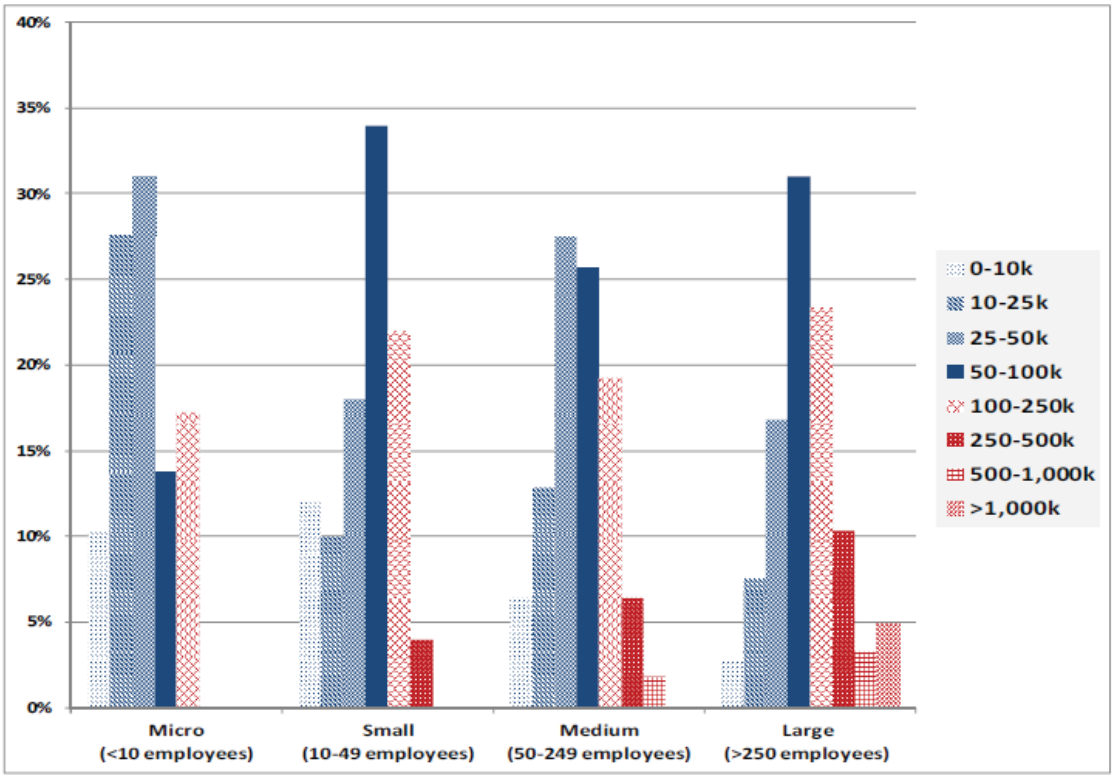


Source: CSES (2012a:67) elaboration on Eurostat

4.3 The Substance Information Exchange Fora (SIEF) experience for SMEs

Feedback is mixed on this point, with some negative episodes being reported while other SMEs had a positive experience overall. However, views converge on one point: the final cost of a SIEF and the concomitant registration is never clear from the start, as it will eventually depend on the final number of SIEF participants which share the costs. If a few drop out, the individual share of costs for a company increases, sometimes for considerable amounts. In other cases, it turns out to be quite bearable. However, unit costs are higher for SMEs than for large companies, and when they add up – that is, if there are many substances - the cost competitiveness of SMEs becomes a serious problem (see Table 1 above). In addition, additional expenses, such as additional testing, revision of risk assessment, additional time and efforts required to resubmit relevant information, will have to be incurred when updates of the dossier are needed. Experiences tend to differ, depending on whether an SME is a lead registrant or non-lead participant within a SIEF.

Figure 4: Distribution of costs by firm size (% of respondents indicating)



Source: CSES (2012a), Appendix A

In general, it would seem that some of the incentives generated by the SIEF system were not or not sufficiently foreseen. This is particularly true of intentional or even unintentional[63] abuses of dominance, as also noted by CSES[64] There have been repeated suggestions that lead registrants or big firms in SIEFs abuse their dominant position. One of the interviewees pointed out that this is done by refusing to update a dossier for a specific endpoint, which is of more importance for the SME than for the big firm, e.g. a potentially sensitizing substance may prove to be non-sensitizing after additional testing, which may be important for the niche market of the SME, but not for the raw material market of the big firm.[65] Although, in principle, all discussions and actions of the SIEF are subject to EU competition law, the question might be asked whether REACH and guidance provided by the European Chemicals Agency-ECHA (as the Commission suggests) are sufficient to deal with competition law issues in the SIEF.

[63] For instance, one respondent explained that if he had understood the cost implications of registration before, his company would have acted earlier, thus securing a better deal within the SIEF. The final and rather pricy outcome for his firm was not so much presented as an abuse from a bigger firm acting as the lead registrant but as the outcome of initially unequal knowledge. Conversely, another respondent reported the case of an SME that needed to register a new substance and, after the inquiry (see Annex I), was directed by ECHA to one of its clients for data sharing. The client stated that it would provide all data for free, but wanted to have information on the market in Asia from the SME. Providing this information would have meant loss of business for the SME. Therefore, the SME decided not to register the substance as the large company was too important as client.

[64] CSES (2012a), p. 65 and 86.

