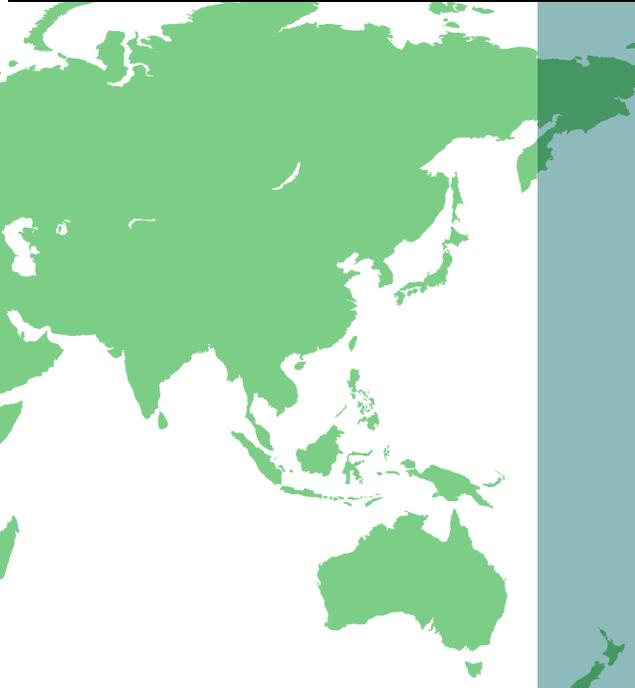


International Council of Chemical Associations

Progress Report

Third Session of the International Conference
on Chemicals Management
September 17–21, 2012



INTERNATIONAL
COUNCIL OF
CHEMICAL
ASSOCIATIONS



Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

Table of Contents

Introduction	3
Section 1: Executive Summary	4
Section 2: ICCA's Contributions to Key SAICM Elements	9
A. Risk Reduction	9
B. Knowledge and Information	13
C. Governance	15
D. Capacity Building and Technical Cooperation	21
E. Combating Illegal International Traffic	24
Section 3: Innovation and a More Sustainable Future	25
Section 4: The Road Ahead: ICCM-4 and SAICM 2020	30
Appendix A: Acronyms	33
Appendix B: Resources Available Online	35

Introduction

THE GLOBAL CHEMICAL INDUSTRY is a key partner in the shared journey toward sustainability and the safe management of chemicals—a journey that started long before the Johannesburg World Summit on Sustainable Development (WSSD) in 2002, and the creation of the Strategic Approach to International Chemicals Management (SAICM) in 2006. Working with other stakeholders at the Third International Conference on Chemicals Management (ICCM-3) and beyond, the industry will continue its efforts to meet the 2020 goal set at WSSD: that chemicals will be used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment

This report of the International Council of Chemical Associations (ICCA, the worldwide voice of the chemical industry) to ICCM-3, like the report presented in 2009 at ICCM-2, is a “progress report,” not a final declaration. The goal of the report is to share how ICCA, working with its partners and within the chemical industry itself, will meet the 2020 goal and fulfill its commitments to SAICM.

While significant progress has been made under SAICM since 2006, major challenges remain in ensuring the sound management of chemicals worldwide. ICCA has a dual role in this effort: a focus on the industry’s own operations, and on collaboration with other stakeholders. The associations and companies that comprise ICCA recognize that they must do everything possible to effectively manage their processes, products and distribution systems. As this report demonstrates, this industry-centric effort is well under way. In addition, chemical producers realize they must help customers, governments, communities—in short, all stakeholders—do their share to ensure chemicals are safely managed throughout the product lifecycle.

ICCA members are committed to working with national authorities to develop risk-based scientific assessments to ensure that any questions about the safety of particular chemicals are addressed. Our companies also work with their customers to identify alternative chemicals for specific applications.

Clearly, 2020 is not the end of the journey for the industry or those who depend on the products of chemistry. ICCA members believe it is not enough to merely minimize “significant adverse effects.” Rather, the challenge for the chemical industry, and for society at large, is to continue the process of innovation that will allow the development and commercialization of new chemical products and applications to promote a more sustainable future. The chemical industry helps develop the products and technologies that will be required to address current and future societal challenges. The quest must continue for cleaner drinking water, renewable energy systems, improved agriculture, healthier oceans, new and more accessible medicines and medical devices and better ways to produce and transport goods across the globe, even as we enhance chemical management practices.

Executive Summary



prog-ress (prō'gres') *noun*. **1.** Movement, as towards a goal; advance. **2.** Development or growth. **3.** Steady improvement, as of a society or civilization. *verb*. **1.** To advance; proceed. **2.** To advance toward a higher or better stage; improve steadily.

THE INDUSTRY'S COMMITMENT to chemicals management began long before the formation of ICCA in the late 1980s. The development of process and product safety best practices in the 19th and 20th centuries improved the ways in which chemicals were manufactured, transported, stored and used. Over time, the industry realized it needed to do more than reduce risks associated with manufacturing—it had to assume a much broader responsibility.

The Responsible Care® Ethic

Led by the Chemistry Industry Association of Canada (formerly the Canadian Chemical Producers' Association), which launched the first Responsible Care program in 1985, the global chemical industry has embraced this worldwide environmental, health and safety (EHS) initiative that drives continuous improvement in performance. Responsible Care companies, representing 90 percent of the global production of chemicals, work to achieve this objective by meeting and surpassing legislative and regulatory compliance, and by adopting cooperative and voluntary initiatives with governments and other stakeholders.

Currently implemented by 55 chemical associations around the globe, and with more than 150 of the largest chemical companies as signatories to the Responsible Care Global Charter, the Responsible Care program is today one of the premier industry-originated EHS initiatives, having earned praise from UN leaders, national governments and non-governmental organizations (NGOs) around the globe.

Responsible Care embodies the chemical industry's commitment to:

- Continuously improve the EHS knowledge and performance of our technologies, processes and products over their life cycles so as to avoid harm to people and the environment;
- Use resources efficiently and minimize waste;
- Report openly on performance, achievements and shortcomings;
- Listen, engage and work with stakeholders to understand and address their concerns and expectations;
- Cooperate with governments and organizations in the development and implementation of effective regulations and standards, and to meet or go beyond them; and
- Provide help and advice to foster the responsible management of chemicals by all those who manage and use them along the product chain.

