There are two related areas of European chemicals legislation: one covering the marketing of chemicals, and one protecting the workers who use them. REACH is concerned with the first area. The reform, when it comes into force, will bring changes to existing legislation on trade in chemicals: some directives will be subsumed under REACH, while others will be amended or repealed (see table 1). The worker protection legislation, by contrast, will remain untouched and so continue to apply alongside the commercial legislation. But REACH will still have positive spin-offs for worker protection. This article highlights the differences, linkages and the interplay there will be between the two areas of legislation when REACH is implemented.

Differences between the two sets of legislation

Legal base

EU chemicals marketing legislation aims at total harmonization of national laws (articles 94 and 95 EC Treaty), while worker protection legislation requires only a minimum harmonization of Member States’ laws (article 137 EC Treaty). For the former, therefore, the Member States cannot in theory impose further limitations at national level, whereas for the latter, they can impose national rules that set stricter standards than the European ones.

Scope

After implementation of REACH – currently scheduled for 2007 – all substances manufactured or imported in quantities of 1 tonne or more a year (tpa) will be progressively registered on an 11-year timetable. Substances covered by other legislation, like pesticides, and those manufactured or imported in quantities below 1 tpa will not need to be registered. Significantly, however, (see table 2) there is no volume exemption to the authorisation and restriction provisions under REACH, or indeed to the requirement to supply a safety data sheet for substances that are classified as dangerous, or to the classification and labelling rules. Thus, these requirements will apply regardless of production volume.

Nor is there any volume exemption to the worker protection legislation: the Chemical Agents Directive applies to all chemicals, and the Carcinogens Directive to all substances classified as carcinogenic.

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**Table 1** How REACH will affect the two areas of chemicals legislation

<table>
<thead>
<tr>
<th>Legal basis</th>
<th>After the entry into force of REACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade legislation (articles 94 and 95 EC Treaty)</td>
<td></td>
</tr>
<tr>
<td>Classification and Labelling (C&amp;L) - Dangerous Substances Directive</td>
<td>67/548/EEC Amended</td>
</tr>
<tr>
<td>- Dangerous Preparations Directive</td>
<td>1999/45/EC Amended</td>
</tr>
<tr>
<td>Safety data sheets</td>
<td>91/155/EEC Inclusion in REACH</td>
</tr>
<tr>
<td>Existing Substances Regulation</td>
<td>793/93/EEC Repealed</td>
</tr>
<tr>
<td>Restrictions on Use and Marketing Directive</td>
<td>76/769/EEC Repealed + Inclusion of existing limitations in REACH</td>
</tr>
</tbody>
</table>

| Worker protection legislation (article 137 EC Treaty) |  |
| Chemical Agents Directive | 98/24/EC Unchanged |
| Carcinogens Directive | 2004/37/EC Unchanged |

**Table 2** Scope of legislation (post-REACH)

<table>
<thead>
<tr>
<th>Classification &amp; Labelling (C&amp;L)</th>
<th>All substances and preparations</th>
</tr>
</thead>
<tbody>
<tr>
<td>REACH</td>
<td>All substances ≥ 1 tpa</td>
</tr>
<tr>
<td>- Registration</td>
<td>All substances ≥ 10 tpa</td>
</tr>
<tr>
<td>- Chemical Safety Report</td>
<td>All substances of very high concern</td>
</tr>
<tr>
<td>- Authorisation</td>
<td>All substances</td>
</tr>
<tr>
<td>- Restriction</td>
<td>All dangerous substances and preparations containing dangerous substances</td>
</tr>
<tr>
<td>- Safety data sheets</td>
<td>All substances present in the workplace</td>
</tr>
<tr>
<td>Chemical Agents Directive</td>
<td>All carcinogens and mutagens (categories 1 and 2) present in the workplace</td>
</tr>
</tbody>
</table>

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1 A Globally Harmonised System (GHS) for classification and labelling was recently adopted at international level. The Commission is drafting legislation to implement it.
or mutagenic (categories 1 and 2), regardless of how little is used at the workplace.

The actors involved

In each area of legislation legal obligations are laid down that are to be met by different actors in the supply chain, although the same actor may wear different hats (see table 3).

