



Skills for Chemical Businesses Understanding Society Needs



Training, Education and
Lifelong Learning 2006

Report based on a survey
of the Social Partners
of the European Chemical Industry

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*„One never notices what has been done;
one can only see what remains to be done.”*

Marie Curie-Sklodowska (1867-1934)
European scientist



Introduction | The Global Chemical Industry



This report is part of the two-yearly work programme of the Social Partners in the European chemical industry. It is based on a survey of the Partners and has two aims. First, to understand the status quo across Europe, and second to provide a structure for Social Partners to have both a national and European debate. The non-binding recommendations at the end of the report may provide a basis for future discussion and action by the social partners, national governments and the Commission. The report is not meant to be an academic thesis but a reflection of the views and interpretations of the Social Partners. In some cases, therefore, some of the reflected information may be not as sourced or robust as the reader may wish from an academic report.

We are grateful to all Social Partners who were able to participate and to the European Commission DG Employment, Social Affairs and Equal Opportunities for the Support of the Sector Social Dialogue Committee of the Chemical Industry.

The Global Chemical Industry

The chemical industry has fundamentally changed the way we live — from the clothes we wear, the

homes we live in to the cars we drive - the everyday conveniences that most of the world's citizens can take for granted. And the chemical industry is a major contributor to the solutions to poverty and health across the globe. The exploitation of almost all natural resources is dependent on the chemical industry.

The chemical industry has shown phenomenal growth for more than fifty years. It was in the manufacture of synthetic organic polymers used as plastics, fibres and elastomers where most of the growth originated. Synthetic polymers form 80% of the chemical industry's output worldwide.

Historically and presently the chemical industry is still concentrated in three areas of the world, Western Europe, North America and China/Japan. The European Community remains the largest producer area followed by the USA, China and Japan.

In 2004, world chemicals sales were estimated at € 1776 billion. With € 586 billion, the EU 25 is the leading chemicals producing area in the world, followed by Asia and USA. The EU 15 represents more

than 95% of the EU 25's chemicals turnover. Taken together, the EU 25, Asia and USA account for about 85% of the world turnover.

The traditional dominance of chemical production by the OECD countries is being challenged by changes in feedstock availability and price, labour cost, utility cost, differential rates of economic growth and environmental pressures. Instrumental in the changing structure of the global chemical industry has been the growing participation of developing countries and regions such as the Middle East, South East Asia, Nigeria, Brazil or Venezuela. Some of these may be small but nevertheless their participation is growing.

The chemical industry is the most globalised of all manufacturing industries and the globalisation is still in progress. The driving factors for the trend is the need for improvement of profitability by reducing production costs and proximity to markets. Companies choose location for a specific operation based on availability of raw materials, energy and skilled labour as well as proximity to markets.



The chemical industry is one of the EU's most international, competitive and successful sectors, embracing a wide field of processing and manufacturing activities.

The EU chemical industry (excluding pharmaceuticals) comprises about 27 000 enterprises (data covering firms with no employees are excluded), 96% of which have less than 250 employees and may be considered as small and medium-sized enterprises. These account for 30% of sales and 37% of employment. Only 4% of the EU enterprises employ more than 249 employees and generate 70% of total chemicals sales.

*the chemical industry
has the third
highest labour cost*

The chemical industry's contribution to the EU 15 gross domestic product amounts to 2.4%. This may seem small at first sight, but should be re-assessed taking into consideration both the shrinking contribution of industry as a whole to GDP in advanced

economies, and the role played by chemical products in facilitating so much more activity in the rest of the economy.

In 2004, the EU chemical industry (excluding pharmaceuticals) exports outside the region were worth € 102 billion. Imports from outside the region amounted to some € 67 billion in 2004. The balance is then worth 35 billion.

In the EU, some 31 000 chemical companies (including pharmaceutical Companies) employ a total staff of about 1.9 million, or 6% of the overall workforce in the manufacturing industry. Employment in the EU chemical industry is decreasing but with a lower rate than the total industry. Employ-

ment in Japan and the USA are experiencing a steeper decline for both chemicals and industry compared to the EU

The labour force employed in the chemical industry is more qualified, trained and better paid than the average industrial worker. Personnel costs for the EU chemical industry (excluding pharmaceuticals.) are about twice

the average for all other manufacturing sectors. After pharmaceuticals and office machinery and computers, the chemical industry has the third highest labour cost per employee of all manufacturing sectors.



The Chemical Industry in Europe





The European Union | Social dialogue



The European Union (EU), with 25 member countries, covers a large part of the continent of Europe. When two more countries join in 2007, the EU will have a population of nearly half a billion people

The European Union (EU) is not a federal State like the United States of America. Nor is it a purely intergovernmental organisation like the United Nations. It is, in fact, unique. Its member countries remain independent sovereign nations, but they pool their sovereignty — and thus gain much greater collective strength and influence.

This means taking joint decisions through shared institutions such as the European Parliament, the Council and the European Commission.

The European Union is based on the rule of law. This means that everything that it does is derived from treaties, which are agreed on voluntarily and democratically by all Member States. Previously signed treaties have been changed and updated to keep up with developments in society. Based on

the Treaties, EU institutions can adopt legislation, which is then implemented by the Member States.

Social dialogue

Social dialogue is the term used to describe the consultation procedures involving the European social partners: the Union of Industrial and Employers' Confederations of Europe (UNICE, has been renamed in January 2007 in BUSINESS-EUROPE), the European Centre of Enterprises with Public Participation (CEEP) and the European Trade Union Confederation (ETUC).

