



# Responsible Care

Europe 2007-2008

**Our Commitment to Sustainability**



A supplement presented with

 **ICIS ChemicalBusiness**

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## Our commitment to sustainability

Responsible Care is our commitment to sustainability. This is the new tag line we will use in combination with our logo to explain the added value of the Responsible Care commitment to sustainable development, says Jean-Paul Peres

The logo extension will be launched in 2009. It will be a visible testimonial to our determination to advance sustainable development, as demanded in the Responsible Care Global Charter.

In 2009, Responsible Care is once again in the spotlight of the international community, as the United Nations Environment Programme (UNEP) organises its second conference on international chemicals management (ICCM-2) in May in Geneva, Switzerland. The international chemical industry will present the progress it has been able to make in the implementation of the Responsible Care Global Charter and the Global Product Strategy (GPS), launched at the first ICCM conference in Dubai in 2006 (see page 24).

Today, five times the number of Europeans know about Responsible Care than 10 years ago. Actually, there are more people who know about Responsible Care than there are people who have heard about Reach, the EU's new chemicals policy. These are the interesting results of the Pan-European Survey (PES) 2008, which clearly testify to the high value of the Responsible Care brand.

Cefic conducts its PES every two years to measure and understand the image of the European chemical industry in the public's mind. And, although the PES identified growing societal concern about the safety of chemicals in consumer

products, the public is still mostly concerned about the safe and environmentally sound production of chemicals.

The key elements of Responsible Care are also one of the focuses of the European Social Dialogue between chemical industry employers and employees. In October 2008, Cefic, the European Mine, Chemical and Energy Workers' Federation (EMCEF) and the European Chemical Employers Group (ECEG) published a brochure with eight national case studies on Responsible Care.

And, in November 2008, Cefic, EMCEF and ECEG launched a new project to boost the involvement of small and medium-sized enterprises (SMEs) in Responsible Care, called PRISME<sup>2</sup> (see page 4).

Our engagement with our stakeholders throughout the value chain also shows good progress. In June 2008, Cefic started its first stakeholder dialogue on the safe use of nano-materials with broad participation of authorities, science bodies and NGOs.

And in July, multinational European companies teamed up in an extraordinary exhibition in the European Parliament, organised by Cefic, to inform parliamentarians how chemical products and innovations enable society to save energy and tackle climate change (see page 22).

A top issue at the European Responsible Care conference in Manchester, UK, was plant and process safety and Cefic's engagement to implement new indicators to measure our performance in this area (see pages 12 and 20).

Also in Manchester, we started a new chapter in the promotion of Responsible Care along the value chain with the launch of Responsible Care in chemical land transport through a partnership agreement between Cefic and the European Chemical Transport Association (see page 8). This complements the first partnership agreement between Cefic and the European Association of Chemical Distributors (FECC), signed in 1999.

Our objective is to monitor, benchmark and communicate the achievements of



Jean-Paul Peres, chairman, Responsible Care Europe, Cefic

**“The logo extension will be launched in 2009. It will be a visible testimonial to our determination to advance sustainable development, as demanded in the Responsible Care Global Charter”**

industry's Responsible Care initiative. The reporting of our performance against a set of indicators in our annual Responsible Care report is a key element. However, we have decided not to publish our 2007 data in this report, because consolidated data were not available when this report was printed. The reason for this is that we introduced a new electronic web-based reporting tool in 2008 (see page 26).

This tool is an important step forward in helping us improve our accountability. It is also in line with the requirements of the Responsible Care Global Charter. The implementation of the reporting tool at global level has made good progress and the aggregation of the data from 53 countries will be validated by January 2009.

Our 2007 key performance indicator (KPI) data will be available on the Cefic internet site at the beginning of 2009. ●

## PRISME<sup>2</sup> targets SME participation



PHOTOLIBRARY

Cefic has launched a pan-European project with European Commission and trade union backing to stimulate SMEs' involvement in Responsible Care, reports John Baker

Greater involvement in Responsible Care by small and medium-sized enterprises (SMEs) has long been a goal of Cefic and the national chemical associations across Europe. But, as with many other industry and indeed European Union initiatives, winning the engagement of SMEs is always a challenging task.

SMEs often do not have the manpower, funds or time to take an active part in such industry schemes. For Responsible Care, in particular, they often lack the specialised safety, health and environmental (SHE) experts to work in the national association networks.

In an active step to improve the situation, in November 2008 Cefic launched a European Commission-supported initiative to help bring more SMEs into the Responsible Care fold. The initiative, called PRISME<sup>2</sup> – Promoting Responsibility in SMEs, where the squared symbol implies redoubled effort - is part of a series of projects on corporate social responsibility (CSR) being stimulated and part-funded by the Enterprise and Industry directorate of the European Commission.

Cefic's partners in this multi-stakeholder project are the European Mine, Chemical and Energy Workers' Federation (EMCEF), the European Chemical Employers Group (ECEG) and Tomorrow's Company, a UK-based business-led think tank that examines the role of business and its relationship with society and the environment.

As part of the PRISME<sup>2</sup> programme, Tomorrow's Company will provide expertise in sustainable business and CSR matters and develop a scheme for internal evaluation. Created in 1995, Tomorrow's Company has been a leading advocate of sustainable business practices and the importance of embedding values in the day-to-day operations of organisations, both large and small.

The Commission issued a call for CSR project proposals earlier this year, with a deadline of 23 May. The projects have to cover specific sectors of industry, involve multiple stakeholders and include SMEs. Three applications have been successful. Besides the one proposed by Cefic »

## Unions support Social Dialogue

The chemical industry, through its European Chemical Employers Group (ECEG), and the trades unions, represented by the European Mining, Chemical and Energy Workers Federation (EMCEF) have been involved in a formal European-level sector Social Dialogue since late 2004.

But even before that, in February 2003, the two groups, and Cefic, signed a memorandum of understanding on Responsible Care. This was followed – among other subjects – by discussions on the lack of skills facing the chemical industry, and the life-long learning and training required to address this, as well as on activities on the issue of Reach, the EU's new chemical policy.

More recently, ECEG and EMCEF have been collaborating on the issues of restructuring in the industry; health and safety developments, especially in downstream industries; and on the potential social impacts of the new phase of the EU's Emission Trading Scheme (ETS).

Speaking at October's Responsible Care annual meeting in Manchester, UK, Reinhard Reibsch, general secretary of EMCEF, stressed the importance of the Social Dialogue and Responsible Care in addressing occupational health and safety issues in the chemical industry.

The two groups, he explained, meet regularly, through usually two plenary meetings a year and a number of meetings in three thematic working groups. One of these working groups focuses on Responsible Care and health and safety at the workplace.

Fortunately, said Reibsch, the chemical industry in the EU15 member states has a relatively low incidence of occupational diseases related to chemicals. But, he cautioned, in the newer member states, "compensation instead of prevention does still play a role."

The goal of the dialogue between the industry and unions, he said, should be to draw up recommendations and share good practice to help improve H&S standards. There should, he added, be "continuous reduction of accidents and occupational risks."

The Social Dialogue has also led to cooperation between the unions and chemical associations in many EU member states, again within the framework of Responsible Care. For instance, said Reibsch, there are local agreements on national social dialogues in Finland, the UK, the Czech Republic, France, Germany, Italy and Spain.

Reibsch concluded by explaining that EMCEF sees Responsible Care and Social Dialogue as complementary and that the "Responsible Care programme is an important framework for agreements between social partners." Equally, he commented, "the European Social Dialogue is important to foster Responsible Care programme issues."

