

**FRAMEWORK CONTRACT
ECHA/2015/50 Lot 1**

Service Request No 01:

**Insights on the impact of REACH & CLP
implementation on industry's strategies
in the context of sustainability**

Final Report

prepared for

ECHA

15 September 2017



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List of abbreviations

BBP	<i>n</i> -Butyl benzyl phthalate
Cefic	European Chemical Industry Council
CEO	Chief Executive Officer
Chemie3	Die Nachhaltigkeitsinitiative der deutschen Chemie (The Sustainability Initiative of German Chemistry)
ChemSec	The International Chemical Secretariat
CLP	Classification, Labelling and Packaging of substances and mixtures
CSR	Corporate Social Responsibility
DBP	Dibutyl phthalate
DECHEMA	Gesellschaft für Chemische Technik und Biotechnologie (Society for Chemical Engineering and Biotechnology)
DEHP	Bis(2-ethylhexyl) phthalate
DIBP	Diisobutyl phthalate
DJSI	Dow Jones Sustainability Indices
ECHA	European Chemicals Agency
Ecotoc	European Centre for Ecotoxicology and Toxicology of Chemicals
EMAS	Eco-management and Audit Scheme
EPS	Eco-premium Solutions
ESG	Environment, Social and Governance
EU	European Union
EuropaBio	European Association for Bioindustries
FTSE	Financial Times Stock Exchange 100
GDCh	Gesellschaft Deutscher Chemiker (German Chemical Society)
GPS	Global Product Strategy
GRI	Global Reporting Initiative
HSE	Health, Safety and Environment
ICCA	The International Council of Chemical Associations
IIRC	International Integrated Reporting Council
ILO	International Labour Organisation
ISO	International Organization for Standardisation
IT	Information Technology
KPI	Key Performance Indicators
LIFE	EU funding instrument for environment and climate change action
MSCA	Member State Competent Authority
NGO	Non-governmental Organisation
NOEL	No Observable/Observed Effect Level
OECD	Organisation for Economic Co-operation
OEM	Original Equipment Manufacturer
PIE	Public Interest Entity
PPP	'Profit, People, Planet'
R&D	Research and Development
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RSC	The Royal Society of Chemistry
RSL	Restricted Substances List
S&P	The Standard & Poor's 500
SAICM	Strategic Approach to International Chemicals Management
SASB	The Sustainability Accounting Standards Board
SEDEX	Supplier Ethical Data Exchange
SIN	Substitute It Now

SLP	Sustainable Living Plan
SME	Small and Medium-sized Enterprises
Spice3	Sectoral Platform in Chemicals for Energy Efficiency Excellence
SusChem	European Technology Platform for Sustainable Chemistry
SVHC	Substance of Very High Concern
TfS	Together for Sustainability
TRA	Targeted Risk Assessment
US	United States
WBCSD	World Business Council for Sustainable Development
WSSD	World Summit on Sustainable Development
ZDHC	Zero discharge of hazardous chemicals
ZEW	Centre for European Economic Research (Zentrum für Europäische Wirtschaftsforschung)

Executive Summary

Several large corporations (e.g. stock-listed companies) have for a number of years included focuses on sustainable development, Responsible Care and corporate social responsibility in their business activities. Sustainability is often mentioned as a key goal by organisations and many of them are actively integrating sustainability principles into their business models.

Today, social trends around sustainability as well as emerging regulatory requirements are seen to create both pressure and opportunities for companies. When it comes to compliance with chemical regulations, some companies see it only as a burden, whereas others try to turn the compliance obligations into business opportunities.

In this context, the overall aim of this study was to gather insights on the impact of REACH & CLP on industry's sustainability strategies. This was done by means of desk research as well as by obtaining input from a number of relevant companies. Discussions were held between ECHA Directors and nineteen company executives on the subject of corporate sustainability strategies and REACH and CLP.

The desk research highlights that sustainability has progressed up the corporate agenda in recent years and that the development of more sustainable chemical products and supply chains is being driven by legislative requirements, stakeholder expectations and companies' own business and Responsible Care strategies. The knock-on effect of sustainability as a driver of innovation is also apparent in many examples.

Desk research also confirms that there is no single agreed definition of sustainability. Despite this, there is a range of terms and concepts that can be grouped together under the broad umbrella of sustainability, for example: corporate sustainability, corporate social responsibility and triple bottom line ('Profit', 'People' and 'Planet'). The interpretation of these concepts is not consistent. However, there is consistency in the view that the knock-on effects of sustainability as an enhancer of innovation are considered to have important societal connotations.

In addition to desk research, discussions held as part of this study allowed more in-depth perspectives to be built. Participants were selected from a group of companies known to be active and/or leaders in terms of sustainability strategies and implementation, and as such this group of companies cannot be considered to be representative of a cross-section of industry as a whole. Although the number of discussions held with corporate executives was small, it is notable that many participants provided broadly consistent input on key issues. Nevertheless, as with all studies where the sample size is small, the findings of this study should be viewed in this context. The study shows that while chemicals management and specific industry initiatives (such as Responsible Care and Global Product Stewardship) contribute to achieving companies' compliance and HSE objectives, these are not generally directly integrated into the company's sustainability strategies. Chemicals management is considered very important and can form a baseline for sustainability activity. However, corporate sustainability strategies most frequently address traditional environmental issues such as energy, waste, recycling, and carbon footprint, together with other issues including social/people aspects.

Compliance is considered a basis, a foundation for corporate activity, a license to operate. It can be seen as a pre-sustainability-strategy position. Based on the input received from companies participating in the study, their approaches to sustainability fall broadly into three categories:

- **Product Stewardship approach:** where corporate initiatives are driven largely by product stewardship and Responsible Care commitments;

- **Targeted approach:** where sustainability initiatives are driven by specific objectives, deadlines, or stakeholder concerns. Sustainability may be part of the business strategy; and
- **Integrated approach:** where sustainability is an integral part of the business strategy. It affects all parts of business operations, and is seen as a key business driver that cannot be separated from overall business strategy.

The findings suggest that the main drivers for developing and implementing corporate sustainability strategies can be discussed in three groups. The first is internal, where the business itself is a fundamental driver and integral part of a strategy which aims to improve growth, to differentiate from the competition and to be seen as a leader in their sector, as well as the desire to ensure business continuity and success in the medium to long term. The other two major drivers, the market and investor demand, are external factors. Market demand for more sustainable products and production processes is increasing and is perhaps most apparent in consumer-facing businesses. Investors too are increasingly seeking to invest in companies that focus on sustainability, those that are leading in terms of implemented sustainability strategies, with performance that scores high on the ratings of sustainability indices, making this trend a significant driver for corporate strategy. In addition to the business, market and investor demand, from a REACH-specific perspective it is evident that the Candidate List is a major driver of innovation and substitution to less hazardous chemicals. Depending on supply chain position, and on how close the particular business is to the consumer, company approaches to SVHCs vary in line with their sustainability strategies. The study finds that investment companies consider a proactive corporate substitution strategy away from SVHCs to be important when assessing and/or ranking a company's sustainability strategy and performance.

Given the considerable drivers for companies to adopt sustainability strategies, the study reflects on the link between sustainability and (financial) profitability and concludes that companies find that although implementing a sustainability strategy may not result directly in increased profitability, it does lead to long term business and revenue growth.

The study also finds that there is no direct link between corporate sustainability strategies and the quality of REACH registration dossiers, and that while safety is a key issue, chemicals management¹ per se was not noted as being integral to the business's sustainability strategy. The study participants noted that REACH registration dossiers and their quality are not considered a corporate asset (having an intrinsic monetary value). However, it was noted that the in-house knowledge base – significantly enriched since the introduction of REACH – does increase in value to the company over time.

In terms of REACH processes, REACH Registration is seen in some cases as being an impediment to innovation. Consultees explained that it can take too long to register a new substance, delaying time to market, and that Registration costs can lead to de-selection of a potential innovation (for SMEs and also for large companies). Registration and compliance costs were considered to have a negative impact on funding/resources available for R&D. Besides the consequences of REACH registration and compliance costs on innovation budgets, it was also noted that regulatory uncertainty does not stimulate innovation and that some aspects of REACH (such as Authorisation) are becoming a barrier to innovation in the EU, as companies need to be confident they can move forward with certainty for a reasonable time period and such certainty can be undermined by regulatory developments.

This study concludes with a number of recommendations for consideration by ECHA, also in the context of potentially facilitating the achievement of ECHA's WSSD 2020 goals. Recommendations are

¹ in the context of manufacturing and meaning using chemicals in such a way as to minimise negative impacts on human health and the environment

to consider ways to encourage companies to link good quality chemicals management with their sustainability strategies and goals by, for example, the development of relevant benchmarks, tools and reporting templates (in partnership with industry) for use by companies.

Finally, based on the findings of this study, it can be concluded that REACH and CLP, and by extension ECHA, have a crucial though indirect impact on sustainability and business strategies and can also be considered to play a critical role in creating and stimulating incentives for companies to strive to be sustainability leaders rather than laggards.

1 Introduction

1.1 Background to the study

Several large corporations (e.g. stock-listed companies) have adopted concepts in the areas of sustainable development, responsible care and corporate social responsibility. Sustainability is often mentioned as a key goal by organisations and many of them are actively integrating sustainability principles into their business models.

Today, social trends around sustainability as well as existing and emerging regulatory requirements create both pressure and opportunities for companies. When it comes to compliance with chemical regulations, some companies see it only as a burden, whereas others try to turn the compliance requirements into a business opportunity.

Innovation at process or product level can lead to tangible benefits (improved capital utilisation, increased profitability, cheaper access to capital) and intangible results (customer satisfaction, intellectual capital, licence to operate, reputation or brand image, reduced risks), ultimately leading to increased value.

In the past, chemicals management had the tendency to focus on operations inside the company gates (e.g. how the company operated and responded to incidents) with an emphasis on operational effectiveness and compliance management. As such, chemicals management has been seen as a cost of doing business and avoiding fines or worse. Looking at chemicals management across the value chain, however, has changed this perspective for many operators. This implies that companies may also look at compliance management more strategically.

Against this background, ECHA wishes to better understand the impact of the REACH & CLP implementation on change drivers at strategic level for these organisations within their sustainability framework.

1.2 Aims of the study

Overall, the aim of this study is to gather insights on the impact of REACH & CLP implementation on industry's strategies in the context of sustainability. The specific objectives are as follows:

1. The study will aim to bring insight into the impact of REACH & CLP on industry's strategies related to sustainable development, responsible care and corporate social responsibility. Examples of good practices where REACH & CLP implementation has created opportunities, drivers or impediments for these strategies will be collected;
2. The study will gain knowledge on how the specific regulatory elements of REACH & CLP (e.g. registration, SVHC identification, and authorisation) affect corporate strategies for value creation by addressing these key questions directly to chief executives in relevant industry sectors, involving ECHA senior management; and
3. The outcome of the study should provide ECHA's management with a good overview of external and internal change drivers that have triggered initiatives in various sectors, with attention paid to chemical companies (manufacturers, importers, formulators) as well as

downstream users (e.g. retail sector) and investors (investment funds, venture capital, business angels). In particular, attention should be paid to examples where regulatory compliance has triggered innovation and enhanced competition of companies.

The overall outcome of the study will be used by ECHA's management as a basis for strategic reflection on how regulatory compliance creates specific leverage for business goals within the sustainability framework and how ECHA can further support these efforts. Ultimately this will help ECHA's management to identify potential future initiatives and adapt its communication with the top management of industry accordingly in order to better understand and therefore be able to stimulate the right triggers that would drive companies to integrate their regulatory compliance into their business decisions.

Further context for the study can also be provided in the form of four 'success factors' recently identified by ECHA when considering how the overall goal of the World Summit on Sustainable Development (WSSD) 2020 can be met (i.e. that by 2020, chemicals are used and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment). The identified 'success factors' are as follows:

1. Robust data are available on all chemicals in Europe;
2. Effective regulatory risk management of the most dangerous chemicals takes place;
3. Effective communication takes place about the safe use of chemicals up and down the supply chain; and
4. A step-change for citizens, businesses and the regulators takes place.

Under each of these factors, ECHA has defined a number of more detailed plans to ensure their success and has also identified several specific measures for their implementation (see Section 1.5).

1.3 Study approach

The approach to the study comprised desk-based research as well as discussions with 19 company executives. The study was divided into three separate work packages:

- **Work Package 1** focused on:
 - The development of criteria for selecting companies and investors to be invited to participate in the study discussions, based on overarching/guiding and technical criteria;
 - Selecting a list of companies (and individual representatives) to be interviewed based on a large pool of initial candidates; and
 - The development of discussion materials for both ECHA management (who conducted the interviews with RPA's support) and the company executives.
- **Work Package 2** was highly integrated with the first work package and focused on organisation, support and follow-up in relation to the discussions.
- **Work Package 3 (WP3)** focused on analysis and reporting outputs.

A more detailed breakdown of the study approach is provided in Section 3.1.

1.4 Organisation of this report

The remainder of this report has been organised as follows:

- **Section 2 – Sustainability and the EU chemicals industry:** this section is based on a literature review and provides background context for the report. It includes historic and more recent approaches to sustainability concepts in the context of the EU chemicals industry, particularly citing any publicly available information associated with REACH & CLP and their impact as drivers of innovation;
- **Section 3 – Interview approach and results:** this section presents the study approach underlying the discussions and also presents an analysis of the outcomes. In particular, this section analyses the common themes of the discussions in the light of the objectives of the study;
- **Section 4 – Overall conclusions and recommendations:** this section contains recommendations for ECHA's consideration regarding triggers that could help drive companies to include their regulatory compliance into their business decisions, and it presents the conclusions of the study;
- **Annex 1:** this Annex presents the project references;
- **Annex 2:** this Annex presents the master discussion questionnaires formulated for companies and investors; and
- **Annex 3:** this Annex presents five case studies on corporate sustainability strategies implemented in companies and also explores how REACH & CLP is viewed in these companies. The agreed deliverables for this section of the study are five overviews of the way various companies approach sustainability, with a focus in each case on aspects that are differentiators for those companies. These case studies may be used by ECHA at a later stage in external communications (pending formal confirmation from the companies in question).

1.5 Additional study benefits

Although not within the original scope of the project aims and deliverables, it is also noteworthy that the outcome of this study may be beneficial to ECHA 'success factors'; the four success factors recently identified by ECHA² when considering how the primary goal of WSSD 2020 can be met (i.e. that by 2020, chemicals are used and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment). As highlighted in Table 1-1, each of ECHA's success factor objectives is made up of several components as well as a number of measures for implementation (the goals that are potentially relevant to this study on corporate sustainability are highlighted in bold in the table).

As such, the understandings to be gained from this study should have added value for ECHA and a direct benefit in relation to better communication with industry (in terms of stimulating the right compliance triggers) as well as contributing to the attainment of ECHA's WSSD goals.

² In the internal communication 'What will success look like in meeting the WSSD 2020 goals?' a background document to the 2016 Accredited Stakeholder Workshop.