ICCA and SAICM

In 2006, at ICCM-1 in Dubai, ICCA and its association and company members participated in the formation and adoption of the Strategic Approach to International Chemicals Management (SAICM), the policy framework that promotes chemical safety around the world in order to achieve the 2020 goal for sound chemicals management set at the 2002 World Summit on Sustainable Development (WSSD). In addition, in Dubai, ICCA launched two major voluntary initiatives as its primary contributions to SAICM: the Responsible Care® Global Charter and the Global Product Strategy. These initiatives, as well as other industry-wide voluntary programs, enable ICCA to support SAICM by:

- Sharing EHS best practices within the industry and among governmental and intergovernmental agencies;
- Creating and updating a publicly accessible chemical safety online portal with detailed product information (<http://www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/chemical-information-search/>);
- Building capacity to help small and medium-sized enterprises (SMEs) and newly emerging chemical producers meet increasingly high stakeholder expectations;
- Supporting research regarding health and environmental risks, and identifying areas for further research; and
- Partnering with the United Nations Environment Programme (UNEP) and a wide range of organizations to foster meaningful dialogue and work cooperatively to seek the more sustainable future envisioned by WSSD.

Responsible Care Global Charter

The Responsible Care Global Charter expands the original elements of Responsible Care by focusing on new and important challenges facing the chemical industry and global society, including the growing public dialogue over sustainable development, public health issues related to the use of chemical products, the need for greater industry transparency, and ways to enhance harmonization and consistency among national Responsible Care programs.

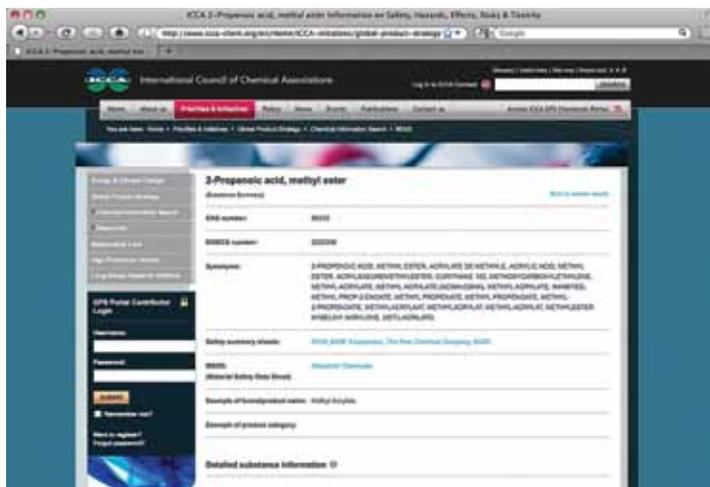
The Responsible Care® Global Charter and Global Product Strategy are “inspiring models of voluntary self-regulation for other industries to consider following.”

Kofi Annan, Former UN Secretary-General

Global Product Strategy

Product stewardship—the industry’s management of EHS performance of chemical products throughout their entire lifecycle—is an important pillar of Responsible Care. ICCA’s Global Product Strategy (GPS) builds on and extends product stewardship by improving how the chemical industry works with customer and supplier industry groups, tracking industry performance, building partnerships with stakeholders and enhancing communications activities and public reporting.

A crucial component of GPS is the performance of safety assessments on chemicals in commerce, and the reporting of those assessments to the public. ICCA’s web-based Chemicals Portal (www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/) offers this important product stewardship information to the general public, including regulatory bodies, and to the broader chemical industry. To date, more than 2,500 chemical safety summaries are available through the portal, and the number is increasing daily.



A screen shot from the Global Product Strategy Web-based IT portal, accessible online through the ICCA web site.

Additionally, as part of its GPS outreach effort, ICCA provides capacity building for SMEs in our industry, as well as downstream customers and governments in developing countries. GPS aims to reduce existing differences in the safety assessment of chemicals between developing, emerging and industrialized countries. More than 40 GPS workshops were held worldwide from 2008 through 2012. In the first quarter of 2012 alone, ICCA held four workshops in India, Colombia and Dubai, attended by more than 300 participants from local companies, associations and local government agencies. Participants shared best practices in developing Responsible Care® programs to improve facility, community, transportation, process and materials handling safety. They also learned how to work effectively with customers and local government agencies.

Continued Growth

The Responsible Care family continues to grow. In 2009, the Gulf Petrochemicals and Chemicals Association (GPCA), representing Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Oman and Bahrain, joined the program. In 2011, the Ukraine Chemists Union (UCU) was accepted as well. Today, ICCA is working closely with China, Egypt and Sri Lanka and continues to support effective chemicals management practices in Vietnam.

Key areas of emphasis in 2012 and beyond include:

- Expanding Responsible Care in China, India and other parts of Asia and Africa, through mentoring by Responsible Care associations and multinational companies;
- Providing product stewardship workshops in targeted geographies in support of the GPS and the Responsible Care Global Charter;
- Strengthening global data collection for Responsible Care and GPS performance indicators, in continued support of ICCA's contributions to SAICM. Through these indicators, develop a more robust picture of the global industry's performance, societal contributions and impacts;

“ICCA has been a key stakeholder to the Strategic Approach to International Chemicals Management (SAICM) since its establishment. Thanks to their leadership and commitment to sound chemicals management and the SAICM process, the chemical industry has undergone significant improvements in the ways chemicals are managed worldwide.”

Leonor Alvarado, SAICM Coordinator, UNEP

- Providing support to associations to grow, enhance and build their Responsible Care programs; and
- Improving industry performance and credibility on a global basis through increased transparency and dialogue with stakeholders and external parties.

ICCA and UNEP Memorandum of Understanding

In 2010, ICCA signed a Memorandum of Understanding (MOU) with UNEP. ICCA's partnership with UNEP concentrates on implementation of SAICM and consolidates “UNEP and ICCA cooperation toward the development and intensification of the effectiveness of chemical management regimes by business and public institutions.”¹ Working together, UNEP and ICCA are committed to:

- Building capacity for sound chemicals management among SMEs;
- Harmonizing legal systems regarding chemicals management;
- Fostering stronger stakeholder dialogue on emerging issues such as lead in paint, health, science and safety; and
- Undertaking pilot projects.

During the first year of the MOU, ICCA and UNEP held capacity building workshops in Nairobi (chemical safety management); Beijing and Manila (local emergency preparedness and response); and Shanghai and Beijing (Global Product Strategy). In addition, UNEP and ICCA coordinated further capacity building efforts for geographies of mutual interest, including: China, Sri Lanka, Philippines, Thailand and Indonesia.

1. UNEP and ICCA Brochure, *One Year On*, p. 5.

APELL & Emergency Response

ICCA members have long supported UNEP's APELL Program (Awareness & Preparedness of Emergencies at Local Level), which seeks to raise awareness and help local communities and emergency responders prepare for and safely manage such events. Co-sponsored by UNEP, ICCA, China's Ministry of Environmental Protection, Renmin University of China, Dow Chemical and Petrobras, a special forum was held in Beijing in November 2011 to celebrate APELL's 25th anniversary. The event marked the success and longevity of this initiative designed to minimize the risk and impact of industrial accidents and natural disasters.