The creation of the PRISME<sup>2</sup> project will provide the industry and its employees with a further tool to enhance their collaboration on Responsible Care and extend it to SMEs across Europe.



» for the chemical industry, there are two other projects from the textile and construction industries.

Bernhard Thier, Cefic's manager for Responsible Care, explains that Cefic decided to develop PRISME<sup>2</sup> and submit it as a proposal because it was the right time to set up a project and implement what Cefic's issue team on SME involvement in Responsible Care had already started to develop.

It will also, he argues, strengthen the social dialogue on Responsible Care and position the long-running voluntary initiative as a form of corporate social

and Cefic, ECEG and EMCEF at the pan-European coordinating level.

PRISME<sup>2</sup> will focus on key elements of need for SMEs, such as health, safety and product stewardship, and will recruit and train performance leaders to serve as mentors to the participants in the project. In operation, it will take a "top down" as well as a "bottom up" approach to engage management as well as employees of SMEs in Responsible Care.

Contacts with SMEs will be facilitated through existing business relations between companies and through regional clusters of associations.



Reinhard Reibsch, EMCEF

**"We fully support the objectives of PRISME<sup>2</sup>; a good involvement of and support from employees is crucial for promoting Responsible Care. Getting involved and improving occupational health and safety is of key interest to employees and their representatives in the trade unions"**

responsibility, a concept more and more in the focus of corporate strategies towards sustainable development.

"The goal", he elaborates, "is twofold: we want to gather best practices and practical tools useful to SMEs – an activity which has already been started by the issue team. On the other hand, it will initiate a Responsible Care networking programme dedicated to capacity building in SME companies."

PRISME<sup>2</sup> will be piloted in five countries and involve a solid foundation of relevant stakeholders. The coordinating national industry associations are the CIA (UK), Feique (Spain), VCI (Germany), ZCHFP (Slovakia) and SCHP (Czech Republic). The Slovak and Czech associations will coordinate a joint pilot. A target of recruiting 12 SMEs in each pilot has been set.

Participants will include the national chemical associations and companies – both large and small - at a local level,


This, says Thier, will break the mould of gaining access to SMEs, by establishing business partnerships along the product chain and strengthening networking between companies.

And, he adds, there will be a series of workshops and a communications web site set up, with an SME portal and blog. A tool box approach will be developed, offering self-evaluation for companies, workshops and training designs for key Responsible Care elements.

A major factor, says Thier, is the involvement of the trade unions in the project. The chemical industry, via ECEG, its social affairs group within the Cefic family of organisations, has been involved in a sector Social Dialogue with EMCEF at a European level since 2004.

PRISME<sup>2</sup> will intensify this cooperation and will involve national trade unions and motivate them to take an active part in the project. In addition, the social

partners of the industry, EMCEF and ECEG will participate in the PRISME<sup>2</sup> steering group and the project group, and help assess the SME tools and materials that will be developed.

“We fully support the objectives of PRISME<sup>2</sup>; a good involvement of and support from employees is crucial for promoting Responsible Care. Getting involved and improving occupational health and safety is of key interest to employees and their representatives in the trade unions”, notes Reinhard Reibsch, secretary general of EMCEF. 

**Bernhard Thier, Cefic**



## Commission promotes CSR for SMEs

The Enterprise and Industry directorate of the European Commission has been promoting the corporate social responsibility (CSR) agenda in the EU for several years, with particular emphasis recently on reaching small and medium-sized enterprises.

Last year it released a report, “Opportunity and Responsibility”, that analysed the ways that might help more small businesses to integrate social and environmental issues into what they do. It concluded that it makes sense to work with SMEs at regional and local level and through industrial clusters and sectors.

“SMEs from the same cluster or sector often face common social and environmental issues”, the Commission

says. “Addressing these issues collectively can reduce the costs of action and result in improvements that an individual SME acting alone cannot achieve.”

The report also emphasises that organisations that work with SMEs have a central role to play. “Existing business support organisations... need to be encouraged and helped to better integrate CSR into the advice and support that they give to SMEs. Such organisations are key channels of communication and are qualified to communicate about CSR in a way that is relevant and understandable to them.”

The PRISME<sup>2</sup> funding is just one concrete example of how the Commission is helping prime the CSR pump for SMEs via the sectoral and association route.



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## Responsible Care takes to the road

Cefic and ECTA have signed an agreement extending Responsible Care to road transport, reports Mark Whitfield

Cefic and the European Chemical Transport Association (ECTA) have taken a big step forward in improving safety in the transport of chemicals in Europe.

The two associations signed an agreement in October that allows ECTA to develop and coordinate a Responsible Care programme for the chemical land transport sector in line with the fundamental features of Responsible Care. The move extends the industry programme further along the chemicals supply chain.

Alain Perroy, director general of Cefic, said at the signing in Manchester, UK: "We are impressed by the engagement

of the chemical transport companies in improving their performance and wish ECTA a successful start. This extension of Responsible Care in the value chain of our industry is a major breakthrough."

Antonio Montero, ECTA president and CEO of Spanish chemical transportation company Pañalon, described the signing of the agreement with Cefic as a true milestone. "It is the ultimate recognition of the tenth year of activity by ECTA in making chemical logistics safer and connected to chemical industry needs. We thank Cefic for delivering this important vote of trust by integrating the chemical transport industry in the worldwide Responsible Care initiative."

### Pan-EU scheme

While Cefic's Responsible Care principles are applied through the national chemical associations of the various EU countries, the transport Responsible Care programme will be operated on a pan-European basis by ECTA.

"Over recent years, joint working groups from Cefic and ECTA have worked closely in developing guidelines on specific transportation topics, for example for the safe driving, loading and unloading of road freight vehicles and for transport equipment," explains Jos Verlinden, director of transport and logistics at Cefic.

"Over the past 10 years more than 15 best practice guidelines have been jointly



Jos Verlinden, Cefic



## ECTA Responsible Care core principles

- Continuously improve the environmental, health and safety performance of our transport operations of chemical goods so as to avoid harm to people and the environment.
- Ensure that proper care is taken to protect the safety and health of all people involved in our chemical transport operations.
- Minimise the environmental impact of our transport activities.
- Use resources and fuel efficiently and minimise waste.
- Take adequate measures to ensure the security of our operations.
- Collect data and report openly on our performance, achievements and shortcomings.
- Listen, engage and work with people to understand and address their concerns and expectations.
- Cooperate with governments, international institutions, organisations and authorities in the development and implementation of effective regulations and standards to improve transport safety.
- Encourage the responsible management of all those who are involved in providing a service to us, in particular transport sub-contractors and cleaning stations.

developed and promoted. Involving the transport industry in the development of these guidelines helps in obtaining commitment from the transport companies in their implementation. The signing of the agreement formalises the results of many years of cooperation."

The core principles of the agreement (see above) have been developed from the Responsible Care principles adapted by the chemical industry to relate more specifically to the transportation of chemicals.

CEOs of ECTA member companies that choose to join the ECTA Responsible Care programme must sign a commitment to the core principles, including a commitment to continuously improve the way they operate. Each participating company must formally appoint a Responsible Care coordinator and develop its own annual Responsible Care plan. Participating companies must collect annual performance data on key performance indicators (KPIs) and report these to ECTA. ECTA will collect and consolidate these data for all its members.

These KPIs cover areas including transport incidents per million kilometre, number of training days per year and emissions measurement to show that fuel efficiency programmes are in place and that vehicles are being driven in the most efficient way. ECTA members that join the programme will be granted permission by Cefic to use the Responsible

Care name and logo under guidance.