[65] For some additional details and figures on the costs for SMEs, see for instance UEAPME's presentation at the "Technical Workshop on the follow-up to the Review of REACH", of June 27, 2013: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-susnik_en.pdf

UEAPME and its member associations suggest that a positive step to increase transparency within SIEFs and in the costs of Letters of Access (LoAs) (regardless of their magnitude), would be to establish an Ombudsman figure (e.g., in the European Commission, in ECHA, or at the national level) to monitor more closely individual cases and offer a platform for redress to SMEs. The general rules of competition law are not seen as helpful, as infringements are difficult to prove and pursuing them requires time and resources that small companies do not have. Moreover, what matters is the outcome of anti-trust cases and this may take a lot of time.

Box 4: Selected quotes on the SIEFs experience and LoAs

"We spent EUR 55 000 to buy a LoA for three substances, I cannot judge if this is overpriced. But in another case we wanted to buy a LoA for one of our niche applications, 300-400 tonnes. The price was EUR 40 000 for us. I looked at the data and it turns out that the price charged for higher volumes (i.e., more than 1 000 tons) was EUR 60 000! They produced massive quantities, so my unit cost is much higher! We cannot compete against this! Maybe they want to "lawfully" get rid of us…I am not sure [the legislator] thought about this when they drafted the law".

"We have never been in a SIEF. To be honest, we find the costs associated with SIEF disproportionate to the costs of registering ourselves. On the other hand there might be a lot of separate registrations, which goes against the spirit of REACH". Another interviewee pushed this point further: "If you think about it…there can only be one lead registrant in a SIEF. But if there are two SIEFs for the same thing, to my knowledge there is no repression! So…if we do not like what we see [existing SIEF] we may as well decide to go alone, this is a strategy".

"People's interpretation of what is a SIEF varies…it's not very clear how it should be. For one product we are not the lead registrant, we are in their hands…we are concerned, we do not know what the end cost is going to be….also have the impression that some testing houses are using REACH as a cash-cow…if you compare the prices they are all strangely similar, I mean the breakdown can differ from one testing house to the other but the final figure is very similar…"

"To register I have to spend EUR 100 000 per registration at least to cover consultants fees and LoA. I can only register via SIEFs, cannot be the lead-registrant, it's too much work".

"I was not even shown the report submitted by the SIEF leader… I have to go look for the information myself on ECHA's website."

"A lot of SMEs have difficulties in interpreting what the costs are for them. Also, they forget to submit their own dossier. If they have a LoA they do not know if the process is over or not. They cannot estimate the real cost in the end because they do not know how many will join the SIEF".

"I know of a case where the European Commission's Directorate General for Competition was contacted by an SME. The SME had been required to always pay the exact same price to register different substances in low tonnage bands. As this price was rather low, the case was not considered seriously damaging. Yet, if you add up EUR 2 000 for a lot of times, the bill goes up".

5. THE SME EXPERIENCE WITH AVAILABLE SUPPORT

SMEs are provided with various sources of support to comply with REACH. These range from the guidance and assistance offered by ECHA and the European Commission, to the 'National Helpdesks' foreseen under REACH, to initiatives set up by sector associations at the EU and national level, by Chambers of Commerce, and by more informal solutions such as support networks set up by companies. Before we briefly review each of these sources of support, it is worth pointing out that there are intrinsic differences across EU Member States in terms of resources and available capacity to support SMEs with REACH compliance. As explained by the representative of a national Chamber of Commerce who is also actively involved in UEAPME's activity and in several fora at the EU level, sometimes the effectiveness of support is also related to the size of a country. This is not only a question of available manpower (e.g., the number of REACH experts in different public authorities), but may also have wider impacts on support provided by the private sector (e.g. if there are only three textiles firms in country A, there might not be a sectoral association for them to turn to).

Various forms of support have been used by practically all firms. CSES reports that surveyed companies used ECHA (92%), the national helpdesk (83%), national trade associations (87%), European Trade Associations (69%), and private consultants (60%). When it comes to quality of support (for the companies), the national trade associations are by far the most appreciated ('tailor-made'), closely followed by the European Trade Associations and private consultants. [66] ECHA scores weakly and national helpdesks the worst. ECHA guidelines are appreciated but are usually seen as too general in some respects (ECHA is not allowed to give genuine advice to firms) and too massive in total. There is also a demand for advice in languages other than English.[67] Reportedly, national helpdesks attempt to shift some of the blame to the Commission, which, in turn, responds by referring to the complexity of referred questions when explaining delays in answering such requests.[68]

Our interviews confirm these findings. In general, the most appreciated sources of support were sector associations at the EU level (e.g., CEFIC's guidance and templates were often praised) and at the national level.[69] Such organisations take a very proactive and practical approach in organising trainings and seminars for SMEs on a regular basis. In some cases, these associations ended up being the provider of advice and answers to practical but complex questions, which national helpdesks could not provide to individual companies. In this respect, the experience with national helpdesks is mixed. When it was found lacking, this was either an issue of opening hours and limited number of staff, or the inability to provide more than general advice going beyond what is found in the text of the law. There are national helpdesks that only use emails and no telephone service. Nevertheless, there were also some positive reactions.

[66] CSES (2012a), p. 81.

[67] On this point, see also SME Case 1 presented at the "Technical Workshop on the follow-up to the Review of REACH" organised by the European Commission on 27 June 2013, available at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/docs/events/rev-tws-otto_en.pdf

[68] CSES (2012a), p. 84.

