

Interim Evaluation: Functioning of the European chemical market after the introduction of REACH - Impact on the innovativeness of the Chemical Industry

**Workshop on REACH:
Presentation of first findings and
recommendations**

6 December 2011



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Structure of presentation

- ❖ **Aim of today**
- ❖ **Objectives of the study**
- ❖ **Methodology and research tools**
- ❖ **Presentation of main findings**
- ❖ **Conclusions**
- ❖ **Recommendations**

Aim of today

- ❖ Present initial findings and recommendations

- ❖ Obtain feedback

Objectives of the study

- ❖ Evaluate impact of REACH on the innovativeness of the EU chemicals industry - part of the REACH review

- ❖ Considers the role of REACH in terms of:
 - Creating new knowledge
 - Guiding the direction of the research process
 - Supplying resources – human as well as financial
 - Facilitating the creation of positive external economies (e.g. in terms of information exchange, knowledge and visions); and,
 - Facilitating the formation of markets

- ❖ Provide recommendations

Methodology

- ❖ General evaluation framework
 - Relevance, Effectiveness, Efficiency, Utility
 - Additional issues examined : Consistency, Costs and Benefits

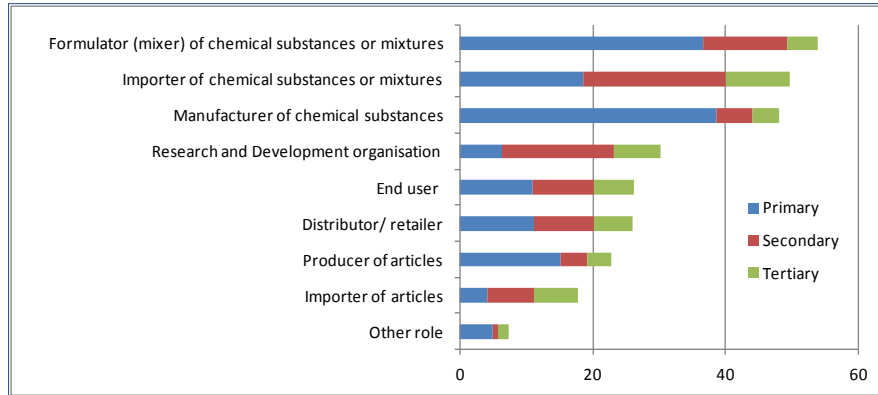
- ❖ Innovativeness framework - European Innovation Scoreboard
 - Enablers (HR, research systems, and finance)
 - Activities (investment and intellectual assets)
 - Outputs (innovators and economic effects)

Research tools

- ❖ Interviews
 - Industry associations, MSs authorities/helpdesks, trade unions and NGOs, individual firms, Clusters, innovation-related organisations, experts , ECHA and the Commission
 - >80 in total
- ❖ Desk research
 - Analysis of documents and sources (professional/academic journals)
- ❖ Business survey
 - Cover all roles in the supply chain
 - 577 responses received
- ❖ Case studies
 - Focus on specific issues identified as important (PPORD, IP, etc.)

Business survey – Profile (I)

Main role stated % (Total=577)



Business survey – Profile (II)

Country of origin

Country	Answers	Share
Germany	119	21%
Italy	91	16%
UK	47	8%
Netherlands	42	7%
Spain	39	7%
France	33	6%
Belgium	26	5%
USA	20	4%
Other (EU)	103	18%
Other (non-EU)	13	2%
No response	37	6%
Total	570	

Ownership type

- The majority (46.6%) of respondents were units of a multi-site, multi-country enterprise group
- Single-site independent firms make up the second largest category (40.8%)
- 12.9% are SMEs

Relevance

- ❖ The objectives set out in the White Paper with regard innovation are still relevant and tools required for achieving those objectives are still required – and those in existence can be improved for greater effectiveness

- ❖ The REACH Regulation also supports the “Think Small First” approach



Effectiveness

- ❖ Evaluated in terms of three stages in the innovation process
 - Conception and initial evaluation of innovative ideas
 - Implementation – further research, development, piloting
 - Marketing – production and launch



Effectiveness – Conception Stage

- ❖ Much data has been created through the different REACH mechanisms (Registration, SDS, CSR...)
- ❖ Data is owned by SIEF or consortia secretariats and the member companies
- ❖ Data generation does not necessarily lead to conception of new ideas and innovative activity – but some has been reported
- ❖ There has been an increase in access to and scrutiny of information
- ❖ 60% of respondents indicated that REACH had diverted resources from ‘truly innovative’ research activities to compliance or regulatory ones – but R&D expenditure often rose
- ❖ First registration deadline dealt with generally well-known substances – not much gap-filling. The next deadlines might lead to more new knowledge.