REACH lays down obligations on manufacturers, importers, downstream users (formulators, industrial and professional users, etc.) and distributors (those who take substances or preparations in storage and place them on the market). These obligations differ widely according to where the actor stands in the supply chain. The main obligations of the different actors are described below. They become less onerous the further away the actor is from the starting point (manufacture or import).

- **Manufacturers and importers** must register their substances above 1 tpa, and from 10 tpa upwards they must draw up a chemical safety report to show that the risks the substance may pose to humans (workers and consumers) and to the environment are properly managed. Any risk management measures indicated in the chemical safety report must be included in the safety data sheet supplied to all downstream users of the substance. Manufacturers and importers must also apply for authorisation for the use or marketing of substances “of very high concern”.

- **Downstream users** must check whether the safety data sheet accompanying the substance supplied actually covers the intended uses. If it does, they must apply the safety measures described; if not, they can ask their suppliers to include their uses in the chemical safety report. The suppliers can then revise the safety data sheet. But downstream users can also choose to keep their uses confidential. If they do so, they must draw up their own chemical safety reports and apply any resulting risk management measures. They must also document their recommended risk management measures in the safety data sheets they supply with the preparations intended for their downstream customers.

- **Distributors** must supply recipients of the substance or preparation with the accompanying safety data sheet if applicable.

The worker protection directives place obligations on employers and on workers.

- **Employers** must identify whether dangerous chemical agents\(^2\) are present in the workplace, assess the risk to the health and safety of workers exposed to them and, if necessary, take appropriate preventive and protective measures. There is a clearly defined hierarchy of obligations: elimination of dangerous substances, substitution by less dangerous substances, reduction of the exposure level, compliance with existing occupational exposure limits, etc. Risk assessments are specific to each workplace, and deal with the dangerous substances and all activities in which workers may be exposed to them. Employers also have an obligation to provide information and training to their workers in this regard.

- **Workers** must make correct use of the dangerous substances and protective equipment supplied to them as they have been trained to do.

Some of the actors with obligations under REACH can obviously also be employers; if so, they must fulfil both the REACH and worker protection legislation obligations (see table 3). If a carcinogen is to be used in a workplace, the employer must first apply the hierarchy of obligations laid down in the Carcinogens Directive (elimination, substitution, control) before using it. If, after this, they still have to use those carcinogens, they must then also comply with the REACH authorisation rules.

Will REACH duplicate the Chemical Agents Directive?

This is a reasonable question that frequently cropped up in the debates on European chemicals legislation reform. It was specifically picked over at a tripartite workshop on the relation between chemicals legislation and worker protection legislation\(^3\). Some employers fear having to carry out the risk assessment twice over, since both the REACH chemical safety report and the Chemical Agents Directive require it. It was also argued that as both sets of legislation have the same aim, the Chemical Agents Directive should be repealed when REACH comes into force.

But the differences in the scopes, actors involved and their obligations make it readily evident that

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\(^{2}\) The definition of a dangerous chemical agent goes beyond the dangerous substances and preparations classified under the classification and labelling directives and includes all substances that may present a risk to workers because of the way they are used or are present in the workplace.

there is no duplication, and that repealing the Chemical Agents Directive would have disastrous consequences for the health and safety of workers.

What REACH will add to worker protection legislation

■ REACH will remind employers that they have obligations to fulfill under worker protection legislation. The manufacture and use of chemicals in workplaces takes a heavy toll on workers. About one in three of all occupational diseases recognised each year in Europe is due to exposure to dangerous chemicals\(^4\). This suggests that the legislation to protect workers from exposure to hazardous chemicals is only patchily applied in workplaces, if at all. One of many reasons for this may be that many employers (especially smaller firms) are unwittingly or deliberately flouting their obligations under the Chemical Agents Directive or the Carcinogens Directive. REACH is a good opportunity to remind them that these laws must be applied.

■ REACH will generate extra information on chemical hazards and improve “hazchem” labelling. The effectiveness of worker protection legislation depends very much on the information required by the legislation that governs trade in chemicals. The employer’s primary obligation is to identify whether dangerous substances are present in his workplace. His main means of doing that is product labels and, for products that are classified as dangerous, the safety data sheets supplied with them, if any.