[69] See for instance Vlarip (BE) and REACH-ready.

Table 2: Number of helpdesk questions received annually by ECHA according to company size

	2007	2008	2009	2010	2011	Total
Equal or more than 250	38	2727	2298	2556	397	**8016**
Less than 250	23	5001	3364	4048	640	**13076**
Size of company non-available	1295	4530	1786	3180	177	**10968**
Total	1356	12258	7448	9874	1214	**32060**

Source: ECHA (2011), p. 52

This mixed feedback also applies to the guidance and support provided by ECHA. The Agency has been sometimes described as slow in responding, or 'too legalistic' (note that companies understand that ECHA's mandate limits the type of answers that it can provide, yet more flexibility was expected as often companies do not know where else to pose their questions). As mentioned by CSES (2012a and 2012b), the guidance provided by ECHA is considered very comprehensive but too burdensome for a small company. In particular it is difficult to navigate through or around the different guidelines (altogether, thousands of pages with often highly specialized information), and several respondents suggested that a proper and user-friendly index/table of contents for all this information is nowhere to be found. Other respondents were satisfied with the support received by ECHA, also as regards the use of IT tools.[70] The most positive views were those expressed by company representatives who had a direct contact with ECHA in Helsinki, as they reported having gained a better understanding of how the agency – and thus the implementation of REACH – functions.

Regarding IT tools like REACH IT, IUCLID, CHESAR,[71] and the frequent updates of these tools from the ECHA side (the latter was often cited as a major source of frustration, because what seems like a minor IT change in Helsinki sometimes requires re-entering a lot of information on the SME-side), the cumulative effects on the internal functioning of a small company is considerable.

[70] As mentioned above, what is much less appreciated is the number of updates of the tools.

[71] REACH-IT is the IT portal set up by the European Chemicals Agency and accessible at: https://reach-it.echa.europa.eu/reach/public/welcome.faces. IUCLID is the International Uniform Chemical Information Database, accessible at http://iuclid.eu/, Finally, CHESAR is the CHEmical Safety Assessment and Reporting tool to to help companies carry out their chemical safety assessments (CSAs) and prepare their chemical safety reports (CSRs) and exposure scenarios (ES) for communication in the supply chain.

Box 5: Selected quotes on support for SMEs

"I think there is plenty of support for SMEs around. The problem is how to access it".

"Guidance is very heavy. Updates are a nightmare. As a rule, the smaller the company the shorter the guidance".

"The fee reduction is killed by the rest of the administrative costs".

"As regards recent Commission suggestion to reduce costs for SMEs, it's a lot of common sense. It's how you do what you promise that matters though!"

"SMEs do not have the time to look at all documents to find the answer to their needs. More documents won't help! It would be better to improve the website and find ways to navigate the guidance…SMEs would also benefit from legal support, for instance contract templates for LoAs"

"In a small EU member state, authorities were overwhelmed by questions".

"I was also drowned by emails offering support. The problem is who should I choose? There is a trust issue".

Specific measures for SMEs in the regulation are mainly limited to fee reduction. This does not help very much, as the majority of the costs are related to the access to and compilation of the dossier (an SME may have to pay circa EUR 65 000 to get access to a dossier of a solvent he may use in quantities of only 100-1000 tonnes, the unit costs issue referred to earlier). From our interviews to firms and associations, the recent fee reduction of March 2013 is seen as a symbolic gesture, at best, albeit one going in the right direction. Indeed, SMEs gave examples of reductions of literally just a few hundreds of Euros for dossiers with a total cost of EUR 100 000 or at times far more.

6. THE ADDED VALUE OF REACH FOR SMES

The central problem here is that it would seem to be too early to come to conclusions, given that several SMEs still have to face the bulk of registration efforts between now and 2018. The overall acceptance of REACH among SMEs will only become apparent at the end of the three rounds of registration.[72] Yet, our interviewees clearly indicate that - for the time being - REACH is essentially equated to a surge in costs and administrative burdens for SMEs. This view is also reflected in the forthcoming position paper by UEAPME on the REACH review.

CSES (2012a) identifies the following benefits:

(a) creation and use of new knowledge (70% of firms saw none of this; 11% stated that REACH has helped develop less hazardous substances or new uses);

(b) Member States' authorities assume a radically different position, saying that 'the knowledge created through REACH [is] 'fundamental' and 'absolutely necessary for authorities';

(c) improvement of risk management and occupational health and safety.[73] The report also specifies that 'potential benefits are thus only expected to occur after 2018, once registration related costs decrease significantly'.[74]

Among our interviewees, an improvement (i.e., increased frequency) of the communication within the supply chain is seen as potentially beneficial. Some, particularly manufacturers and formulators, stated that they already discern some benefits in terms of knowledge of chemicals substances. Some reported that they can now better understand their customers, despite the reported 'drowning in data and emails' to compile SDSs.[75] It has to be noticed that for specific SMEs, this increased knowledge may lead to involuntary disclosure of CBI as discussed in section 4. One manufacturer explained that REACH pushed its company to re-assess its containment system and the use of protective personal equipment. Although compliance costs to redesign plants were significant, the interviewee believes that the company now understands and handles the risks of operating with certain chemicals better. Others felt that, to date, this is merely a benefit in terms of transparency rather than an improvement in the knowledge base. It should be noted that CSES' findings on benefits in terms of knowledge transfer are quite negative.[76] A UEAPME representative explained that the quality of SDSs and eSDSs has been somewhat disappointing.