It encompasses discussions, joint action and sometimes negotiations between the European social partners, and discussions between the social partners and the institutions of the European Union.

The dialogue was started by the European Commission in 1985, and Article 138 of the EC Treaty (as amended by the Single European Act) formally requires the Commission to develop it. It is a Treaty obligation.

To date, fifteen joint opinions have been delivered on economic growth, the introduction of new technology, education, vocational training and other subjects. The social dialogue may also lead to contractual forms of relations, including agreements, which are implemented by the Council or by the social partners themselves, on a proposal from the Commission. There have so far been five cross-industry framework agreements of this type, concerning parental leave, part-time work, temporary work, telework and stress.

With a view to giving new impetus to the European social dialogue, a Tripartite Social Summit for Growth and Employment was set up in March 2003. It consists of high-ranking officials from the Council Presidency and the Commission Presidency and representatives of the European social partners. It meets once per year, on the eve of the Spring European Council, which debates the economic and social situation in the Union.

The Commission is required to consult various social partners when it wishes to submit proposals in this field (article 138 of the EC Treaty). This social dialogue occurs via the three main cross-industry organisations representing the social partners at European level:

- the European Trade Union Confederation (ETUC);
- the Union of Industrial and Employers' Confederations of Europe (UNICE);
- the European Centre of Enterprises with Public Participation (CEEP).

In addition to these three European cross-industry organisations, there are many other socio-professional groups representing specific or sectoral interests. It is the Commission's task to promote consultation of the social partners and take any relevant measures to facilitate their dialogue by ensuring balanced support for the parties.

Before submitting proposals in the field of social policy, the Commission consults the social

partners on the possible direction of EU action.

The social partners also play an important role in the European Economic and Social Committee, where they sit alongside other representatives of civil society.

The social partners also play an important role

The role of the social partners and of independent social dialogue is enshrined, for the first time, in the constitutional Treaty, which is in the process of being ratified. Article I-48 states that the European Union recognises and promotes the role of the social partners, facilitating dialogue between them and respecting their autonomy. It also reiterates the role of the Tripartite Social Summit for Growth and Employment in contributing to the social dialogue.



The Chemical Industry and social dialogue



European chemical employers are organized through national trade associations/employers federations into a body called the European Chemical Employers Group (ECEG). European chemical trade unions are organized through the European mine, chemical and energy workers federation (EMCEF).

Following four years of informal conferences between the two organizations, the Chemical Industry committed to formal social dialogue at the end of 2004 and agreed a Working Programme at a plenary meeting in February 2005. See appendix 1. The Working Programme addressing three key areas – Responsible

... lifelong learning over the entire working life was essential ...

Care (the Industry's Health, safety and Environment performance improvement initiative), REACH (European Union Chemical Policy) and Education, Training and Lifelong Learning.

In September 2004 the Social Partners continuing to meet in informal but progressive sessions, agreed a joint position paper on Education, Training and Lifelong Learning at Helsinki – see appendix 2. The Helsinki joint position drew attention to the high proportion of knowledge based work places, the need for higher trained staff than most other manufacturing industries, the lack of skills that were already showing, their effect on economic growth and the Lisbon Goals and the future demands for qualifications of employees.

The Helsinki joint position did not just state the problems but suggested some solutions – 'the need for public institutions in all

countries to secure a high level of general education for all citizens as well as an open and fair approach of this education towards

natural sciences, technology in general, a basic understanding of economic developments and good standards in communications skills'. The joint position declared the belief of both Social Partners

that 'vocational training, regular and appropriate further training and lifelong learning over the entire working life was essential not only for companies to be successful, productive and efficient but also for each employee to maintain their employability'.

This report seeks to detail some ways in which the beliefs in the Helsinki Joint Position might be turned into reality.

It is right that chemical business focus on the 'hard' infrastructure – assets such as safe and modern plant and equipment and energy supplies are critical to success. So too is what might be called the 'soft' infrastructure – people. The term soft can be interpreted as meaning it is less important but is the view of the chemical industry social partners that this wrong. We hope we show that people are no less important. The diligent pursuit of robust safety, quality, plant and equipment is equally if not more important when it comes to people. There are no longer any unskilled jobs in the chemical industry.

The responsibility for ensuring that people make the right contribution to their employer can never belong just to management employees. Their representatives and managers have a joint role to play in matching the contribution of people to the purpose of their organisation.

Chemical businesses need to manage their employment relations in an innovative and high quality way, workers and their representatives need to group all opportunities to learn new skills

and work in a way that is continually changing. Everyone needs to work together in that process.

Linked to people contribution and skill levels in chemical companies is science education. In today's high-tech and environmentally aware world, our understanding of science cannot be the preserve of the few, it must be the necessity of the many.

To try to gain an understanding of where we are across these subjects the social partners decided to participate in a survey. The following chapters deal with the responses to the survey. The questions we asked are at appendix 3.

Our survey was however not just about finding answers to questions. More than that, we wanted the social partners (because we asked for a jointly agreed response) to discuss education, training and lifelong learning in their country and explore the role employers and trade unions could play in supporting each other.