In addition, through their Responsible Care[®] programs, ICCA members have initiated processes to safely manage chemicals, including their distribution. In 2011, chemical shipments valued at just under €3 trillion, including materials deemed to be hazardous, were delivered safely worldwide.

ICCA's Long-Range Research Initiative

The Long-Range Research Initiative (LRI) is a global program implemented through three ICCA member organizations—the European Chemical Industry Council (Cefic), the American Chemistry Council (ACC), and the Japan Chemical Industry Association (JCIA). The ICCA-LRI (www.icca-chem.org/Home/ICCA-initiatives/Long-range-research-initiative-LRI/) invests in science essential for understanding the impact of chemicals on human health and the environment. It provides a scientific foundation to enable the chemical industry, as part of the larger global society, to make responsible product stewardship and regulatory decisions concerning the production, marketing, and use of its products. Through ICCA, these regionally managed LRI research programs support complementary areas of scientific third-party research, as described in the *LRI Global Research Strategy* developed in 2010. (This document can be found at the LRI web site listed above.)

Since 2005, the LRI has also sponsored annual workshops to foster interactions among industry and academic

researchers, governmental agencies, NGOs and regulatory decision makers. Primary goals for these workshops are to stimulate discussions among these different groups that can improve the scientific basis for policy-making, and, to support consensus building that can advance the risk assessment process.

Results from LRI's research program as well as its science translation activities support the chemical industry in meeting its obligations for responsible management of chemical products and enhance public confidence in the safety of these products. Through its commitment to the LRI, ICCA engages in shaping the transformation in chemical safety sciences toward a sustainable future.

World Chlorine Council Global Safety Team

The World Chlorine Council's (WCC) Global Safety Team (GST) reports on incidents involving chlorine and related chemicals and provides technical recommendations to WCC member associations, ensuring that best practices in incident prevention and response are widely shared. The GST is developing a Small-Containers Guidance document to assist producers, customers and transporters.

The GST will participate in the WCC Sustainability Workshop scheduled in Moscow, Russia (October 2012), where team members will offer presentations on several safety subjects.

In addition, the GST ambassador program provides safety and stewardship information, particularly for countries without active WCC associations.

High Production Volume Chemicals

Building on early cooperative work of chemical companies with the Organization for Economic Cooperation and Development (OECD) Chemicals Program, in 1998 ICCA launched a global program to assess High Production Volume (HPV) chemicals in cooperation with OECD. Through the ICCA HPV Program, co-producers of chemicals work together to share EHS data, assess chemicals, and engage in a "peer review" of their assessments with government experts of OECD member countries and NGOs.

The assessments prepared in this cooperative ICCA/OECD program are posted on the OECD web site (<http://web-net.oecd.org/hpv/ui/Default.aspx>) and available for public review.

However, much of the HPV program has been superseded by more recent regulatory requirements. ICCA members achieve the results sought by HPV through their ongoing compliance with national and regional regulations and statutes.

Rio+20: Sustainability & Innovation

The June 2012 United Nations Conference on Sustainable Development (Rio+20), held in Rio de Janeiro to commemorate the 20th anniversary of the Rio Earth Summit, provided an important opportunity for ICCA to highlight the chemical industry's essential role as a provider of innovative, efficient solutions for sustainable development. The innovative products and technologies of chemistry will be critical in efforts to address current and future international challenges. ICCA is committed to working with intergovernmental, governmental, non-governmental and other private sector organizations to continue global progress toward sustainable development.

An ICCA report on the chemical industry's contributions to sustainable development released at Rio+20 (www.icca-chem.org/ICCADocs/ICCA%20Sustainability%20Report.pdf) highlighted how the products and technologies of chemistry enhance sustainable development. At Rio+20, ICCA called for the strengthening of SAICM as the core international forum for reaching the WSSD 2020 goal, and supported a flexible, pragmatic, integrated approach to global sustainability that accommodates all three dimensions of sustainable development—social equity, economic growth and environmental protection. ICCA welcomes the commitment outlined at Rio+20 to strengthen SAICM, and stands ready to work together with all SAICM stakeholders to make this a reality.

ICCA's Contribution to Key SAICM Elements



com-mit-ment (ke-mit-ment) *noun*. **1.** The act or an instance of committing. **2.a.** A pledge to do. **b.** Something pledged, especially an engagement by contract. **3.** The state of being bound emotionally or intellectually to a course of action or to another person or persons.

ICCA SUPPORTED THE ESTABLISHMENT of the Strategic Approach to International Chemicals Management (SAICM), and continues to demonstrate a strong commitment to this initiative. Section 2 of this report expands on the information presented in the Executive Summary, providing clear examples of how ICCA contributes to each of the core components of SAICM.

The industry's contributions encompass all five SAICM components and are delivered through the following interrelated and mutually reinforcing voluntary efforts:

- Responsible Care[®], including the Responsible Care Global Charter;
- Global Product Strategy;
- Long-Range Research Initiative;
- High Production Volume (HPV) Program;
- Memorandum of Understanding with the United Nations Environment Programme (UNEP) and support for the Quick Start Programme;
- Participation in the Chemical Weapons Convention; and
- Participation in UNEP's Awareness & Preparedness of Emergencies at Local Level Program (APELL) and the sharing of emergency response best practices.

Key Components of SAICM

- Risk reduction
- Knowledge and information
- Governance
- Capacity-building and technical cooperation
- Combating illegal international traffic

A. Risk Reduction

Responsible Care[®] Global Charter and the Global Product Strategy

ICCA works to continually improve the sustainability and safe management of chemicals throughout their lifecycle.

As part of this commitment, ICCA has embraced the goal adopted by the World Summit on Sustainable Development in 2002: that by 2020 chemicals are produced and used in ways that minimize significant adverse impacts on human health and the environment.

SAICM is the preferred forum to achieve this goal, and the Responsible Care® Global Charter and the Global Product Strategy are the global chemical industry's key contributions to SAICM.

Responsible Care

The chemical industry is committed to the safe, responsible and sustainable management and use of chemicals throughout their entire life cycle and for their intended end use. Responsible Care (www.icca-chem.org/en/Home/Responsible-care/) is the chemical industry's unique global initiative to drive continuous improvement in environmental, health and safety (EHS) performance, with strong accountability and open and transparent communication with stakeholders. Responsible Care supports and strengthens the industry's contribution to sustainable development.

The Responsible Care Global Charter

Today, the CEOs of companies in 60 geographies around the world, including virtually all the world's leading chemical manufacturers, are signatories to the Responsible Care Global Charter. Responsible Care associations and their member companies commit to:

- Continuously improving EHS performance;
- Effectively managing chemicals throughout the value chain;
- Improving global harmonization of standards and practice;
- Maintaining open and transparent communication with stakeholders;
- Identifying and spreading good management practices; and
- Employing an increasingly rigorous system of performance reporting indicators and verification procedures.