The REACH registration system will force industrial suppliers to provide extra information on the intrinsic properties of the substances they place on the market. If need be, they will have to update the classification and labelling of their substances. These provisions should improve the quality of labels to the benefit of all users. Specifically, they will help employers to identify dangerous products.

A word of caution, however: improved classification and labelling are likely to be seen mainly for substances in volumes of 10 tpa and upwards, because the information required for registration of substances between 1 and 10 tpa is not enough to significantly improve their classification and labelling.

■ REACH will improve the quality of safety data sheets and help employers meet the requirements of Directive 98/24/EC. The chemical safety report will require manufacturers, importers and some downstream users to establish what risk management measures are needed for the substance to be used safely. This information will have to be produced for each identified use of the substance and attached to its safety data sheet. In this way, REACH should improve the quality of safety data sheets and in so doing, help employers to carry out the risk assessment required by Directive 98/24/EC.

Once again, chemical safety reports are required only from volumes of 10 tpa upwards, so only safety data sheets for chemicals in this bracket will carry the additional safety information.

■ REACH will improve transmission of safety data and communication down the supply chain. Under the current legislation, suppliers have to transmit safety data sheets to users. This is a one-way communication. REACH will introduce two-way communication into the supply chain by enabling users who receive a safety data sheet that does not cover their use of the substance to notify their supplier of this fact. The supplier will then be able to draw up a new safety data sheet using the data communicated by the user.

Even where a safety data sheet does not have to be supplied for a substance or preparation, the supplier must still communicate all manner of information to downstream users\(^5\). All actors in the supply chain also have a duty to communicate certain information upstream\(^6\).

This increased upstream and downstream communication in the supply chain will help employers to take the preventive and protective measures that worker protection legislation demands.

■ REACH should promote application of the substitution principle. Having to apply for authorisation for substances of very high concern should prompt manufacturers and importers to replace them with less dangerous alternative substances, not least because authorisation can be a costly procedure with no guarantees of success. As CMR substances (categories 1 and 2) are classed as substances of very high concern, REACH should encourage employers to apply the substitution principle laid down in the Carcinogens Directive.

How worker protection legislation will add to REACH

Worker protection legislation can also help the actors in the supply chain to draw up the chemical safety reports required under REACH. The employer can extract from his own workplace risk assessment and communicate to his supplier the information he needs to prepare a chemical safety report. This will particularly be the case with downstream users looking to pass this obligation on to their suppliers.

The occupational exposure limits set for many chemicals could also be useful in establishing DNELs (Derived No-Effect Levels)\(^7\) in exposure scenarios when drawing up a chemical safety report.

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6 See article 31 of the REACH proposal.
7 Levels of exposure to a substance above which human beings should not be exposed.
Whether effective synergies can be created between the REACH and Directive 98/24/EC assessments of risks to workers will depend on the guidelines for drawing up the chemical safety reports. These guidelines are currently being worked out, and aim at helping industry fulfil its obligations under REACH.

Conclusions

REACH is an opportunity to tighten up existing European legislation on the protection of workers exposed to chemicals and to reduce the future incidence of chemicals-related occupational diseases.

Its principal benefit relates to the requirement of the Chemical Agents Directive to assess the risks to the health and safety of workers. Not only will REACH fill the information gap on the properties of chemicals and the means of controlling risks in use; it will also improve the transmission of that information throughout the supply chain, enabling employers to implement more effective preventive and protective measures.

In return, the workplace risk assessment employers must do should also be a help to them in discharging some of their obligations under REACH.

How far REACH will benefit workers’ health and safety will depend mainly on the final contents of the reform, that is what improvements are made to it in the negotiations between the European Parliament and the Council.

After that, whether any benefits accrue will depend on enforcement of the obligations both under REACH and worker protection legislation on the factory floor. The national authorities, as well as the two sides of industry through the national and European sectoral and intersectoral social dialogue will play key roles here.

\[\text{See the RIPs (REACH Implementation Projects): http://ecb.jrc.it/REACH.}\]