We support the aims of the Commission in carrying out a review of the chemicals policy, and believe that it offers real opportunity for improvement over the current regulatory system. Cefic also welcomes the business impact study that the Commission has commissioned and that will be conducted over the next few months. Ideally, to be consistent with the broader aims of the Commission we would expect to see effective burden-sharing agreements including non-EU producers in order to minimise the impact on European producers. At present, however, there is little recognition in the White Paper of the need to develop this. The alternative scenario is that EU companies will face even higher administrative and testing costs. This would be especially damaging to the many thousands of small and medium-sized companies that make up the EU chemical industry and thus their ability to innovate will be stifled. The impact on competitiveness would be greater still for chemical user industries as competitors from third countries will be able to avoid these burdens.

This Barometer specifically addresses the potential effects of the White Paper on:
- The European production base
- The costs associated with testing and administering regulation
- The stifling of innovation
- The impact of substitution

Cefic and its members are actively working on the development of proposed solutions to address these important issues which will be put to the Commission as soon as they are agreed by the membership.

The White Paper puts the European production base at risk

The White Paper will increase regulatory compliance costs and bureaucracy. Moreover, the effects of the proposed regulations will not be limited to the chemical industry, but will extend to the entire production chain, from raw materials to finished articles.

In particular, downstream users are unlikely to be able to pass on the higher production costs to their customers as WTO rules will limit the EU’s ability to prevent the import of cheaper products manufactured outside the EU with substances that have not been subjected to a REACH\(^1\) type system.

\(^1\) REACH stands for Registration, Evaluation and Authorisation of Chemicals and comprises the general steps and procedure of the future chemicals regulatory system as laid down in the white paper.
In its 1996 communication on the importance of the competitiveness of the European chemical industry, the Commission recognised the need to ensure that the EU remains an attractive place for investment and operation by chemical companies. It also recognised the risk that the imposition of stricter regulation in the EU could affect the competitiveness of EU chemical companies and user companies compared with companies in other regions, resulting in possible relocation of certain production lines.

The White Paper clearly goes against this communication; it would be especially damaging to the smaller companies within the industry who would be less able to compete with foreign suppliers or may even be driven out of business. Such a development would have a strong negative impact on the employment in the chemical industry.

The costs of testing for registration and evaluation will be much higher than anticipated in the White Paper and severely impact competition

The estimates of costs vary from 2 to 20 billion Euro according to source and the number of chemicals subjected to testing. These costs are exclusive of the administration and compliance costs, which may run into several more billions of Euros. Public authorities will also be faced with increased costs of administering the new system. (Table)

When compared with turnover, it is easy to argue that industry can afford this burden. In reality, all chemical companies - including individual business units of large corporations - operate in fiercely competitive markets, cost and profit margins being allocated on a product by product basis. Thus, the costs of testing and assessment for a substance will be allocated to that substance, and in many cases will represent a substantial additional cost, which will influence business decisions on future sourcing and investment.

A large chemical company will screen its product portfolio and will deselect those substances that do not warrant the increased costs - even if they do not give rise to health and environmental concerns, thus depriving the market of the benefits of those products.

A small chemical company with a small portfolio is even more vulnerable.

A downstream user may well find that the producer is only prepared to defend some key intended uses, forcing him to do the testing himself.

Producers of intermediates and toll manufacturers will be amongst the hardest hit as any new processing step results in new and costly notification requirements. This could result in downstream users using raw materials from outside the EU. As chart 1 shows, the real cost of intermediate substances is much higher than that anticipated in the White Paper (it is at least twice as high).

User industries will also be hard hit as they depend heavily on chemicals for manufacturing their products (chart 2).

**Comparison of estimates**

<table>
<thead>
<tr>
<th>N° of substances</th>
<th>Total cost in € billion*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base set: 30,000</td>
<td>Commission UK Study Cefic</td>
</tr>
<tr>
<td>2.1</td>
<td>8.7</td>
</tr>
<tr>
<td>extensions to 70,000</td>
<td>-</td>
</tr>
</tbody>
</table>

*Source: UK July 2001 and Cefic

**Chart 1: Effects on intermediate substances: one selected company**

- **Cost increase:** 1,10 or 2,20 €/kg of crop protection agent
- **Real cost estimated:**
  - One intermediate step: 0.86 €
  - 7 intermediate steps necessary: >1,000 €/p.a.