The Responsible Care Global Charter

1. Adopt Global Responsible Care Core Principles.
2. Implement fundamental features of national Responsible Care programs.
3. Commit to advancing sustainable development.
4. Continuously improve and report performance.
5. Enhance the management of chemical products worldwide—product stewardship.
6. Champion and facilitate the extension of Responsible Care along the chemical industry's value chain.
7. Actively support national and global Responsible Care governance processes.
8. Address stakeholder expectations about chemical industry activities and products.
9. Provide appropriate resources to effectively implement Responsible Care.

Through Responsible Care, the chemical industry reports and tracks progress on critical elements related to EHS performance and commits to ongoing improvements to its manufacturing processes.

Global Product Strategy

Responsible Care has fostered development of the Global Product Strategy (GPS) (www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/) to improve industry's management of chemicals, including communication of chemical hazards and safe handling conditions throughout the supply chain. GPS provides clear, easily understood safety assessments of chemicals in commerce. With this strong scientific base, GPS helps reduce existing differences in the safe handling, management, and use of chemicals among developing, emerging and industrialized countries.

GPS enhances the best practices approach of Responsible Care in the area of product stewardship. Product stewardship means more than just managing the manufacture of chemicals; it requires the close cooperation of everyone involved in the product's life cycle throughout the value chain, including transportation, storage, use and eventual recycling or disposal. Under the GPS umbrella, ICCA members use Product Stewardship Guidelines to assist other stakeholders, including customers and downstream users, in the effective management of chemical products.

ICCA continues to expand and strengthen its product stewardship efforts. By 2020, through a combination of voluntary industry initiatives and government-mandated programs, ICCA member companies aim to:

- Establish a base set of hazard information for conducting safety assessments of chemicals in commerce;
- Enhance global capacity to implement safety assessment practices and management procedures, especially in developing countries;
- Share relevant product information with co-producers, governments, and the public;
- Work across the value chain so suppliers and customers can effectively evaluate the safety of their products and enhance their performance;
- Ensure product safety summaries on all high-priority chemicals are publicly available; and
- Extend their monitoring and reporting structure by including additional metrics to quantitatively track progress and support continuous improvement in the sound global management of chemicals.

An important part of the GPS initiative requires the national chemical associations that comprise ICCA to develop plans to implement GPS. Of the 55 ICCA associations, 47 have either completed implementation plans, or are in the process of developing them. Work is under way to provide further assistance to the nine associations that are currently lagging in implementation.

ICCA & OECD: HPV

Building on early cooperative work of chemical companies with the Organization for Economic Cooperation and Development (OECD) Chemicals Program, ICCA launched a global program to assess high production volume (HPV) chemicals in 1998, in cooperation with OECD. In the ICCA HPV Program, co-producers of chemicals work together to share EHS data, assess chemicals, and engage in a "peer review" of their assessments with government experts

Global Product Strategy Goals

1. Develop global guidelines for product stewardship.
2. Develop a management system approach.
3. Define a tiered process for completing risk characterization and risk management recommendations for chemicals in commerce.
4. Improve product stewardship cooperation with industry groups and companies and address product challenges throughout the chemicals value chain.
5. Develop partnerships with inter-governmental organizations and other interested stakeholders.
6. Make relevant product stewardship information available to the public.
7. Participate in scientific inquiry to address new and emerging health and environmental concerns.

of OECD member countries and NGOs. The assessments prepared in this cooperative ICCA-OECD program are posted on the OECD web site and thus available for public review. There are also related national and regional efforts that complement the ICCA HPV Program and collect health and safety data on chemicals.

United States

In the United States, ACC and its member chemical companies have joined together in the U.S. HPV Challenge Program. This landmark program was launched in 1998 in cooperation with the U.S. Environmental Protection Agency (EPA) and Environmental Defense to increase the amount of publicly available EHS information on chemicals. Individual companies, and consortia of co-producers, participate by voluntarily collecting, developing and making public the health and environmental effects data and information on certain HPV chemicals. More than 300 companies and consortia are nearing completion of this program by making this information public for 2,222 chemicals, representing nearly 95 percent of chemical production by volume in the United States. This information is accessible on EPA's web site: <http://www.epa.gov/HPV/pubs/general/hpvchemdata.htm>.

Europe

In a regional effort across Europe, the European Chemicals Industry has compiled data on 2,747 HPV chemicals in line with the European Regulation on Existing Substances. The data are retrievable on the European Chemicals Bureau web site (<http://esis.jrc.ec.europa.eu/index.php?PGM=hpv>).

Japan

In April 2005, the Japanese chemical industry started the Japan HPV Challenge Program in partnership with government agencies to collect and make public the information on the safety of Japan's HPV chemicals (the core Target 125 Substances within the total 645 Substances) that are not yet subject to the assessment by the existing international and national programs. To date, 112 companies and associations have joined the program as "Sponsors," and 97 chemical substances have been sponsored. As of this writing, a total of 22 Robust study summaries and 72 Test Plans were submitted by sponsors, and the summaries have been disclosed via "J-CHECK" (www.safe.nite.go.jp/jcheck/english/top.action). This program will continue through March 2013.

World Chlorine Council

The World Chlorine Council (WCC), an ICCA sector group representing the chlorine and chlorinated products industries, and its member companies are committed to the principles of responsible stewardship through Responsible Care. Chlorinated substances are used widely in society every day, and the WCC seeks to protect public health and the environment while maximizing the overall benefits its products provide to society. The WCC:

- **Identifies and promotes technologies** that will improve EHS performance within the industry;
- **Supports performance standards**, including "best practice" models and successful programs that are already under way at facilities around the world;

- **Fosters cooperation** among companies, governments and organizations to reduce the risks posed by persistent, bioaccumulative and toxic compounds without imposing unnecessary adverse social or economic consequences; and
- **Helps communities** throughout the world improve public health and quality of life by sponsoring educational partnerships and disaster relief efforts.

WCC Stewardship Efforts Include:

- **Global Stewardship Workshops**—Covering EHS issues and best practices that can be applied anywhere around the globe.
- **Global Safety Program**—Promoting safe practices and helping producers, distributors, and users of chlorine continuously improve their safety performance.

Reducing Mercury Usage

The WCC has participated in a series of international negotiating meetings to develop a global convention on the use of mercury. WCC members recognize the fact that mercury is a chemical of global concern and the industry is moving to mercury-free technologies. Transitioning however, will take time. Due to the high capital investment necessary for the conversion to the membrane technology and the high variability of factors influencing the profitability of such projects, funding mechanisms are needed to support conversion.