Table 1-1: ECHA identified current success factors ¹ and possible implementation steps associated with the WSSD 2020 goals		
Current success factors	Current success factors - details	Possible implementation steps ²
1. Robust data are available on all chemicals in Europe	<p>a) All chemicals critical for the supply chain in Europe are registered without unnecessary market disruption.</p> <p>b) Registration dossiers are compliant, up to date, and contain the data covering the hazards and uses of substances adequately. This allows them to be adequately classified, labelled and used safely. Companies can use the information for substituting hazardous substances, and by that spur innovation.</p> <p>c) Hazard data is generated using non-animal testing methods and new approaches wherever possible.</p> <p>d) ECHA has concluded, preferably in co-operation with the relevant stakeholders, which high-volume substances (above 100 tonnes per year):</p> <ol style="list-style-type: none"> I. Are of concern; II. Are currently not of concern; or III. Need more data for a judgement to be made. <p>e) A plan describes how ECHA will identify candidates for further evaluation and/or risk reduction amongst the lower volume substances (1-100 tonnes per year).</p> <p>f) Divergence in industry self-classification has decreased significantly.</p>	<ol style="list-style-type: none"> 1. ECHA together with its partners and stakeholders ensures that all actions identified in the 2018 roadmap are carried out as planned. 2. ECHA concludes by 2020 well over 1000 comprehensive compliance checks for substances of potential concern in the 100-1000 and >1000 tonnes tonnage bands. 3. By 2020, Member State competent authorities (MSCAs) evaluate over 400 priority substances under substance evaluation and ECHA requests necessary data to conclude on suspected risk. MSCAs conclude the evaluations when the data are available and identify the most appropriate risk management measure. 4. To increase the quality of registration dossiers, ECHA and Member States carry out joint evaluation efforts with a considerable number of volunteering sectors of industry. In addition, ECHA also undertakes where useful targeted campaigns for specific types of registration and other complementary measures. 5. ECHA adapts its registration and data sharing processes to prevent that companies submit incomplete dossiers and to prevent the use of these processes for other purposes than they were intended for (e.g. distortion of market). Where appropriate, ECHA challenges early registrants who have not shared data or whose dossiers are incomplete based on the updated completeness check rules. Any inaction or insufficient action will trigger revocation. 6. ECHA has screened with IT-tools the substances with registrations only in 1-10 tonnes and 10-100 tonnes tonnage bands. A plan is in place for compliance check or substance evaluation for 2020-2025 and to support the decision whether >100 tonnes dossiers should be prioritised. 7. Registrants implement the revised information requirements for nanomaterials, and ECHA reinforces them via updated guidance, advice, compliance checks and complementary measures. 8. Registrants document their considerations on alternative methods and approaches with adequate justifications why these are not sufficient to meet the relevant information requirement before proposing new animal tests in their registration dossiers. 9. To further reduce the need for animal testing ECHA promotes the use of new alternative methods and approaches developed in the EU and internationally via

Table 1-1: ECHA identified current success factors ¹ and possible implementation steps associated with the WSSD 2020 goals		
Current success factors	Current success factors - details	Possible implementation steps ²
		<p><i>guidance, advice, awareness raising and training. Where relevant, the Commission is updating the information requirements without undue delay.</i></p> <p>10. <i>In the event the CLP Regulation is not revised to oblige notifiers and registrants to share data and to resolve any unjustified differences in their self-classifications, a considerable number of notifiers and registrants have been challenged to sort out their differences in classification or face proposals for harmonised classification triggering also spontaneous updates by others</i></p>
2. Effective regulatory risk management of the most dangerous chemicals takes place	<p>a) Substances of concern are identified, either individually or in groups. The most appropriate regulatory risk management measure to protect health or the environment, either under REACH and CLP or other legislation has been initiated.</p> <p>b) The processes for authorisation, restrictions, and harmonised classification and labelling are fully optimised and operate based on fit-for-purpose dossiers. They allow efficient opinion-forming in the committees and swift decision-making by the Commission.</p>	<p>11. <i>ECHA communicates effectively to MSCAs and the Commission about substances that need regulatory risk management. This happens mainly through the SVHC roadmap activities and risk management expert meetings. Resulting proposals for CLH, SVHC, authorisation or restriction are developed within a reasonable timeframe.</i></p> <p>12. <i>Substitution of the most dangerous substances is effectively promoted by having all relevant currently known SVHCs in the candidate list by 2020. ECHA regularly recommends substances for inclusion into the Authorisation list and the Commission regularly adds substances to this list whilst taking account of the resource implications.</i></p> <p>13. <i>The restrictions and applications of authorisation processes are reviewed and improved to render them more affordable, workable and predictable.</i></p> <p>14. The Commission puts forward a series of legislative and non-legislative proposals to make better use of the data generated for REACH and CLP and support the development of risk reduction measures under other legislation</p>
3. Effective communication takes place about the safe use of chemicals up and down the supply chain	<p>a) Information about substances flows effectively up and down the supply chain. Companies that use chemicals inform their suppliers about what they do, and in return, manufacturers and importers provide information on how to use them safely.</p> <p>b) Importers and EU producers of articles have improved their knowledge on the substances present in their articles to provide adequate safe use advice to their customers and promote substitution</p>	<p>15. <i>ECHA, Member States, and industry associations support registrants and downstream users to adopt the methods, tools and standardised formats (such as use maps) developed under the chemical safety assessment roadmap. Registrants and companies further in the supply chain use these tools widely.</i></p> <p>16. ECHA promotes the communication among industry and between industry and authorities on implementing exposure scenarios as a novel communication vehicle. It also serves different EU environmental and health legislation.</p> <p>17. <i>ECHA, the MSCAs, the Commission, sector organisations and NGOs jointly carry out further awareness-raising among importers and producers of articles on their obligations related to substances in articles and increase the cooperation with third</i></p>

Table 1-1: ECHA identified current success factors ¹ and possible implementation steps associated with the WSSD 2020 goals		
Current success factors	Current success factors - details	Possible implementation steps ²
		<p><i>countries to identify, and where needed, take action (e.g. at international level) on substances of high concern.</i></p> <p><i>18. A fundamental review of the legal requirements for information on substances in articles is carried out. This could usefully form part of work on the circular economy and the drive towards a non-toxic environment</i></p>
4. A step-change for citizens, businesses and the regulators takes place	<p>a) Information on chemicals is reliable, understandable, freely available, and easy to use. This allows citizens, stakeholders, businesses and regulators to make informed choices on using and substituting hazardous substances, and to increase their confidence in the safety of chemicals – not just in Europe, but around the world.</p> <p>b) The experience of REACH and CLP, the information, methods and tools developed are increasingly recognised and used worldwide.</p> <p>c) Companies experience firm, and fair enforcement, focusing on ensuring the safe use of hazardous chemicals and fostering a level playing field</p>	<p><i>19. ECHA is a data hub for safety information on chemicals. ECHA expands this central data management and dissemination role by exploring integration and synergies with other EU legislation after 2018.</i></p> <p>20. ECHA and Member States promote the development and use of common and harmonised methodologies and tools at OECD and other international fora.</p> <p><i>21. ECHA promotes the availability and use of the information on chemicals safety to third countries and to stakeholders outside of the EU to assist them in their efforts to improve their chemicals management systems.</i></p> <p><i>22. Member States implement effective and harmonised enforcement to foster a level playing field and safe use of substances. All MS's participate in this activity, and ECHA facilitates it via the Forum</i></p>
<p>¹ As of August 2017</p> <p>² As of November 2016</p>		

2 Sustainability in the EU Chemicals Industry and Value Chains

2.1 Compliance, innovation and the sustainability concept

As highlighted above, the background context for this study is to gather insights on the impacts of REACH & CLP on industry's strategies in the context of sustainability, also identifying examples where regulatory compliance has enhanced the competitiveness of companies and triggered innovation. In order to do this, it is necessary to first explore the overall concept of sustainability and determine how compliance interfaces with the corporate sustainability agenda as well as how these aspects are considered amongst other sustainability priorities. This section provides a context based on a literature review undertaken in June 2017.

A critical point to note is that there is no single agreed definition of sustainability, instead the sustainability concept can be viewed as part of a larger framework of ideas. Larsson (2007) provides a useful and concise breakdown of key terms and concepts in relation to defining sustainability from a historical perspective: corporate sustainability, corporate social responsibility and triple bottom line. Larsson's interpretation of the sustainability concept is summarised below.

Using the meaning of sustainable development as originally defined by the 1987 Brundtland report³, Steurer *et al.* (2005) conclude that the concept of sustainable development contains a tripartite core structure which includes an economic, environmental and social dimension. They also identify 'second order issues' (transparency and participation, reflectivity, integration and intergenerational equity) which are an integral part of the concept of sustainable development. They further define corporate sustainability as an extrapolation of sustainable development on the corporate level – the adoption of business activities and strategies that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be required in the future. They are of the opinion that second-order issues and the tripartite core structure apply at the level of corporate sustainability as well.

Corporate social responsibility (CSR) is a term initially related to sustainability and it is often used interchangeably. This CSR concept has, however, been separated from corporate sustainability (e.g. by Steurer *et al.* (2005)), in part due to the fact that corporate social responsibility is stakeholder-focused and reporting is frequently retrospective and lacks the longer-term, forward looking perspective that is integral to corporate sustainability.

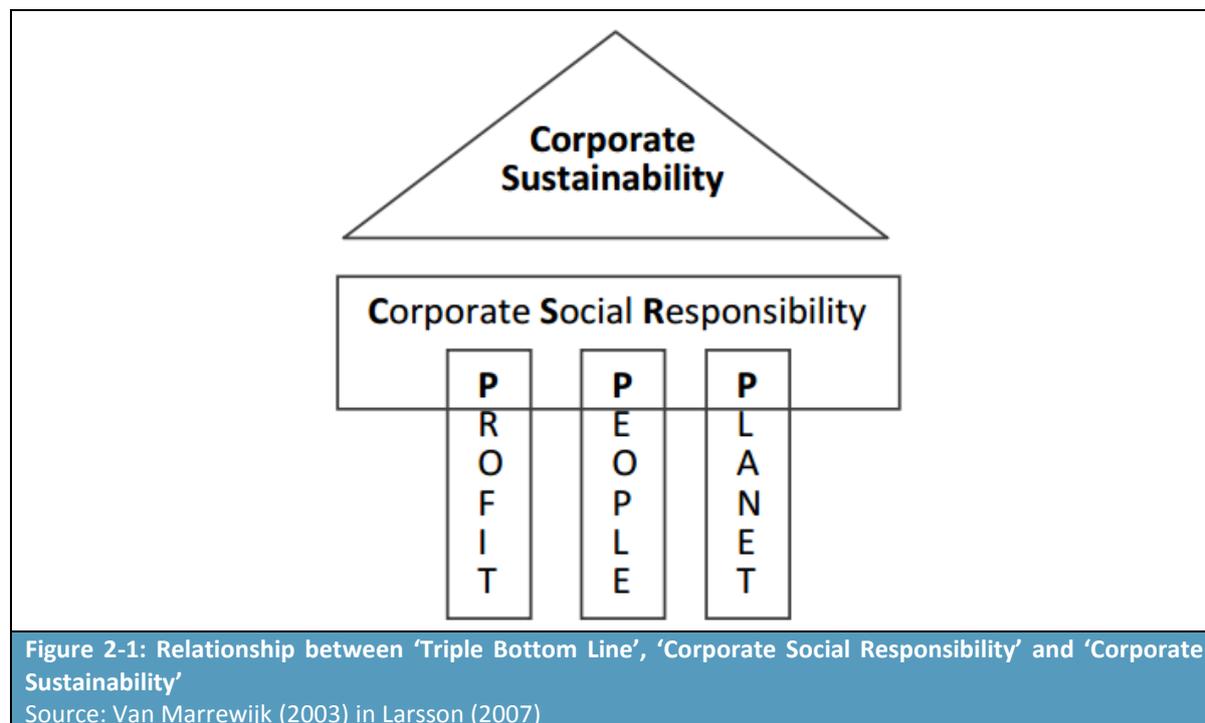
The tripartite core structure is the basis for the Triple Bottom Line concept which was popularised by John Elkington in 1994⁴. He is also credited with introducing the closely related terminology 'People, Planet, Profit' in 1995. Springett (2003) has criticised the use of the Triple Bottom Line approach as the main focus point in discussing issues of sustainable development, noting that the approach lacks perspective on issues of equity, economic policy and growth.

The overall relationship between corporate sustainability, corporate social responsibility and triple bottom line has been illustrated by Van Marrewijk (2003) (see Figure 2-1, overleaf). Van Marrewijk argues that triple bottom line was a starting point for corporations and that corporate social

³ See <http://www.un-documents.net/our-common-future.pdf>.

⁴ See Henriques & Richardson (2004)

responsibility was a management approach that integrated this aspect. The author also states that corporate sustainability was the next evolutionary step in something of a maturing process for corporate approaches to sustainability.



As confirmed in Section 3.4, there is no single agreed definition of sustainability and the different companies participating in the ECHA directors' discussions as part of this report have different definitions of sustainability. However, it can be noted that their definitions incorporate the three aspects of 'Profit, People, Planet' (PPP):

- The 'Profit' pillar refers not only to financial profit, by definition an obligatory objective of any company, but also to the social profit or benefit resulting from a company's operations as outlined above. Profit in the context of PPP can be seen more in the wider sense of adding value (economic, social and environmental);
- The 'People' pillar is a key aspect of leading corporate sustainability strategies: approaches range from companies enhancing worker protection via 'cleaner' production processes, to involvement of staff in developing and promoting sustainability strategies to involving suppliers and customers⁵. In addition, many strategies focus on products that benefit society, providing value in terms of their contribution to sustainability goals; and
- The 'Planet' or environmental pillar refers to those environmental issues that are traditionally associated with sustainability in the corporate world, including resource efficiency, energy efficiency, water savings, emissions and waste. Many are linked to one of the major forward-focused initiatives of the EU, the circular economy.

Another term frequently encountered in literature is ESG which is the acronym for Environment, Social and Governance issues. This is the basis used by investment companies, for example, when ranking businesses in terms of their sustainability strategies and practices. 'Environment' and 'Social' are broadly similar to 'Planet' and 'People' (see above), and 'Governance' refers to the structures of

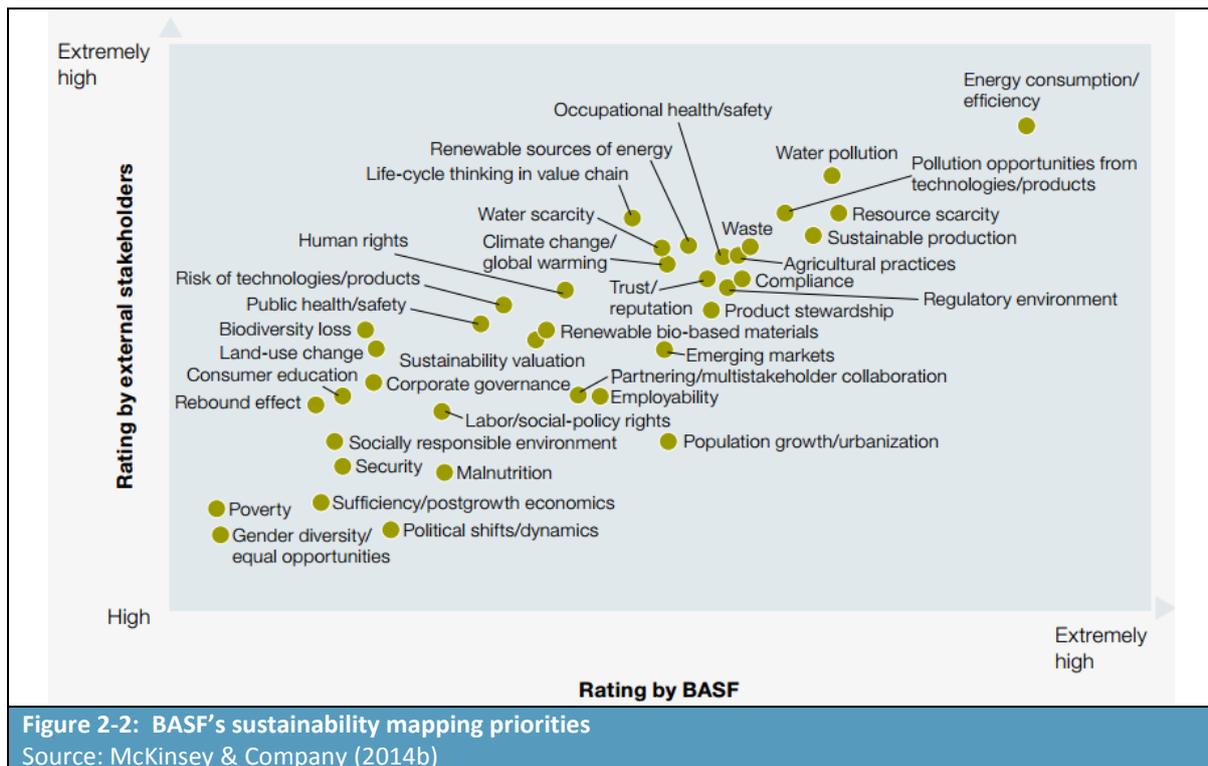
⁵ This was confirmed in the discussions which took place as part of this study.

control and management within the company, which ensure the company is run so as to achieve its objectives and, for listed companies, to meet the expectations of investors. In other words, governance refers to how a company has organised and structured its accountability and oversight processes. This ESG measure is frequently used to assess corporate sustainability strategy and performance.

For some time, sustainability has been progressing up the corporate agenda. According to a 2014 McKinsey & Company survey of over 3000 company executives, 43% of companies now seek to align sustainability with their overall goals, missions and values - up from 30% in 2012, and 21% in 2010 (McKinsey & Company, 2014a). The knock-on effects of sustainability as an enhancer of innovation are seen to have important societal connotations. A report by ZEW (2003) highlights that the chemical industry is the most important industry in enabling product innovations in other manufacturing sectors through providing innovative materials and technologies.

Specifically considering the EU chemicals industry, corporate sustainability is the subject of much recent attention and a number of developments. For example, in August 2015, the European Chemical Industry Council (Cefic) and Together for Sustainability (TfS, a joint initiative of chemical companies for sustainable supply chains) established an official partnership supporting improvement of sustainability within the entire supply chain – from sourcing until delivery of products at customers' premises. The project aimed to establish benchmarks for sustainable supply chains and implementation of the global chemical industry's Responsible Care programme, which itself - amongst several objectives - commits companies, national chemical industry associations and their partners to continuously improve the environmental, health, safety and security knowledge and performance of technologies, processes and products over their life cycles so as to avoid harm to people and the environment. The programme also places commitment on cooperation with governments and organisations in the development and implementation of effective regulations and standards, and to meet or go beyond them.

From a more practical perspective for companies, and within the chemicals industry, the following figure provides a good illustration of the multi-faceted nature of the sustainability concept as well as the multitude of potential internal and external change drivers. In this instance, both compliance and the regulatory environment are high on the agenda for the company in question but there is also a wide range of factors that are considered to fall under the umbrella of sustainability.