The survey of the Social partners



Discussion of responses to survey



In the survey we asked questions covering the following areas:

- Country information
- Mandatory education
- Testing ability up to the age of 16/18
- Natural Science (including Chemistry, physics, biology)
- Post-compulsory education
- Role of social partners
- Number of employees in the chemical companies and particular groups
- Training in employment of workers in the Chemical Industry

This section of the report deals with the responses and offers some conclusions.

Country information/Young people – In this section we asked about the population size of under 18 year olds, the male/female breakdown and the percentage who go to university.

With these questions, we are seeking to find out how many of our fellow citizens go through the education system and have the chance to study science/chemistry, including to the highest level.

The proportion of young people is about 20% of our population with a fairly even split between male and female. This point is important because that means that nearly half the potential labour market is female.

Different national education systems shows massive variation in those going to University, with 35% being the average across our responses, again equally divided between male/female.

Mandatory education – In this section we asked about the ages children start school, pre-school and the earliest age at which children can leave compulsory education.

We were seeking to find out for how long children are exposed to national education systems.

The age at which school began was very similar and averaged at 6. In a few Countries there is a 'requirement' or 'obligation' to attend or be offered pre-school but in most cases it is not until a child actually starts school that they have any state obligation to begin 'learning'.

It would seem that children can leave school at around 16 but there are some exceptions. Only Belgium and the Netherlands reply that from 16 children can leave school part-time, for example in combination with work.

Testing of ability up to the age of 16/18 – In this section we asked about the ages children are 'assessed' and any differences for those with 'special needs'.

With these questions we were seeking to understand the different assessment regimes.

The assessment of children varies enormously. Some countries assess the children every year, like in Germany and Spain, others do not. Some countries only do it at 18 like Finland, but have test on results of the school, not the pupil during all the years.

In about half of the Countries the assessment was mandatory. The most common name for the final compulsory assessment that children have to complete before leaving full time education is a 'final diploma'. The majority of Countries offer assistance to those with special needs.



The teaching and learning of natural science (including chemistry, physics, biology) – in this section we asked about the age at which science teaching started, the age at which the choice can be made to stop learning about science, and the numbers who make the choice.

We wanted to understand 'the size of the issue'. In other words if big numbers, as we suspected, did not have the opportunity or desire to learn about science then this had implications for both employment and consumers.

The average age at which science teaching starts is 9. In all cases it was a mandatory requirement. In most cases children have to learn one science subject up to the age of 16 or when they leave education.

In Countries that gave the choice France with 42% was the country where most people opted to learn science (also the country where science teaching starts at the earliest age). The lowest number of people, when given the choice to learn science, was Sweden (a country with an outstanding technology record) with 15%. Poland

notes 15 to 18% with a tendency to decrease.

Post-compulsory education – in this section we asked about the percentage who go to University, gender and those who study science.

We were seeking to find out the numbers who wanted to take their science education as far as they could.

Of the 35% who go to University, the majority are female (approximately 55:45). Less than one fifth (18%) opt to study science (including chemistry, chemical engineering, physics, biology). Again France has the highest score (29%).

From this 18% studying science, 60% are male, 40% female.

Of the student population at Universities, the average number studying chemistry is 3%, and the lowest is Belgium with 0.84% and Italy with the highest with 5% (but the number for chemical engineering here is just 1%) and yet the gender breakdown reverses - male students are 40.6%, and 59.4% is female.

When it comes to chemical engineering, the average score is 2%, of which 56,28% is male and 43.72% are female. So in the more technical choice male students still dominate.

Role of social partners – in this section we asked about the influence social partners have over science teaching.

In the Netherlands, Belgium and Denmark there is a clear involvement of both social partners in vocational schooling and training. In Germany, Ireland, Italy, Finland, UK and Sweden they advise or are informally involved.

In the Netherlands the social partners have a legitimate role in regarding professional profiles for VET qualifications. In Denmark they decide on the depth and length that is necessary in different vocational educations, and in Spain they are part of the Professional General Training Council. In Germany they are involved in the training regulations. In Italy and Belgium due to sectoral agreements there is involvement in the funding and contents.





Number of employees in chemical companies and particular groups

– in this section we asked about the workforce, gender breakdown, and special support for women, disabled, ethnic minorities, older/mature workers etc.

We were trying to determine the composition of the workforce and any actions to support different groups.

Of the 2.5 million people who work in Europe's chemical industry, the overwhelming majority are male (70%) but in some cases – e.g. Denmark – there is a higher than average level of women which reaches over 40%. Many countries undertake various national initiatives to offer support ranging from national legislation covering maternity, child care, equal treatment, state funding for disability projects, language courses for ethnic minorities etc.

Training in employment of workers in the chemical industry

– in this section we asked about the percentage of time spent on training, collective

labour agreements, sectoral funding and support and what more needed to be done.

We wanted to uncover good practice and look for common areas where we could suggest action.

The amount of working time spent on training ranges from 1.5 to 5%. Most countries invest in training 'on the job', which is offered by the employer. Countries differ in Collective Labour agreements or involvement in national Social Dialogue on having more than job related possibilities to study, as long as it is labour market related, and is offered by social partners. Given the restructuring within single companies and across the industry the skills for and the willingness for mobility are key factors.

Many countries offer training that is labour market related, but not necessarily job related, for example through personal development plans.

In the event of restructuring there are interesting differences between the countries hand-

ling these situations by society involvement or social partners involvement.

In Germany and the Netherlands this is part of the Social Plan agreed in the company between social partners. In Italy and France social partners are involved but there are arrangements by societies or national unemployment funds. France makes a distinction between small companies and companies with more than 1000 employees in how it is arranged.