The fourth of five Intergovernmental Negotiating Committee sessions between government parties was held in Punta Del Este, Uruguay, June 26-July 3, 2012. While the chlor-alkali sector accounts for less than one percent of total global natural and man-made mercury emissions, WCC's constructive approach to exit this mercury use has been welcomed by UNEP and parties developing the new convention.

B. Knowledge & Information

Transparency, effective communications and a willingness to share information are crucial performance measures for today's chemical industry. The GPS promotes greater transparency and expanded public access to chemicals information to increase public awareness and confidence that chemicals are managed safely throughout the product lifecycle.

Of particular note, the GPS Chemicals Portal (www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/) currently provides more than 2,500 chemical product safety summaries written in layman's language, and ICCA's goal is to provide summaries for all chemicals in commerce by the end of 2018. These harmonized summaries are fully available to the public via the portal.

Product Safety & Stewardship

Promoting safe management and use of the essential products of chemistry is a shared responsibility of manufacturers, government and those who sell or use chemical products. Through the GPS, ICCA and its members provide policy support and best practice principles for countries that are actively working to build their risk management processes and harmonize them with international standards.

Working with UNEP, ICCA has promoted the *Flexible Framework Initiative for Addressing Chemical Accident Prevention and Preparedness*, and has developed a regulatory toolbox to provide guidance to governments wishing to implement GPS principles at a national level.

Training & Best Practices

A key component of GPS is improving the product stewardship capacity of small- and medium-sized enterprises (SMEs) in emerging economies. ICCA has partnered with the European Commission and others around the world to conduct training workshops, where product safety specialists from leading chemical companies provide SME owners and government representatives with advice, tools and practical examples for improving chemicals management.

Since 2008, ICCA has sponsored more than 40 GPS workshops in Latin American, Middle East/Africa, Eastern Europe and Asia, with an additional 10 workshops planned in 2012 in India, Mexico, Colombia, Singapore and other nations. ICCA also has developed a set of guidance materials, available in multiple languages, to help developing economies establish risk assessment and risk management programs. Corresponding web-based tools and seminars are being developed to help reach an even broader audience.

Quick Start Programme

The Quick Start Programme (QSP) promotes activities to enable initial capacity building and promote SAICM implementation, with a particular focus on developing countries. Since QSP's launch in 2006, ICCA has provided financial assistance and strong in-kind support through the SAICM Senior Expert Resource Group, which brings together retired industry experts and officials from NGOs, intergovernmental organizations (IGOs), national and regional program authorities. In addition, an ICCA representative serves on the QSP Executive Board.

ICCA's contribution to QSP, which was recognized at ICCM-2 in the QSP Awards Ceremony, has focused on supporting capacity building by sharing state-of-the-art practices and resources on the sound management of chemicals and waste in developing countries. Workshops were held in China, India, and Brazil.

Long-Range Research Initiative

ICCA's Long-Range Research Initiative (LRI) targets the science-policy interface to modernize and improve chemical management. The three regional LRI programs in Europe, the United States, and Japan identify important areas of mutual scientific interest to form the core of the global LRI program. The *LRI Global Research Strategy* (www.icca-chem.org/Home/ICCA-initiatives/Long-range-research-initiative-LRI/) describes the current priority research areas:

- **Emerging Technologies**—Assessing innovative tools, approaches and data that enable robust, timely and resource-effective evaluations of chemicals as well as new technologies, such as nanotechnology.
 - Key focus—Impact of chemicals on biological systems, developing new bioinformatic tools and development of predictive models.
- **Exposure Science**—Improving the tools to quantify everyday and incidental exposures to chemicals and to guide intelligent testing and risk assessment.
 - Key focus—Advances in chemical safety and risk assessment, ecological impacts of exposures, exposure-dose relationships for risk assessment, and assessing exposures from multiples sources.
- **Translation Relevant to Health and Environment**—Developing approaches and tools to improve understanding of links between chemical exposures and their potential effects on human health and the environment.
 - Key focus—Assessing children's health, emerging issues such as animal welfare and endocrine disruptors, improving human health risk assessment, and the relationship of sick building syndrome to immune responses.

Much of LRI's investment in research is leveraged through collaborations with publicly funded projects that maximize project value. The results are published and shared freely with the public, regulators, industry, and the academic and governmental communities.

Outreach and communication are integral parts of the program and are essential for translating research findings into information that can be used in science-based decision making. Since 2005, LRI has sponsored annual workshops that provide dynamic forums to foster interactions among industry and academic researchers, governmental agencies, NGOs and regulatory decision makers regarding current issues in risk sciences and chemical management.

2011 ICCA-LRI Workshop

The 2011 ICCA LRI workshop co-organized with Health Canada provided a rare opportunity for cross-disciplinary discussions about the exposure science needed to improve chemical safety assessments. For two days, nearly 100 international participants representing governments, academia, industry, and public advocacy groups attended platform presentations and actively engaged in panel discussions. This diverse audience brought together their expertise in toxicology, exposure science, environmental epidemiology, statistics, and regulatory policy to consider current issues and directions forward for exposure science. Among the highlights:

- Whether or not the exposures to substances that occur in daily life have the potential for adverse health impacts;
- The influence of early life exposures to chemical stressors on health outcomes later in life;
- Progress on the difficult process of evaluating co-exposures to multiple substances; and
- The need for more effective communication of scientific information to non-technical audiences, so stakeholders and the general public can understand their relevance to possible health concerns.

2012 ICCA-LRI Workshop

The June 2012 workshop in Budapest, co-organized with the UK's Health Protection Agency, focused on the potential applications and implications of current technologies for chemical safety sciences. Topics for discussion included:

- The landscape of current technologies;
- Factors affecting the interplay between chemical exposures and health outcomes; and
- From technology to data to knowledge.

A summary of this workshop can be found on the ICCA-LRI web site listed above.

The ICCA-LRI focuses on integration and translation of its research outcomes to transform this information into knowledge that can inform decisions and policies about the safety of chemicals. Through its commitment to LRI, ICCA shapes advancements in chemical safety sciences that can address environmental and public health challenges and contribute to a sustainable future.

Globally Harmonized System of Classification and Labeling of Chemicals

The sound management of chemicals requires systems through which chemical hazards are identified and communicated—clearly and uniformly—to all stakeholders. ICCA strongly supports the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), launched in 1992 to promote harmonization in classification and labeling requirements. The GHS provides a logical and comprehensive approach for:

- Defining health, physical and environmental hazards of chemicals;
- Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and
- Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).

ICCA's commitment to GHS is based on the realization that crucial safety, pollution control and product stewardship activities require a uniform way to describe and classify chemicals in a manner that meets the varying information needs of the different actors within the value chain. Industry support for GHS includes participation in international forums, advocacy at the national and regional levels and raising awareness among businesses. The results have included development of Responsible Care® programs and GPS implementation plans that are compatible with national legislation.