Further considering interlinkages between regulatory compliance and sustainability, and of relevance to the context of this study, Nidomulu *et al* (2009) highlight that “*The first steps companies must take on the long march to sustainability usually arise from the law*”. The authors also highlight the significant benefits that compliance can bring to innovation, noting that companies in the vanguard of compliance naturally spot business opportunities first. They explain that leaders use market trends, developing norms, legislative proposals and changes, to identify opportunities to innovate their products, services, supply chains, recycling programme therefore to maintain their market leader positions. These authors also point out that their research shows that “*sustainability is a mother lode of organizational and technological innovations that yield both bottom-line and top-line returns. Becoming environment-friendly lowers costs because companies end up reducing the inputs they use. In addition, the process generates additional revenues from better products or enables companies to create new businesses. In fact, because those are the goals of corporate innovation, we find that smart companies now treat sustainability as innovation ’ s new frontier.*”

The knock-on effect of companies keeping pace with regulations can also mean they become more proactive about environmental issues and recognise the numerous benefits that sustainable strategies can bring. In particular, Nidomulu *et al* found that companies embracing sustainability go through five distinct stages of change:

- **Stage 1:** Viewing compliance as an opportunity;
- **Stage 2:** Making value chains sustainable;
- **Stage 3:** Designing sustainable products and services;
- **Stage 4:** Developing new business models; and
- **Stage 5:** Creating Next-Practice platforms, including e.g. radical innovation.

These stages are further explored in Figure 2-3 on page 16 and each of the five stages is considered in terms of three parameters: key challenges, competencies required and innovation opportunities.

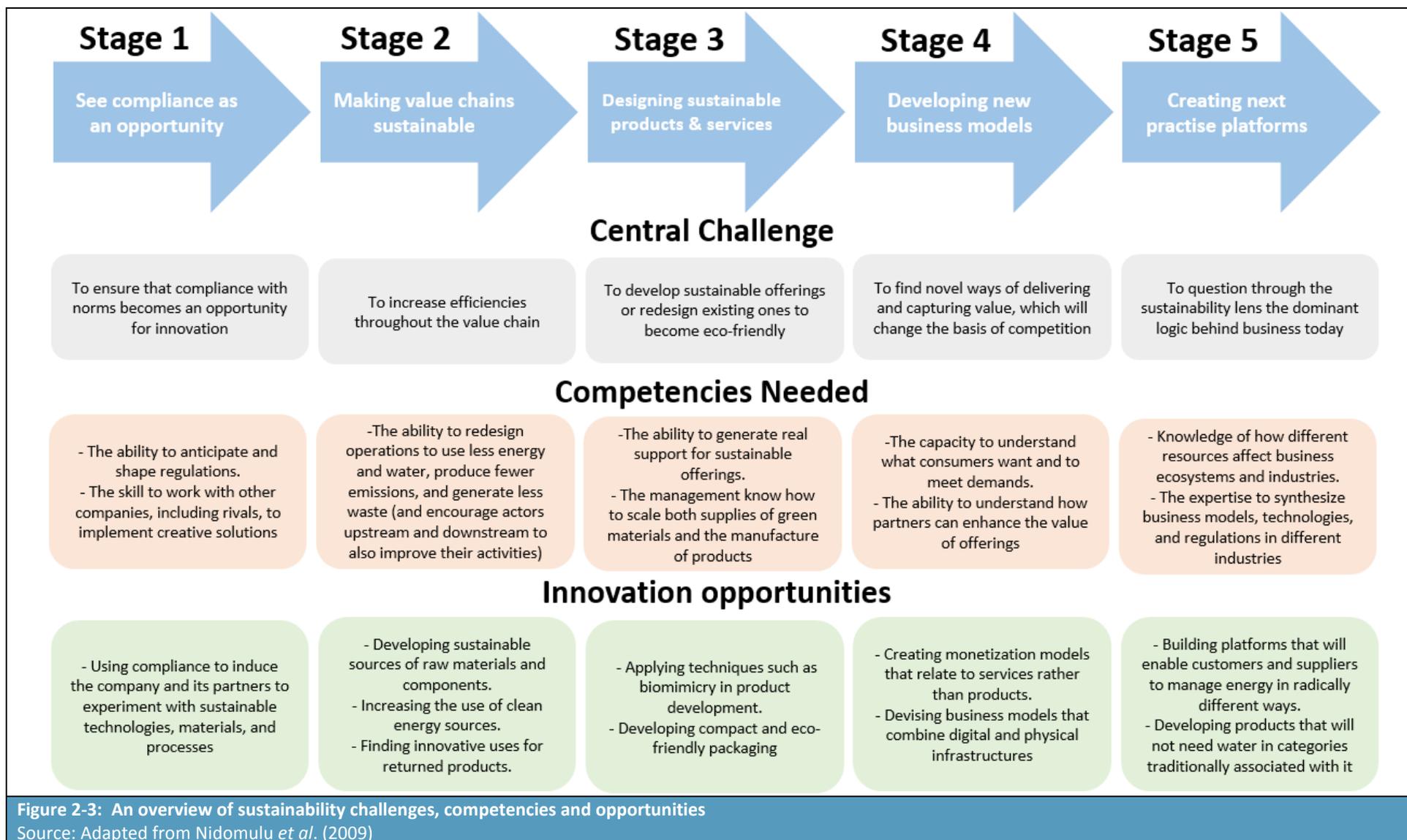
Linkages between compliance, sustainability and innovation have also been explored by Tuncak (2014). In a paper titled *‘Driving Innovation: How Stronger Laws Pull Safer Chemicals into the Market’*, the author logically concludes that:

“progressively stricter laws, with a gradual phase-out of chemicals with certain intrinsic hazards, spur the innovation of alternatives, with the potential to pull safer alternatives into the market, enabling them to overcome barriers to entry.”

Tuncak also makes a number of important concluding observations, highlighting that:

- Consumers, downstream users, retailers and investors are increasingly demanding products free of hazardous chemicals throughout their life-cycle;
- In addition to customer demand which, in practice, is mostly transmitted via retailers at the end of the supply chain, businesses increasingly recognise that the transition away from hazardous chemicals is often accompanied by the emergence of a competitive advantage and market opportunities; and
- Effective chemicals policies must be in place to reward businesses that develop safer approaches by enabling their ideas to replace those that are less safe⁶. The question is then how to spur the innovation of approaches that are likely to provide the most improvement to people, wildlife, and the environment from the status quo of chemicals. And then, for those inventions that are indeed a safer alternative, how to effectively overcome barriers to entry so that these safer alternatives can displace incumbent hazardous chemicals and production processes in the marketplace.

⁶ As discussed in Section 3.4, numerous companies consulted stressed the importance of predictability of regulatory action. They want to stay ahead of the regulators. In a competitive market, it is a strategic and reputational imperative not to be engaged in producing any substance that arouses regulatory action.



The importance of compliance as a driver of sustainability has also been highlighted by Benn *et al.* (2014) within the context of a sustainability phase model. The phase model is a tool that was designed for making meaningful comparisons between organisations in order to assess their commitment to and practice of behaviours relevant to both human and ecological sustainability.

The phases can be used to trace the historical path that an organisation had taken in getting to where it is and to chart possible ways forward, as well as to characterise the human and natural resources it employs. Essentially, there is a shift from active antagonism, through indifference, to a strong sustainability commitment with the aim to further this at the company level as well at the industry level and within wider society.

Benn *et al.* (2014) also highlight that companies will not necessarily progress through these phases on a step-by-step improving trajectory but may leapfrog phases or indeed regress by abandoning previously established sustainability practices. The six distinguished phases and their characteristics are:

1. **Rejection:** involves an attitude that all resources (employees, the community and the environment) are there to be exploited for immediate economic gain. The prevailing theme of Phase 1 is: *exploit resources for maintaining short-term economic gain*.
2. **Non-responsiveness:** many of the corporations in this category embody the culture of the last century and operate in conventional ways that do not incorporate sustainability issues. The prevailing theme of Phase 2 is *business as usual*.
3. **Compliance:** focuses on reducing the risk of sanctions for failing to meet minimum standards as an employer or producer. They are primarily reactive to growing legal requirements and community expectations for more sustainable practices and compliance is seen as a risk-minimisation strategy designed to help the company avoid fines or reputational damage. The prevailing theme of Phase 3 is to *avoid risk*.
4. **Efficiency:** reflects a growing awareness on the part of the corporation that there are real advantages to be gained by proactively instituting sustainable practices (e.g. to reduce costs and increase efficiency), for example, re-use of waste. This is the beginning of the process of incorporating sustainability an integral part of the business. The prevailing theme of Phase 4 is to *do more with less*.
5. **Strategic proactivity:** moves the company further along the path of sustainability by making sustainability an integral part of business strategy. These companies are seen as proactive strategists. The prevailing theme of Phase 5 is *lead in value adding and innovation*.
6. **The sustaining corporation:** here, company executives and the majority of staff members have strongly internalised the ideology of working for a sustainable world. With each advance towards this objective, the business environment supports the developing strategy of the company and the company itself is actively redefining its environment. Amongst several other factors, there is an integrated approach to coordinating strategies in the three main streams of sustainability: economic, social and ecological. The prevailing theme of Phase 6 is *transform ourselves: lead in creating a sustainable world*.

2.2 Sustainability initiatives and platforms

As highlighted above, sustainability has been progressing up the corporate agenda for some time and the knock-on effects of sustainability as an enhancer of innovation are considered to have important societal connotations.

Whilst it is important that individual companies adopt variable strategic approaches when it comes to defining, assessing and implementing their sustainability priorities, it is also apparent that a wide

range of industry (and in part public) sustainability initiatives have been instigated in recent years. A selection of these are outlined in Table 2-1 overleaf. The scope and nature of these activities is broad, but represents a wider trend for the acknowledgement of sustainability as a key business issue and the need for industry to act as a whole.

This top-down approach to collaborative sustainability efforts has also recently been reported on by The International Council of Chemical Associations (ICCA)⁷ in the context of the industry’s plans to meet the 2015-2030 U.N. Sustainable Development Goals (summarised in Figure 2-4 below)⁸



Figure 2-4: Summary of UN 2015-2030 sustainable development goals

ICCA highlight that they are committed to supporting the implementation of the goals and also note the unique role that the chemical industry plays in meeting associated challenges through research and development of innovative, life-enhancing products, technologies, and applications.

The ICCA’s two ‘flagship’ policies (Responsible Care® and the Global Product Strategy), as ICCA highlights, reflect the commitment made by the chemical industry “to improve the responsible handling and use of chemicals in the industry and throughout the value chain. Responsible Care and the Global Product Strategy are key drivers of the chemical industry’s environmental, health, safety, security, and sustainability practices. We are committed to continuing to grow and advance these programs”.

These initiatives are detailed further in the table overleaf. The table also highlights a number of additional initiatives relevant to this study (although, in terms of specified KPIs, they may not necessarily refer specifically to aspects of REACH and CLP implementation).

⁷ See ICCA (2017).

⁸ See <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

Table 2-1: Sustainability initiatives of relevance to this project	
Initiative	Details
Responsible Care®	<p>Responsible Care is an essential part of the International Council of Chemistry Association’s contribution to the Strategic Approach to International Chemicals Management (SAICM). It is a voluntary commitment by the global chemical industry to drive continuous improvement and achieve excellence in environmental, health and safety and security performance. First launched in Canada in 1985, Responsible Care is today practised in more than 60 countries around the globe. Responsible Care empowers companies to continue to strive for innovative ways to contribute to the vision of the WSSD that, by the year 2020, “<i>All chemicals will be produced and used in ways that minimize risks for human health and the environment</i>” (ICCA, 2015).</p> <p>In practical terms, signatories to the Responsible Care charter commit to six key elements:</p> <ul style="list-style-type: none"> • A Corporate Leadership Culture that proactively supports safe chemicals management through the global Responsible Care initiative; • Safeguarding People and the Environment by continuously improving environmental, health and safety performance; the security of facilities, processes and technologies; and by driving continuous improvement in chemical product safety and stewardship throughout the supply chain; • Strengthening Chemicals Management Systems by participating in the development and implementation of lifecycle oriented, sound-science and risk-based chemical safety legislation and best practices; • Influencing Business Partners to promote the safe management of chemicals within their own operations; • Engaging Stakeholders, understanding and responding to their concerns and expectations for safer operations and products and communicating openly on performance and products; and • Contributing to Sustainability through improved performance, expanded economic opportunities and the development of innovative technologies and other solutions to societal challenges
The Global Charter	<p>Set up as an initiative under Responsible Care, many of the top global chemical companies and all the national associations have signed up to the global charter, which aims to take the approach to new levels through:</p> <ul style="list-style-type: none"> • Implementing fundamental features of national Responsible Care programmes; • Commitment to advancing sustainable development of the chemical industry; • Continual improvement and performance reporting; • Enhancing the management of chemical products worldwide; • Championing and facilitating the extension of Responsible Care along the chemical industry’s supply chain; • Actively supporting national and local Responsible Care governance; • Addressing stakeholder expectations about chemical industry activities and products; and • Providing appropriate resources to effectively implement Responsible Care (Chemical Industries Association, 2015)
The Global Product Strategy	<p>The Global Product Strategy (GPS) is another international voluntary initiative under Responsible Care, specifically focused on advancing the product stewardship performance of individual companies and the global chemical industry as a whole. The main activities of the programme are around sharing best practice, capacity building, improving risk management and access to information on chemicals (Chemical Industries Association, 2015)</p>

Table 2-1: Sustainability initiatives of relevance to this project	
Initiative	Details
Together for sustainability	In August 2015, the European Chemical Industry Council (Cefic) and Together for Sustainability (a joint initiative of chemical companies for sustainable supply chains; Tfs) established an official partnership supporting improvement of sustainability within the entire supply chain – from sourcing until delivery of products at customers’ premises. One of the key initiatives is the introduction of a standard programme of supply chain audits which are conducted by an independent third party, simplifying the process for being audited and providing consistent information on their supply chains to the Tfs members. The project aims to establish benchmarks for sustainable supply chains and implement the global chemical industry’s Responsible Care programme, which itself, amongst several objectives, commits companies, national chemical industry associations and their partners to continuously improve the environmental, health, safety and security knowledge and performance of technologies, processes and products over their life cycles so as to avoid harm to people and the environment. The programme also places commitment on cooperation with governments and organisations in the development and implementation of effective regulations and standards, and to meet or go beyond them (Together for Sustainability, 2016)
SusChem	Created in 2004 as a joint initiative (amongst Cefic, DECHEMA, EuropaBio, GDCh, ESAB and RSC), SusChem is the European Technology Platform for Sustainable Chemistry. Its main objective is to boost and inspire European chemistry and industrial biotechnology research, development and innovation based on sustainability criteria. SusChem’s mission is to develop strategies and provide a coherent business-focused analysis of research and innovation bottlenecks and opportunities related to societal challenges and industrial leadership actions (SusChem, 2016a)
Chemie3	The sustainability initiative “Chemie3” (Chemistry3) is the sustainability initiative of the German chemical industry. The initiative highlights the fact that sustainability requires an all-encompassing approach which unites economic, environmental and social aspects. Chemie3 has produced guidelines to underpin sustainability as a guiding principle of the chemical industry in Germany and to provide inspiration for the international community. As a sector-specific umbrella, the guidelines provide orientation for enterprises and their workforces. They reflect core elements from national, European and international initiatives and standards, such as the 10 principles of the UN Global Compact, the Core Labour Standards of the International Labour Organisation (ILO), and the OECD Guidelines for Multinational Enterprises. They are the result of a dialogue with stakeholders within the industry as well as the political, social, scientific and economic realm (Chemie3, 2013). One of the guidelines (#32) refers specifically to a KPI for REACH that deals with REACH dossier quality and updates ⁹
Spice3	Launched in April 2013, Spice3 is a programme which aims to boost energy efficiency across the European chemical industry production activities, particularly in small- and medium-sized companies. Because the chemical industry is a very large user of energy, competitiveness, and profitability depend in part on energy prices, which means chemicals companies benefit from energy efficiency programmes. Reduction in energy usage is classically part of sustainability programmes. The Spice3 project enables companies to benefit from existing energy efficiency tools and exchange best practice through an on-line platform and industry workshops. Coordinated by Cefic, the project brings together 11 national chemical federations, which together account for around four-fifths of European chemicals industry sales

⁹ See https://www.chemiehoch3.de/fileadmin/user_upload/Ambitionen/Die_Initiative/Interaktive_Grafik/32_Pr_oduksicherheit.pdf, which (translated) says: “Companies in the chemical and pharmaceutical sector use management systems (i.e. specific processes and responsibilities) to ensure that their REACH dossiers are kept up to date and conform to the quality requirements of the REACH Regulation”.

2.3 REACH as a sustainability driver

ENERG-ICE¹⁰ (2013) highlight that today, emerging regulatory and social trends around sustainability create pressures and opportunities for chemical companies at global and EU levels. Indeed, the development of more sustainable chemical products and supply chains is being driven by legislative requirements, stakeholder expectations and companies' own business and Responsible Care strategies.

The ENER-ICE authors note several trends that are already surfacing:

- The introduction of REACH creates new pressures on specific substances;
- The emergence of eco-design, Green Public Procurement, Ecolabel criteria and waste prevention schemes is creating demand for more sustainable products; and
- Rising consumer interest in sustainable goods is giving incentives to retailers to develop sustainability measures or criteria for their suppliers.

ENERG-ICE (2013) note that the global market for sustainable and low carbon products is estimated to be worth \$5 trillion. Though businesses and governments are likely to require many years to implement fully sustainable processes, it is unlikely that calls for transparency and accountability regarding the components of consumer goods will decline.