*We wanted
to uncover
good practice ...*

In Sweden, the arrangement is nationally managed by the social partners.

In a number of countries, social partners decide on the framework for training, and HR managers will organize it with or without involvement of works councils inside the companies.

There are some interesting examples on decision-making. In the case of Italy it is arranged on a national level with involvement of

the social partners and a bilateral body for the chemical industry. In France it is paid out of 0,5% of the salaries and social partners are involved. In the Netherlands there is a Training Fund (OVP), but companies join it on a voluntary basis and it is funded by the EU. In Denmark there is a state funding for a great part of expenses. Germany has a common initiative of social partners called Foundation for Further Training.

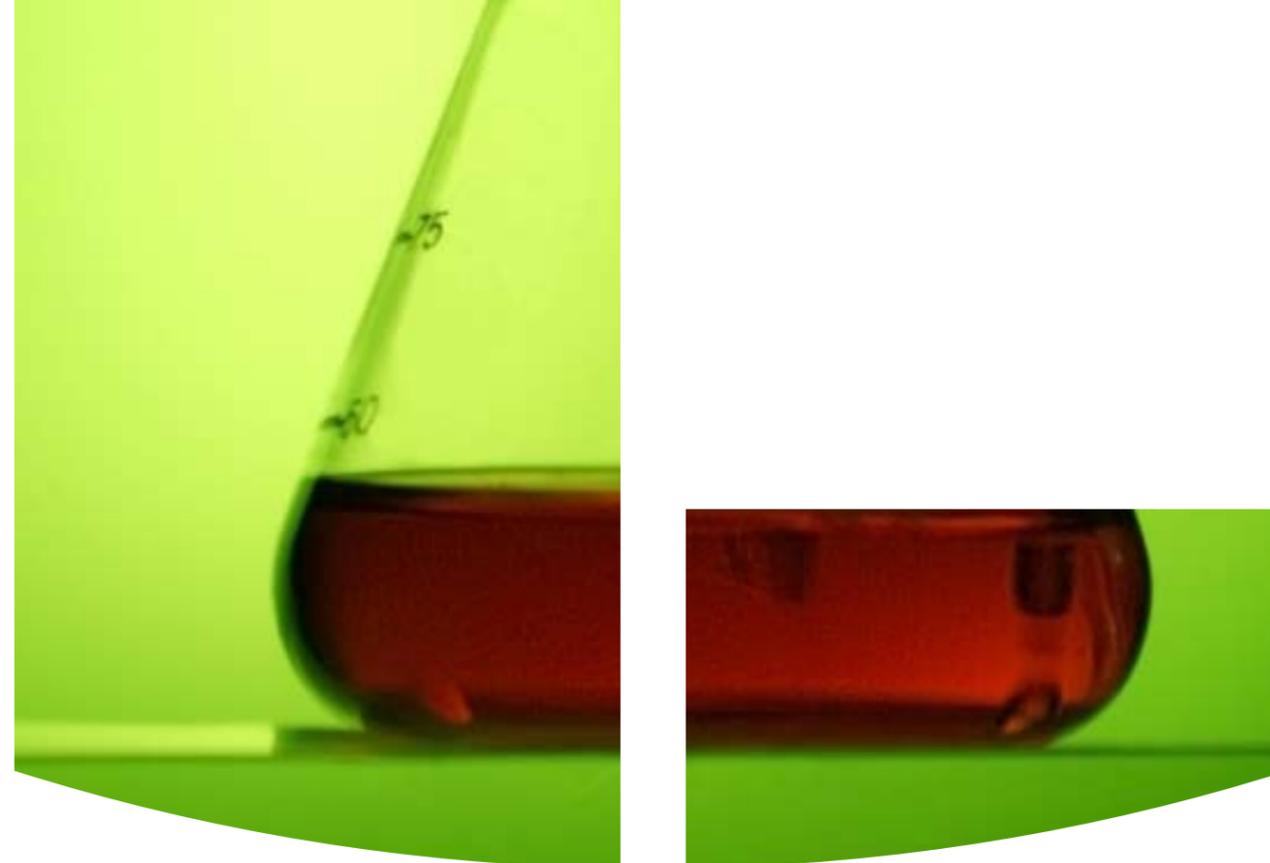
When it comes to organization, Italy has aims for training and schooling, such as team-work and communication, health and safety, foreign languages and information technology etc. Spain has some in the system of professional qualifications, and Hungary has local agreements. In the Netherlands it depends on CLA but it is not well addressed.

In Hungary vocational training at school for chemistry is a problem. Italy states that vocational training is satisfactory, but more attention should be given to managerial and organisational skills. They also mention that

funding within EU is complex and difficult to obtain. In the Netherlands more accent should be given on communication, more

They also mention that funding within EU is complex and difficult to obtain.

opportunities for public institutes for employees would be desirable, and a special interest in women is lacking and workforce is not in balance. Belgium states that practical training is not sufficient and there is a poor view on the applications of science in the industry and everyday life. Training is very theoretical. Sweden states there is a need for continuous and well adapted education for long term competition. United Kingdom misses training on communication.





Conclusions

Approximately one fifth of Europe's population is under the age of 18. This group, as well as people from the world's other continents, is where the future employees of the European chemical industry will come from and all of them are and will continue to be consumers of chemical products.