[72] On this point, see also European Commission COM (2013) 49:4, and CSES (2012a).

[73] On this, the CSES report has rather positive conclusions, with some reservations of occupational health and safety. Yet, it also stresses that, while toxicological information can be helpful, the price in terms of red-tape is too high. These remarks should be understood in the context of a broader assessment of SDS in the CSES report (see for instance p.94 and Table 4.11), which is generally critical. In particular, eSDS tend "not to be usable for downstream users" and "SDSs of more than 10 pages stop being effective....too much information kills information" (CSES 2012a:95).

[74] CSES (2012a), p. 103.

[75] For instance, one manufacturer explained "if anything, REACH has brought more clarity. It is a lot of data, but you have the impression you get a better understanding". However, when probed on SDS and eSDS, the respondent explained "they are a burden, for translation, and also to update. It is not going to kill my business but it is a pain".

[76] See also CSES (2012b) on SMES's views on the knowledge benefits of REACH; and CSES (2012a), p.25-26.

There was a hope that eSDS with detailed information on how to use the chemical safely, in particular, could lead to greater coherence with other legislation at the EU and national level, for instance in the area of labour, so as to avoid duplications.[77] As a matter of fact, downstream (SME) users only received a very limited number of extended safety data sheets; it is therefore difficult to establish whether the increased information on chemicals and their exposure has led to process changes/improvements down the supply chain and more specifically to added value for SMEs.

Some of the smallest firms in our sample also mentioned that the increasing availability of information on chemicals on the ECHA website allows them to better understand the structure of the market in which they operate and potentially identify opportunities for future business development. This echoes the findings of CSES's report on innovation.[78] On the other hand, a few respondents saw this increased transparency as a potential threat to their business.

In any event, besides the caveat of the limited size of our sample, it is fair to conclude that tangible benefits will only be better observable in the future. Incidentally, this is not really new. Since the beginning REACH it was expected that compliance would generate significant costs in the short and medium term, while wider societal benefits in terms of improved health and safety as well as environmental protection would only start materializing after 10 years and become observable in 20-25 years.[79]

During the interviews with SMEs and Associations we also asked whether REACH has had any beneficial effects for the overall reputation of the chemical industry. Already at the time of adoption of the Regulation, this was presented as a potential benefit for the sector. It is probably too early to observe such an effect. However, some such benefits were acknowledged by respondents as regards the reputation of the chemical sector towards downstream users. Conversely, all reported that the wider public seems to be unaware of the existence of REACH and of the considerable effort undertaken by the chemical sector.

Box 6: General comments on REACH from interviews

"I do not see the commercial benefits of REACH, but there are now higher levels of knowledge among users."

"REACH has been a barrier for the competitiveness of my business. We deal with multi-stage products. We will have eventually to register all the stages, while non-EU firms have only one registration!"

"REACH is something you cannot discuss. It's a fact imposed upon us: we have no problem with that, the fundamental philosophy is right, rules can improve things in the long term, but it's rigid and costly."

"The problem with REACH is the lack of pragmatism. The need and the costs are clear, but it is the inertia of the system…and if you decide to do something you

[77] For a thorough review of the body of legislation that can potentially overlap with REACH, see Milieu (2012). The point should not be taken lightly. This report by Milieu (2012) analyses no less than 155 pieces of EU legislation affecting chemicals, outside REACH.

[78] CSES (2012b).

[79] COM (2013) 49:4.

have to follow all procedures… REACH gave us better knowledge of product safety and of the substance itself."

"There is more information now thanks to REACH. More info however often leads to more severe classification."

"I cannot deny that there will be more knowledge thanks to REACH, at least on paper. But is it usable?"

"At this moment REACH is a barrier to competitiveness. But if for some products we will have less competitors, maybe it becomes an opportunity."

"The only knowledge is that I am losing money."

7. CONCLUDING REMARKS

REACH is widely regarded as expensive by SMEs. There are objective indications that this is correct. The Annex to this report has a carefully outlined stepwise enumeration of all the costs in the basic stage (10 steps in Table 5) and the additional costs of steps related to authorisation, restriction, etc. (another 4 steps in Table 6).

In terms of human resources SMEs typically use up to one FTE for REACH already for years; this will certainly not change until after the registration deadline of 2018. Larger SMEs may use even more resources.

The overall (direct) cost estimates of REACH specified in the 29 October 2003 Impact Assessment turned out to be an underestimate by nearly one half. By 2012 the difference added up to around EUR 1 billion; by 2018 this might have gone up to EUR 1.5 billion or possibly much more. Reasons are mainly two: the QSAR models and other alternatives to testing did not lead to savings in testing costs and the SIEF LoA fees were not foreseen.

Table 3: Comparison of cost estimations for CSES study and Commission estimates -1st registration period

Key figures	Commission estimates (> 1000 tonnes)	CSES estimates
Total estimated cost of registration, testing and ECHA fees	EUR 955 million (2003 values) EUR 1 088 million (2011 values)	**EUR 2 100 million** (2011 values)

Source: Authors' elaboration on CSES (2012a), p. 53.