The report goes on to note that business acting in a sustainable manner remains an important aspect for consumers, investors and more indirectly, regulators. In many instances, sustainable practices can therefore be seen as an opportunity for businesses to meet market demand and not merely as an additional financial burden.

Considering REACH specifically, many examples exist of the regulation driving innovation in the chemicals industry, to substitute chemical components for less hazardous alternatives. In 2008, for example, the phthalates BBP, DEHP, DIBP, and DBP were added to the Candidate List for Authorisation. The potential for Authorisation led to numerous companies including Johnson & Johnson, Adidas, Nike and Zara committing to remove phthalates from their products. In a report discussing how stronger laws pull safer chemicals into the market, Tuncak (2014) highlights how stricter regulation has triggered innovation activities by major chemical manufacturers in relation to phthalates, for example. The author also highlights that:

- The desire to maintain market share by industry is sufficient to direct resources towards the innovation of safer alternatives;
- Companies that innovate first may have a considerable advantage over competitors;
- The Candidate List is a major driver for innovation at present; and
- Uncertainty regarding substances that will appear on the Candidate List in the future is driving retailers and downstream users to request greater levels of SVHC absence than required under REACH.

¹⁰ See <http://www.dow.com/energice>. According to this source "The ENER-ICE Project focuses on reducing the environmental impact of energy-using products, such as cold appliances, by taking action at the design stage, where the pollution caused during the product's life cycle can be best prevented. The ENER-ICE Project is funded by LIFE, the EU's financial instrument supporting environmental and nature conservation projects".

ChemSec (2015) highlights that chemical companies are increasingly focusing on product stewardship in order to increase their own sustainability and the sustainability of downstream users of their products. Examples given include DSM and Clariant who both aim to find substances and alternatives for hazardous products beyond those formally stipulated by regulation and legislation, keeping ahead of the obligation of regulatory compliance. In order to resource these changes, companies are expanding their compliance teams, for example Johnson Matthey has recruited additional staff in order to dedicate more resources to substitution and has implemented new systems for monitoring and identifying potentially hazardous chemicals. Companies are also placing a stronger focus on transparency; for example, ChemSec (2015) also highlights that Solvay is now reporting both exact numbers of SVHCs and the chemicals (produced by Solvay or coming from raw materials incorporated in Solvay products) which are undergoing phase-out.

Where substitution is not possible, examples also exist of manufacturers developing non-chemical solutions. As an example of this, many electronics manufacturers use metal shields in place of halogenated flame retardant plastics. These plastics were banned in many European countries in the early 1990s due to their potential to harm human health. In parallel to this, non-halogenated flame retardant materials for electronics have been developed by companies such as Sony, which uses nitrogen compounds in circuit boards to improve heat resistance. The substitution of halogenated plastics has also spread beyond the electronics sector. IKEA, for example, phased out brominated flame retardants in all furniture in the year 2000 and is now using less harmful alternatives (the company has also developed “*new and inert fire barriers*”) (IKEA, 2015). Similar cases are abundant in literature and highlight the potential for regulation to drive innovation.

REACH has driven substitution even in cases where significant regulatory hurdles complicate redesigning products. Examples of such instances are highlighted in Chemical Watch (2016). For example, this report highlights that where feasible, pharmaceuticals and diagnostics company Hoffman-La Roche aims to phase out the use of SVHCs within ten years of their addition to the REACH Candidate List. To implement this substitution goal, the company is identifying SVHCs used in products or their manufacture on a global basis. It then plans to phase these substances out in all of its sites independently, regardless of whether site is under the jurisdiction of REACH or not.

Another example of REACH impact on businesses with operations in many non-EU countries is H&M. The company manages its compliance commitments by enforcing “*the highest legal standard in any country in which it has sales*”. In addition to this H&M operates a sustainability policy which includes the substitution of substances with no compliance requirements but which may be persistent, bioaccumulative or toxic. As an example of this, since 2007 H&M has not used alkylphenols and alkylphenol ethoxylates in its products (ChemicalWatch, 2016).

The raft of measures highlighted above represent only a fraction of the sustainability initiatives that companies are implementing in response to REACH and these activities also appear to be on an upward trajectory.

3 Interview Approach and Results

3.1 Approach to selecting and interviewing relevant company executives

3.1.1 Introduction

As highlighted above, one of the key objectives of this study was to gain knowledge on how specific regulatory elements of REACH & CLP affect corporate strategies for value creation by addressing these key questions directly to approximately 20 executives in relevant industry sectors and involving ECHA senior management.

These communications took the form of telephone interviews/discussions. As such, a detailed and purposive methodology was developed to ensure not only that a relevant cross-section of companies would be consulted, but also that potential consultees had relevant experience with REACH & CLP and the (potential) impacts of these regulations on corporate sustainability strategy.

3.1.2 Development of criteria for selecting companies to be interviewed and approach for identifying investors

Two types of criteria were used in order to select the companies to be interviewed as part of this project:

- **Overarching/guiding criteria**, used to ensure that a relevant cross-section of companies was included. These criteria were based on pre-set representativeness parameters (agreed with ECHA), so as to facilitate industry discussion with as representative a sample of companies as possible. Supply chain position (manufacturer, formulator, downstream user, end-user, consumer goods manufacturer) was one key factor here; and
- **Technical criteria**, more specifically relating to the overall study objective - i.e. to ensure that potential consultees had relevant experience with REACH & CLP and its effect on corporate strategy related, in particular, to sustainability developments and innovation.

Specific criteria that applied under each of these headings are presented in the following table. Information is also provided on the relevance of criteria to the project objectives, and how they were assessed in practice. Potential consultees were required to meet only one of the specific technical criteria in order to be considered for inclusion on the prospective list of companies to be interviewed.

Table 3-1: Overarching and technical criteria used to select companies for interviews		
Criterion	Relevance to project objectives	How criteria were applied in practice
Potential overarching/guiding criteria		
Company size	In order to representatively gather insights on the impact of REACH & CLP implementation on industry's strategies in the context of sustainability, it was important to interview relevant top business/sustainability executives of SMEs as well as larger organisations	The standard European Commission SME definitions* were utilised to ensure that a certain proportion (agreed with ECHA) of the companies to be interviewed were SMEs
Position within the supply chain	Attention was paid to a variety of organisations, e.g. chemical companies (manufactures, importers, formulators) as well as downstream users (e.g. retail sector) and investors (investment funds, venture capital, business angels)	An initial list of 60 potential candidate companies (executives) was drawn up. This overarching criterion was used to ensure a representative spread of companies was included within this initial list, and also within the final agreed list of companies selected to be interviewed
Industry sector	A range of sectors was important to ensure insights gathered on industry's strategies in the context of sustainability are as representative as possible in the context of a limited number of interviews	The particular sectors ECHA wished to consult with were discussed and agreed during the study kick-off meeting following initial proposals made by RPA
Location	Only organisations with EU-relevant operations (i.e. those which must comply with aspects of REACH and CLP) were considered	Desk-based research (e.g. company websites as well as available tools such as the ECHA dissemination portal) was used to verify that each selected company had relevant operations within the EU. Intra-EU location was also considered to facilitate the spread of input from different regions

Table 3-1: Overarching and technical criteria used to select companies for interviews		
Criterion	Relevance to project objectives	How criteria were applied in practice
Technical criteria		
<p>Evidence of sustainability and/or innovation activities as a result of REACH & CLP measures, including:</p> <ul style="list-style-type: none"> • Proactive substitution / process improvement; • Reactive substitution / process improvement; • Companies with documented and relevant sustainability initiatives (either standalone or as part of wider industry); and • Registrants or REACH consortia of SVHCs with current restriction, authorisation or harmonised classification and labelling intentions (with known or public commitments to substitution) 	<p>In particular, these criteria allowed for the identification of companies with potentially relevant strategies in the context of sustainability (e.g. companies who had responded in a proactive (or reactive) manner to REACH and CLP in order to enhance competitiveness)</p>	<p>The technical criteria guided the identification of relevant potential interviewees (although the expert judgement of the study team also played a significant part in this). The study team also utilised their business networks of key industry contacts to identify and propose potentially relevant candidates.</p> <p>Information was cross-referenced with publicly available information (e.g. reports from niche industrial news websites and press releases) to identify relevant companies who had made public commitments to substitute chemicals of concern or improve their processes.</p> <p>In addition, membership lists of known sustainability platforms, groups and associations such TfS, as well as companies presenting at recent relevant conferences were also used. ChemSec was also used as a reference to facilitate the identification of SME inputs</p>
<p>*Available at http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en</p>		

In addition, the study also required a number of interviews/discussions to be set up with investors. 'Investors' is the group term referring to various types of investors (e.g. investment funds, venture capital companies and business angels).

As these companies do not standardly fall within the REACH and chemicals industry related networks, possible companies were filtered according to a separate set of criteria:

- Do they have clearly defined sustainability selection criteria for the companies they invest in?
- Do they invest in chemicals companies and/or manufacturing companies with operations within the EU?
- Does their strategy specifically include considerations of regulatory compliance e.g. with REACH and CLP?

3.1.3 Selecting companies to be interviewed

Based on the overarching/guiding and technical criteria an initial list of 60 potential candidates was developed. From this pool, 20 companies were selected to be invited by the ECHA Executive Office for a discussion on sustainability with ECHA directors. The companies included large companies and SMEs throughout the value chain, and investment companies.

3.2 Development of interview materials

To facilitate the overall consultation process by helping to ensure that the interviews flowed smoothly, and that they were consistent in terms of content and input, fact sheets and questionnaires were developed.

Fact sheets contained key information (e.g. on the sustainability strategy of the organisation and its development over time) and the purpose of the fact sheets' development was to provide ECHA directors (who conducted the interviews, with RPA's support), the necessary background and contextual information on individual companies ahead of the discussions.

Alongside the fact sheets, questionnaires were also developed in line with the original study service request from ECHA. It was agreed that the questionnaires should follow a format which allowed and encouraged the consultees to 'tell a story', regarding sustainability in their companies. The question framework was split into sections and open-ended questions were formulated. It was not the objective to have question and answer sessions but to have discussions based on the framework of questions. One set of questions was developed for companies and one for investment companies.

Wherever practicable, questionnaires were then further tailored to the activities of prospective consultees. The length of the questionnaire was also taken into consideration to align with the proposed timing of 1 hour 30 minutes for each discussion.

Table 3-2 outlines the structure and shows the headline questions and objectives of the framework questions (for chemical companies) as well as the aim of each section of the questionnaire. The final versions of the master questionnaires used in this study are presented in Annex 2.

Table 3-2: Questionnaire structure for companies		
Section	Subject	Types of individual questions / aim of section
1	Introduction	A short introductory section sought to confirm important basic information related to the company in question, setting the context for the remainder of the interview
2	Drivers for sustainability strategies and innovation (sectoral and company specific)	Questions aimed to establish the specific drivers for sustainability strategies and innovation in the company and sector
3	Overall effect of REACH & CLP on sustainability and innovation strategies	This section aimed to establish how REACH & CLP fit into company sustainability strategies. It assessed the importance of REACH & CLP as a factor driving innovation
4	Specific aspects of REACH & CLP	This section focused on aspects of REACH & CLP which have proved to be most supportive (or a hindrance) to innovation within their organisation, as well as within the wider sector and their supply chain
5	Looking to the future	This section focused on the future vision of companies, in terms of their sustainability and innovation goals (also as associated with REACH & CLP)
6	Conclusion	The questionnaire concluded with a short number of administrative questions to confirm outputs (as well as any confidentiality issues)

3.3 Organisation of the interviews

20 companies were selected from the lists developed, and invited by the ECHA Executive Office to participate in the study (the final number of interviewed companies was 19), with confirmation of willingness to participate being followed by suggested dates. Consultees were sent the list of questions to help them prepare for the discussions.

Discussions were 1.5 hours in length, with most keeping to this time frame. All discussions were hosted by ECHA's web conference system, with participants attending remotely, from their respective locations. ECHA's executive team included a number of ECHA directors assisted by the Executive Office. Due to time constraints on the part of both the company executives and the ECHA directors, finding and agreeing a time slot when all parties were available was an unexpectedly time-consuming administrative aspect of the study, and ultimately the discussions were held over a period of 14 weeks, longer than originally envisaged. After each discussion, draft discussion notes were sent to the participant/s concerned, for review and identification of any confidential business information.

3.4 Analysis of discussions with company executives

3.4.1 Introduction

Ultimately, discussions were held with the relevant corporate executives at 19 companies across the chemical industry and its value chain as well as with investment companies. Of these companies, 10 are large companies, 6 are SMEs and 3 are investment companies. It is important to note that while these companies can be seen to represent a vanguard in sustainability practices, they are not alone. There will be many other chemicals companies with active sustainability strategies and programmes, as well as many companies in their value chains that also focus to varying degrees on sustainability, and this study by necessity included discussions with executives of only a small selection of these companies. Therefore, when "companies" are referred to in this analysis, this should be seen to refer specifically to the set of companies that participated in the study and as is the case with all studies,

care should be taken in assuming that the findings refer in general to the sustainability strategies of all companies.

In order to meet the aims of this study (as documented in Section 1.3) the analysis of the discussion of results from the consultation activities has been considered in line with the following key themes:

- Sustainability: definitions and strategies;
- Aspects of REACH and CLP;
- Links between sustainability, REACH and CLP;
- Investor perspectives; and
- Additional key outputs.

3.4.2 Sustainability definitions and strategies

Defining sustainability

In order to obtain an appropriate background context to the core discussion of consultation outputs, it is first necessary to explore interpretations with regard to the concept of sustainability in their particular corporate context, and where compliance and regulatory aspects are located in relation to the corporate sustainability agenda as well as the sustainability priorities of companies and relevant stakeholders, such as investment companies. It should be noted that the companies participating in this part of the study include many that are considered leaders in terms of sustainability strategy.

The discussions confirmed that there is no single or commonly-agreed definition of 'sustainability', which is in line with the background research findings presented in Section 2. Instead, the concept is very broad and different companies chose and use different definitions, which can also develop and evolve over time; as a concept and as a business practice, sustainability is not static. Some companies use the 'Vision 2050' strategy of the World Business Council for Sustainable Development as a basis for their sustainability definition as well as for selecting specific targets for their own strategic objectives. Others have taken the UN's Sustainable Development Goals as their source of inspiration.

The companies' sustainability definitions and strategies can generally be seen to reflect the three pillars of 'Profit', 'People' and Planet', which are described in Section 2:

- **Profit:** it is clear that in order to stay in business, business must be profitable, but in a sustainable business the objective is that the environment and the society should benefit, or profit, too;
- **People:** this is an easily recognisable sustainability metric covering employees, suppliers and customers and particularly in today's world, understanding the changing and evolving demands of stakeholders; and
- **Planet:** this is the most traditional aspect of sustainability, which focuses on environmental issues e.g. reducing carbon footprint, emissions, use of water, chemicals, energy etc., including products which themselves contribute to reductions in these key environmental aspects.

Despite variations in their definitions of sustainability, for the leading companies sustainability itself is a key business driver. Most companies consulted were able to describe in detail the particular nuances with regard to their definition of sustainability and associated strategic approach. These companies take a longer-term perspective, noting that a business-led sustainability strategy is not fully compatible with quarterly reporting because it tends to mean taking a medium to long term view on growth and profitability rather than placing the focus on quarterly results.

Sustainability approaches

The outcome of the discussions suggests that, much in line with the research findings in Section 2, corporate sustainability approaches can be grouped as follows¹¹:

- **Product stewardship approach**, which is where the corporate initiatives are driven largely by product stewardship and Responsible Care commitments, rather than by business objectives. Product safety is regarded by these companies as part of the sustainability programme;
- **A targeted approach**, which is geared towards meeting specific objectives and by specific deadlines. This approach is more focused on the concerns of specific stakeholders and sustainability may be one of the pillars of the business' strategy but is not fundamental and integral to the business strategy. Sustainability objectives may vary between different divisions of the company; and
- **An integrated approach**, whereby companies are committed to 'sustainability' as an integral part of the strategy affecting all aspects of their business operations, and with sustainability being seen as a key business driver. Sustainability strategies are specific and define objectives and timelines and they are inclusive, with a strong commitment at board level achieving business success specifically via a sustainability strategy. This approach covers what the company does, and what their suppliers and customers do, as well as the sustainability contribution of the products that they place on the market. It can be noted that this integrated approach aligns well with the Benn *et al* (2014) phase 6 level of "The sustainable corporation", further described on page 17 of this report.

It can be noted that some companies have combinations of these approaches, or can be seen to be in transition between one approach and another either as a company as a whole, or with one business division being at a different level of sustainability development to another. In addition, some companies appear to be in the process of transitioning to a more sustainability-centred corporate strategy (as suggested, for example, by acquisitions and divestments and/or a change in board-level ownership of sustainability).

The companies consulted appear to have much in common in terms of approach. Environmental and social (planet and people) objectives are often defined in terms of their key internal and external stakeholders. Furthermore, sustainability is at least in part a factor in making business, investment and R&D/innovation decisions contributing to the economic performance of the company as well as a contributory factor to the objective of delivering sustainability benefits to the environment and society.

Most companies consulted for this study consider basic compliance as a licence to operate, with a number noting that compliance is the foundation for sustainability. The larger companies in particular were consistent in this perspective, noting that as a legal obligation, compliance is an absolute baseline and that non-compliance is a business risk. Some companies mentioned their dedicated product stewardship programme as part of, or the starting point for, their sustainability strategy. Others indicated that they have a more targeted approach, most frequently focused on environmental issues such as reducing emissions, reducing water and energy usage, or increasing recycling.