All children (almost) are in the education system between 6 and 16 but science learning does not start on average until 9 years of age. This means that 2 or 3 years (nearly 30%) of potential learning/experience is already lost.

If we accept that not everyone will want to know about science, then there must be some element of 'choosing' which subjects to study, as there currently is. The fact that in our survey, the highest number of people (France 43%) who chose to learn science was still less than half of those who could have done so must be cause for concern.

When it comes to university education and science learning, the numbers who then choose to study science is even more worrying. Fewer

than one fifth of students opt to study science of any sort, and more worryingly when it comes

to chemistry the number is a depressing 3%. So from a population of what will be about half a billion people, one fifth of them under the age of 18, a full 97% of our citizens turn their back for one reason or another on science education through to degree level and around 70% prefer not to study it when it comes to a choice at school. We believe this presents two problems – an ever-shrinking pool of people who would be interested in working in the chemical industry; and more importantly in today's technological and environmentally aware world no or limited desire by consumers especially future consumers to learn about science during their school education.

At university, 40% of the students covered in our survey are male and 60% female but when it co-

mes to science students the numbers almost reverse 58:42 male:female. That figure remarkably then reverses again when it co-

In some individual situation the gender balance is more even.

mes to chemistry so that females are 60% and males 40% ! At some point a wider and more in-depth analysis would make sense.

We feel there are very good reasons for industry, through social partners, to be involved in decisions about education generally and for the science (chemical) industry to be involved in decisions about science education particularly. At the moment across Europe this happens on a patchy basis. We hope the work about to be undertaken by Professor Leo Gross and his team will be one example of how this can happen on a more regular basis and across all sectors.

The workforce who are a key constituent of both social partners number about 2 million. At least 70% are male and in terms of

industry and trade union leadership the men/women ratio is even higher. In some individual situations the gender balance is more even. This has implications, which as with education stretch across both employment and consumers. The industry would benefit from more women in

the workforce and separately we should not forget that women are key customers of the industry, and it is mothers who are often caught at the centre of media debates on chemicals.

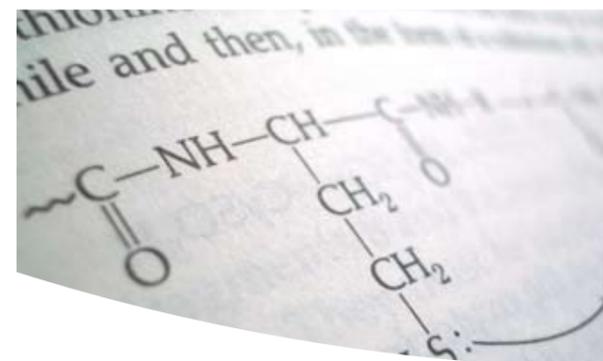
The reputation of the chemical industry is poor and this, at least in part, does not help in terms of future employment or a sensible debate about chemicals.

The chemical industry has a good record on training. We would not be able to make the progress we do without a workforce that is highly skilled and well trained. Much of this success takes place with the involvement and support of the trade unions. The Social Partners feel that training should be discussed between the employer, employee and their

representatives. Lifelong learning is a key, perhaps an overriding

Lifelong learning is a key, perhaps an overriding component of this.

component of this. With all the structural change that takes place, we need a workforce at every single level - from boardroom to laboratory, from process plant to sales force- that delivers on mobility. By this we mean mobility within the single employer and/or across a range of employers, which may take place during the career.





Recommendations



On the basis of the report, the social partners would like to suggest the following recommendations:

Education

Recommendation 1 – a coherent science curriculum

National Governments should develop and promote a coherent science curriculum from the moment children start contact with the education system until they leave. This should specify desired minimum levels of understanding against age levels.

Recommendation 2 – greater participation by females in science education

Special measure should be examined, with EU support, to ensure females remain interested in science education.

Recommendation 3 – links between education and industry

Links between education and industry should be enhanced to ensure a greater mutual understanding of objectives and, where appropriate agreement to joint objectives based on joint campaigns e.g. improved diversity of future workforce.

Workplace

Recommendation 4 – a mobile workforce

The mobility of chemical workers

should be encouraged through initiatives such as EuroPass with specific elements, which recognize and promote lifelong learning by a formal 'experience' assessment.

Recommendation 5 – the willing acquisition of new skills

To help global competitiveness and consequent restructuring, employers, workers and their representatives should ensure individual traditional and modern skills are at the right level to deliver employability. The opportunity to learn new skills and work in a way that is continually changing needs to be embraced by everyone. Some of this may be assisted by voluntary funding mechanisms.

Recommendation 6 – a diverse workforce in both trade unions and employers

To enhance the link between consumers of chemical products and chemical companies, both trade unions and employers should have diversity policies and promote more representative workforces.

Social Partners

Recommendation 7 – the continuation of lifelong

learning as a key subject for European social dialogue

The Social Partners in the chemical

industry should build on the successful exchanges that have taken place. They should, with Commission support and encouragement, undertake further joint initiatives and monitor developments to successfully represent their constituencies and improve standards across education, training and lifelong learning.

*... individual
traditional
and modern...*

Recommendation 8 – National social partners working together

At national level, social partners in the chemical industry should inform and consult on training, education and lifelong learning.

Recommendation 9 – Training and lifelong learning within chemical businesses

Employers should have a coherent approach to training and lifelong learning in the workplace, based on dialogue with workers and their representatives.