ICCA is also collaborating with the United Nations Training and Research Program (UNITAR) in developing a broad guidance document on GHS implementation for SMEs and developing countries.

In addition, because of GHS, the chemical safety information reported through ICCA's GPS Chemicals Portal by companies in a particular nation can apply to identical chemicals that may have different branding in other markets.

C. Governance

Governance is the process through which the sound management of chemicals is continually examined and improved. Each of the SAICM partners has a role to play, and the chemical industry is continuing its efforts to meet the expectations of stakeholders through transparency in reporting and open engagement with IGOs, national authorities, NGOs, customers and the public.

Under SAICM, ICCA contributes to governance in two distinct but closely related arenas:

- Joint efforts made by all parties, including IGOs such as UNEP, national regulatory regimes, downstream customers and other stakeholders; and
- Industry's own efforts to improve the safe management of chemicals, including Responsible Care, GPS and other ICCA initiatives.

Through this dual approach, ICCA helps partners understand the role played by the chemical industry and appreciate that by working cooperatively, industry and other stakeholders can together achieve far greater success in safely managing chemicals. In addition, ICCA continues to raise the performance bar for its members across the entire range of EHS and product stewardship activity.

Joint Efforts

ICCA contributes to these joint efforts through several strategic partnerships.

ICCA & UNEP

As part of its commitment to SAICM, ICCA entered into a Memorandum of Understanding (MOU) with UNEP in September 2010. ICCA works closely with UNEP on SAICM implementation, and this new partnership agreement consolidated and strengthened mutual cooperation to develop effective chemical management regimes around the world.

The MOU covers several specific areas:

- Capacity Building
 - African Workshop: the joint African Regional Workshop on Chemical Safety Management in Nairobi, Kenya (October 2011).
 - APELL Workshops: the 25th Anniversary Forum in Beijing, China (November 2011), and the Responsible Production and APELL Workshop in Manila, The Philippines (May 2011).
 - GPS Workshops: held in Shanghai, China (June 2011), and Beijing (October 2011).
 - Responsible Care-APELL Pilot Project: discussions initiated regarding a pilot project in China.
 - Capacity Building Coordination: UNEP and ICCA jointly participated in organizing events in Washington, D.C., and Brussels, Belgium (both in April 2011), to discuss geographies of mutual interest including China, Sri Lanka, the Philippines, Thailand and Indonesia.

- Legal Issues

- ICCA has developed a toolbox to complement UNEP's LIRA (Legal and Institutional Infrastructures for Sound Management of Chemicals) guidance to assist governments wishing to implement the Global Product Strategy at a national level.

- Stakeholder Dialogue

- Joint UNEP-ICCA side events on sound chemical management: CSD-19 in New York (May 2011), the SAICM regional meeting in Nairobi (April 2011), and the First SAICM Open-ended Working Group in Belgrade, Serbia (November 2011).
- Chemicals in Products: Workshop on the Chemicals in Products Project in Geneva, Switzerland (March 2011).
- Financing: ICCA regularly participates in UNEP's Consultative Process on Financing Options for Chemicals and Wastes.

ICCA is committed to working with UNEP to meet the WSSD 2020 goal. But considerable work remains if we are to achieve the ambitious goals set out for this decade. By blending approaches drawn from the public and private sectors, SAICM is uniquely qualified to address current and emerging challenges, but it must be strengthened, including within emerging economies.

Emergency Response & UNEP's APELL Program

The origins of the APELL Program are found in the response of the chemical industry to several accidents in the 1980s, as the industry re-examined its safety practices, revised its relationship with the communities near its plants, and renewed its commitment to safety. In the United States, the industry created a new Community Awareness and Emergency Response (CAER) program to ensure that every member facility had an emergency response plan that was coordinated with the local community. At UNEP's request, the original CAER program was transformed into the global APELL initiative that seeks to raise awareness and help local communities and emergency responders to prepare for and safely manage such events.

Together with UNEP, local and national governments and other organizations, ICCA members began developing and sharing emergency response best practices. Activities included development of the APELL handbook, and the provision of an industry-funded representative to the APELL Secretariat. The industry representative worked with UNEP to help gain industry participation from developing nations and emerging producers. In addition, companies participate in APELL workshops and planning efforts

To celebrate the 25th anniversary of APELL, a special forum was held in Beijing in November 2011. Co-sponsored by UNEP, ICCA, China's Ministry of Environmental Protection, Renmin University of China, Dow Chemical and Petrobras, the event marked the success and longevity of an initiative designed to minimize the risk and impact on the environment, and people from industrial accidents and natural disasters.

In addition, ICCA members, through their Responsible Care® initiatives, have put many processes in place to safely manage the transportation of chemicals. In 2011, just under €3 trillion in chemical shipments were made globally, and some of those chemical shipments represented materials deemed to be hazardous. The safety practices put in place by the chemical companies help ensure that these shipments arrive at their destination without incident.

Because the industry operates in an imperfect world, ICCA members have focused on emergency response through steps taken both by individual companies and collaboratively through industry organizations. Some examples of those collaborative efforts include:

- The American Chemistry Council (ACC), through its CHEMTREC® program, provides assistance to emergency responders and others around the world by providing product and emergency response information to assist those responders in mitigating chemical incidents;
- The ICE initiative (Intervention in Chemical Transport Emergencies) established by Cefic is a mutual assistance network of chemical companies throughout Europe that provide information and other resources to competent emergency authorities to assist in mitigating chemical emergencies;
- TRANSCAER® (Transportation Community Awareness and Emergency Response) in Canada and the United States provides assistance to communities through which chemicals are transported, with a focus on assisting those communities in training and developing their emergency management plans;
- Mutual assistance agreements between national level emergency centers in the Argentina, Brazil, China, Colombia, Mexico, New Zealand, and the United States;
- A global, public-service web site, sponsored and maintained by CHEMTREC is being designed as a resource for the international emergency response community to assist them in understanding the environment, regulations, and available contacts for countries through which chemicals are transported;
- Creation of and/or participation in international networking venues that help industry and government officials better understand the challenges associated with international emergency response and to develop potential solutions (e.g. Asia Pacific Responsible Care Conference, Gulf Petrochemicals and Chemicals Association Supply Chain Conference; APEC Chemicals Dialogue meetings; CHEMTREC's International Emergency Response Summit).

ICCA & OECD: Nanotechnology

Nanotechnology promises significant societal benefits, and many companies within the ICCA family have worked with OECD's Business and Industry Advisory Committee to improve understanding of nanomaterials and nanotechnologies. For example, ICCA attended the April 2011 SAICM nanotechnology workshop in Nairobi, Kenya, and highlighted industry's commitment to produce, handle and use nanomaterials in a responsible manner along their life cycle.