A number of the companies consulted, from chemicals manufacturers to consumer goods companies, have a business strategy in which sustainability is fully incorporated. For these companies, their business model and sustainability approaches cannot be separated and there is consensus that sustainability is seen as a value driver in the short, medium and long term. Specifically, sustainability

¹¹ Note that this study finds that regulatory compliance, a baseline for developing a meaningful sustainability agenda, underlines all these, but is not considered as a sustainability approach in itself.

strategy defines the company's approach to growth; identifying and developing sustainable products for their markets leads to growth, with the objective being faster and significant growth in the medium to long(er) term. If multinational, these companies have implemented a global corporate programme with the same strategies and objectives applying throughout all their operations.

Whilst the SMEs participating in this study did not in general have in-depth documented approaches to their sustainability strategies, for some sustainability is nevertheless at the core of their business models¹². There was one SME that is exemplary of a company with an integrated, business-led sustainability strategy, including early identification and assessment of opportunities in terms of regulations and guidelines as well as being very outward focussed in terms of looking to collaborate with suppliers and customers to improve sustainability throughout the entire value chain. Another noted that they have formal safety, environmental and REACH management systems in place, while another commented that they strive to be compliant and to ensure their supply chain is also compliant. Some SMEs noted that the hazardous nature of a site is a reason to focus on environmental issues, with primary concerns including process safety and loss of containment.

3.4.3 Sustainability implementation

Study consultees confirmed that board-level¹³ ownership of sustainability is an important factor in driving an integrated strategy in a company. For those companies – large and small – which are family owned, or where the family who founded the company¹⁴ are the largest or majority shareholders, a number of consultees noted the importance and the value to the company of the family having a strong commitment to sustainability. Many of these companies have a significant history of commitments to values which are now part of their sustainability strategies, with long-term thinking, corporate reputation, social values and business ethics being some of the values mentioned.

Once a strategy is defined at corporate level, companies must decide which of the multitude of possible issues they will choose to address and focus on. The study confirmed that materiality (broadly, the issues that are considered most important or most material to key stakeholders) is an important consideration in setting corporate sustainability strategies, focus and targets, with study participants providing insight into various approaches. So for example, one company identifies, ranks and prioritises topics through consultation with stakeholder groups, then groups the most important topics into three categories: Economic (e.g. circular economy), Environmental (e.g. proactive substance management) and Social (e.g. employee engagement). At another company, materiality issues are identified and the executive committee selects which to focus on from a strategic perspective. Setting targets for sustainability performance, committing transparently to achieving those targets and publishing progress towards these goals is an important part of the approach of the leading companies. It can be noted that for these companies, this transparency is voluntary and they are responsible for holding themselves to the commitments they have made, and achieving the progress they aspire to. Most of the companies consulted have a specific objective of producing and marketing more sustainable products, with related targets being economic, for example, to achieve growth in the percentage of revenue generated by 'sustainable' products and services, often with a specific percentage growth defined.

It is notable that many companies with an embedded sustainability strategy have a clear sustainability vision, which is well communicated internally and externally, and with measurable objectives and goalposts. But importantly, they also have tools and programmes to implement and manage the programme and/or to report on corporate sustainability progress. In particular, reporting to the board

¹² See Section 3.4.10 for more information on SMEs.

¹³ CEO or other executive committee or board members.

¹⁴ Many of these companies still carry the founder-family name.

on a regular basis, based on company specific key performance indicators (KPIs) and/or metrics and/or dashboards is common. This can be seen in the context of board-level ownership of the corporate sustainability strategy, outlined above. Tools used to report on progress towards achieving sustainability goals include monitors for emissions and energy use, KPIs measuring progress against industry and best practice benchmarks, tools to measure circularity and tools for undertaking sustainability assessments of products throughout the value chain. Some tools are elaborate systems to assess, for example, the monetary value of impacts on the environment across the value chain to allow comparison of impacts, or to monetise externalities to indicate what value is created by a product, for the company and for society.

Also common is external sustainability reporting, with an annual update on progress towards achieving sustainability objectives. For the large companies particularly, most sustainability reports are likely to be compiled to be compliant with global standards set in the Global Reporting Initiative 4, and many form part of an integrated report, together with the financial report, in line with the International Integrated Reporting Initiative¹⁵.

As explained above, company approaches to sustainability are evolving and develop over time, with different companies being at various levels in terms of strategy and implementation programmes. However, the traditional environmental themes around reducing energy and water usage, emissions, waste, carbon footprint, etc. are common to most of these programmes.

Clearly, for companies it is easier to manage environmental issues ‘within the factory gates’ than throughout the value chain. The companies consulted all pay attention to in-house sustainability objectives such as reduction in energy use, emissions and water usage (reductions that also deliver financial benefit for the company). Energy (a classic environment issue) is of major importance in the chemicals industry and taking this as an example, many consultees provided details of their corporate strategic objectives and practice. These range from compensating all energy used, being or having the objective to become 100% fossil-fuel free, being climate positive, or supplying all their energy from their own electricity generating plants using locally-sourced biomass; one consultee described their complex integrated systems to optimise use of materials and energy. A number of companies extend their objectives to others in the value chain, for example, setting environmental targets for their suppliers and working with their customers to be more energy or resource efficient.

Several consultees also identified the importance of establishing ‘closed loops’ within their own operations and value chains. Whereas recycling refers to the need to reduce potential negative impacts associated with their own production activities at all possible stages (e.g. by actively increasing recycling rates and reducing waste), a closed loop refers to reducing waste to raw materials for re-use in an endless cycle. An example would be the recovery of metals from batteries to be re-used in battery production. Closed loop is a more ambitious objective than recycling, delivering superior sustainability benefits. The closed loop objective is also an objective in certain consumer goods markets, such as textiles, where there is growing awareness that the world’s finite resources will not be able to meet demands of an increasing population for new clothes. In this instance and in general, a closed loop objective includes, fundamentally, design for re-use as well as society’s participation in the programme to ensure that the products are delivered for recycling.

A strong people policy, at a minimum providing training and actively engaging employees in the sustainability strategy, is a fundamental aspect of a successful sustainability program. Those with well-established sustainability approaches recognise that people, their own employees as well as suppliers and customers, are critical to the success of making sustainability happen, of implementing the

¹⁵ See Section 3.4.8 on non-financial reporting.

sustainability strategies. For example, one of the companies has a dedicated programme to train employees as sustainability ambassadors, with 10,000 ambassadors trained by the end of 2016¹⁶. At another, there is a CEO sustainability award for staff and one of the SME consultees uses a management certification programme to engage employees and foster a culture of sustainability. Some of the companies consulted specifically include sustainability in the variable salary of relevant employees, while others specifically choose not to, as they select other targets for variable compensation. It was noted that to keep employees focused on the path to sustainability, ongoing internal communication activity is needed.

Given their sustainability strategies, it is unsurprising that companies are also allocating significant resources to assessing and seeking to improve sustainability practices within their supply chains (by e.g. stipulating that suppliers must abide by certain standards). These objectives can in some cases be considered rather ambitious. One of the issues companies face is that full supply chain visibility is often very difficult to attain. Many of the companies consulted, both large companies and SMEs, take a very active role within their supply chains. For some, this includes being part of TfS initiative where a number of companies cooperate to ensure a single consistent sustainability audit approach for suppliers, with the audits being conducted by third party experts. One consultee has a supplier sustainability framework which supports continuous supplier improvement by means of a business partner code of conduct and a programme of supplier support visits. Another large company explained that they wish to encourage suppliers to take ownership of their own chemical management issues and provide support to enable this. A number of companies consulted noted that they audit their suppliers based on an in-house audit methodology conducted by staff. Some of those consulted noted that they aim to achieve objectives through collaboration with all in the value chain, including customers, with one pointing out that their social sustainability objectives include improving working conditions throughout the supply chain. For those producing consumer products, strategies may include education to encourage more sustainable use of products.

A number of companies have special names for their corporate sustainability strategies and/or programmes, and this can be seen to facilitate communication when discussing with internal and external stakeholders, and therefore to contribute to the commitment and continued focus of people on the key sustainability issues and objectives.

3.4.4 Sustainability platforms and industry initiatives

Although companies identified variable approaches when it comes to assessing and implementing their own sustainability priorities, many also partake in one or more of a variety of industry sustainability initiatives¹⁷ as well as other related industry substitution and certification initiatives and programmes. Those mentioned during the discussions include:

- The World Business Council for Sustainable Development;
- Together for Sustainability;
- Responsible Care;
- SusChem;
- Ecovardis;
- Sedex;
- Zero discharge of hazardous chemicals (ZDHC) scheme;
- AFIRM, apparel and footwear group which aims to reduce the impact of harmful substances in supply chains;

¹⁶ For further details please refer to the Annex 3 Case Studies.

¹⁷ Also see Section 2 for information on a number of these initiatives.

- Investors in People; and
- EMAS certification.

3.4.5 Drivers for sustainability – internal and external

Considering drivers for sustainability, identifying the change drivers at strategic level for these organisations is a key output of this study. Essentially, these can be grouped under three headings: the company itself, market demand and investor demand.

The company itself

“Sustainability is business and business is sustainability”, this is the explanation given by one of the consultees. Some companies make a very clear and direct link between sustainability, profitability and continuity as a successful business¹⁸. The business-driven demand for successful identification, prioritisation and implementation of internal and external sustainability strategies is a key driver. When the issue is part of the corporate strategy at board level, the business itself is a key driver¹⁹.

Within the business, management set a strategy which focuses on the medium to long-term. This longer term view is essential if sustainability is to be fully integrated into the business. As discussed in Section 3.4.3, executive board level ownership of the sustainability strategy and implementation as well as the influence of family owners (either directly or as major or majority shareholders) emerged as a common theme for many of the consulted companies. Active corporate promotion of sustainability amongst employees, and actively involving employees in making sustainability happen is noted as being a critical factor in many companies and can also be considered one of the business drivers.

Other business-level drivers for sustainability that were mentioned by consultees include sustainability being part of a strategy to improve growth, to differentiate the company from the competition and to be seen as a leader in their sector, as well as the desire to ensure business continuity and success in the medium to long term. All businesses have the fundamental objective of making profit, an absolute necessity if the business is to survive, let alone thrive. For corporate strategies which include a fully integrated sustainability strategy, profitability (at a minimum in the medium to long term) remains a fundamental business objective.

Market demand

Most consultees reported that there is clearly market demand for more sustainable products and manufacturing practices and this is perhaps most apparent in consumer-facing industries where sustainability practices up the supply chain are driven by large retailers (who are in turn responding to consumer demand and are driven by the need to protect their own brand or corporate image). In companies with multiple divisions serving different markets, it was noted that market pressure for sustainable products tends to be higher in consumer-product divisions of the company than in other divisions. These consumer-facing activities can often be seen as leading the change within the company. Another company, a consumer products company, has responded to market demand by

¹⁸ This is in line with the desk research (see page 14), where Nidomulu *et al* explain that sustainability (through innovation) yield both bottom-line and top-line returns, reducing the costs of inputs and generating revenue from better products.

¹⁹ This may be particularly relevant for businesses that are fully family-owned or for those where the family still retains the majority share or is the major shareholder.

developing a Restricted Substances List (RSL) for consumer products, and also an RSL for suppliers' production processes.

Market demand also arises directly from business customers, in the business-to-business markets. Companies such as formulators and others supplying to industrial customers, face a similar need for more sustainable products as their customers in turn are increasingly aware of these market demands coming from their customers and/or consumers. However, amongst the SME consultees, comments ranged from noting that their customers are neither pushing for more sustainable products nor willing to pay more for them, to that there is demand but the market for new products must also be sustainable, and also noted that while there is demand for less hazardous products, technical performance remains key. It can be noted that the sectors and markets these companies supply are themselves very different and driven by different business imperatives. However, it was also noted that in general, market demand for more sustainable products and suppliers is expected to increase in the short to medium term because the drivers are in place.

Customers are the primary external drivers of sustainability programmes. One company reports seeing more customer interest and that they therefore actively engage industrial customers and consumers in sustainability discussions. This company has received thousands of customer requests, and now partners with industry customers to find joint solutions to move sustainability forward.

This market demand for more sustainable products covers the range of what can be considered to constitute "more sustainable", from products that contribute to specific sustainability goals (such as equipment that reduces the use of water in a particular production process) to consumer products that are SVHC-free.

Investor demand

A third driver of sustainability excellence is investor demand. Investors (see Section 3.4.9) increasingly wish to invest in sustainable companies, particularly in those that are leaders in terms of implemented sustainability strategies and those that score high on the ratings of sustainability indices. The investment companies who put together sustainability portfolios and/or undertake sustainability ratings exercises are themselves driven by customer demand from investors for an increasing choice of investments in sustainable companies. While clearly the objective is that the investments must result in good returns, at least in the medium term, investment companies' sustainability ratings and well-established sustainability indices²⁰ allow quantification and comparison of sustainability performance across companies, making it an objective of leading companies to consistently score high on these indices. In addition, investment company ratings provide investors with clarity and the means to compare aspects of different companies' chemicals management. Investment companies are themselves driven by market demand from their private and institutional customers for investment in companies or portfolios with strong and demonstrable sustainability strategies and successes. For unlisted companies and for SMEs, consultees also reported that raising finance can be subject to an assessment of risks associated with environmental and worker health issues for example, as investors do not wish to invest in a company at risk of financial penalty for poor performance in these areas.

Given these considerable drivers for companies to adopt sustainability strategies, it is worth reflecting on whether it can be concluded that sustainability leads to increased (financial) profitability. In summary, the companies participating in this study generally do not consider that sustainability directly results in increased profitability. However, they noted that sustainability is a driver of top line growth and profitability; that designing new products to meet sustainability objectives leads to

²⁰ Such as the Dow Jones Sustainability Indices.

tangible (positive) results; that while operating sustainably may be costlier in the short term it leads to long term revenue growth and sustainability can be directly linked to growth rather than directly to profitability.

3.4.6 Chemicals management and sustainability strategies

While chemicals management, and specific industry initiatives such as Responsible Care and Global Product Stewardship contribute to achieving companies' compliance and HSE objectives, it appears from the discussions held that these are not directly integrated into sustainability strategies. Chemicals management is considered very important and is seen to form a fundamental baseline for sustainability activity which could not happen without full corporate compliance, which a number of consultees mentioned as being a company's 'licence to operate'. Amongst consultees, sustainability strategies most frequently address 'traditional' ecology issues such as energy, waste, recycling, and carbon footprint, as well as social issues. This is one of the main findings of this study.

What is clear when analysing the outcome of the discussions with these companies is that many companies undertake an analysis of substances used throughout their operations, and take active steps to address specific substances which are listed for example on the REACH Candidate List, the ChemSec SIN List or other relevant global lists or other substances of public concern. Generally speaking, these companies do not assess the scientific basis of these listings or concerns, but simply note them and take them into account in their substance-specific programmes.

3.4.7 REACH & CLP

An objective of this study is to gather insights on the impact of REACH and CLP implementation on industry's strategies in the context of sustainability, to allow for reflection on how regulatory compliance creates specific leverage for business goals within the sustainability framework.

As outlined above, sustainability strategy definitions - though broadly similar - are company specific and are likely to include a range of recognisable environmental and people themes as well as 'profitability' (which in the "PPP" approach means profitability not just in the financial sense but in the broader sense of also doing good for the environment and society), often expressed as contributing to growth and driving value.

The impacts of REACH and CLP on corporate sustainability strategies was discussed with consultees and the findings are summarised here under the following sub-sections:

- i. Compliance and REACH and CLP;
- ii. Innovation and REACH and CLP;
- iii. Examples of enhanced competitiveness or innovation; and
- iv. Impacts of REACH and CLP on corporate sustainability strategies.

i. Compliance and REACH and CLP

When discussing the overall effects of REACH and CLP on sustainability and innovation strategies, many noted that compliance is seen as a bottom line 'licence to operate'. However, due to the costs and administrative burden of compliance, the benefits are not seen as being proportionate to the costs. Cost and resource pressure means less is available for R&D and consequently innovation may suffer. Consultees agreed that good quality registration data and dossiers are expected, and that these are considered to be essential for baseline compliance. Nevertheless, a finding of this study is that despite confirming the importance of compliance, it appears that companies do not have a specific strategy focused on registration dossier quality, for example.

The companies consulted²¹ commented that compliance costs (also in terms of people) have increased significantly, with resources frequently being dedicated to compliance at the expense of R&D and innovation budgets, and that while some costs might seem one-off (e.g. IT systems to track substance volumes), others are ongoing. Registration dossier costs are not one-off, as ongoing REACH processes (dossier and substance evaluation for example) as well as updates and registration of new substances means an ongoing need for budget and resources. In addition, study participants noted that costs of registration can inhibit innovation, preventing new substances from being brought to market. This often relates to substances in the 1-10 t/y range, and seems to apply to all sizes of companies; companies need to be sure they can recover the costs of their investment in new registrations. One SME noted that when designing or being asked to design new products that will include the need to register a new substance under REACH, the costs of registration can be higher than the profit to be made on the new product, meaning the new innovative product is not financially viable and the innovation is effectively abandoned. Another SME mentioned that they only register intermediates because the costs of testing and registration are otherwise too high; in a post-2018 registration deadline scenario, this company will have non-intermediate substances manufactured in Asia and supplied directly to current export countries, specifically to avoid the costs of registration in the EU. Others mentioned only producing low tier volumes of substances so as to avoid the higher registration costs associated with the requirement to provide more data, or they only produce in volumes below 1 t/y so as to avoid the registration requirement entirely. This suggests that registration costs limit the ability of SMEs to expand their business in terms of producing higher volumes and/or new substances unless market demand and profitability are sufficiently certain upfront, making the investment in registration viable. A large company also noted that new innovations may not be introduced in the EU if it appears that the market is too small to cover the costs of registration and in this way, the EU is missing out on new innovations.