The communication up and down the value chain can be quite costly and resourceful, due to high frequencies of (thousands of) emails. There are problems with the reading of SDSs and about the utility of the eSDS (despite, or perhaps because of, its extreme detail about exposure scenarios).

REACH might well lead to changes in market structure. Some withdrawals may have consequences in this respect, but the complaints are also about price increases and about the risk of losing market share vis-a-vis non-EU producers. The latter is connected to a fear of relocation to outside producers, with job losses as a result; note that the final product would not change with the relocation, hence the intended REACH effect is undermined.

There are problems with the functioning of SIEFs and with the uncertainty about the final costs of participating in a SIEF. SMEs consider that a priori they have no idea what the costs will be after the SIEF will have registered. The possibilities to opt-out are limited and very costly.

There are many complaints that lead registrants - usually big firms because the work is very resource-intensive over a period of time - or big chemical firms in general abuse their dominant position in SIEFs, be it via very high fees for LoAs or via other tactics which disadvantage SMEs. The Commission in its 2013 REACH Review (Annex, item 1) speaks of the danger of 'powers of lead registrants', possibly materializing 'in imposing flat fee on LoAs and charging disproportionate amounts for the administration of SIEF'.
Practically all SMEs use support systems but their assessment of the quality is rather critical. Best are the national and European trade associations. ECHA is regarded as highly competent but there is too much 'guidance' (thousands of technical pages) and there are too frequent alterations.

The fee reductions of March 2013 are seen as symbolic, at best, because they represent a minuscule fraction of the costs.
The added value of REACH for SMEs, so far, is very limited indeed. Many SMEs discern none up to now. Some acknowledge that knowledge is increasing and that this might be used later.

SMEs rarely see any improvement of the reputation of the chemical sector as a result of the great efforts undertaken under REACH. Indeed, it is frequent to encounter a sense of bitterness in this respect.

The protection of IP and CBI is not a major issue in the SIEF, but can be an issue in the information that needs to be communicated via the eSDS.

These findings lead us to suggest the following:

- Do not change the REACH Regulation, as it would add further uncertainty (UEAPME).

- With respect to the question of SIEFs and Letters of Access, portrayed as a pressing concern in available reports and by interviewees, one of the solutions put forward is to set-up a neutral and official forum (within ECHA) to set templates and perhaps even LoA fees. In the REACH Review, the Commission suggests that ECHA ought to provide "more specific guidance on transparency, non-discrimination and fair cost sharing in the framework of SIEF formation and operation" (Annex, item 1). Alternatively, UEAPME put forward the idea of having a kind of Ombudsman to monitor the situation and offer a platform for redress in case of problems.

- Address the potential competition law implications of current SIEF arrangements and the protection of CBI in the supply chain more thoroughly. This is not to say that abuses are systematic or inevitable, but when they occur, SMEs with their comparatively lower know-how and available resources may be faced with "take it or leave it" situations as regards the price of a LoA or with other potential abuses that are difficult to prove. The Commission should request a Guidance Note from DG Competition on the main anti-trust problems in SIEFs. The Guidance Note should be available by 2014, in time for the 2018 wave of SME substance registrations.

- Review the content and format of Safety Data Sheets (especially that of the extended part, the eSDS), which are reportedly not fulfilling their knowledge transfer role in an SME context.

- Updates to IT tools online format should be kept to a minimum. Reportedly, changes have sometimes resulted in the need to re-enter all the information after an update, which is costly whereas better solutions could easily be provided.

- IT systems to generate compliant SDSs are necessary and perhaps this could be a joint action of authorities and industries (as was done by the development of IUCLID).

- Improve communication of REACH and its intended goals, that is, the health and environmental benefits, to the wider public. SMEs regret the unawareness of the public in the light of the enormous efforts they have to undertake.

- While existing ECHA support is well appreciated – though regarded as 'heavy'- there seems to be no "index" to easily navigate through the many and lengthy existing guidance documents provided by ECHA. Such a 'navigator' would be very useful. The Commission's suggestions in the REACH Review (Annex, items 3 and 5) to develop more user-focused ECHA guidance, targeted to specific groups, as well as SME guidance for the use of the 'Use Descriptor System' should be followed up.

- We would recommend performing as soon as possible and before the 2018 deadline, a dedicated ex-post assessment focusing exclusively on SMEs to complement and update the original impact assessment carried out by the European Commission.

- In the event of a later review of the regulation, the logic (especially related to SVHC/authorisation) should be more risk-based than hazard-based.[80]

[80] For a discussion of the difference between the two approaches, see i. a., Nordlander et al. (2010).

REFERENCES

- Abelkop, A., Graham, J. D., Wise, L. R. (2011), 'Lessons from the EU's REACH Program', *European Journal of Risk Regulation*, Vol. 2(2), pp. 181-182.

- Abelkop A. et al. (2012), "*Regulating Industrial Chemicals: Lessons for U.S. Lawmakers from the European Union's REACH Program*", Report by the School of Public and Environmental Affairs, Indiana University.

- Centre for Strategy & Evaluation Services (2012a) "*Interim Evaluation: Functioning of the European chemical market after the introduction of REACH*", 30 March.

- Centre for Strategy & Evaluation Services (2012b) "*Study on the impact of REACH Regulation on the innovativeness of the EU chemical industry*", 14 June.

- Danish Technological Institute and PLANET S.A (2010), "*SMEs and the environment in the European Union",* Report for the European Commission, DG Enterprise and Industry.