ICCA supports and promotes the safe use and manufacture of the products of nanotechnology, and its members strongly believe this exciting technology should be developed in a way that not only identifies and minimizes potential risks to human health and the environment, but also helps preserve the potential market for the technology against unwarranted claims of adverse impact. ICCA strongly supports efforts to further understand and assess the possible risks of nanotechnology.

Industry-Centric Governance Activity

The second aspect of ICCA's governance activity is reflected in the enhancement and expansion of the Responsible Care® and GPS initiatives to new regions, nations and enterprises.

The Expanding Responsible Care Family

The Responsible Care family continues to grow. In 2009, the Gulf Petrochemicals and Chemicals Association (GPCA), representing Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Oman and Bahrain joined the program. In 2011, the Ukraine Chemists Union (UCU) was accepted as well. Today, the program is working closely with China, Egypt and Sri Lanka and continues to support effective chemicals management practices in Vietnam.

In addition, by March 2012, more than 150 of the largest chemical companies belonging to ICCA associations had signed up to the Global Charter (www.icca-chem.org/en/Home/Responsible-care/).

GPCA – A Responsible Care® Case Study

The Gulf Petrochemicals & Chemicals Association (GPCA) represents petrochemical and chemical producers in the Gulf Region: Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Oman and Bahrain. Formed in 2006 by eight founding members, GPCA has achieved remarkable expansion in a short space of time with addition of 36 full members and 124 associate members from 23 countries. GPCA adopted Responsible Care in 2009, and the initiative is being implemented with support and cooperation from the U.S. and European associations, ACC and Cefic. To date, 85% (29 of 34) of full members have signed on to Responsible Care, as have two associate members.

GPCA Member Commitments

Responsible Care companies have signed on to a set of 12 guiding principles, which are consistent with the Global Charter. The Association's Responsible Care logo with Arabic and English taglines is now in place in six GCC Countries with usage permitted only to members that:

- Sign Declaration of Support;
- Require self-assessment;
- Develop an action plan for Responsible Care implementation; and
- Agree to review by GPCA.

Other commitments include:

- **Verification and Performance:** Self-assessment is currently the basic approach to Responsible Care verification with readiness for third-party certification expected during 2012.
- **Mutual Assistance:** Numerous workshops, training and awareness sessions have been conducted and are very well

attended. Best practices developed by the United States, Canadian and European associations are shared with GPCA members. A database of best practices, reporting metrics and self-assessment has been developed and is posted on the Association web site.

- **Global Product Strategy:** The Association is drawing on risk assessment expertise from partner companies to build awareness for its members. ICCA experts conduct workshops and seminars for GPCA members. In 2011 and 2012, Responsible Care workshops were attended by a total of 255 delegates, and additional workshops are planned.

A Look Ahead

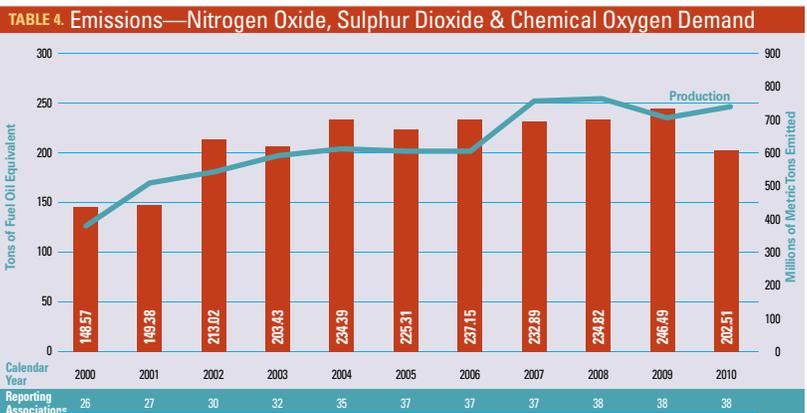
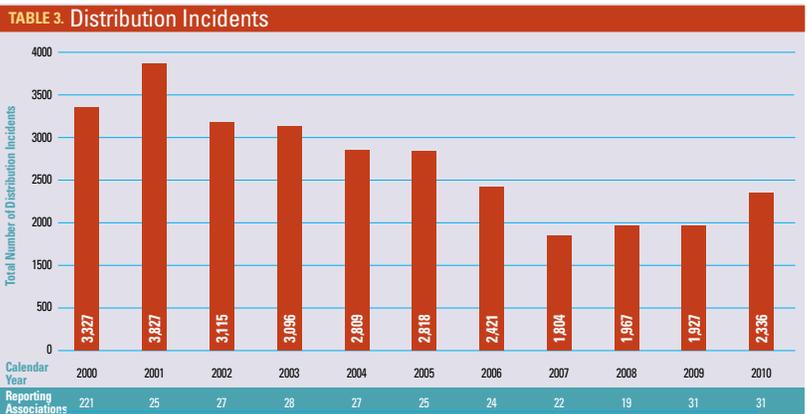
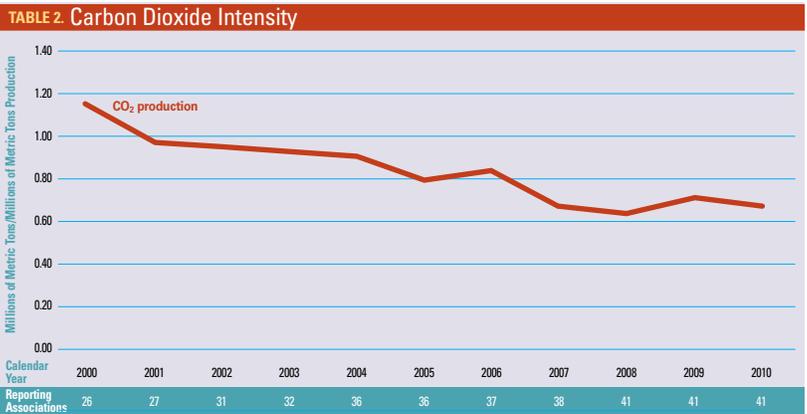
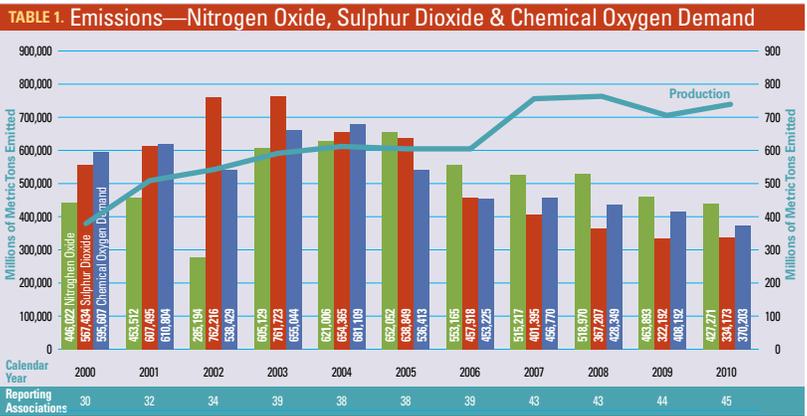
- Final Codes have been issued and are being implemented;
- Metrics and sustainability data will be reported;
- Programs will be introduced to help ensure the safe management of chemicals throughout the supply chain.