Recommendation 10 – Next steps

European social partners should follow up the progress of these recommendations including any future surveys.

Appendix 1

Biannual Working Programme 2005 / 2006 of the Social Partner Dialogue of the European Chemical Industry

The European Mine, Chemical and Energy Workers Federation (EMCEF) and the European Chemical Employers Group (ECEG), in order to fulfil its joint aim laid down in the Joint Declaration on the establishment of a formalised Sector Dialogue Committee for the European Chemical Industry signed on September 27th 2004 on February 3rd 2005 agreed in the Plenary Meeting of the Social Partner Dialogue of the European Chemical Industry upon the following biannual Working Programme for the Dialogue.

Education / Training / Lifelong Learning

EMCEF and ECEG agreed on a Joint Position paper on Training, Education and Lifelong Learning in September 2004. This paper is attached to these Working Programme. As a part of these joint position paper both Social Partners already agreed to form a Working Group on "Education, (Vocational) Training and Lifelong Learning".

This group will now be formed as a Working Group within the framework of the formalised Social Partner Dialogue. It has the task to analyse the existing information in this area (e.g. reports of previous projects like Trilaterale, activities of Cedefop on sector levels, etc.), taking any previous results of such projects into account and to cooperate with the important institutions in this area in Europe in order to

- (1) draft an analysis of the status quo regarding skills, qualifications, vocational (further) training and lifelong learning within the industry and to
- (2) facilitate an exchange of information and good practice of the different national systems of education, vocational (further) training and lifelong learning in order to support the further development in these areas.

The draft analysis named in (1) should be presented in the form of a report to the second Plenary Meeting of 2006.

The Working Group will be formed of experts in Training, Education and Lifelong Learning and in national Social Partner relations. Each side may nominate up to 7 members for this Working Group plus one Chairperson.

Further to the work to be done in this Working Group ECEG and EMCEF may follow some specific projects in this area, e.g. in the form a Social Partner Conference of the Chemical Industry, studies or analyses of certain aspects to be carried out together with the EU Commission and / or other relevant European institutions. These could be related, for example, to demographic changes, possible future skills shortages, employability in cases of restructuring or other subjects agreed upon between both Social Partners.

Responsible Care

Already back in May 2003 a Memorandum of Understanding on Responsible Care was signed between EMCEF, ECEG and Cefic. This paper is attached to this Working Programme. The Memorandum founded a Joint Monitoring Group on Responsible Care of the three organisations which met several times since then. In the new framework of the formalised Social Partner Dialogue the work of this Joint Monitoring Group Responsible Care will be continued in the form of a Working Group of the formalised Social Partner Dialogue. The principle tasks of this group will be, as has been agreed between ECEG, Cefic and EMCEF in the original Memorandum of understanding on Responsible Care, as follows:

- (1) Review of the improvements in the safety, health and environmental performance of the chemical industry
- (2) Identification of training needs to develop Responsible Care programmes
- (3) Employee training and education practices in safety, health and environmental areas

- (4) Development of a simple procedure to exchange information relating to product concerns and on significant HS&E accidents in the chemical industry
- (5) Share information on the best practices to improve relations at national level on Responsible Care and to promote an active contribution from employees and their representatives
- (6) Means to assist the Social Partners in the new central and eastern European member countries to enable them to play their role in improving performance in safety, health and environment

The Working Group will be formed of experts in Responsible Care and in national Social Partner relations. Each side may nominate up to 7 members for this Working Group plus one Chairperson.

The first focus of the work should be on sharing information on best practices regarding employee involvement (see (5) above). In this area work has already been done by the Joint Monitoring Group on Responsible Care in the past two years, hearing reports on the subject from Spain, Germany and Italy. In the upcoming meetings additional country reports should be presented. For the first Plenary Meeting in 2006 the Working Group should prepare a report on good practice of employee involvement on the national level. The report should be based on the presentations of the country reports to the group. ECEG, Cefic and EMCEF do understand Responsible Care as a continuous process. It is intended to give Responsible Care, as an important voluntary initiative of the Chemical Industry, a stronger European dimension through the work with the Social Partner Dialogue.

A second item for the Working Group during the 2005 / 2006 period should be the safety, health and environmental performance of the Chemical Industry (see (1) above). An exchange of national experience of programmes to improve the per-

formance in this area should take place, which may include training programmes for employees and their representatives in these areas. ECEG and EMCEF anticipate work in this area will continue beyond the timeframe of the 2005/2006 bi-annual Working Programme.

Reach and Health Safety Management in Chemical and Downstream Users Industries

In 2003, ECEG, Cefic and EMCEF issued a joint statement on the new European Chemical Policy Review (REACH), which is attached to this Working Programme. ECEG, Cefic and EMCEF, recalling that sustainable development is based on the three pillars of environmental, social and economic needs, share the opinion that it is possible to make the proposed Chemical Policy Review compatible with the need for competitiveness and with the Lisbon goals. In this regard, ECEG, Cefic and EMCEF are supporting European chemical product legislation proposals promoting coherence, workability and effectiveness in line with the principle of sustainable development.