Source: Cefic

Note: Crop protection agents are not subject to the criteria in the EU White Paper, but all the intermediates are covered by chemicals legislation.
Innovation will be stifled

The White Paper correctly emphasises the importance of innovation, which is indeed the lifeblood of the chemical industry. The chemical industry is at the beginning of the value chain. The March 2000 European Council Summit in Lisbon set the EU the goal of developing into the most competitive and dynamic knowledge-driven economy in the world. The Commission reacted to this in September 2000 with the Communication to the Council and Parliament entitled “Innovation in a knowledge-driven economy” (COM (2000) 567).

The White Paper assumes that innovation will be driven by the search for safe substitutes for hazardous substances. Whilst this may happen to some degree, another result of the REACH system will be that many chemicals will not be defended, because companies will not be prepared to pay the testing costs for their product range. Instead, they will withdraw products from the market thereby narrowing the base for the development of new products.

The recent introduction of the EU Biocide Directive illustrates this effect. The new regime requires extensive and costly testing for all active ingredients and formulations of biocides within the EU. It is expected that only 400 out of 2000 active ingredients will stay on the market. A similar effect can be seen in the crop protection area where it is expected that only 250 out of 800 active ingredients will be permitted (chart 3).

Scientific expertise in Europe is finite and more time having to be spent on managing the regulatory process means less time and fewer human resources available for innovation.

The White Paper therefore contradicts the goal set by the European Council in March 2000 in Lisbon to develop the EU into the most competitive and dynamic knowledge-driven economy in the world.

Substitution is only a small part of the answer

A key objective of the White Paper is to substitute hazardous chemicals with safer alternatives, based on their intrinsic properties. The industry view is that the intrinsic properties of a chemical should not be used solely as the basis for decision making but should also take into account use and exposure to establish risk.

In addition, it may not be possible to make a direct substitution of one substance for another without making major changes to the production process or to find a suitable alternative that meets the needs and demands of downstream formulators, processors and manufacturers.

Although it is hard to evaluate the costs associated with substitution, they will certainly be far higher than those previously mentioned for testing.
Key Facts & Figures

The chemical industry is one of Europe’s most international and successful industries.

The world chemicals turnover in 2000 is put at €1565 billion. With an estimated €458 billion, the EU chemical industry accounts for 29% of estimated world production. The West European chemical industry is therefore the world’s largest chemicals producer, followed by the USA and Asia (chart 4).

The trade surplus is still growing rapidly and showing a very encouraging trend. In 2000, the European Union enjoys an extra-EU trade surplus of €57 billion in the chemical industry. This represents an additional surplus of more than €12 billion compared with 1999. The EU chemicals is the lead manufacturing sector for “value added per employee”. The value added per employee in the EU chemical industry is 65% higher than the average for all other manufacturing sectors.

Within the EU, some 34,000 chemical companies employ a total of about 1.7 million staff, representing 7% of the overall workforce in the manufacturing sector. 96% of these companies have fewer than 250 employees, and account for 28% of total sales and employment. Downstream, several million people’s jobs are directly dependent on the chemical industry.

As chart 5 shows, the chemical industry supplies virtually all sectors of the economy. Once chemicals self-consumption by the chemical industry and consumption by the rubber and plastic processing industries are re-allocated to downstream customers.

One obtains the following picture of the consumption structure of the EU chemical industry: 30.3% of chemicals are absorbed by final consumption, 16.4% go to services, 6.4% to agriculture, 5.4% to construction, and the remaining 41.5% to the manufacturing industry. The big industrial customers of chemicals are the metals, mechanical & electrical industries, textiles & clothing, the automotive industry and paper and printing products.

Chart 4: Western Europe is the largest chemicals producing area in the world

Chart 5: EU chemicals industry supplies virtually all sectors of the economy

% of chemical domestic consumption
Chemistry making a world of difference