Effectiveness – Implementation Stage (I)

- ❖ Additional cost of testing existing substances was seen as a disincentive to innovation – the situation has changed now
- ❖ Too early to assess the balance of research interest between new uses for existing substances & new substance development
- ❖ Research indicates that there are still many factors against research on new substances
- ❖ Relatively few applicants for PPORD – but seems useful for innovation
- ❖ Other Measures to support innovation:
 - Volume exemption often too low for the testing and piloting required
 - Exemption on isolated intermediaries does not contribute greatly
 - Exemption for polymers does not contribute greatly to increased innovation

Effectiveness – Implementation Stage (II)

- ❖ 50% of respondents stated that there has been a reduction in the need or cost of testing at their firms
- ❖ There does not appear to be a reduction in animal testing
- ❖ Nearly half of firms using external laboratories indicate that they had experienced delays in access to laboratories due to capacity constraints at such laboratories due to REACH-related testing
- ❖ Over a third of respondents stated that REACH had reduced the expected rate of return on innovation
- ❖ Nearly half of respondents indicated that risks and uncertainty related to innovation had increased as a result of REACH
 - **The main areas of uncertainty as regards innovation relate to testing and other registration costs, time delays in registration, lack of clarity in the Regulation and supply chain robustness**

Effectiveness – Marketing Stage

- ❖ REACH has important effects in terms of direct costs (staffing, compliance, testing...) & indirect costs (training, SIEF administration, delays...) – impacts on innovation funding
- ❖ Can the firm recoup costs through additional revenues – market structures?
- ❖ Time to market (compared to pre-REACH):
 - **Over 40% of firms considered there had been an increase in time to market, about a third no change and just over 10% a reduction**
- ❖ Lack of awareness of REACH in the general public
- ❖ Lack of understanding in customers
- ❖ In the case of start-ups/ spin-offs, it is probable that the costs of doing business will increase, and market entry costs will be higher

Efficiency

- ❖ Important amount of data generated and captured
- ❖ Cost of implementation of REACH
- ❖ At this early stage, data generation has not led to substantial increase in innovation. This may happen after the next two registration deadlines

Has REACH signalled a direction for R&D or other innovative practices related to health, safety and environmental protection that would not otherwise have taken place in your firm?

Options	Nº	%
Yes – there has been a fundamental reappraisal of our research orientation towards more safety and environmental protection.	19	5.1
Yes – partly	136	36.8
No	199	53.8
Do not know	16	4.3
Total	370	100.0

Utility (I)

- ❖ Substitution mechanisms are considered key innovation drivers
- ❖ **Registration**: some barriers to new substance registration remain; issues around costs of registration for smaller tonnages
- ❖ Placing of substances of the **candidate list** had knock-on impacts:
 - **Withdrawal**
 - **Blacklisting of substance by DU**
 - **Substitution**
 - **Pressures on users & producers of those substances**
- ❖ **Authorisation** process aims at encouraging substitution – early stages
- ❖ **Restriction** is not attracting much discussion at this point because of limited experience
- ❖ Anecdotal evidence of projects being set-up to encourage substitution (VEGE-REACH, Axelera project on modelling processes)

Consistency (with other legislation)

- ❖ Chemical industry is a knowledge intensive industry
- ❖ Areas of concern regarding the protection of IP; critical information and know-how being available in some documents (CSR...) and disseminated world wide
- ❖ But 74% of survey respondents did not believe that the flow of information in the supply chain was in conflict with the protection of their IP
- ❖ As regards patenting, the situation is not yet fully clarified and resolved

Distribution of benefits and costs

- ❖ The general principle seems to be that REACH raises overall costs
- ❖ In general, larger firms, with more scope to specialise in recruitment strategies, access to funding, and power in markets, might be able to deal with such cost increases more easily than SMEs
- ❖ Complex supply chains can be more burdensome on formulators / importers / distributors – those in the middle

Conclusions – Impacts on innovativeness

Impacts on inputs/ enablers

❖ Human resources:

- Redirection of R&D/ innovation personnel to compliance work (permanent).
- Increase in expenditure on R&D and innovative activities.

❖ Open research systems

- Much data created, captured and disseminated - increase in the information base of the industry.
- How much of this has been truly new?

❖ Links with universities and networks developed by companies focus on the compliance/ regulatory elements of REACH.

❖ Finance and support

- No new funds, increased uncertainty & risk
- Few examples of support. (FIT-REACH/ Subsport)

Conclusions – Impacts on innovativeness

Impact on firm activities

❖ Firm investments/ activities

- Some long term shift in the orientation of R&D
- Widening in the scope of innovative activities (incl new)
- Registration costs/ the candidate list are major drivers, authorisation has had a similar effect/ restriction has not been very active to date
- Volume exemption too low, not many use PPORD.

❖ Linkages and entrepreneurship

Increased supply chain collaboration and linkages with DUs, - some positive innovative results but a majority indicated no

❖ Intellectual assets

- Issues about IPP remain.

Conclusions – Impacts on innovativeness

Impact on outputs.

❖ Innovations – *what is “innovation”?*

- Some has occurred
- The effect on innovation:
 - compared to the pre-REACH situation - 43% responded negative while 13% responded positive;
 - more thought it would worsen in the future than improve.
- Innovative SMEs: over 50% see the position as negative and 38% expect it to worsen.
- 40% thought time to market increased compared to pre-REACH

Initial recommendations

Enablers

- ❖ Continue/ increase existing support for REACH related training and educational initiatives – particularly targeted at SMEs.
- ❖ Increase research links collaboration between regions
- ❖ Increase public information/ support links

Firm activities

- ❖ Transparency of substance selection for the candidate list
- ❖ Rationalising/ reducing time spent on SDSs – creation & interpretation

Outputs

- ❖ Improve (quicker) new substance registration process at ECHA
- ❖ Improve (quicker) testing approval in phase-in substances



Thank you for you attention!



Questions, Comments?