In addition ECTA Responsible Care companies will have their operating units assessed every three years using Cefic's Safety and Quality Assessment System (SQAS) scheme for evaluating the safety, security, quality and environmental standards of logistics service providers. SQAS assessments are carried out by a European network of accredited third-party assessors using a standard questionnaire comprising 500 questions. Most transport companies have already carried out an SQAS assessment and are reassessed every three years.

A report of the results of completed SQAS questionnaires is held by Cefic on a central database, which already contains information on over 3,000 assessments and is available to chemical companies to assist them in deciding whether or not individual transport companies meet their company's required standards.

A joint Cefic and ECTA working group has collected the transport industry's best practices on training drivers and has launched a Behaviour Based Safety (BBS) programme that aims to increase safety by positively influencing the behaviour of the drivers. Drivers are accompanied by a trained observer while carrying out their work. The observer provides feedback to the driver, listing both the positive side of their performance and giving suggestions for improvements. »

» The BBS training programme, which is repeated at regular intervals, has the additional benefit of reducing fuel consumption, vehicle emissions and maintenance costs. “Our target is for zero incidents in the industry. However, we need to know about ‘near misses’ so we can learn lessons from these,” says Rose-Marie Pype, logistics manager at ECTA.

“Since 2005 we have promoted continuous training for drivers of all ages. This is all part of achieving zero incidents.” The same BBS concept has also been introduced in loading/unloading operations.

Over the past two decades, the

European chemical industry has almost totally outsourced the provision of logistics services to outside companies. Verlinden says that it is important that these logistics service providers work to the same standards as the chemical industry does.

Cefic has also established the ICE scheme for Intervention in Chemical Transport Emergencies (see below). “This is a series of national schemes. If the owner of the product cannot be contacted [in an emergency], other chemical companies can provide information and advice, and, if possible, practical assistance to the emergency services



PHOTOLIBRARY



KEVIN SAIDLER

Antonio Montero, ECTA (left) and Alain Perroy, Cefic

## ICE provides accident response

To provide an effective response to chemical transport incidents, Cefic has established ICE – the Intervention in Chemical Transport Emergencies scheme. National schemes have been established in 17 countries involving over 600 chemical companies and covering all goods that are classified as dangerous for transport by the International Carriage of Dangerous Goods regulation (ADR).

Under the umbrella of the European ICE network, each country has given its national scheme a specific name and has assigned the role of national ICE centre to an existing site or organisation.

In the event of a chemical transport

accident, public emergency services first attempt to contact the owner of the product. If this is impossible, other companies that have detailed knowledge of the product involved can be contacted through ICE.

“At this moment, the ICE network consists only of chemical companies but we are looking to the transport industry to develop an equivalent network of transport companies that are willing to provide assistance in case of an accident. Initiatives to establish such a European response network with the transport industry over the previous years have not been successful,” says Jos Verlinden of Cefic.

in order to minimise adverse effects,” Verlinden says.

Pype adds: “Within Responsible Care all transport companies must have a good emergency plan and they should not take on products that they are not equipped to handle. There has to be great cooperation between companies that transport chemicals and those that make them.”

“The whole chemicals transport sector is very much encouraged by the agreement with Cefic,” Pype says. “Will its implementation make significant changes to the way the sector operates? I have to



**Rose-Marie Pype of ECTA**

say no, as safety has always been the key priority. The agreement formalises the way we attend to Responsible Care and ensures that our business will be carried out in a structured, measured, transparent way to show continuous improvement, inspiring other companies.

“We have taken the chemical industry Responsible Care programme and translated it to transport. We’ve learned a lot from the chemical industry and can now demonstrate maturity in our sector.”

Looking to the future, Verlinden indicates further possible extension of the Responsible Care concept to other parts of the supply chain, for instance to the industry of tank cleaning. “The tank cleaning sector is already using SQAS, so improvements have been seen. A European Cleaning Document has been developed in cooperation with the European Federation of Tank Cleaning Organisations (EFTCO) and ECTA.”

## Parlez-vous Transperanto?

Because more and more drivers are speaking different languages to those employed at loading sites, a new “language” called “Transperanto” - derived from Esperanto, transport and transparency - has been developed by Cefic to facilitate effective communication in different languages between truck drivers and personnel at chemical loading and unloading sites.

With 150 expressions related to chemicals loading and unloading in 26 European languages, these key words and phrases are available on a dedicated website ([www.transperanto.org](http://www.transperanto.org)), as a booklet and as posters, enabling users to view a set of words in selected languages.

Transperanto supports two-way communication, for example between foreign drivers and staff at a gatehouse or a dispatch office.

## ECTA in brief

Europe’s chemical hauliers formed the European Chemical Road Transport Association (ECRTA) during the 24th EPCA Logistics Meeting in Barcelona, Spain, in 1997. The association was formally established in February 1999.

Since then, the name has been changed to European Chemical Transport Association (ECTA), to reflect the fact that all modes of transportation (including rail and inland waterways) are represented.

ECTA’s aim is to improve the standards of efficiency, safety, and quality as well as the environmental and social impacts of the transport and logistics of chemicals in Europe.

## Annual conference puts the spotlight on process and plant safety issues

Cefic held its Responsible Care conference at the Midland Hotel in Manchester, UK, on 22-24 October 2008, under the banner “Responsible Care for all”. John Baker reports

Process safety is once again a high profile issue in the chemical industry, following a number of major incidents in Europe and the US. In her keynote presentation to the conference, Judith Hackitt, chair of the

ated a false sense of security. “There is also growing evidence that there is loss of experience, especially when process changes are made. Corporate memory is being lost and the failure to learn lessons



Scenes from the conference (r to l): the Midland Hotel, delegates, Alain Perroy of Cefic and Gary Cramb of Syngenta

UK’s Health and Safety Executive (HSE), stressed that leadership is a key element in the drive to enhance process safety.

In the 1990s, she explained, public concern largely shifted from process to product safety, based on a feeling that the industry had the former well in hand. “But recent evidence shows they thought this too soon. We have left ourselves too vulnerable – public confidence and trust takes years to build up, but just minutes to lose.”

Recent incidents, like the BP Texas City explosion in the US and the Buncefield fire in the UK, have shown the industry is still vulnerable and that attention to process safety needs to be heightened again.

“Industry reputation and performance is only as good as its weakest link”, she warned. In Hackitt’s mind, process automation and management systems have brought huge benefits but have also cre-

is creating vulnerability.”

Hackitt stressed that the industry needs to address this situation urgently and “it has to be done from the [company] board [level], but not just by the board. Lack of incidents is no reassurance – we have to listen to the concerns of those closest to the process and ask the right questions and anticipate the worst that can happen.”

What is needed is a meaningful assurance system that can give early warning signs. Even though Responsible Care has started out “as a shining example of an industry-led voluntary SHE programme”, Hackitt commented that it was high time Responsible Care addressed process safety in a more consistent way.

The measurement of performance is weak, in that all its indicators are lagging indicators, whereas regulators and industry are increasingly looking »

# Action needed on global warming

BY DEBBIE JACKSON

Addressing delegates on the final morning of the conference, Linda McAvan, a Labour Member of the European Parliament from the UK, spoke on “Combating Climate Change”, and the challenge and opportunity for industry. She has worked closely with the chemicals sector in her role as coordinator for the European Parliament’s climate change policy.

