

# JRC Scientific and Technical Reports



## Implementation of REACH in the New Member States

Part one: Overview of the Chemical and Speciality Chemical Sector in the New Member States

### (EXECUTIVE SUMMARY)

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## **A. SUMMARY**

### **A.1 Chemical sector profile**

During the period 1995-2004 the total economy of the NMS as a whole grew at an annual average rate of 4.3 % in terms of gross domestic product (GDP), to which the value added of the manufacturing industry contributed 20% in 2001.

The chemical industry contributed approximately 13% of the total value added of the manufacturing industry, which was about EUR 11.000 million and about 3% of its GDP in 2001. The total turnover (EUR 22.000 million in 2003) of the sector has increased by 74% from 1995 to 2003, with an annual growth rate of 3% before 1999 and more than 10% since then. As a whole, the sector employed nearly 480.000 persons, accounting for 8% of total employment for the manufacturing industry in 2001. Employment decreased slightly in the last few years, while labour productivity has been increasing though this is still about 35% of the average for the EU25.

Sector privatisation is well underway, but the largest companies are still under the process of privatisation. This generates some uncertainty to the chemical industry as a whole in terms of, among others, capital investment, product profile, as well as employment.

Total external trade flow of the NMS (export and import) in 2002 amounted to 371.000 EUR million, with a trade deficit (export minus import) of EUR 37.000 million. Trade performance (trade deficit as % of trade flow) of the NMS has continuously improved from -16% in 1996 to -10% in 2002, though still with a negative balance. In the same period, the trade performance of the NMS as a whole with EU-15 has improved even further from -16% in 1996 to -2% in 2002.

The total trade flow of chemicals in the NMS amounted to EUR 33.000 million in 2003 and has increased at an average rate of 10% per annum since 1999. The trade deficit was EUR -9.500 million, attributed by a trade surplus with non-EU15 countries of EUR 46 million and a trade deficit with EU-15 of EUR -9575 million.

All countries have a trade deficit with EU15, their main trading partner. Slovenia, Hungary and Slovakia reported trade surpluses with non-EU15 countries, and their export has been maintained relatively stable in the past years. Other countries like Slovenia and Lithuania have also an important production oriented to non EU markets. REACH may affect the competitiveness and market share in non-EU market for these NMS, if they have to increase prices to absorb the costs incurred by REACH.

Trade deficit in chemicals represents 88% (2003) of the total trade deficit of the NMS in relation to the EU-15. This includes all subsectors of NACE category 24. The trade deficit differs between these sub-sectors, but for all categories analysed in the frame of this study it was negative. This implies that chemical industry, although growing, is proving less competitive in the internal market than the other manufacturing sectors and maybe, to a large extent, unable to meet the demand of domestic industry. As a consequence, other manufacturing sectors are increasingly dependent on chemicals imported from EU15.

One of the key bottlenecks to the development of the chemical industry is the availability of feed stock and raw materials. Many substances derived from

petrochemicals as raw materials particularly for the production of specialty chemicals are to a large extent imported from EU-15 as well as from Russia and Ukraine, where REACH does not apply. Many companies importing directly from the non-EU region will have to register the substances as an importer, and therefore price increases are expected. They may have constraints in obtaining data and information needed to register the substance under the REACH requirement, and therefore they may be obliged to change to suppliers within the EU.

## **A.2 Specialty Chemicals**

In general, NMS, in comparison to the EU-15, have less specialised production of fine and specialty chemicals and account for a relatively small share in the value added of the chemical industry. In this respect, the impact of REACH is expected to be relatively less important in the NMS. However, since many producers of the non-basic chemicals in NMS do not have the scale of production and a relatively secure market position as being the case for their counterparts in EU15, they could face more difficulties and be more sensitive to REACH.

A detailed examination of the specialty chemicals sector has been carried out in the three selected countries for the case study, i.e. the Czech Republic, Poland and Estonia. The evolution of the sub-sector appears to be similar in the Czech Republic and Poland. In terms of turnover the specialty chemicals production has grown much faster than the chemical sector as a whole and such growth has been even more pronounced in terms of value added. In comparison, specialty chemicals contribute 38% and 24% to the total turnover of the chemical industry in Poland and the Czech Republic respectively.

In both countries, export and import of specialty chemicals increased with export increase much faster than import. Despite this growth there is still a trade deficit in specialties in both countries that amounts to 27% of total chemicals trade deficit in the Czech Republic and to 23% in Poland.

Data show that the chemical sector and specialty chemicals in particular in Estonia have stagnated and there has been very slow development in production and productivity. The specialty chemicals sub sector takes a prominent position within the chemical industry (50% of sector's value added). Trade with eastern non-EU countries plays a dominant role for this country, especially for specialty chemicals (74% export to non EU countries).

Trade with non-EU countries may be particularly affected by REACH. Regarding imports, the need for registration of imported raw material and the potential lack of necessary information from the supplier might force the importers to switch to EU suppliers. Regarding exports, the price increases of chemicals after registration might lower their competitiveness on markets outside the EU. Thus, due to its much larger share of exports to non-EU countries and stronger reliance on raw material imports from outside the EU, Estonia may be more affected by the implementation of REACH.

## **A.3 Status of transposition, implementation and enforcement of the Chemicals Acquis**

Transposition of the Chemicals Acquis has been finalised in all New Member States. Countries which had finalised the transposition of the Chemical Acquis earlier had more

time to experience the testing and notification procedures and requirements and are better positioned with regard to the implementation of REACH.