However, they consider that the Chemical Policy Review is unlikely to further reduce chemically induced occupational diseases within the chemical manufacturing industry as it is already well regulated in this area and employees in the sector are adequately protected as the relatively low level of occupational diseases in chemical industry compared with other industries demonstrates. Reasons for this low record are, beside others, the good practices developed between authorities, industry and employees and especially the ongoing commitment of both social partners to look together for continuous improvements of health and safety conditions. Nevertheless, as improvements are always possible, especially in downstream user industries, the Social Partners create a Working Group of the Social Partner Dialogue of the European Chemical Industry

in order to identify the good practices of information and training of the employees for the use of chemicals especially in downstream industries. The working group will aim at defining the ways to

- (1) Promote information and training of the employees inside the chemical industry and downstream industries on the safe use of chemical products
- (2) Diffuse best practices in the chemical and downstream industries
- (3) Participate in and contribute to the evaluation of the efficiency of regulations by the authorities in this area
- (4) Fully involve the new EU-Member States taking into consideration the additional burden for their industry in this area.

The Working Group will ask for support from the relevant institutions and regularly present their progresses and proposals in the framework of the Social Partner Dialogue at the Plenary Meetings. Furthermore the Working Group may propose to the Social Partners special projects in this area, e.g. the organisation of meetings, workshops or conferences especially focussed on the matters related to the tasks of the Working Group.

Follow-up of the EU enlargement in 2004 and preparations for possible next steps of enlargement

ECEG and EMCEF may follow some specific projects in this area, e.g. the organisation of meetings, workshops or conferences especially focussed on the exchange of experience between the Social Partners of the EU member countries which have joined the EU in 2004, the candidate countries for further EU enlargements (Bulgaria, Romania, Turkey and Croatia) and the members of the EU15 regarding all subjects of social affairs agreed upon between both Social Partners.

The EMCEF and ECEG member organisations from these countries are invited to come forward with specific proposals for such projects. ECEG and EMCEF will

furthermore get into contact with the relevant Social Partner organisations of the candidate countries named above to see which possible projects might be helpful from their point of view.

Furthermore EMCEF and ECEG might organise specific projects in the form of conferences, workshops or studies looking after certain aspects of high importance for "sub sectors" and / or certain parts of the Chemical Industry, as it took place for example already in the past in the PVC sector. The relevant representatives of the interests of these sectors and their employees are invited to come forward with any specific proposals.

General Points

Both Social Partners agree changes to the subjects identified to be part of the work of both organisations within the framework of the formalised Social Partner Dialogue will be possible. They will have to be approved by the Plenary Meeting. In due time before the end of 2006 the Social Partners will discuss the subjects for a follow-up Working Programme for the formalised Social Partner Dialogue from 2007 onwards.

Regarding the Working Groups founded with this Working Programme by both Social Partners it is agreed in addition to the nominated members and the chairpersons of these groups the chairpersons of the Plenary Meeting and one more representative from the staff of the organisations have the right to participate in all meetings of the Working Groups. This Working Programme was approved by the Plenary Meeting of the formalised Social Partner Dialogue of the Chemical Industry on February 3rd 2005 in Brussels.

Brussels, 3rd February 2005

The Chairpersons

Paul Clerinx
(ECEG)

Reinhard Reibsch
(EMCEF)

Appendix 2

Joint Position Paper on Education, Vocational Training and Lifelong Learning in the European Chemical Industry

The European Chemical Employers Group (ECEG) and the European Mine, Chemical and Energy Workers Federation (EMCEF)

having in mind that

- the European Chemical Industry
 - ranks 1st by size in the world,
 - is the second largest industrial sector in Europe
 - employs 2 million people directly in Europe and an even larger number of employees are dependent on the chemical industry indirectly,
 - is composed as well of large multinational companies as of many successful small and medium sized entities,
 - has a positive trade balance, playing a key role for the export position of the European Economy as a whole,
 - contributes by its innovations and activities to the success of many other sectors and the European Economy as a whole,
 - is one of the sectors that develops voluntary commitments in order to promote continuous improvements in health, safety and environment
- the chemical industry has one of the highest proportions of knowledge based / intelligence intensive work places, a higher proportion of highly educated and trained staff than most other manufacturing industries and not only very large and innovative research and development operations but also a high need for well trained, responsible staff in all of its operations due to its sophisticated production processes in many areas. This need is already reflected in the continuous commitment of the industry through its voluntary Responsible Care programme and is as well already

addressed by companies, employees and their representatives in many ways, which was highlighted in 2003 by the memorandum of understanding signed by **ECEG**, **EMCEF** and Cefic on Responsible Care and the foundation of a "Joint Monitoring Group Responsible Care". One of the tasks of this Group being to exchange information on training schedules and programmes for employees in Health, Safety, and environmental areas.

- a lack of skills is already faced by the chemical industry at least in some European countries and in some areas of the industry as a reality, despite the high levels of unemployment in many European countries. **EMCEF** and **ECEG** believe such shortages hinder economic growth as well as positive developments of European labour markets. They might indeed become a danger to the so-called Lisbon-Goals agreed upon at the Lisbon Council in 2000 to make the "European Union the most competitive and dynamic knowledge-based economy in the world, capable of economic growth with more and better jobs and greater social cohesion".
- this being even more the case as future demands for qualifications of employees of the chemical industry will rise continuously. The proportion of higher qualified staff has already risen during the last decades and this development will continue and might even be accelerated further. Changes in technology used at workplaces are increasingly frequent, organisation of the working process changes more often and therefore also the way to work is subject to frequent alterations. This highlights the need for a even more flexible structure within the companies, which itself is again the reason for an increase in the demand for highly qualified staff. An positive attitude towards processes of lifelong learning will be necessary for the industry as well as for employees

in order to secure future success of the sector as a whole within the European economy as well as the employability of its employees.

declare their common interest in highlighting the importance of high education levels, good standards of vocational training and a commitment of industry and employees to further vocational training and lifelong learning throughout the entire working life in order to secure the innovative strength of the industry as well as the employability of the actual and possible future employees of the industry.