McAvan stressed that the focus on climate change is not going to be abandoned because of the global financial crisis. Action is needed, not simply plans. “It will cost, but it will cost even more if we fail to act,” she warned.

As this Cefic report went to press, the next round of global climate change talks were set to get underway in Poland. The United Nations is seeking to secure a new deal next year in Copenhagen, Denmark, before the current Kyoto Protocol runs out in 2012.

McAvan said the EU wants to lead by example so Parliament wants to fast-track legislation before the year end. Its “20 2020” target aims for a reduction of at least 20% in greenhouse gases emissions by 2020.

“Translating that into binding legislation is the hard part,” said McAvan. There are five pieces of legislation, several of which directly affect the chemical industry, including the EU’s Emission Trading Scheme (ETS) which will introduce “buying permits” for companies. This will mean that, by 2013, companies will be purchasing their CO<sub>2</sub> emissions allowance by auction, potentially rising to 100% by 2020.

Cefic is tracking developments closely, and has made clear that while the chemicals sector supports and is even an essential enabler of the envisaged reductions in CO<sub>2</sub> emissions, it

is strongly opposed to the ETS proposals exposing sectors to increased auctioning which it says will damage the European chemical industry’s competitiveness.

Instead, Cefic favours a performance-based benchmarking approach as an allocation method for distributing free allowances to industry. By that, the EU emission reduction targets will be equally achieved, and at a lower cost to the economy in turbulent times.



McAvan held delegates’ attention

Parliament needs to be well aware of what effect climate change legislation has on industry, she said. “I care about the environment but [as a socialist] I also care about jobs and industry.”

While McAvan also warned against exaggerating the impacts of legislation, she encouraged joint lobbying by industry and the trade unions: Europe “would not get effective laws” without lobbying, she commented.

It is a major imperative to get agreement on the legislative package “so that Europe can ‘walk the talk’ in terms of concrete laws,” said the MEP. “Clarity and a lack of uncertainty is better for industry, too... the worst thing for international companies is to have loads of different schemes,” she said, adding that it would be preferable to have a global ETS in place rather than a European one.

KEVIN SAIDLER

KEVIN SAIDLER



» for leading indicators in the area.

The UK HSE, she noted, had been moved to draw up guidance on process safety two years ago aimed at the major hazard industries, including chemicals. Aimed at big and small companies alike, it stresses that people are looking too much at what has failed and that they ought to shift to looking at leading rather than lagging indicators.

Christian Jochum of the European Process Safety Centre (EPSC), based in the UK, agreed with the view that process safety needed to stay the focus of attention and that the priority of companies should not shift from process to product safety.

We can, he said, “be proud about process safety in the EU chemical industry... but there has been no significant reduction in the last few years”. Indeed, since 2004, there have been around 25-30 incidents/year reportable in Europe under the Seveso II regulation, or around three accidents per 1,000 establishments.

The problem with process safety is that incidents are low probability and high consequence which makes them difficult to evaluate statistically. They thus tend to get less attention by professionals and management and more attention from stakeholders. Management of safety is a top priority, he stated, and we can only manage what we can measure.

In this case, active monitoring with leading indicators is required, not just reactive monitoring with lagging indicators. Jochum pointed to several guidance notes from OECD (2003) and EPSC (2004) and also the Baker report into the Texas City explosion, which he felt had accelerated an already ongoing trend to the use of leading indicators in process safety.

Comprehensive performance measurement involves both types of indicator. Lagging indicators are identified from investigations of actual incidents – eg, fires, explosions, losses of primary containment and near miss reporting – while leading indicators measure the area where the chemical industry invests most in process safety. This includes pre-

ventative measures such as inspections, management of change and operator competency, and site risk assessments.

In the US, commented Tim Overton of Dow Chemical, the Baker report on Texas City has prompted the US Center for Chemical Process Safety (CCPS) to develop a series of simple metrics, using both lagging and leading indicators. These will be ready by the end of this year and a guideline book will be available in early 2009.

CCPS is recommending companies and trade associations collect and report three lagging metrics – the number of process



CIA deputy chief executive Diana Montgomery



Judith Hackitt, chair of the UK HSE

safety incidents (involving chemicals above a given threshold depending on UN hazard classification); the process safety incident rate (a count of incidents per man-hour); and a process safety severity rate.

It also recommends that all companies implement appropriate leading metrics and near miss reporting, as described in its metrics document.

Cefic is also working to define a system of leading and lagging indicators in Europe, led by Cefic's process safety issue team under Peter Schmelzer of Bayer HealthCare. He outlined the Cefic approach, more details of which are given on page 20 of this publication.

As Jochum pointed out, Europe is not behind in performance in the area of process safety, but it is behind in reporting. “EPSC is aware of the importance and sensitivity of this issue and is ready to support Cefic,” he concluded.

# Drive on safety in the workplace

BY JOHN BAKER

The Manchester conference, ably hosted by the UK's Chemical Industries Association and opened by its deputy chief executive Diana Montgomery, also heard a number of other valuable presentations.

Adding to the debate on process and plant safety, Gary Cramb of Syngenta stressed the importance of engaging all staff in managing safety on site and in improving process safety. The agrochemicals and seeds company has a five-year SHE strategy with the aim of being best in class in its sector.

Syngenta promotes pro-active management of the risks at its facilities, said Cramb, as they have the potential for high severity outcomes. This has involved a culture change at the company, brought about by workforce engagement, with visible SHE leadership making regular site tours; an active SHE committee; and annual site away days to give everyone the opportunity to help shape the future of SHE performance.

A key factor, he explained, has been to design simple-to-use dashboards to display key safety data to the workforce, and to encourage good reporting of accidents and near misses. Networking with colleagues from local industry is also encouraged.

The second session of the conference, on occupational health provision and societal concerns, was kicked off by Jochen Muller, campaigns manager of the European Agency for Safety and Health at Work (OSHA), based in Bilbao, Spain. He outlined a new EU campaign designed to promote the use of risk assessment as the first step towards a sustainable prevention culture.

Part of OSHA's new "Healthy Workplaces" campaign, the initiative sets out a five-step approach to good risk assessment in the workplace. It was launched in June this year and will run to the end of 2009. It will be followed up by

a second campaign in 2010 and 2011 on safe and structured maintenance.

Risk assessment is a legal obligation for employers, said Muller, but "there are still quite a number of companies that do not assess their risks properly". In general, these are the smaller ones, he added. With this in mind, the focus of the new campaign is on SMEs and micro-firms, targeting employers, workers, safety representatives and occupational safety and health practitioners.



KENIN SAIDLER

Responsible Care chairman Jean-Paul Peres

On the final day, Samantha Nicholson of Enworks, based in the northwest of the UK, discussed the tools that are available to improve companies' energy and environmental performance and support environmentally sustainable business practices.

Enworks has already advised over 5,000 business and achieved annual cost savings for them of over €58m, through reductions in resource use (of 2.9m tonnes) and improvements in waste management, with waste to landfill reduced by 64,000 tonnes, she noted.

Some of the ways Enworks helps companies are through the development of environmental policies and action plans, the implementation of environmental management systems and through training.

Speakers from Eastman Chemical, Pentagon Chemicals, BASF China and Johnson Matthey also contributed to the day-and-a-half meeting.

## Cefic Responsible Care Awards 2008

This year saw three deserving winners of the annual Awards competition: BASF, DuPont Asturias and BioMCN. Debbie Jackson describes their achievements

For 2008, Cefic introduced a new category for small- and medium-sized enterprises (SMEs) to its Responsible Care Awards scheme. In the event, the judges chose winners not only from the large and SME categories, but also identified a third entry as worthy of a

and environmental services as well as financial and human resource activities.