- European Chemicals Agency (2011), "*The operation of REACH and CLP 2011*", 30 June.

- European Commission (2013a), "*General Report on REACH"*, COM(2013)49 final, 5 February.

- European Commission (2013b), "*General Report on REACH"* Staff Working Document accompanying COM(2013)49, SWD(2013)25 of 5 February.

- Fuchs, O. (2009) 'REACH: a new paradigm for the management of chemical risks', Paris, *IFRI, Health and Environmental Reports*, no. 4.

- Geldsetzer, F. (2008), "*How can SMEs Manage the Challenges Imposed by REACH?*", Dissertation for the degree of Master in Business Administration, Henley Management College.

- Gubbels, I. (2006), "*Is REACH reachable with less animal testing*, *Kan het ook anders? Reflections on alternatives for animal testing*", published DAMON b.v., (ISBN 90 5573 734 8).

- Gubbels-van Hal I. (2007), "*Non-testing in REACH*? " *Chemistry Today* 25(4).

- Gubbels-van Hal I., Pelkmans, J. (2009), "*Is REACH going well*?", CEPS Policy Brief.

- Milieu (2012), "Technical assistance related to the scope of REACH and other relevant EU legislation to assess overlaps", available at: http://ec.europa.eu/enterprise/sectors/chemicals/files/reach/review2012/sco

pe-final-report_en.pdf

- Nordlander K., Simon C. M., and Pearson H. (2010), "*Hazard vs. Risk in EU Chemicals Regulation*", *European Journal of Risk Regulation* 3:239-250.

- Oekopol, Ineris, Fobig & DHI, 2012, "*The REACH baseline study – 5 years update – comprehensive report*", go to: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-RA-12-019

- Pelkmans, J., (2005a) "*REACH: Better Regulation for Europe?, Presentation for the Hearing of the European Parliament on REACH*", Brussels, 19 January.

- Pelkmans, J. (2005b), "*REACH: Getting the chemistry right in Europe*", in D. Hamilton & D. Quinlan (eds), *Deep Integration: How transatlantic markets are leading globalisation*, Center for Transatlantic Relations and CEPS, Washington, D.C and Brussels.

- PWC (2012), "*Final Report on the Review of the European Chemicals Agency* – Main Report", 14 March.

- RPA, Oekopol & DHI, 2012, "*Assessment of the health and environmental benefits of REACH*, go to: http://ec.europa.eu.enterprise/sectors/chemicals/files/reach/review2012/benefits-final-report-part-b_en.pdf

- Veugelers, R. & M. Cincera, 2010, "*Europe's missing Yollies*", *Bruegel Policy Brief* 2010/06, August.

- UEAPME (2013), "*Position paper on the REACH review*", May, available at: http://www.ueapme.com/IMG/pdf/UEAPME_Position_Paper_on_the_REACH_Review.pdf.

ANNEX 1

Our approach to interviews

The CEPS team approached a number of SMEs in chemistry, of which 12 were eventually interviewed via telephone. In order to structure the interviews according to the terms of reference provided by the European Parliament, and for the sake of comparability of results, we developed a questionnaire focusing on the four parts the European Parliament wants to be verified. Altogether, the questionnaire comprises 49 questions. The questionnaire was emailed to the companies beforehand so that they could prepare. During the interviews, the questionnaire was merely used as a guide to both interviewees and CEPS. Interviews typically took one hour, with two up to one and a half hour. The same questionnaire was made available to CEFIC, UEAPME, ACEA, and a non-chemical "downstream user" (a textile SME) as a help for these interviews as well. Due to availability and the short time-span, interviewed SMEs are not spread over the full EU and cover the following countries: the UK, the Netherlands, Belgium, France, Italy, and the US. Interviewed SMEs belong to the following categories: manufacturers of chemicals, importers of chemicals, formulators, and end users (on firm classification, see e.g., CSES 2012a: 30).

Table 4: List of interviewees

Interviewee	Description	Country
SME 1	Manufacturer	BE
SME 2	Formulator	BE
SME 3	Manufacturer	FR
SME 4	Manufacturer	FR
SME 5	Textile manufacturer	IT
SME 6	Importer	NL
SME 7	Importer	NL
SME 8	Manufacturer	NL
SME 9	Formulator	UK
SME 10	Manufacturer	UK
SME 11	Confidential	UK
SME 12	Confidential	US
CEFIC	European Association	EU
VLARIP -Essenscia	National Association	BE
UEAMPE	European Association	EU
WKO	National Association	AT
ACEA	European Association	EU