ECEG and **EMCEF** agree that joint action on these subjects has to be promoted. Thereby they identify tasks both for the industry and the employees and their respective representatives – on company level, regional, national and European level. Furthermore there are tasks to be dealt with by public or semi-public institutions, if possible together with the Social Partners, which has to be decided on the basis of the different national systems and traditions in this area within the European Union.

Image of the chemical industry

It is important that conditions are created to avoid prejudicial policies towards the development of the chemical industry and to strengthen the positive image of chemical industry to the general public and to the youth in particular; A open and transparent policy and communication from the chemical industry can help to achieve this.

General Education - Schools and Universities

A first area for action is the general education in schools and universities as well as the specific education in chemicals

and other natural sciences.

Here of course is one of the key tasks for the public institutions in the individual member countries to secure a high level of general education for all citizens as well as an open and fair approach of this education towards natural sciences, technology in general, a basic understanding of economic developments and good standards in communication skills. National employers organizations and unions as well as Cefic and many individual companies are already offering support to schools, universities and individual teachers in this area in order to improve education programs, teaching material and technical knowledge of the teachers. **ECEG** and **EMCEF** consider that these programmes should be continued and intensified wherever possible. A reinforced exchange of experience between the partners of such programmes across Europe should be an aim of all participants, in order to allow good practice and successful strategies to penetrate into as many projects as possible.

Vocational Education and Training, lifelong learning

ECEG and **EMCEF** are both convinced vocational training, regularly and appropriate further training and lifelong learning over the entire working life is essential not only for companies in order to maintain successful, productive and efficient, but also for each employee in order to maintain his or her employability. Employers within the European chemical industry therefore have a strong interest in offering opportunities for their employees for a initial as well as further vocational training in accordance with the requirements of the specific jobs dealt with by the employees and to motivate employees to participate in this training. Employees within the European chemical

industry have the same strong interest in looking after their individual vocational skills and in investing in these qualifications in order to keep their employability at the highest possible level.

ECEG and **EMCEF** and their respective national affiliates will support both employers and employees in these processes, which are marked by a shared responsibility.

They both ask for better, more transparent and flexible frameworks regarding European and national regulations governing vocational training and education as well as for the public funding supporting the activities in these areas.

Joint Working Group

ECEG and **EMCEF** have decided that a Working Party should analyse the following subjects in more detail, possibly including the writing of a report on these subjects:

- a more in depth analysis of the status quo regarding skills, qualifications, vocational (further) training and lifelong learning within the industry;
- an exchange of information and good practice of the different national systems of education, vocational (further) training and lifelong learning in order to support the further development in these areas.

Helsinki, 10th September 2004

ECEG	EMCEF
Hans Paul Frey	Hubertus Schmoltdt
President	President

Paul Clerinx	Reinhard Reibsch
Chairman	General Secretary
Steering Committee	

Appendix 3

Survey of member state social partners to report on different education, training and lifelong learning systems in the EU

QUESTIONS

A. Country information

1. What is the population of under 18 year olds in numbers in your country ?
2. What is that as a percentage of the total population ?
3. What percentage is female/ male?
4. What is the percentage of those who go from education into university ?
5. What is percentage is female/male?

B. Mandatory education

1. At what age do children have to start to attend school ?
2. Is there any requirement to attend pre-school e.g nursery, kindergarden ?
3. What is the earliest age that children can leave compulsory education ?

C. Testing ability up to the age of 16/18

1. At what ages(s) do children get 'assessed' ?
2. Are the assessments a mandatory requirement of the state ?
3. What if any flexibility do schools have ?
4. What is the name of the final compulsory assessment that children have to complete before leaving full time education ?
5. Are there any different demands to special needs pupils or girls?

Note: The figures for question A, B and C may be available from your national statistics office, national government, OECD, EuroStat or other public sources.

D. Natural Science (including Chemistry, physics, biology)

1. At what age does science teaching start ?
2. Is this a mandatory requirement ?
3. At what age if any do children have the choice NOT to do science ?
4. When given the choice what percentage of people in school opt to study science ?

G. Number of employees in the chemical companies and particular groups

1. Please state the total number of employees who work in the chemical sector ?
2. How many are female/male?
3. Are any special measures taken to support the following groups ?
 - a. Women
 - b. Disabled
 - c. Ethnic minorities
 - d. Older/mature students
 - e. Any others
 - f. Please say a few words about what special measures are being taken:

H. Training in employment of workers in the Chemical Industry

1. What percentage of working time is spent on training ?
2. Are all trainings that are offered by the employer or through collective labour agreements specific job related ?
3. Is there any training offered that is labour market related, but not job related, for example through personal development plans? Please describe max two lines.
5. In the event of restructuring is any training offered to help with other opportunities in the labour market ? Please describe max. two lines.
6. Who decides on the training and education offers?

7. Is there sectoral funding for education and training?
8. If so who are the decision makers on this?
9. Are there joint employer and union agreements on the level and recognition
10. of vocational training at sector or company level ?
11. As a sector, is there any training you feel is missing from current programmes? If so what and why ?

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