An important role is played by the site's biotreatment plant which treats effluents from various production units. Until late 2006, the biotreatment plant utilised ace-

Francois Cornelis, then Cefic president, presented the Awards at the Cefic annual general assembly in October in Athens, Greece. He is pictured here three times with, respectively (from left to right): BASF board member Stefan Marcinowski; BioMCN's chief operations officer Paul Compagne and CEO Rob Voncken; and DuPont's Enrique Macián, country leader for Spain and Portugal, and Joaquin Martinez, Asturias site engineering manager



special award because of its significance to societal concerns and demonstration of global stewardship.

The winning submissions from the three companies – DuPont, BioMCN and BASF – are profiled in this section of our annual Responsible Care report. Other entries are also listed in brief and can be viewed in more detail on the Cefic website ([www.cefic.org](http://www.cefic.org)).

### Sweet solution for DuPont

DuPont's Asturias site in Spain is located in the 345ha Tamón Valley, an area earmarked for conservation of the natural habitat. This entry for the Cefic Responsible Care Awards offered a simple and practical solution to a challenge which other companies could easily emulate.

The company manufactures a range of products including fibres, chemicals and crop protection products at the complex, which also houses support activities such as engineering and health, safety

and environmental services as well as financial and human resource activities.

Based on the fact that most acetic acid is produced from non-renewable resources, and prices had risen considerably in line with oil price hikes, a team at the biotreatment plant initiated a project designed to identify alternatives that would reduce consumption of the 1,039kg/day acetic acid feed. The project focused on two objectives: to optimise the operation of the biological reactors; and to seek an alternative source of biodegradable carbon.

Several alternatives were explored but were unsuccessful until discussions with industry contacts established that a local sweet maker – Chupa Chups – could offer a possible solution. The company was generating an aqueous effluent containing glucose which was sent off site for waste treatment because of its high organic load. Glucose is a renewable resource obtained from enzymatic hydrolysis of

cereals such as corn and wheat – and DuPont found it could be successfully used to replace the entire acetic acid requirement in the biotreatment plant.

This effective collaboration between the two companies meant DuPont was able to eliminate totally the use of acetic acid, a non-renewable resource, and save around €237,000/year into the bargain. And Chupa Chups found a use for a waste product that had previously cost the company nearly €27,700/year in treatment costs.

The judging panel described the DuPont entry as a “creative way of



solving a problem”, and liked the inter-company cooperation which not only benefited the environment but saved both parties money by exploiting this symbiosis.

### **BioMCN: a green approach to methanol**

In 2008, Cefic's focus on encouraging more SMEs to participate in Responsible Care initiatives was expanded to include a special SME category in its latest Awards scheme. As an incentive, the winning company in this category was awarded a full-day expert consultancy on a Responsible Care objective or related subject of its choice.

While just a handful of SMEs entered this year, it is hoped that wider publicity for the Awards – and the free consultancy! – will ensure stronger interest in 2009.

Recently founded in November 2006, winner BioMCN is one of the first companies in the world to produce high quality bio-methanol from renewable

## This year's judging panel

The 2008 panel of judges examined a shortlist of 15 entries. They were:

- Sue Bird – policy coordinator for European employment strategy, local employment development and corporate social responsibility at the European Commission
- Jim Hopwood, consultant on personal and organisational development at Chris Bull Associates
- Paul Kaye, editor, ENDS Europe Daily
- Etienne Marchot, EFQM awards expert, EE+ Coaching
- Don Potts, environmental advisor
- Frans Kempenaars, director of environment, health & safety Benelux, Dow Benelux (last year's winner)

resources on an industrial scale. It says innovation and a commitment to sustainability are key to its development of a process to achieve this.

Conventional methanol production is based on natural gas, while the chemically-identical bio-methanol is generated exclusively from renewable resources and even exceeds the international specifications published by the International Methanol Producers and Consumers Association. Glycerine is produced as a by-product of biodiesel production, and BioMCN's success is based on development of an innovative technology that converts this by-product into bio-methanol, thus closing the cycle.

The Dutch company is seeking to use its technology to reduce dramatically greenhouse gas emissions and increase security of supply.

As a fuel, bio-methanol can either be blended with petrol, or it can be used »



DuPont's Asturias site in Spain



» as a feedstock for other environmentally friendly fuels thereby helping fuel manufacturers to achieve EU targets. (The European Parliament recently reduced its target that 10% of transport fuels should come from biofuels by 2020. It is keeping the 10% target, but only 6% should come from biofuels with the remainder generated by new technologies that pose less of a threat to food security and the environment.)

Bio-methanol is also used for a variety of non-fuel applications including plastics and paints. BioMCN says it is continually developing new applications, in alliance with other innovative companies and research institutes.

BioMCN is also one of the founding members of biofuelGO, a pan-European initiative to implement a certification system for biofuels that proves they are made from renewable resources, and provides additional information on sustainability and CO<sub>2</sub> emissions reduction.

Praising the company's development of an innovative technology that aims to have a real impact on curbing CO<sub>2</sub> emissions, the judges also noted that BioMCN appears to recognise the sensitivities associated with biofuels. It is committed to "responsible use" of raw materials and processes, and to avoiding potentially negative effects on food production and land use associated with some biofuels.

#### **Finding the right balance at BASF**

In a clear message to stakeholders on the issue of climate change, BASF uses its Carbon Balance project to demonstrate that its products enable customers to save three times more greenhouse gas (GHG) emissions than the entire amount caused by production and disposal of all the company's products.

The calculations have been reviewed and confirmed by an independent third party, the Oeko-Institut in Freiburg, Germany.

The judging panel discussed this global project's qualification for the Responsible Care Awards which is primarily a site-focused scheme, but as one commented: "This company is walking

the talk", and is addressing one of the main challenges faced by society.

BASF is the world's first company to present a comprehensive carbon balance for its operations by assessing the company's carbon footprint. It shows not only emissions from BASF production, but also takes into account emissions from raw materials and precursors, emissions generated during transport, and in the disposal of all products.

The company also notes it has increased production by 51% since 1990 and reduced its GHG emissions by 38% in absolute terms over the period. Furthermore, at 25m tonnes of CO<sub>2</sub> equivalents, less than half of the emissions generated over the lifecycle of BASF products are from its own production processes – the bulk comes from upstream and downstream steps in the value chain.

In addition, stated BASF in its submission for the Awards, the company has looked at the lifecycle of 90 key products that save CO<sub>2</sub> emissions when used in end products. In areas such as construction through, for example, insulating materials in housing and lighter weight plastics in automobiles, as well as industrial production, these products help BASF's customers to save more than 250m tonnes of CO<sub>2</sub> worldwide.

As well as publishing the Carbon Balance, BASF has appointed a climate protection officer and launched an action programme, setting goals of 25% for increasing energy efficiency and for reducing GHG emissions up to 2020 compared with 2002. More than a third of all research spending goes into energy efficiency, climate protection, saving resources and renewable resources.

The company says this is part of a cycle of continuous improvement that started with the definition of the BASF climate protection goals in 2003 and introduction of the Responsible Care Management System in 2007. BASF is openly sharing this approach with its peers, and wants to develop a standard way of calculating a company's carbon footprint. ●



**BioMCN plant for bio-methanol**



## Other companies on the 2008 shortlist were...

### Dow Belgium

An exercise in "site water housekeeping" at the Dow Tessenderlo site describes recuperation of rainwater and a waste water stream. A project that the judges agreed achieved major improvements in water use and recovery.