In terms of benefits of REACH and CLP for companies, the uniformity of analysing and presenting data which has been imposed by REACH is seen by companies as being an advantage. These regulations give product stewardship a credibility internally and externally, forming a basis for discussions on substance management. In addition, the registration process and follow-up activities have delivered benefits in terms of getting different departments (e.g. regulatory affairs, business, R&D) of large companies speaking to each other and working together in ways that did not happen in the pre-REACH era.

The companies participating in this study confirmed that overall, substance knowledge and communication throughout the supply chain has improved. However, the benefits of REACH compliance are more evident to some companies than to others. Large companies operating internationally can leverage registration dossier information and expertise when dealing with regulation in other parts of the world, and some companies note the benefits and added value of the database of technical knowledge they have built up in-house as a result of REACH. Those particularly concerned about the relative lack of benefits are the SMEs or large companies that deal with numerous SMEs, where perceptions include that the cost of compliance can for some companies reduce margins to below product viability levels.

As was frequently noted during these discussions, regulatory compliance is a licence to operate, and as such is seen as a cost rather than a driver of business value. REACH compliance is not seen to provide a competitive advantage; compliance is essential for EU companies in order to continue to operate. Other ECHA-relevant regulations (CLP and the Biocidal Products Regulation for example) impact consultees in different ways depending also on the company's position in the value chain and

²¹ Noting once again that this study included a limited number of discussions with industry so these comments may not be representative of industry in general.

on the sector in which they operate. In no case is there a perception that compliance (with REACH and CLP) directly impacts or is integrated in corporate sustainability strategies.

By extension, REACH registration dossiers and specifically the quality of REACH registration dossiers are not seen to be an asset, taking an asset to mean something which has an intrinsic monetary value. However, some companies noted that their knowledge base – significantly enriched since the introduction of REACH – does increase in value to the company over time.

ii. Innovation and REACH and CLP

Section 2 discusses innovation and product development stimulated by REACH Authorisation and Restriction. Similarly, a harmonised classification (CLH) may require reformulation or redesign of products that fall under specific legislation, such as regulations on Toys, Detergents, Cosmetics, Plant Protection Products or Biocidal Products.

Consultees noted that while regulation in general is taken into account in R&D and innovation programmes, REACH can be seen as supporting innovation rather than driving it²². A number of companies assess potential future products for human health and environmental impacts as a stage gate in the R&D/product development process, or before making a launch decision, and some study participants noted that substance toxicity is now considered earlier in the R&D process than it was in the pre-REACH situation. REACH Registration issues raised by consultees included that it takes too long to register a new substance, delaying time to market, which is a disadvantage. Registration costs can lead to de-selection of a potential innovation. The lack of funding/resources for R&D due to registration requirements was confirmed by some consultees. Besides the innovation challenges of REACH registration, it was also noted that a lack of predictability (i.e. uncertainty) cripples innovation and that some aspects of REACH are becoming a barrier to innovation in the EU, as companies need to be confident they can move forward with certainty for a reasonable time period.

In the context of corporate sustainability, consultees were generally unanimous that the Candidate List is a major driver of substitution to less hazardous chemicals. Depending on their position in the supply chain (consumer product companies have different needs to those producing products for industrial use or components for OEMs for example) and on their product portfolio, some companies do not allow the use of any SVHCs in their products and potentially even in their production processes. Other companies focus on the product(s) they manufacture and the contribution of the product(s) to achieving corporate sustainability goals (e.g. reduced use of energy or water or reduced emissions) or significantly improving human health (pharmaceuticals, for example). In these cases, if using an SVHC (and even an Annex XIV substance) is essential in production, or essential for the performance of the product, the use may under certain conditions be considered and approved within the company. Most companies reported a clear stage gate in the R&D part of their innovation programmes, where the presence of substances under regulatory scrutiny will either be a show stopper or, in some cases, will trigger a fuller risk assessment before being given a go-ahead.

While sustainability and innovation are closely linked from the perspective of the consultees (confirming the desk research findings detailed in Section 2), compliance and innovation are not seen to be directly linked. For some consultees, sustainability is a key driver of innovation. However, REACH and CLP are substance-based regulations, and as such they are not seen to be directly integrated in corporate sustainability strategies and practices. The Candidate List clearly has a direct impact on innovation and therefore integrated sustainability strategies, which indicates that REACH and CLP also have an impact, albeit an indirect one.

²² However, other regulation such as regulation on product standards, is seen to drive innovation.

iii. Examples of enhanced competitiveness or innovation as a result of REACH and CLP

The one particular aspect of REACH and CLP stands out strongly as having a significant impact on corporate sustainability strategies and also on innovation, is the Candidate List. Many consultees noted (see point ii above) that the Candidate List is one of the drivers of innovation. This is particularly so where customers demand SVHC-free products, irrespective of whether or not the use of the SVHC has been risk assessed and is recommended for a particular use by the supplier. Some companies have surveyed all the substances they use (throughout the company, globally where relevant) and substituted wherever possible, analysing the SVHC uses that are considered essential and setting up internal approval and risk management processes and requirements. Others are still in the process of evaluating all substances within their products (either due to starting later or having a larger product inventory to assess). This proactive approach, like the company's sustainability strategy itself, can be seen as a differentiator, enhancing a company's competitiveness and driving innovation to better products. In this way, companies perceive that their practices keep them 'ahead of the regulation' which is a competitive advantage especially if the company is operating in sectors where being SVHC-free is considered essential or is required to meet market demand.

iv. The impact of REACH and CLP on Corporate Sustainability Strategies.

For the consultees, it can be concluded that while the REACH and CLP Regulations are primarily considered to have a direct impact on corporate compliance programmes, with some aspects such as the Candidate List²³ having a more direct impact on innovation and R&D activities, these regulations are not seen to directly impact corporate sustainability strategies. The three main drivers of sustainability strategy are:

- a) the business itself (creating value and social, environmental and financial profit by delivering on sustainability objectives and producing sustainable products);
- b) the market – both industrial customers and (ultimately) consumers; and
- c) investors, both investment companies and investors in the investment companies.

When investment companies are scoring corporate sustainability performance, REACH and CLP compliance are not part of the assessment because it is assumed that the companies are compliant. Compliance is a baseline. ,.

However, it is also clear that REACH and CLP, and by extension the regulators and ECHA, have a crucial albeit indirect impact on the business (via compliance programmes). They have an impact on market demand at both downstream user and consumer level, for example by raising awareness of the hazards and risks of substances and of those which can no longer be used in the EU. Certain aspects of these Regulations (in particular the Candidate List) can have an impact on investors and investment companies by providing a standard or benchmark against which sustainability performance can be measured. Market demand and investor demand in turn have a direct impact on corporate strategy, including sustainability strategies. The impacts of REACH and CLP can therefore be considered to play a critical though indirect role in creating and stimulating incentives for companies to be sustainability leaders rather than laggards. Sustainability is seen by the consultees, at least in the medium to longer term, as essential both to corporate survival and to the profitability which is inevitably linked to the survival of the company as a going concern.

The relationship between these factors is illustrated in the following figure.

²³ And as indicated by the literature review (Section 2 of this report) Authorisation and Restriction as well.

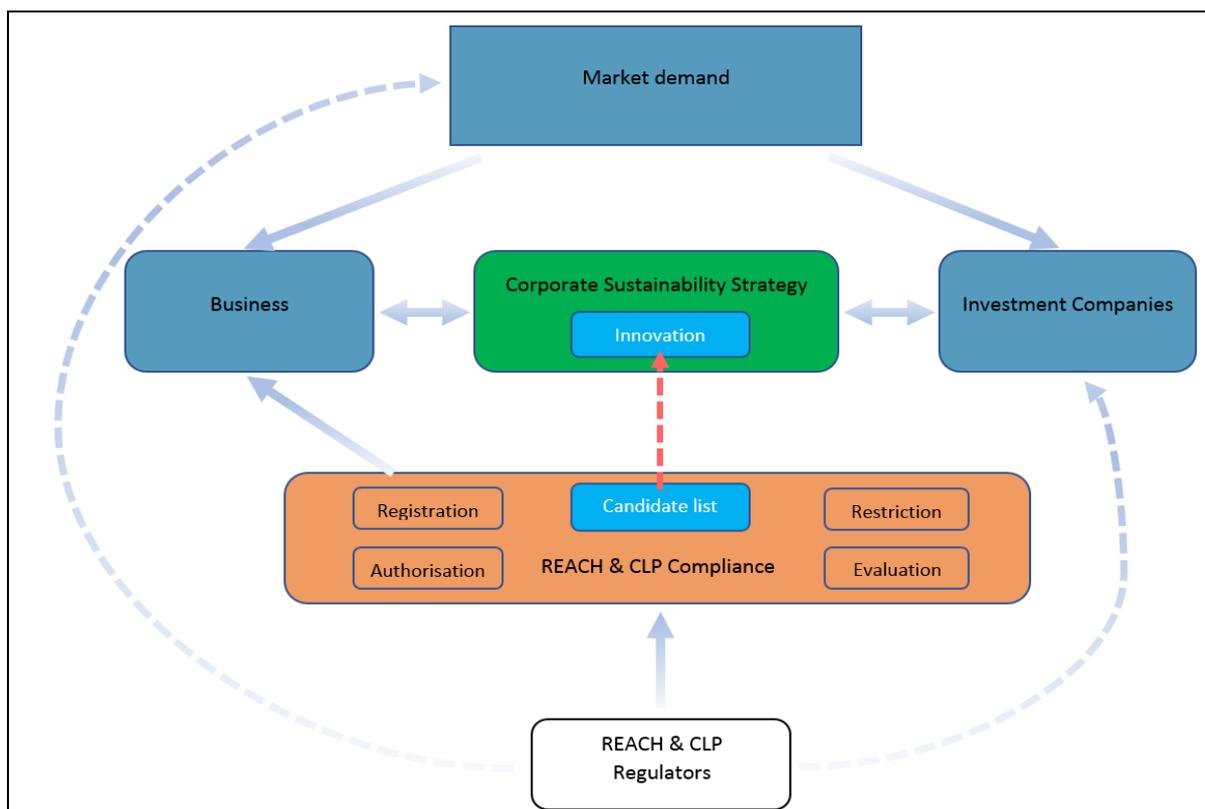


Figure 3-1: Links between regulatory compliance, innovation and sustainability

3.4.8 Non-financial reporting and sustainability indices

Introduction

This sub-section presents a brief overview of company reporting initiatives that include the EU’s Non-Financial Reporting Directive (the updated guidelines were published during the course of this study) as well as the Global Reporting Initiative and the Integrated Reporting initiative²⁴. In addition, it outlines the approach of the US Sustainability Accounting Standards Board (SASB) as well as the approach taken in compiling the Dow Jones Sustainability Indices. These are included so as to provide a context for the considerations a) of investment company perspectives on corporate sustainability and how they rank and/or select companies for inclusion in their sustainability investment portfolios, and b) of companies (particularly stock-listed companies) aiming to be leaders in sustainability, evidenced where relevant by inclusion in sustainability indices and/or sustainability investment portfolios.

In the investor/investment arena, it is common to talk about ESG, in other words, the company’s Environmental, Social and Governance performance. ESG is in this context used more or less synonymously with sustainability. There are as yet no formal global standards for reporting on sustainability or ESG. There are many recent developments in this arena. And it appears that there is increasing demand for standards (to facilitate comparison and better inform investors) and that various approaches are being taken to address this market demand. As was mentioned by one of the companies participating in this study, the (relatively recent) involvement in sustainability reporting

²⁴ This list is not intended to be exhaustive. The subjects covered here are those either of specific EU relevance or those mentioned by participants in the discussions with ECHA directors which formed part of this study.

initiatives of chartered accountants can be anticipated to promote standardisation, in much the same way as has happened for financial reporting.

EU Non-Financial Reporting Directive and Guidelines

The EU Non-Financial Reporting Directive²⁵ aims to increase the relevance, consistency and comparability of non-financial information disclosed by certain large companies and public interest entities (PIEs). The objective is to make it easier for investors, consumers, policy makers and other stakeholders to evaluate a company's non-financial performance²⁶. For relevant organisations, their first financial year commencing on or after 1 January 2017 is subject to the Directive, which means the first non-financial reporting under the Directive is due in 2018.

The Directive applies to listed companies:

- With more than 500 employees; or
- A balance sheet total of €20 million or more; or
- A net total of €40 million.

It also applies to unlisted entities defined by Member States as PIEs, such as credit institutions and insurance undertakings, are also considered. All relevant organisations are now required to report on:

- Environmental matters;
- Social and employee aspects;
- Respect for human rights;
- Anticorruption and bribery issues; and
- Diversity in their board of directors.

The non-financial report must detail related policy, outcomes and risks as well as the due diligence processes introduced so as to identify, prevent and manage potential future risks. According to the wording used in the Directive, environmental matters should contain:

- Current and foreseeable environmental impacts;
- Health and safety impacts, as appropriate;
- Use of renewable energy and/or non-renewable energy;
- Greenhouse Gas emissions;
- Water use; and
- Air pollution.

Notably, here as elsewhere in the Directive, there is no specific reference to chemicals. The Directive states in Article 7:

“(7) Where undertakings are required to prepare a non-financial statement, that statement should contain, as regards environmental matters, details of the current and foreseeable impacts of the undertaking's operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions, water use and air pollution. As regards social and employee-related matters, the information provided in the statement may concern the actions taken to ensure gender equality, implementation of fundamental conventions of the

²⁵ Directive 2014/95/EU, an amendment to accounting directive 2013/34/EU.

²⁶ See https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en.

International Labour Organisation, working conditions, social dialogue, respect for the right of workers to be informed and consulted, respect for trade union rights, health and safety at work and the dialogue with local communities, and/or the actions taken to ensure the protection and the development of those communities. With regard to human rights, anti-corruption and bribery, the non-financial statement could include information on the prevention of human rights abuses and/or on instruments in place to fight corruption and bribery.”

However, the recently published update of ‘Guidelines to the Non-Financial Reporting Directive’ do include specific references to chemicals, including to REACH and CLP. The guidelines specify that companies *may* disclose policies on avoiding the use of hazardous chemicals and how they meet the legal requirements (e.g. REACH and CLP), as well as providing information on KPIs on hazardous chemicals use.

Sustainability reporting initiatives

1. As mentioned in the introduction to this section on non-financial reporting, there are a number of sustainability reporting initiatives. Below is a brief outline of three that were mentioned by participants in this study. **Global Reporting Initiative (GRI)**²⁷: these were the first global standards for sustainability reporting. They feature a modular, interrelated structure, and represent the global best practice for reporting on a range of economic, environmental and social impacts. GRI 4 is the most recent iteration of these standards, and many listed companies use this format for reporting on sustainability, including the listed companies participating in discussions with the ECHA directors as part of this study.
2. **International Integrated Reporting Council (IIRC)**²⁸: this platform aims to integrate a company’s financial and sustainability reporting, improving not just the quality of information but the tangible benefits of the more productive reporting process, leading to an improved understanding of materiality factors that impact the creation of corporate value in the short, medium and long term.
3. **The Sustainability Accounting Standards Board (SASB)**²⁹: SASB is a US initiative, and an independent non-profit organisation. SASB aims to develop sustainability accounting standards that encourage (especially US listed) public corporations disclose material, decision-useful information to investors. SASB aims to fill the communication gap between the information needs of companies and investors in a way that is cost-effective for companies and decision-useful for investors, helping a growing understanding of the financial impact of sustainability factors.

Note that the IIRC and SASB have recently issued a joint statement³⁰ explaining that their frameworks are not in competition with each other, but are intended to meet the needs of different target groups, and that it is for companies to choose which is the best approach for reporting their sustainability strategies and performance. GRI aims at providing a broad range of sustainability issues to a wide range of stakeholders. SASB is more narrowly focused on providing detailed, sector-specific, information for investors on those sustainability issues that are likely to be material to the financial results of a company.

²⁷ See <https://www.globalreporting.org>.

²⁸ See <https://integratedreporting.org>.

²⁹ See <https://www.sasb.org/>.

³⁰ See <https://www.greenbiz.com/article/how-approach-corporate-sustainability-reporting-2017>.