ANNEX 2

Table 5 : How to become and remain a REACH-compliant SME

Consecutive steps for acquiring and maintaining REACH compliance	Costs generated	Notes
1. A (Late) pre-registration	All administrative costs related to preparation of pre-registration dossier (no substance identification based on spectral and analytical data)	Purely administrative Some knowledge on IUCLID software necessary (additional costs for training/outsourcing of the analytics)
B Inquiry dossier	Limited costs, but needs to include spectral and analytical data (for identification)	
2. Identification of the substance	Phase where the company has to clarify and prove with data which substance it is registering. Related costs for analytical support (see under 1) and sameness check.	Costs will vary on a case-by-case basis depending on complexity of the substance (mono constituent versus UVCB substance) and the time necessary to assess sameness within the context of the SIEF (knowledge on chemistry is essential)
3. SIEF or Consortium management	Costs incurred by companies either as a lead registrant or as a member of a SIEF. These costs include coordination and management, costs of legal and technical consultants, where applicable.	These costs can differ substantially related to the effectiveness of the SIEF/consortium. In principle the LoA contains a part for costs related to SIEF/consortium tasks.
4. Data and testing A Available data B Data-gap analyses C Alternative methods D Testing	Costs can be reduced by effectively using A-C. Thereafter there will be the testing of substances and/or the process of acquiring access to existing data and tests, most often through Letter of Access (LoA).	Focuses on the toxicological properties of the substance. Generally very costly, depending also on how costs are shared within a SIEF (where applicable) and how effectively existing data and alternatives are used (requires toxicological knowledge). Steps A to C may be difficult to check for SMEs.
5. Exposure assessment	Preparation of scenarios by specialists and internal costs related to identification of own and customer's uses.	Knowledge of own processes and processes used by customer(s) need to be assessed (implies

		knowledge of supply-chain).
6. Chemical Safety Report	Preparation of the Report for the registration and all the underlying costs, including consultant fees etc.	Refinements may be necessary to prove safe use leading to more costs.
7. Fees	Fee to be paid to ECHA for the registration process	Fees depend on the size of the company and are a small percentage of overall costs.
8. (e-)SDS	Costs of an IT system, human resources and expert help for preparation and/or interpretation of the extended part with the exposure scenarios	The IT system that generates SDSs in different languages may be already available. The extended part is new and complex to understand
9. Internal company costs	Refers to all costs in terms of time and human resources for the company. Includes also the opportunity cost of reallocating resources internally, for instance by using R&D personnel to deal with REACH compliance. These costs includes IT tools, updating the dossier when IT tools and other forms are changed.	In case knowledge on REACH is not available, this will lead to substantial costs related to training/education and the use of external consultants. In addition maintenance of administrative (IT) systems to capture data on volumes, registrations and REACH related business processes will need additional human and financial resources.
10. Updates to submitted dossier	Costs of updating dossiers submitted for registration to reflect internal changes (volume, new use) or to answer ECHA's requests for clarification. Also includes updates related to testing proposals and revised classification	Costs of updating dossiers will continue during the years. In case additional testing needs to be performed extensive additional costs are faced

Table 6: Additional processes

Consecutive steps for acquiring and maintaining REACH compliance	Costs generated	Notes
11. Evaluation: A Dossier Evaluation by ECHA B Substance evaluation by Member States.	A: costs of submitting additional information. B: in addition to what is mentioned under A this will lead to further work in the SIEF/consortium (substances under substance evaluation are published under the CoRAP).	These vary depending on whether authorities ask for minor data adjustment or have identified considerable gaps in the dossier (thus the quality of the initial dossier).
12. Authorisation	Costs related to application for authorisation of specific uses of the substance (can be repeated in time if the company decides to reapply each time the authorisation expires), includes the costs of updating the Chemical Safety Report, preparation of a socio-economic assessment (optional, but with substitution plan) and the payment of significant fees	Possible withdrawal of substances or conditions imposed/required by downstream clients to avoid SVHCs that are expected to end on the authorisation list. Loss of raw materials for the same reason. Companies reported "pressure" both from upstream and downstream users in terms of ensuring that each link in the value chain is REACH-compliant or that a substitute will be available. SVHC substances are banned and even non-official lists are used to delete substances.
13. Restriction	Administrative costs related to check of the Annexes of REACH to assure a company is not producing or importing restricted substances.	These substances are not allowed on the market and demand no further direct action under normal circumstances. This may affect especially importers of chemical mixtures.
14. Enforcement by national authorities	All costs related to e.g., inspection, request for additional information, meeting of regular information obligations etc.	See also under internal company costs.

ANNEX 3

Questionnaire

1. Could you please position your company in terms of sector, size, specific activity and place in the value and/or supply chain (e.g., formulator, importer)?

The impact of REACH on the functioning of your company

2. Have you re-organised human resources in your business to cope with the requirements of REACH?

3. If you have answered yes to the previous question:
   - Did you hire new staff? If so, how many?
   - Did you reallocate the work among existing staff?
   - Did you or other members of your team attend any specific training?
   - Did you use the help of external experts/consultants?

4. Could you indicate how these re-organisation costs relate to your yearly turn-over to date?

5. If you have not yet incurred any of the reorganisation costs of Question 3, are you planning some re-organisation for the upcoming two deadlines of 2013 and 2018? In particular:
   - Will you hire new staff? How many?
   - Will you reallocate the work among existing staff?
   - Will you or other members of your team attend any specific training?
   - Will you use the help of external experts/consultants?

6. Overall, would you say that REACH has generated new jobs in your industry sector? Did it lead to job losses? Why?

7. Did REACH have other effects in the structure and quality of employment in your company?

8. Did REACH have other effects in the structure and quality of employment in the chemical businesses you usually interact with?
9. Did you experience contacts with up-stream and down-stream users related to REACH? Were you able to respond adequately to their questions?

Impact on business activity

10. Will REACH have consequences for your business operations (other than human resources re-organisation, see above) and strategy?