### Albemarle Europe, Chemtura, ICL Industrial Products

VECAP: Voluntary Emissions Control Action Programme of the flame retardant producers. This submission from three major flame retardant producers was backed by impressive quotes from external stakeholders, and demonstrates good cooperation between producers and users to improve chemicals management.

### DuPont

This noise reduction project over a three-year period aimed at improvements for the DuPont Mechelen site in Belgium, and responded to concerns within the local community.

### BASF

A smoking cessation programme at BASF demonstrated good communications and stakeholder involvement, and succeeded in producing good results.

### Evonik Industries

Cooperation with local farmers led Evonik to find a useful outlet for warm water from its carbon black production site: early season cultivation of asparagus. Neighbours and local media were very positive towards the project.

### BMS (Swords Laboratories)

A concerted effort to invest in equipment and an operating philosophy that ensures employees can handle potent pharmaceutical products without the need for personal protective equipment.

### AHP Manufacturing

Innovative use of proven commercial techniques ensured this marketing and communications strategy on environmental, health and safety issues created a safer working environment for all.

### GlaxoSmithKline Cork

A very comprehensive submission on the use of pre-assembled volumes (PAVs) to reduce the risks of working at height made this a good example of how to work more safely and responsibly, and save money.

### DSM Agro

This was judged as a good, well communicated project which also brought positive publicity and achieved a world record in the reduction of the greenhouse gas, nitrous oxide, at its nitric acid manufacturing plants.

### Rembrandtin Lack

This detailed submission demonstrated how various measures over a number of years combined to achieve a major reduction in the use of organic solvents, driving down volatile organic compound (VOC) emissions, improving plant safety, and reducing health risks.

### Rottapharm

An all-rounder demonstrating Responsible Care in action includes projects covering energy efficiency, health and safety, and product stewardship.

### GlaxoSmithKline

"Wellness together" describes a comprehensive project aimed at GSK Biologicals' employees and involving a number of different initiatives focused on health, safety, the environment and the community.



**BASF facilities have been carbon assessed**



## Leading the way in process safety

Recent industry incidents have prompted Cefic to develop indicators on process and plant safety, reports Mark Whitfield

The explosion at BP's Texas City refinery in the US in March 2005 and subsequent reports by the US Chemical Safety and Hazard Investigation Board (CSB) and the Baker Committee have stimulated increased discussion on the issue of process and plant safety worldwide.

Cefic's Process & Plant Safety Issue Team (PPS-IT) was in addition alerted by the Buncefield fuel depot fire in the UK in December 2005. It responded by developing its own contribution to further develop process safety culture in the European chemical industry.

The team is an evolution of Cefic's earlier Seveso Issue Team set up to respond to the Seveso II directive that followed the explosion at the ICMESA plant in Seveso, Italy, in 1976. It brings together industry representatives from the major associations and companies in Europe.

It is now working to identify opportunities to improve process and plant safety, for example, by measuring performance and recognising trends in this important area. Thus, a process and plant safety (PPS) performance metric has been developed.

There are a number of options for measuring PPS performance and plenty of literature is available. One publication that has been recognised worldwide is the recently revised OECD guidelines.

Over recent years the European Process Safety Centre (EPSC) and the US Center for Chemical Process Safety (CCPS) have also published recommendations giving guidance on how to develop and choose indicators for process safety performance.

## Proposed conditions for LoPC reporting

Unintended release of substances or energy should be reported to top management if:

- (a) a lost time incident of >1 day was suffered, or
- (b) a fire or explosion with direct cost >€20,000 occurred, or
- (c) if they exceed the following thresholds <sup>(1)</sup>

GHS toxicity category 1 + 2 (or T+, T) <sup>(2), (3)</sup>	5kg	<sup>(1)</sup> Lower thresholds already defined might apply and stay in place. <sup>(2)</sup> As long as GHS categories are not available. <sup>(3)</sup> Use classification readily available with material safety data sheets
Any other hazardous substance <sup>(3)</sup>	100kg	
All other substances	2,000kg	

PPS-IT based its own recommendations particularly on the Process Safety Leading and Lagging Metrics guide published by the CCPS in 2007. The first step in developing the Cefic PPS metric has been to agree on an ultimate goal of the PPS work.

Bayer Healthcare's Peter Schmelzer, chairman of the PPS-IT, says simply that "having safe processes and plants means that you don't hurt either people or the environment as a consequence of an incident when operating." Major incidents with such consequences have been reported for many years. In Europe this is regulated by the EU's Seveso directive.

be considered as a leading indicator, explains Schmelzer.

However, he acknowledges that lagging indicators must be complemented by leading ones that give even earlier warnings. An incident that challenges a safety layer/installation but which doesn't result in an LoPC can be termed a "near miss" and identifying and reporting these can provide valuable information. Such "incidents" can result from the design or running of the plant and provide an opportunity to find a remedy and ensure that there is no re-occurrence.

"In the past it was sufficient to say that

## Setting goals

During development of its recommendations, PPS-IT worked closely with EPSC, which provided detailed engineering and scientific input based on years of work defining process safety indicators. This, combined with PPS-IT's understanding of business issues facing chemical compa-

nies, has led to the programme.

From the outset the team looked to the experiences in the US and reviewed the CCPS guidelines on process safety metrics. Schmelzer says that the two systems are fairly close, but PPS-IT's guidelines are more stringent and include the requirement to report on additional incidents including, for example, releases of hot water or the

activation of pressure valves.

All of PPS-IT's work should be considered against the background of continuously increasing safety in chemical plants in Europe. "Working in a chemical plant, or living near one, is very safe," says Schmelzer. "In order to promote this even further Cefic's principle and its visionary goal are very clear: no loss of primary containment."

PPS-IT is now asking national chemical association and company members to collate information on all incidents that involve a release of material or energy from their plants, even small incidents that result in no further negative effect at all. "The definition of any such incident is a 'loss of primary containment' [LoPC]," says Schmelzer.

"Our now-agreed visionary goal is to avoid LoPC at all". Even though we call this a lagging indicator, occurring after an event, it very clearly shows the plant operator what and where the problem is, in many cases without further negative effects. In this sense it is an indicator with a leading nature." Applying this, industry will continue to learn, stay alert and be motivated to make further improvements.

The lessons learned from our defined lagging indicator event – ie, an LoPC that occurs when the plant is running – can be applied to improving the safety of the plant by planning and avoiding repetition of the incident. It can, therefore, also

if you didn't have a major incident, then that's OK. Now we're asking for leading indicators that show in advance how well a company has planned and designed the plant to avoid an incident and even an LoPC. Process hazard analysis must be performed – this requires competency in people working in the industry to recognise potential risks and to handle it professionally," says Schmelzer.

Schmelzer says that for 2009, companies are being asked to implement internal recording and reporting of LoPC incidents, applying the minimum Cefic threshold limits (see table). They are also asked to develop internal recording and reporting of process and plant safety near misses and to identify further leading indicators.