The Dow Jones Sustainability Indices (DJSI):

The Dow Jones Sustainability Indices (DJSI)³¹ are a series of benchmarks and are updated annually, based on joint research by Dow Jones and RobecoSAM, an investment company. The research outputs take the form of a family of benchmark indices intended for investors, and assess the performance of listed companies in 60 industries, in terms of their economics, environmental and social performance. These are the first indices to treat ESG as a stand-alone performance factor. As part of the research for the annual updates of the indices, a Corporate Sustainability Assessment is carried out each year, based on a questionnaire which covers the most material environmental, social and governance topics relevant for that sector. Over 3000 companies are invited to participate each year. In 2017 the sustainability questionnaires were significantly revised; the survey is now more rigorous and requires explanation of exposures and how related risks are being managed. For the chemicals industry, there is a product stewardship section and for the first time, product stewardship issues are part of the survey across 19 industry sectors, which include questions on risk management and request information on environmental emissions and social issues such as safety and health. All have questions on hazardous substances. Questions include the percentage of products containing hazardous substances (either defined under REACH or under California Proposition 65), as well as commitment to eliminate or reduce use of SVHCs, and timelines. Because companies can experience reporting fatigue, the aim is to align the level of reporting required as much as possible with GRI and SASB.

Non-financial reporting, particularly sustainability reporting, is subject to much development and is a focus for various accounting boards and regulatory bodies in many regions. In the EU for example, the EU High-Level Expert Group on Sustainability Finance (in July 2017) has recommended concrete steps to create a financial system that supports sustainable investments, with special significance placed on integrated reporting and there are many other developments, with more news coming regularly^{32,33}. However, this section of this study report is limited to a focus on relevant EU initiatives and to those global reporting initiatives mentioned by consultees.

3.4.9 Sustainability and investment company perspectives

Background and approach to assessing sustainability

As part of this study, discussions were held with three investment companies. One is a Swiss-headquartered company which focuses exclusively on sustainability investment. As part of their services, they work with a large number of companies in an annual Corporate Sustainability Assessment programme, the data from which is used to determine the DJSI and also the S&P ESG Index series. The second investment company is London-based and focuses on sustainable and environmental investment, with a particular emphasis on the more traditional environmental issues such as energy, water treatment, pollution control, waste management and recycling. In addition, they invest in environmental solution providers, where products and services contribute to reducing environmental impact and/or to resource efficiency. There has to be demonstrable measurable evidence that the company is contributing to improving sustainability. This company undertakes its own assessments, based on a materiality approach to ESG factors. Detailed analyses of financial and non-financial information are designed to ensure the companies are robust and high-quality investments. In addition, this company has worked with the FTSE since 2007, on classifying what is 'environmental', with the definitions evolving over time. The third investment company, also London-based, is a smaller specialist focusing on nine themes (five environmental and four social), based on

³¹ See <http://www.sustainability-indices.com/index-family-overview/djsi-family-overview/>.

³² See <https://www.greenbiz.com/article/how-approach-corporate-sustainability-reporting-2017>.

³³ See <https://www.iasplus.com/en/resources/sustainability/gri>.

the principle that these represent long-term drivers of companies whose growth will come from sustainability. Their approach to selecting stocks for investment is based on in-house research and using ESG as a quality indicator. While chemicals are important, sustainable solutions are key, in particular the proportion of business coming from products consistent with the nine themes (preferably closer to 80-90% of products should meet this requirement). In-house research scores companies on a number of metrics such as market attractiveness, competitiveness and growth potential.

Materiality

For investment companies, materiality is key. While materiality is broadly considered in terms of business value, companies take different approaches to determining materiality. One consultee described materiality as *“those risks that are most likely to create material financial losses for companies”* with these being defined as the most prominent risks in a sector. Another described materiality in the sustainability context as *“how sustainability issues impact business value drivers”*.

In the chemicals industry the most important materiality issues relate to water, energy and air emissions, occupational health and safety, product stewardship and innovation, as well as how these are integrated in production activities and products (in other words: is the business designing processes and products for sustainability?). How these aspects influence business value drivers is also considered, for example, a company with a relatively large environmental footprint is vulnerable to waste, remediation and safety risks. Some heavy industries were early to manage environmental and social issues and others, such as consumer-facing businesses, faced early scrutiny and have had to learn to be proactive.

There is a strong focus on governance structures, assessing if the companies have the right board level committees in place to manage responsibilities, involvement, compensation and environmental risk. Leading considerations regarding environmental and social aspects include: does the company have material KPIs and improvement targets, and are they best practice leaders in terms of risk management? In some sectors, social and environmental issues can be more material, for others it is environmental issues.

Materiality approaches may identify recurring problems within sectors, based on historical evidence. In terms of the chemicals sector, it was pointed out that a key question is how important is a particular substance to a company in terms of volume, revenue and profit and could it be substituted if needed due to regulatory pressure? Intermediates are considered to be more difficult to assess, with one company asking for details on intermediates registrations and assessing potential regulatory risk associated with these registrations.

Note that the SASB undertakes broad consultations with stakeholders to define materiality at a sector level.

Other considerations

Corporate and global perspectives: one company noted that around 50% of their investments are in US companies and 35% are EU based, adding that while the EU generally leads in terms of sustainability, the US has many companies providing solutions to, for example, industrial energy efficiency issues. In some sustainability/investment aspects therefore it was noted that the US is catching up with the EU.

One company engages with specialty chemicals companies (including REACH registrants and those using SVHCs or placing them on the market). Regarding chemicals companies, it was explained that

there is a large difference in engagement levels. Some are just starting out with considering environmental issues or a first sustainability report, while others have a good understanding of the way sustainability drives business, and others are competitive in establishing their sustainability leadership. This is consistent with the analysis of discussions held with companies as part of this study, as detailed in Section 3.4.3.

It was also noted that in terms of governance, US companies seem to be ahead of EU companies, with many companies trying to give shareholders a small improvement in governance structures each year. On the other hand, the EU companies seem to be far ahead in terms of environmental and social policies, although companies vary in transparency and some sustainability reports do not seem to give many details regarding substance portfolios and future regulatory risk. What is key is corporate proactivity, how companies seize the opportunities and integrate sustainability for future growth and profitability.

GRI and Integrated Reporting: in the discussions with investment companies, the subject of corporate sustainability reporting was covered. Most listed companies are seen to apply GRI principles in sustainability reporting. Integrated Reporting (combining financial and sustainability reporting) has become more common though there has been a slowdown in the growth of companies using this approach recently, possibly due to companies waiting for the EU's non-financial reporting directive (see Section 3.4.8 above).

Long term perspective: sustainability investment companies have a long(er)-term perspective, and carefully select companies that will perform well over the medium to long term, that have the potential to improve over time, and that will at the same time make significant contributions to sustainability goals. This long(er)-term perspective is consistent for sustainability investment companies who are looking for investment returns from those companies that have the potential to take advantage of market opportunities and to grow as a result of the business value that can be generated by the implementation of corporate sustainability strategies and/or development of sustainable products and markets.

Growth in demand: it was noted that the market demand for environmental investments is a fairly high growth area. While relatively niche compared to the scale of other investment areas, market interest in sustainability investments is growing. One company which has both a sustainability division as well as a traditional investment business noted that the traditional investment business increasingly includes and integrates sustainability in their investment portfolios. It was also noted that asset managers such as pension funds are paying increasing attention to ESG issues.

Regulatory drivers for sustainability

REACH & CLP: impacts on sustainability in an investment context

The consulted investment companies focus on assessing core sustainability issues rather than chemicals directly. Nevertheless, regarding REACH and CLP and chemicals reporting it was noted that while EU companies are generally good at sustainability reporting, there tends to be little and variable detail on chemical substance portfolios and future regulatory risk related to their chemicals portfolio. Companies with a strategy for proactive substitution are regarded positively, and one company commented that EU and US consumers are willing to pay a premium for more sustainable products.

R&D costs are also considered, with it being necessary for R&D to pay off in terms of margins and profitability. Many investors are looking at the evolution of R&D to sales ratios as part of their analysis. Due to regulatory pressure, long term use of hazardous chemicals is not considered viable. All companies noted that they pay attention to the Candidate List and to ChemSec's SIN list. For

investment companies, it is difficult to assess exposure to chemical risk and one explained that feedback from companies on SVHCs and how risks are being managed indicates that there is a general belief that risks management should also be considered, not only hazards.

While regulatory pressure is clearly considered a driver of innovation and substitution (e.g. the introduction of market-specific standards), in terms of chemicals legislation, REACH and CLP are not seen as direct drivers of change though the Candidate List is. Regulation is considered to play a vital role in kick-starting innovation and driving sustainable business, and one company noted that in the sectors where they focus, they do not yet find market demand to be sufficient of a driver for change, so regulatory pressure is also required.

One company noted that product stewardship is not considered to be linked to innovation. Innovation from an investment perspective is seen either in terms of more sustainable production processes or in terms of the environmental solutions in a company's product portfolio.

Suggestions for ECHA to encourage companies 'to do more and to do better' in terms of REACH & CLP included a) hosting a round table discussion with companies to discuss product stewardship and sustainability, with a follow-up on REACH as a strategic driver (they have discussed this possible option with ChemSec); and b) a programme to demonstrate that being proactive in substituting hazardous substances with 'greener' substances should be viewed as an opportunity.

Conclusions on the investment company perspective

There is growing demand from public and private investors for sustainable investments and a variety of investment companies are active in meeting this demand. The investment companies consulted for this study were consistent in much of their approach to chemicals-related sustainability issues. While REACH and CLP do not directly influence sustainability scorings and rankings, the Candidate List is taken into account and can be considered a driver of change.

3.4.10 SMEs

Several SMEs participated in this study, in the discussions with ECHA directors. Common themes have been identified from these discussions and are reported below:

- **Sustainability approaches:** generally, SMEs that are family owned or that have owner-directors report that they are able to take a longer-term view of sustainability in relation to their business strategy and in several instances, although formal processes were not in place, there was a clear interest and uptake in sustainability practices. One SME described sustainability as "*integral*" to the business and another considered sustainability as a "*competitive tool*" which brought value and allowed the company to grow. Drivers for sustainability are more market based (a general desire to stay in the forefront on 'green' chemicals as a strategy for survival), however in some instances it was apparent that the shifting market demand for more sustainable products (and associated sustainable production processes) was itself a result of regulatory pressures;
- **Impacts of REACH and CLP:** REACH registration is a common issue that SMEs encounter difficulties with, for a number of reasons. One company stated that REACH registration is a very big hurdle for them and that it presents challenges in relation to the innovation process. Another stated that as part of their strategy, they try to ensure that they are not in the higher tier for registration purposes. This consultee also highlighted that while compliance complexities can be an issue, REACH can also provide business opportunities. Throughout the SMEs consulted, it was apparent that REACH and CLP are considered during the development

of new products (as a stage gate). Exposure Scenario development is also a complex and costly issue for them; and

- **Recommendations and further comments:** the SMEs interviewed generally recommend that the costs of registration should be reduced and that information should be more accessible. One SME commented that more interactive possibilities with ECHA for discussing compliance issues would be beneficial and that well written legislation helps develop better sustainability practices. Similarly, another commented that the implementation of regulation on a more incremental basis would be helpful (and lessen the diversion of resources from R&D to compliance departments, which is considered to hinder innovation). Another SME suggested that ensuring effective enforcement of regulation through all Member States will also level the playing field.

3.4.11 ECHA, companies and REACH and CLP

During discussions held between ECHA directors and company executives regarding corporate sustainability strategies and interfaces with REACH and CLP, companies were asked for ideas as to what ECHA could do to encourage companies to 'do more and to do better' in terms of REACH and CLP. They responded with a range of ideas. These are outlined below:

- Regarding registration dossier quality and updates, companies indicated that the opportunity to have real and frequent dialogue with ECHA ahead of updates would act as a driver of updates and that increased dialogue opportunities with ECHA would be welcome;
- A number of (multinational) companies raised the issue of harmonisation of regulatory approaches at a global level, an issue where they perceive ECHA could play a major role. On the one hand, the study discussions show that many companies see benefit in being able to leverage the expertise and knowledge built up for REACH and CLP purposes in other parts of the world with other regulations. However, they also note the significant inefficiencies of, for example, the need to generate and/or create different scientific data for different jurisdictions which is essential for compliance but does not add to safe use;
- Regulatory certainty and predictability of processes were mentioned as very important by both large companies and SMEs. Particular issues raised include the significant disruption to innovation and product development in the EU when one REACH process is running and another process is allowed to intervene, diverting resources and funding. The suggestion is that guidelines stipulating that one process should run its course before another begins would be of benefit to all. Creating more regulatory certainty is a recommendation made by a number of consultees, including SMEs. It was noted that there is too much change and too fast and that companies do not have time to adapt and that a more incremental approach would help, avoiding companies being overwhelmed; and
- Other recommendations noted by study participants include that ECHA should promote a) sustainability, b) the inclusion of a chemicals management strategy into a company's sustainability strategy and c) the benefits of companies getting involved in industry associations and sector groups.

3.5 Case Studies

Five case studies were developed based on discussions held as part of this study, and these are presented in confidential Annex 3. In agreement with ECHA, five of the companies participating in the study were randomly selected and case studies were developed based on the study discussions in each case. These short case studies take the form of a two-page article which may be used at a later stage by ECHA, after consultation with the companies concerned, for communication purposes. Each

of these articles 'tells a story' and highlights an aspect of the company's approach to sustainability that differentiates their approach from that of other companies.

4 Recommendations and Conclusions

4.1 Recommendations

Recommendations for consideration by ECHA arising directly from this study and taking the ECHA's objectives into account are discussed thematically below. In line with the study specifications, the recommendations are intended to be used by ECHA's management as a basis for strategic reflection on how regulatory compliance can create specific leverage for business goals within the sustainability framework and how ECHA can further support these efforts.

This study finds that companies with strong sustainability strategies, companies that are leaders in their sectors and included in sustainable investment rankings and/or portfolios, have a business strategy that is fully integrated with the sustainability strategy and vice versa. Sustainability is linked to long(er) term growth, also in terms of revenues.

The study further finds that the REACH and CLP regulations, and by extension the regulators and ECHA, has a vital but indirect impact on business – and sustainability – strategies, but that the regulators and ECHA can directly impact both market demand from downstream users and consumers as well as investment market demand; these market demands in turn directly impact integrated corporate sustainability-business strategies. Consideration therefore needs to be given to ways to stimulate these market demands, in alignment with ECHA's strategies.

Another finding of the study relates to REACH registration dossier quality and compliance. In a sustainability context, full and quality compliance is considered a given, something that every company needs to have to be able to operate. Good quality chemicals management can be seen as a basis for developing a sustainability strategy, but is not generally considered an integral part of that strategy. REACH registration dossier quality is not an issue that is specifically included in chemicals management programmes, and therefore also not found in integrated sustainability-business strategies. From the ECHA perspective, given the objective of increasing industry's focus on good chemicals management (including good registration dossier quality), consideration could be given to consideration of ways in which good chemicals management can become a more integral part of corporate sustainability strategies.

The study also finds that there are already a number of non-financial reporting initiatives as well as investment company surveys for sustainability ranking purposes. For example, the EU Non-Financial Reporting Directive came into effect in January 2017 and the recently published guidelines recommend that companies include information on REACH and CLP in their non-financial reports. There is an opportunity for ECHA to consider the development of some form of (voluntary) reporting that demonstrates corporate and/or sector commitment to, for example, good chemicals management programmes which covers the details of strategic importance to ECHA, also in terms of their WSSD 2020 goals.

These recommendations are considered in more detail below, with suggestions as to approaches that ECHA could consider in order to achieve different objectives.

As discussed in the study and related the development of a reporting "standard" or template, ECHA could consider developing such a template, together with industry. Non-financial reporting is now compulsory for qualifying EU companies, and the relevant guidelines include the need to report on chemicals-related issues. As yet there is no template or format for such EU reporting. Another notable initiative is that of the German industry association's Chemie3 programme. In addition, investment

companies use questionnaires as part of their research to rank the sustainability performance of companies for developing sustainability portfolios and major sustainability indices such as the DJSI. Building on all these reporting requirements, surveys and initiatives, ECHA could work with industry to develop a template with a set of questions regarding particular metrics of REACH and CLP (for example, SVHCs used/ substituted/being phased out). As is highlighted in the study, successful integrated sustainability strategies have management reporting tools to report on progress towards meeting objectives. A template is a reporting tool and could be developed together with industry, and made available for use by companies such as SMEs that do not have the budget, resources or expertise to do this themselves. The information would be of relevance for other stakeholders such as customers, the public and investors, and industry could be encouraged to publish these REACH data either on their websites or even on a platform hosted by ECHA. There is no need to re-invent the wheel, and it would be important to aim to use data that is already reported on, so as to avoid duplication of effort by industry. The issue of survey or questionnaire fatigue is well known and was raised in this study in the context of obtaining information from companies for these purposes.

Following on from the above, a programme of determining and setting benchmarks could be initiated at sector group level and/or at national association level. This could be based on KPIs that are relevant both to industry, to stakeholders and to ECHA, for example taking KPIs that are included in the German Chemie3 initiative as a starting point. This would encourage industry to track their progress and to benchmark their activities against those of their peers. Information could be published on the websites of companies, sector groups, industry associations and ECHA. These benchmarks could cover a range of issues, including supplier audits and the extent to which REACH-relevant issues are included in supplier audits. The issue of REACH registration dossier quality is rather complex. While addressing this issue is not a specific goal of this study, improving the quality of registration dossiers is an objective of ECHA, one which can be seen to be relevant to a number of their WSSD 2020 goals. The study shows that for companies with an integrated sustainability strategy, the quality of registration dossiers is not specifically part of the strategy and good quality registration dossiers are not considered an asset in a business sense. ECHA could therefore consider further investigating what qualifies a dossier as good quality and what the benefits, including economic benefits, of such a registration dossier are. A study to evaluate this, amongst registrants, and to obtain input on examples of what has worked (i.e. success stories) would be a valuable starting point. Additionally or alternatively, ECHA could consider hosting an information-generating workshop on this topic. Another approach for promoting quality dossiers could be to work with downstream sectors that specify substances that can be used in their sector, and to investigate the links between a quality dossier and inclusion of a substance on a sector's list. .