11. Did REACH lead you to revise your business model? If so, could you please elaborate?

12. What would you say have been the major categories of costs incurred by your business to comply with REACH until now?
    - □ Cost of registration
    - □ Cost of testing
    - □ ECHA fees for first registration period
    - □ Costs related to innovation
    - □ Other costs (please specify)

13. Could you indicate how these costs relate to your yearly turn-over to date?

14. What do you expect will be the impact on these costs (see above, question 12) for your business until the next two deadlines of 2013 and 2018?

15. How do these costs influence other activities of your company like innovation, R&D, exploration of new markets, and greening of your products?

16. We would like to zoom in on some aspects. In particular, do you have an overview of the resources necessary (human and financial) in the near future, e.g. what would be the costs of registration of a substance with a volume above 100 tons/annum (2013 deadline)? What do you expect in relation to registration: number of substances, preparation of registration as lead registrant, buying access to data/dossiers?

17. And for the 2018 deadline?

18. How will these costs be distributed along the value chain? And over time? Is there a difference between the distribution of costs for the 2013 deadline and the distribution for the 2018 deadline?

19. What are and have been the main uncertainties for your business when it comes to complying with REACH (e.g. time constraints, knowledge, finances, resources, IT tools)?

20. Has REACH affected the price and the variety of products offered by your business or by its suppliers? Please select all that apply:
    - □ Price of my products
    - □ Variety of products offered by my company
    - □ Price applied by suppliers
    - □ Variety of products offered by suppliers

21. Do you take REACH compliance into account when choosing suppliers?

22. Do you foresee strategic changes in your company's policy related to products and markets due to the burden of REACH (e.g., will you or have you withdraw(n) products from the market, have you introduced substitutes)?

23. As regards REACH and R&D:
    - □ Is your R&D department aware of regulatory matters like REACH?

- Is your R&D department and/or are funds allocated for R&D diverted to REACH-related testing etc. and research on substances that you already had in your portfolio, thus pre-empting innovation for a while?
- Did REACH foster innovation in your company, and if so how?

24. Has REACH influenced the relationship between different stakeholders within your company like production, sales, R&D and regulatory compliance?

25. What impact in terms of knowledge transfer did REACH have for your business?

26. Did the process of pre-registration generate new knowledge or other positive spillovers for your business, or was this a purely administrative process?

27. Do you have experience with registration? If so, as a lead registrant or by buying a letter of access?

28. If you are part of a SIEF, what has been your experience?
    - Have you observed abuses of dominant position is SIEFs with respect to access letters?
    - Have you observed withdrawals in specialized chemicals that might lead to submarkets with only a few or a single supplier?
    - Have you observed other possible infringements of EU competition law?

29. What is your opinion on protection of confidential business information (CBI) when working with your competitors in a SIEF? What would you consider as your main IP (e.g., unique substances, recipes, production methods)?

30. Have there been any positive changes in the way you interact with other businesses (both upstream and downstream) following REACH?

31. Have there been any negative changes in the way you interact with other businesses (both upstream and downstream) following REACH?

32. Has REACH affected import and export patterns for your business (this question does not only relate to your products, but also to raw materials or mixture purchased by your company)? Please explain.

33. Overall, would you say that REACH has been an opportunity or a barrier for the competitiveness of your business?

Support for SMEs

34. What type of information did your organisation receive as regards compliance requirements with REACH (e.g., how to take part in pre-registration and steps after pre-registration)?

35. When was this information provided? Was this timely enough to ensure compliance? Was it of direct help or too general? What about IT tools?

36. Who was and is your main source of information as regards compliance with REACH (e.g., local chamber of commerce, industry association, consultants, the European Commission's website, the ECHA website) and support?

37. Have you ever used national Helpdesks? If so, what was your experience?

38. Have you relied on the online, written support provided by the ECHA in Helsinki (e.g., fact sheets, guidance and other publications, IT tools, as well as webinars)?

39. If so, could you please give us your feedback on the support provided by ECHA?

40. What improvements in terms of support would you like to see in the future?

Added Value for SMEs

41. What would you say are the main benefits of REACH for your organisation until today? And what do you expect the benefits to be in the future, once the 2013 and 2018 registrations are done?

42. What has been the return on investment for your organisation as regards REACH?

43. Did the recent economic and financial crisis affect your ability to comply with REACH?

44. Do you think that REACH has contributed to improving the overall image/reputation of the chemicals sector? If so, has there been a more generic benefit for your business as well? In which terms?

45. What were your initial expectations of REACH? Have they changed after these first five years of implementation?

46. Is REACH compliance for your company different than for non-SMEs competitors? Is it (relatively) more costly for you? If yes, please specify up to three cost categories which are (relatively) more costly for your company.

47. Would you have any concrete suggestions for the lowering of costs of REACH for SMEs and/or the reaping of REACH-dependent benefits for SMEs?

48. If and as long as REACH does not change, except for marginal questions, what do you suggest would be helpful for your company?

49. Do you see possibilities for a fair and transparent way of reducing the overall costs?

NOTES

EUROPEAN PARLIAMENT

CATALOGUE BA-03-13-588-EN-C

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Role

Policy departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

Policy Areas

- Economic and Monetary Affairs
- Employment and Social Affairs
- Environment, Public Health and Food Safety
- Industry, Research and Energy
- Internal Market and Consumer Protection

Documents

Visit the European Parliament website: **http://www.europarl.europa.eu/studies**

PHOTO CREDIT: iStock International Inc.

ISBN 978-92-823-4877-2
doi: 10.2861/38461

Publications Office

The consequences of REACH for SMEs