He believes that this will help define a list of indicators and that Cefic will then be able to recommend the most effective way in which to report process safety performance within Responsible Care, with a target of achieving this in 2010. ●

## Chemistry does the trick in Parliament

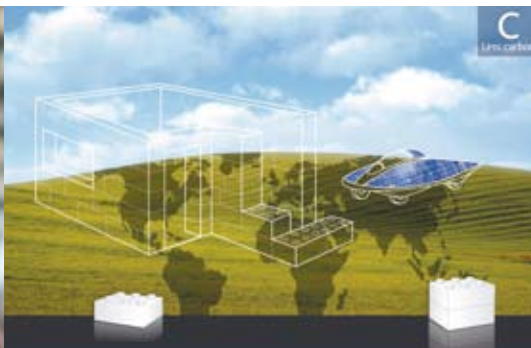
Europe's leading chemical producers took their message on climate change to the European Parliament with an exhibition and a series of lobbying events, says John Baker

In the second week of July, Cefic took the chemical industry's message on climate change to the very heart of European politics – the European Parliament building in Strasbourg, France. The message was a clear one: that the chemical industry can deliver the building blocks for

president Francois Cornelis, president of chemicals at Total, told MEPs that the industry "would like to clearly demonstrate the contribution of the chemical industry and of its products to responding to the challenges of the future."



Richard Seeber, Austrian MEP



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climate change solutions, but that it needs to remain sustainable and competitive to do so.

The means of engaging the interest of Europe's members of parliament (MEPs) was a four-day exhibition with the slogan "Chemistry does the trick". Alongside this, Cefic arranged presentations by MEPs and industry executives of the highest level and hosted several lunch and dinner events with members of selected Parliamentary committees, notably the environment and industry committees.

The event has been hailed as a first of its kind for the industry and a great success, with over 400 guests attending over the four days. No less than 100 MEPs visited the exhibition and met Cefic members, learning how chemical innovation in our homes and transport can help reduce energy usage and thus cut carbon emissions.

Introducing the event, then-Cefic

Richard Seeber, Austrian MEP and a sponsor of the Cefic event, commented that "the chemical industry shows clearly [by holding] this exhibition here at the European Parliament that the Parliament is one of the major policy makers. And of course we need European enterprises – the chemical industry and others as well – to show us the technical solutions which are necessary."

The message seems to have been well received and garnered support. Dutch MEP Lambert van Nistelrooij commented at the event: "I see now this whole sector as a partner in the debate and I hope in our political work we can make this engagement more concrete... we are willing to invest from the EU more and more in research and I see a lot of projects here that might be supported from the EU."

Anders Wijkman, Swedish MEP, added that the industry "being directly and indirectly a contributor to greenhouse gas emissions, means also that there are

enormous opportunities to do better and to help us solve the problem. This exhibition here shows a few examples that are very interesting indeed.”

German MEP Karl Heinz Florenz also offered his support for the industry, with a warning that it needed to be able to compete effectively to deliver its solutions. “I think it is very important to be careful about the chemical industry. It is one of the biggest energy users but if we punish it too strongly and if we give it too many hurdles then I think we are in danger that this industry is not competitive.”

One such hurdle, and one with a potentially huge impact on the competitiveness of Europe's chemical industry, is the EU's Emission Trading Scheme (ETS) designed to boost EU efforts to fulfil its climate change promises on carbon emissions reduction.

Cefic used the Strasbourg event to stress its opposition to several of the proposed amendments to the ETS scheme that are currently under debate. These include extension of the scheme to smaller companies, the introduction of auctioning of permits and the lack of allowance for past energy efficiency investments.

Theo Walthie, senior energy advisor at Dow Chemical, warned MEPs that the EU chemical sector operated in a global market and needs to be able to compete effectively. “The chemical industry started in Europe 150 years ago and then went to the US and is now on its way through the Middle East to the Pacific”, he said.

“So this is probably one of the few industries that is truly global, with global players, with global technologies and with global solutions. But at the same time [competitors] are very powerful in various parts of the world.”

Harald Schwager, board member of BASF, also commented on the global nature of the issue. “We support the goals of the Kyoto Protocol and see climate protection as a global challenge that calls for global strategies. That is why we need to take a global view.”

## The House in Parliament

The heart of the exhibition was a 180m<sup>2</sup> innovative house, designed to allow visitors to walk through and see climate change solutions in every room. These related to many aspects of everyday life, in the kitchen, in living rooms and bedrooms, the bathroom, garage and even garden.

Examples included thermal insulation, light emitting wallpaper, energy efficient cleaning, novel light sources, and water-based coatings.

The exhibition included contributions from 17 companies (see table), each displaying products, staging events and presentations and, of course, talking directly to MEPs.

National chemical associations helped attract the MEPs from their countries.

## Participating companies

Arkema	Hexion Specialty Chemicals
BASF	Mapei
Bayer	Rhodia
Ciba Specialty Chemicals	Rohm and Haas
Dow Chemical	Sanofi-Aventis
DuPont	Shell Chemicals
Evonik Industries	Sinterama
ExxonMobil Chemical	Solvay
	Wacker



## Progress on many fronts at ICCA

The past 18 months have been a period of change and progress at ICCA and for Responsible Care, one of its three key priorities, as John Baker explains

At the European and the global level, Responsible Care has been making progress this year through several important initiatives. Its role in the broader sustainable development agenda is being strengthened and its geographic reach extended.

commented at the Cefic Responsible Care annual conference in Manchester, UK, this October that: "We have to keep the momentum up... progress is still to be made." Shortly before the meeting, Perroy took over from former American Chemistry Council president Jack Gerard



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Following a major reorganisation at the end of 2007, the International Council of Chemical Associations (ICCA) is now focusing on three priorities: Chemical Policy & Health, Energy & Climate Change and Responsible Care. The latter was reconfirmed by the ICCA board as a key priority during the Global Chemical Industry European Convention 2008 in early October in Athens, Greece.

Cooperation across these priority areas is crucial, especially between the Responsible Care Leadership Group (RCLG) and the new Chemical Policy & Health (CP&H) Leadership Group. The latter was set up to shape and implement the Global Product Strategy (GPS), launched in conjunction with the Responsible Care Global Charter in 2006. GPS is a key element to promote global product stewardship, which itself is the major focus of the Global Charter.

Cefic director general Alain Perroy

as the new ICCA secretary.

He specifically pointed to the drive to get more of the CEOs of the top 115 eligible companies in the industry to sign the Responsible Care Global Charter. The number of signatories now stands at 75-80%, but ICCA wants to get this to 85% by the end of this year.

Cefic's then-president Francois Cornelis of Total as well as several other business leaders wrote to the missing CEOs in September this year, reminding them of the need to commit their companies to Responsible Care globally through the Charter, as well as locally.

On the geographic front, three new regions are set to embrace Responsible Care. In October 2007, the Russian Chemists Union and the Russian Chemical Workers' Union joined the RCLG, as a step on the way to implementation of the programme in that country.

Additionally, the Middle East is committed to adoption of Responsible

Care and talks are ongoing between Cefic and the Gulf Petrochemicals and Chemicals Association (GPCA) to establish a scheme in this region characterised by rapid growth in chemicals manufacturing.

And in China, Responsible Care was implemented in quarter two of this year in 40 state-owned companies as part of a pilot scheme. This follows on from a major meeting in China in October 2007 jointly organised by the Association of International Chemical Manufacturers (AICM) and the China Petroleum and Chemical Industry Association (CPCIA).

become a key driver for communication and stakeholder engagement within and outside the chemical industry.

The alignment of Responsible Care and sustainable development will bring added value for both, ICCA believes. The logo extension will serve as a visible symbol for the implementation of the Global Charter and will emphasise that Responsible Care is a living and developing initiative. It will also ensure continuity of Responsible Care in an environment of growing commitment to sustainable development among national chemical associations, such as the Canadian Chemical Producers'



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### Sustainable development

But the change that will be most obvious to companies and stakeholders alike during 2009 will be a subtle but important change to the Responsible Care logo – the by-now well known pair of hands and molecules. “Responsible Care – Our Commitment to Sustainability” is a new catchphrase that had been agreed upon and that is recommended to be used in conjunction with the logo.