With the objective of encouraging companies to invest in dossier quality, and/or of promoting the inclusion of good chemicals management in corporate sustainability strategies, it will be necessary for ECHA to consider how best to build a platform of support amongst industry stakeholders. Outlined above are initiatives that can impact market and investor demand. However, corporate support is also essential. This study suggests that corporate executive boards focus on business-strategic issues and that successful integrated corporate sustainability strategies are owned by the top executive team of the company. Putting these various findings and objectives together, ECHA could consider promoting key objectives amongst company executives to obtain top-level corporate buy-in, for example by developing a programme of engagement with CEOs, Vice-Presidents and other relevant executives at gatherings such as the chemicals industry meeting at The World Economic Forum (Davos) or the WBCSD platform of CEOs.

Another finding of the study is that successful corporate sustainability strategies put the active involvement and engagement of the company's employees central to the implementation of the strategy, with approaches to stimulating ongoing employee commitment including training, promoting sustainability through a series of internal communication programme and appointing

sustainability ambassadors. Similarly, ongoing communication to build support for these new initiatives is likely to be essential for the success of any initiative introduced by ECHA. Building on industry's successful examples, ECHA could, for example, appoint a team of sustainability supporters or ambassadors to actively focus on these issues at conferences, workshops, and other relevant events, to gather and disseminate information on corporate activity and successes and to keep the topic high on the agenda of stakeholders; this team could visit Member States and meet with industry, associations and competent authorities to discuss their issues and obtain input and provide feedback. In addition, chemicals management and sustainability issues could be put on the agenda of the Directors' Contact Group. Another approach could be to set up a platform or forum where ECHA, industry and sector group stakeholders can participate, sharing best practices and taking key messages and information on new developments back to their companies and sector groups.

As highlighted in Section 1.5, the outcome of this study may be beneficial to ECHA's current 'success factors'; the four success factors recently identified by ECHA when considering how the overall goal of the WSSD 2020 can be met (i.e. that by 2020, chemicals are used and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment). Information with regard to how the recommendations link to each of these factors has been provided below:

1. **Robust data are available on all chemicals in Europe:** one constituent of this success factor potentially relevant to this study is the need for companies to see the data on their chemicals as their business card and the need for companies to commit to keeping their registration dossiers up-to-date with new relevant information. In this respect, the recommendations above in relation to dossier quality and potentially developing reporting templates and benchmarks which could be published could contribute to this goal.
2. **Effective regulatory risk management of the most dangerous chemicals takes place:** this success factor could link to the study recommendation that ECHA could consider ways to encourage companies to link good quality chemicals management with sustainability goals, for example by setting up a sector group /national association level programme to encourage members to benchmark their activities against those of their peers and to publish the information on their websites. This could provide an incentive or encourage companies in their efforts to substitute away from hazardous chemicals.
3. **Effective communication takes place about the safe use of chemicals up and down the supply chain:** a constituent of this success factor was that companies that use chemicals inform their suppliers about what they do, and in return, manufacturers and importers provide information on how to use them safely. Clearly, the above recommendation relating to ECHA's facilitation of a more widespread use of supplier audits that specifically cover the REACH/CLP supply chain obligations could help by contributing to this objective.
4. **A step-change for citizens, businesses and the regulators takes place:** constituents of this success factor include the need for information on chemicals to be reliable, understandable, freely available, and easy to use. It is further highlighted that this will allow citizens, stakeholders, businesses and regulators to make informed choices on using and substituting hazardous substances, and to increase their confidence in the safety of chemicals – not just in Europe, but around the world. In addition, companies should experience firm, fair and harmonised enforcement, focusing on ensuring the safe use of hazardous chemicals and fostering a level playing field. The input of the study participants regarding harmonisation of regulatory approaches at a global level (where ECHA could play a major role) could help to facilitate achieving these goals. Additionally, ECHA has the opportunity to influence market and investor demand and thus indirectly to influence integrated corporate sustainability strategies. ECHA could also build platforms of consensus regarding these goals and ways of reporting and benchmarking, as well as to develop an ongoing communication programme which will heighten stakeholder awareness, increase buy-in and commitment and make a significant contribution to achieving the step-change objective.

4.2 Conclusions

Overall, the aim of this study is to gather insights on the impact of REACH & CLP implementation on industry's strategies in the context of sustainability. This was achieved by means of desk research as well as by holding detailed discussions with the corporate executives at a range of companies. Ultimately, discussions were held between ECHA directors and nineteen company executives, on the subject of corporate sustainability strategies and REACH and CLP.

Desk research finds that sustainability has progressed in importance up the corporate agenda in recent years and that the development of more sustainable chemical products and supply chains is seen to be driven by legislative requirements, stakeholder expectations and companies' own business and Responsible Care strategies. The knock-on effect of sustainability as a driver of innovation is also apparent in many examples.

The study discussions allowed more in-depth perspectives to be built and showed that while chemicals management and specific industry initiatives (such as Responsible Care and Global Product Stewardship) contribute to achieving companies' compliance and HSE objectives, these are not directly integrated into sustainability strategies. All consultees reported that compliance is the baseline (a "licence to operate" as a business), and a compliance approach to considering environmental issues can be seen as a pre-sustainability strategy position. For companies focused only on being and staying compliant with all regulation relevant to them, sustainability is not a focus. Study participants tend to see chemicals management in the context of compliance and not linked directly to strategy. In terms of REACH registration dossiers, good quality dossiers are not considered an asset in an economic sense, nor does dossier quality play a specific role in compliance programmes. While compliance is the baseline enabling a company to stay in business, participants did not note specific goals (e.g. KPIs) or strategies to deal with dossier quality. Based on the input received from companies participating in the study, their approaches to sustainability fall broadly into three categories:

- **Product Stewardship approach:** where corporate initiatives are driven largely by product stewardship and Responsible Care commitments;
- **Targeted approach:** where sustainability initiatives are driven by specific objectives, deadlines, or stakeholder concerns. Sustainability strategies may be part of the business strategy; and
- **Integrated approach:** where the company's sustainability strategy is an integral part of the business strategy. It affects all parts of business operations, and is seen as a key business driver that cannot be separated from overall business strategy.

The study identifies the main drivers for corporate sustainability strategies and groups these into three groups. The first is internal, the business itself, part of a strategy to improve growth, to differentiate from the competition and to be seen as a leader in their sector, as well as the desire to ensure business continuity and success in the medium to long term. The other two major drivers, the market and investor demand, are external factors. The study finds that there is clear market demand for more sustainable products and production processes, perhaps most apparent in consumer-facing businesses. Investors increasingly seek to invest in sustainable companies, those that are leaders in terms of implemented sustainability strategies and with performance that scores high on the ratings of the investment companies and sustainability indices, making these a significant driver for corporate strategy.

Given these considerable drivers for companies to adopt sustainability strategies, the study briefly considers whether a successful sustainability strategy could lead to increased (financial) profitability.

In summary, it was generally considered by the companies participating in the study that sustainability does not result directly in increased profitability, but sustainability is a driver of top line growth and, ultimately, profitability. Designing new products to meet corporate sustainability objectives leads to tangible (positive) results and while operating sustainably may be more costly in the short term, it leads to long term revenue growth and sustainability can be linked to growth rather than directly to profitability. Regarding various REACH processes, the study shows that the Candidate List is a major driver of innovation and substitution to less hazardous chemicals. Depending on the company's supply chain position, and on how close the particular business is to the consumer, companies can have various approaches to SVHCs within their corporate sustainability strategies. There may be an absolute ban on the use of SVHCs, not just in the products they obtain from suppliers but for some also in the production processes associated with those products. Other companies may in certain circumstances allow SVHC use (in production, for example) provided the product concerned makes a significant contribution to the company's wider corporate sustainability goals (e.g. reduced energy/water usage or significantly improved human health via other means, such as in the production of particular pharmaceuticals). Innovation inevitably must take regulatory considerations such as REACH into account and it was noted that R&D programmes now have an earlier stage-gate consideration of hazardous substances than in the pre-REACH era.

It was reported by the participants in this study that REACH registration, is seen in some cases as being an impediment to innovation. In the study discussions (with a limited number of companies) participants noted that it takes too long to register a new substance, delaying time to market and that registration costs can lead to de-selection of a potential innovation (particularly for SMEs but also for large companies). The lack of funding/resources available for R&D due to registration and compliance requirements was confirmed by some consultees. Besides the impact of REACH registration requirements on innovation, it was also noted that uncertainty can cripple innovation and that some aspects of REACH (such as Authorisation) may be perceived as a barrier to innovation in the EU, as companies need to be confident they can move forward with certainty for a reasonable time period if they are to invest in innovation.

This study makes a number of recommendations for consideration by ECHA, several of which may also be considered as potential facilitators to the attainment of ECHA's WSSD 2020 goals. These include further investigating ways to encourage companies to include good chemicals management in integrated corporate sustainability strategies, for example by developing reporting tools and benchmarks together with industry.

Finally, based on the findings of this study, it can be concluded that the REACH and CLP Regulations, and by extension the regulators and ECHA, have a crucial though indirect impact on sustainability and business strategies. The Candidate List in particular impacts market demand as well as investment company demand, being used as a measure for investors and investment companies to benchmark sustainability performance against peers. Market demand and investor demand in turn have a direct impact on integrated corporate business strategies, including sustainability strategies. The impacts of REACH and CLP, albeit indirect, can therefore be considered to play a critical role in creating incentives and stimulating companies to strive to be sustainability leaders rather than laggards.

5 Annex 1: References

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6 Annex 2: Master Questionnaires

6.1 Master questionnaire for companies

6.1.1 Background

The European Chemicals Agency, ECHA, has commissioned a study to gather insights on the impact of REACH and CLP implementation on industry's strategies in the context of sustainability. As part of this study, we are arranging discussions with ECHA directors and senior company executives to discuss:

- Your company's approach to chemicals sustainability and innovation;
- The specific aspects of REACH and CLP that have proved to be most (or least) supportive to sustainability and innovation; and
- The future vision of your organisation in terms of sustainability and innovation goals for chemicals, especially those associated with REACH and CLP.

This questionnaire has been developed in order to guide ECHA's project discussion with you, which will be undertaken in accordance with Work Package 2 of the study.

The questionnaire has been split into the following sections:

- Introduction;
- Drivers for innovation;
- Overall effect of REACH & CLP on innovation;
- Specific aspects of REACH & CLP;
- Looking to the future; and
- Conclusion.

6.1.2 Introduction - tour de table

6.1.3 Overview Questions

1. How does your company define sustainability and how does the management of chemicals fit into your sustainability strategy?
2. What is the approach your company adopts when it comes to assessing your sustainability priorities?
3. How does your company's approach differ from other companies in your sector?
4. Are you part of any industry wide sustainability initiatives? If yes, how do the initiatives fit within your own company's goals regarding sustainability?

6.1.4 Drivers for sustainability strategies and innovation

1. How do you consider sustainability throughout your supply chain? For example, do you stipulate that your suppliers must abide by certain standards? How far up/down the supply chain do you obtain relevant information from?
2. Do you consider the alignment of business sustainability and regulatory compliance strategies?
3. What are the key drivers for sustainability and innovation in your sector?
4. Is regulatory compliance regarded as an innovation factor and do you have examples where compliance has driven or is driving sustainability decisions and innovation? E.g. has regulatory compliance helped you to:
 - Get and keep a licence to operate and maintain up to date information on your substances?
 - Strip out cost by reducing the number of accidents?
 - Improve productivity and cost effectiveness?
 - Improve product and process design?
 - Gain and keep customers and clients / choose the right suppliers and partners?
 - Develop and enhance a reputation for sustainability that will attract more business and improve relations with authorities and the community?
5. Alternatively, is compliance primarily driven by the need to manage risk? If so, what is the business risk to your company?
6. Do you report on non-financial matters? How are chemicals and your chemicals policy and strategy reported on in your Corporate Social Responsibility Report? Do you report on your chemicals sustainability strategy? Would you support the voluntary use of a template for chemicals companies to report on their sustainability strategy?
7. Is it possible to make compliance a bottom-line added value for a company, could / is compliance included under the financial assets of your company?

6.1.5 Overall effect of REACH & CLP on sustainability and innovation strategies

1. Compared to the pre-REACH situation, what has been the effect of REACH & CLP on sustainability and innovation strategies at your company? For example, has REACH led to sustainability initiatives or innovative activities that would have otherwise not have taken place or impacted on the production/launching or marketing of products, or has it acted as a barrier to innovation (e.g. too short a timeframe for changes to be adopted)?
2. Have REACH & CLP had an impact on innovation related business risks?
3. Overall, and broadly speaking, how important do you consider that REACH & CLP have been when compared to other factors driving your sustainability and innovation strategies?
4. Have REACH & CLP affected your R&D expenditure or expenditure on other sustainability and innovative activities? Have REACH & CLP affected the rate of return on such activities?

6.1.6 Specific aspects of REACH & CLP

1. How have specific regulatory elements of REACH & CLP impacted innovative capacities and driven strategic change in terms of sustainability? For example, has your company adopted a proactive or reactive approach to substituting SVHCs? If yes, have these activities resulted in a positive impact on the company's image and subsequently helped you to market products?
2. Can you mention any specific factors of REACH and CLP that have had the most / least supportive effects in terms of driving sustainability and innovation at your company?
3. Have REACH & CLP affected your company structures (e.g. have any R&D staff been transferred to regulatory compliance activities?) as well as internal procedures (e.g. R&D activities and the production and launch of new products and/or processes) and supply chain relationships?
4. Is holding a good quality/compliant REACH registration considered to be an asset? Does it have financial/other value in the (financial) reporting? In an M&A situation? In your purchasing strategy?
5. Do you have a corporate policy on frequency of update of registration dossiers? If yes, can you explain why this policy was developed? If not, could you explain how you see the importance of up-to-date registration dossiers?
6. Have REACH & CLP lead to new products / processes, which have themselves led to tangible (e.g. improved capital utilisation, increased profitability, cheaper access to capital) and intangible results (e.g. customer satisfaction, intellectual capital, licence to operate, reputation or brand image, reduced risks), and increased company value?

6.1.7 Looking to the future

1. What are your longer-term business sustainability and innovation goals? (e.g. how will your sustainability priorities affect how you gain and keep customers and clients; choose the right suppliers and partners; develop and enhance a reputation that will attract more business and improve relations with authorities and the community?)
2. How do these goals compare with other companies in your sector, and the overall supply chain?
3. In terms of REACH & CLP, what can be done to make other companies do more and do better?

6.1.8 Conclusion (inc. administrative aspects)

1. Please confirm what (if any) information we have discussed should be considered confidential?
2. Would you be willing to participate in a case study (and if so is there a possibility to follow-up on this discussion)?

6.2 Master questionnaire for investors

6.2.1 Background

The European Chemicals Agency, ECHA, has commissioned a study to gather insights on the impact of REACH and CLP implementation on industry's strategies in the context of sustainability. As part of this study, we are arranging discussions with ECHA directors and senior company executives, as well as with senior executives of leading investment companies. Broadly speaking, these discussions are to provide more detailed information on:

- Company approaches to chemicals sustainability and innovation;
- Specific aspects of REACH and CLP that have proved to be most (or least) supportive to sustainability and innovation; and
- For investment companies, the future vision of your company in terms of sustainability and innovation goals for chemicals, especially those associated with REACH and CLP.

This questionnaire has been developed in order to guide ECHA's project discussion with your organisation, which will be undertaken in accordance with the requirements of the study.

6.2.2 Questions for Investors

1. Please provide an overview of the investment related activities your company undertakes / the assets you manage.
2. When rating / assessing the investment potential of companies operating in the chemical industry (or e.g. retailers with relevant operations), in the context of sustainability, what questions will you ask?
3. Does your company have clearly defined sustainability assessment criteria relating to mechanisms of REACH and CLP?
4. When rating a chemical company's sustainability performance, do you look at the company's business risk of non-compliance, at compliance factors and/or in any way put a value on a corporate's compliance/non-compliance?
5. What are your longer-term investment portfolio objectives surrounding chemical business sustainability and innovation? How do you consider the potential future impact of specific REACH and CLP measures (e.g. do you link additions to Annex XIV of REACH and company phase-out activities)?
6. In terms of REACH & CLP, what can be done to make chemical companies do more and do better? What can be done to encourage more investment in this area?
7. When considering chemicals of concern as part of a corporate's sustainability strategy and performance, do you look only at companies that are formally part of the chemicals sector or do you also consider these issues for companies in other manufacturing sectors (e.g. pharmaceuticals, automotive or aerospace)?
8. Please confirm what (if any) information we have discussed should be considered confidential?
9. Would you be willing to participate in a case study (and if so is there a possibility to follow-up on this discussion)?



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