Responsible authorities for the implementation of the EU chemicals legislation were set up in the new Member States and the division of responsibilities between different state administrations are clear cut. Limitations still exist such as low capacities in terms of understaffing in some of the National Chemicals Bureaus, which will most probably be seriously challenged by the implementation of REACH.

Training for administrative staff on the main instruments of the EU chemicals legislation was of highest priority for all New Member States. The level of expertise gained by the risk assessors in the New Member States during the last few years is appropriate to secure the implementation of the current EU chemicals legislation. Under REACH, the number of trained risk assessors in administration might turn out to be too low. In contrary to risk assessment, risk management has not been a priority in the New Member States in the last few years, but with transposition completed and most of the institution building problems solved this has changed recently.

A remaining challenge is the need for better coordination at the enforcement level since various inspectorates are involved in this task. The coordination of enforcement will become even more important under REACH as the new system will lead to many new classification and labelling duties for existing chemicals and the inspectorates will have to supervise the authorised chemicals and maybe a greater number of restricted chemicals.

### **A.3.1 Cost of compliance with the Chemicals Acquis**

The costs of compliance with the Chemicals Acquis are marginal compared to the overall Environmental Acquis compliance costs. In no cases were transition periods requested for any of the Chemicals Acquis directives, consequently no financial plans had to be prepared by the NMS. This can be seen as an indication for the relatively modest financial efforts to comply with the Chemicals Acquis.

Implementation and enforcement of the heavy investment directives under the Environmental Acquis is not yet complete. As a number of countries have requested transition periods for these directives, in some cases until 2011, this effort will still be ongoing when REACH comes into force. As a result, companies in the NMS could be stressed by the implementation of two legislations at the same time.

Cost estimates for the implementation of REACH made in some NMS indicated a level of compliance costs comparable to the implementation of the Chemicals Acquis. As these cost estimates for REACH turn out to be based on average several factors higher than registration costs broadly agreed in current discussions, and cost reducing measures have hardly been taken into account, the actual cost will probably be significantly lower. Furthermore, the compliance cost for the Chemicals Acquis will partially be substituted by REACH implementation costs.

### **A.3.2 Acquis implementation at company level**

Implementation of the Chemicals Acquis at company level is practically complete, at least in larger companies. According to company interviews the implementation effort was dealt with as a minor matter of daily business.

The number of companies applying environmental management systems in the NMS was reported to be growing steadily. Nevertheless, the number of companies officially certified according to ISO 14000 is still limited and restricted almost exclusively to large companies. However, SMEs are catching up rapidly due to competitive pressure and customer demands. Moreover, the implementation and enforcement of the Chemicals Acquis is supported in the New Member States by voluntary initiatives such as the Responsible Care programme.

The number of new substances notified between 2001 and 2004 in the New Member States is very low. Thus, the experience of manufacturers and importers with EU registrations and testing procedures is very limited in practice. However, due to the large amount of training courses provided to companies throughout the NMS, this is not regarded as a big problem for the adoption of the current EU chemicals legislation and future REACH implementation.

#### **A.4 REACH impact assessments carried out in the NMS**

Impact studies have already been completed in Poland, the Czech Republic, Slovakia, Slovenia and Lithuania, although not all of these are accessible. In Estonia and Hungary impact studies are still ongoing at the time of writing this report. Latvia will launch a study in 2005. Cyprus and Malta have neither carried out studies on the REACH impact on their industries, nor is a study planned there. It is noteworthy that the study finalised and available in Poland, which represents by far the largest chemicals sector in the NMS, focuses on additional staff requirements needed to implement REACH and does not address direct costs for the chemical industry at all. Other studies are still ongoing in this country.

Apart from one exception, all reports aimed at estimating the direct costs of REACH for the industry are based on the number of substances to be registered, production or import volumes, and on their registration costs. One report estimates the additional employment in state institutions and private industry and its costs.

The benefits of REACH such as the impact on health and the environment and quality of life are almost entirely neglected and not included in the studies available so far.

All studies concentrate on the chemical industry. Downstream users such as textile, rubber, and automotive industries are only marginally considered in two cases, the Slovak study and the ongoing Hungarian study.

The economic analyses are focused on a direct cost calculation. The cost frame chosen by different countries for calculating registration cost varies widely, resulting in substantially different estimations of registration cost per substance. In some cases the figures are well above broadly accepted costs. Since they were the main information source for companies in the respective countries, serious worries in those companies become understandable when they assessed the impact of REACH on their product portfolio on this basis.

Value chain analyses, multi step assessment, and inter sectoral effects are lacking. The reports are in general rather static, and the technology substitution, which will be triggered by REACH, is hardly taken into account.

The registration and administrative cost ranged from EUR 22000/substance (Slovakia: domestically produced substance) to EUR 300000/substance (Slovenia: all substances). In the case of a differentiation in volume bands, the cost estimation reached levels of EUR 878600/substance (Czech Republic: substance >1000t/year) or even up to EUR 1760000/substance (Poland: substance >1000t/year). On the basis of these calculations, some of the reports came up with overall cost impact estimations for their respective countries (CZ: EUR 50-160 Million, PL: EUR 340-600 Million, SK: EUR 330-530 Million, SL: EUR 15 Million).

The results presented in most of the impact studies confirm the earlier findings on the REACH impact concerning the EU-15, in particular that large chemical companies will be able to cope relatively smoothly with the REACH requirements, while most of the SMEs may face financial and/or organisational challenges. However, as methodologies and assumptions either differ widely between countries or are not disclosed at all, results have to be interpreted with care.