It has been designed to emphasise the fact that Responsible Care is a key part of the chemical industry's contribution to sustainable development, as set out in the Global Charter. This states that Responsible Care “enables the chemical industry to make a strong contribution to sustainable development.”

The move, argued for by the RCLG and ICCA's Communications Working Group and to be launched in quarter one 2009, was endorsed by the ICCA board in October. It stems essentially from the fact that sustainable development has recently

Association, essencia in Belgium and Feique in Spain. But, stresses ICCA, the change will not affect the protection of the logo nor its management.

### Looking ahead

Already ICCA is looking past 2008 into 2009 and especially to the next meeting of the International Conference on Chemicals Management (ICCM-2), the follow on from the first ICCM meeting in Dubai in 2006, where the chemical industry launched its Responsible Care Global Charter and the Global Product Strategy and welcomed the adoption of the Strategic Approach to International Chemicals Management (SAICM).

ICCM-2 is scheduled for May next year in Geneva, Switzerland, and ICCA looks forward to the event as an opportunity to reaffirm its commitments and demonstrate clearly progress made in data sharing, risk analysis and reporting. It intends to show that the industry is a reliable, willing and effective partner upon which governments, NGOs and the public can rely. ●

## Online tool aids performance reporting

Debbie Jackson describes two recent changes to the way the industry is expected to report its key indicators

Annual collection of data by Cefic on the European chemical industry's health, safety and environmental performance received a welcome boost during 2008 with the introduction of a new electronic web-based reporting tool.

National associations can now enter

access for all the data provided by other Responsible Care associations.

Sjoerd Looijs, manager for Responsible Care and sustainability at Dutch chemicals association VNCI, has led the ICCA KPI work group and cooperated closely with Cefic's Responsible Care manager Bernhard Thier to implement the KPI tool and ensure that the transition to online data reporting is as smooth as possible.

The team has also been working on importing existing metrics data into the system so that trends can be monitored and acted upon where necessary. Users will eventually be able to generate graphics comparing performance country-by-country and for a given timeframe.

Looijs is pleased with progress to date and notes that there have been relatively few teething problems, although the first round of data collection was still ongoing when this report went to press. He notes that the tool "offers a good opportunity for an internal quality check" of historic data entered: in several cases this new approach resulted in some associations – including VNCI – updating their historic data.

"With this tool, we can strive towards higher quality data, and improve our transparency for stakeholders. Additionally, putting all this information in one database makes it easier to benchmark your data and performance against that of other countries."

Thier adds, however, that in order to be able to do this effectively, the data quality has to improve and "this is our main priority, from an internal perspective. We need more complete data from more Cefic member associations – not all are yet reporting." The web tool will clearly highlight non-reporters and, hopes Thier, act as a driver to bring them on board in the near future. ●

### Global uptake

In 2007 the ICCA's Responsible Care Leadership Group elected to build on the Cefic KPI platform and expand its scope to cover all associations participating in Responsible Care worldwide. Data collection using the new system began in mid-2008.

At ICCA level, the web tool comprises two major sections – metrics reporting on eight core parameters covering safety, environment, resources and distribution; plus a questionnaire.

Responses to the questionnaire provide important information on the governance of the national programmes.

data online for the core set of 16 key performance indicators (KPIs) set by Cefic. Each national association is expected to collect, collate and report these data from its members in each country as part of its commitment to Responsible Care.

The data are collated and reported publicly on behalf of Europe's chemical industry at Cefic level, and at international level by the International Council of Chemical Associations (ICCA). Cefic will post its 2007 KPI data on the Cefic internet site at the beginning of 2009. ICCA has now elected to take the Cefic tool and expand its scope to cover all associations participating in Responsible Care on a worldwide basis (see above).

In Europe, Responsible Care managers from each association have been provided with a password to access the new reporting tool which enables them to input data on the Cefic metrics covering environment, occupational health, safety, use of resources and transport. These managers also have "read only"

## Europe joins the PRTR party

Since 2001, EU member states have been required to report data every three years under the European Pollutant Emission Register (EPER) as part of the European Commission's Integrated Pollution Prevention and Control (IPPC) Directive.

Now the EPER has been replaced by the more comprehensive European Pollutant Release and Transfer Register (E-PRTR), which requires member states to report annually on 91 pollutants, up from 50 under the previous system. The first round of reporting at regional level is underway, and member states have been given extra time to report on 2007 data.

So how does the new system fit with the current Cefic reporting requirements under Responsible Care? In theory, there is considerable overlap on the environmental elements covering emissions but in practice it may be less straightforward.

Nevertheless, the UK Chemical Industries Association (CIA) Responsible Care manager John Roche sees benefits for his member companies. He believes it adds more value to Responsible Care reporting and more credibility because it is now data required by the regulators. "The UK Environment Agency will provide us

with the data collected from our members. That makes the data more robust in the public's view because it is coming from a third party," he comments.

Other national associations are also focusing on how to ensure that E-PRTR does not impose an additional reporting burden on their member companies. Sjoerd Looijs, manager for Responsible Care and sustainability with VNCI, says the Dutch association has started discussions with the Ministry for the Environment as to how to monitor company data in the most efficient way via E-PRTR and on coordinating national government and sector demands for using this data.

Hans Daniel, VCI's Responsible Care manager, says the German association recommends that any member companies falling below the PRTR threshold should report under the existing Responsible Care framework. A VCI survey found that most of its Responsible Care environmental indicators are covered by PRTR, and so those are the numbers it will report when submitting data to Cefic.

It is widely expected that developments like E-PRTR will help shape Responsible Care reporting in Europe over the next decade.



Looijs - led KPI effort

## Cefic KPIs

### Safety and occupational health

- Number of fatalities (for employees and contractors)
- Lost time injury frequency rate (for employees and contractors)

### Environmental protection, including climate change

- Hazardous waste for disposal
- Non-hazardous waste for disposal
- Sulphur dioxide

- Nitrogen oxides
- Volatile organic compounds
- Carbon dioxide
- Nitrous oxide
- Hydrofluorocarbons
- Chemical oxygen demand
- Phosphorus compounds
- Nitrogen compounds

### Use of resources

- Use of energy, specific energy consumption
- Water consumption

### Transport

- Transport incidents

## Responsible Care in Europe



Responsible Care is our commitment to sustainability.

It is the global chemical industry's unique voluntary initiative to improve continuously its health, safety and environmental performance and to communicate with stakeholders and through the supply chain.

The Responsible Care ethic helps chemical companies to operate safely, profitably and with due care for future generations.

Responsible Care is a protected trademark which in Europe is owned by Cefic. The use is reserved to Responsible Care companies and associations.

Cefic and its members are signatories of the Responsible Care Global Charter and committed to create a common global vision for Responsible Care paying particular attention to sustainability and product stewardship.

Cefic's role is to advance Responsible Care in Europe and at global level to be a key partner of the ICCA. Our key objectives are to dialogue with our stakeholders, increase the involvement of SMEs and to extend Responsible Care throughout the value chain.

### Cefic – The European Chemical Industry Council

## Chemistry making a world of difference

Cefic is the Brussels-based organisation representing national chemical federations and chemical companies in Europe. Cefic represents, directly or indirectly, around 27,000 large, medium and small companies in Europe, which employ about 1.2 million people and account for more than 29% of world chemicals production.

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