Industry Performance—Key Indicators Industry-wide Responsible Care® Reporting Highlights

- Table 1— Emissions: Overall, SO₂, NOx emissions and oxygen demand are decreasing as production is increasing.
- Table 2— CO₂ intensity has declined, per unit of production.
- Table 3— Distribution Incidents: Overall there has been a general decline in the number of incidents, despite a 15 percent increase in tons distributed over the same time period.
- Table 4— Fuel use has declined despite increased production.

For each metric, the number of reporting associations has increased over time.

To monitor, benchmark and communicate the achievements of the chemical industry at local, national, regional and global levels, ICCA members are building a comprehensive assessment of EHS performance based upon common definitions. Agreement and collection of data based on a core set of quantitative indicators of performance was the first step in achieving the objectives of measuring, improving and sharing of performance results. Since then, Responsible Care members have implemented additional parameters covering energy and water consumption, CO₂ emissions, and distribution incidents, and correlated existing Responsible Care metrics against the 20 SAICM indicators. ICCA produced its first benchmark report against the SAICM indicators in 2009, and has provided updated reports on an annual basis.



Openness is a key component of Responsible Care®. The communication of performance to customers, suppliers, local communities, regulators, employees, shareholders and the general public is an important focus of this report.

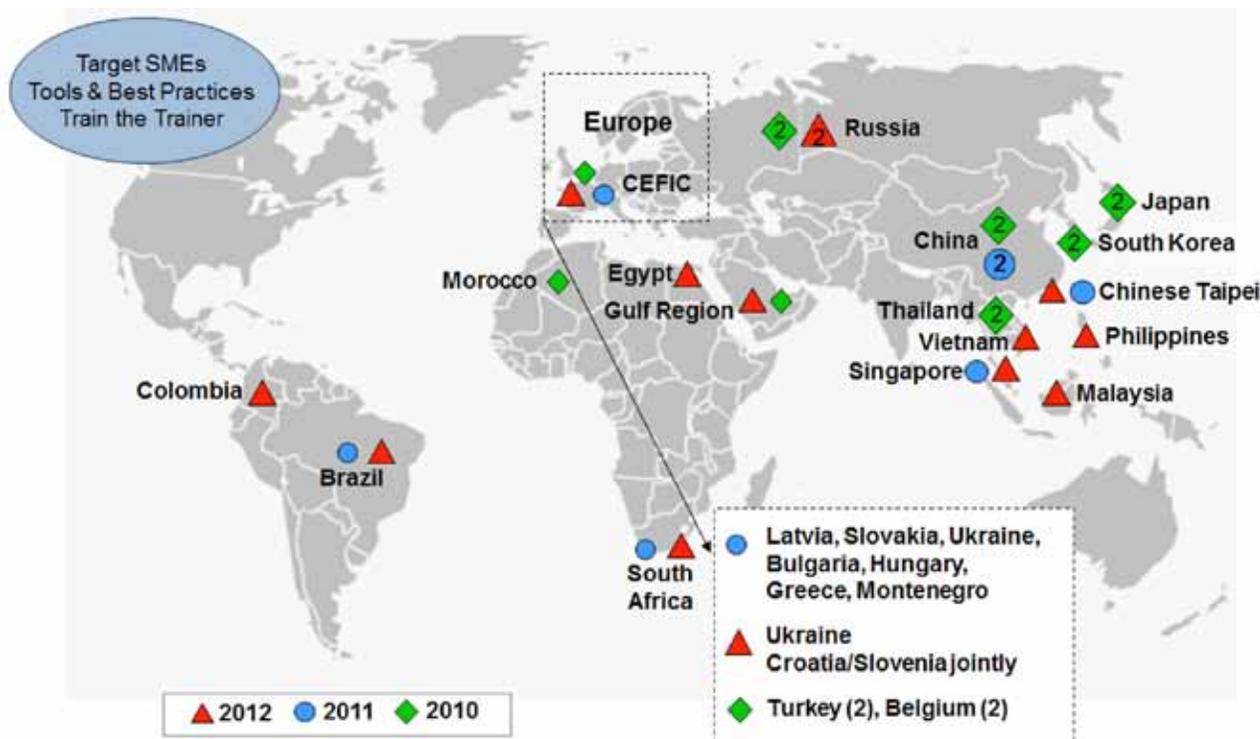
Under the Responsible Care Global Charter, companies commit to collect and report data for a core set of EHS performance measures, while each participating association is expected to collect, collate and report this data from its members. To date, there have been five Responsible Care status reports; the most recent report covers the 2002-2012 time period.

ICCA Responsible Care association members have made great strides in the collection and reporting of data, and today provide the most complete dataset available for our industry. An online tool has been developed to assist those associations who do not have data collection processes. While challenges remain, efforts continue to support and encourage all associations to report for upcoming years and to ensure the quality of the data reported improves. This process promotes sharing of best practices in the spirit of Responsible Care.

Funding the SAICM Initiative

ICCA recognizes that sustainable funding for SAICM is crucial for long-term success. The industry strongly believes that such funding is properly a governmental responsibility, and ICCA members support efforts by national governments and intergovernmental organizations to provide sufficient funding for this purpose. ICCA has participated actively in the UNEP's Executive Director's Consultative Process on Financing for Chemicals and Waste, where it advocates for sustainable funding policies.

ICCA members also have made substantial contributions to SAICM, including direct and in-kind support for specific programs, events, conferences and workshops, and support for the placement of industry representatives on key administrative and policy-making committees. In addition, ICCA members have invested significantly in partnerships with governments and businesses to share best practices and promote the safe handling of chemicals. Significant investments also are made in research, and ICCA makes information about the safe handling of chemicals publicly available free of charge.



ICCA welcomes the integrated approach proposed by the Consultative Process for Financing Options and stresses the importance of in-kind contributions by industry to implement SAICM. However, industry involvement is necessary but not sufficient for financing sound management of chemicals.

D. Capacity Building & Technical Cooperation

ICCA Capacity Building Workshops: 2010-12

Capacity building is a key tool to improve chemicals management, enabling ICCA member companies and national chemical associations to share EHS best practices, to improve chemicals management and product stewardship through the supply chain, and to help our industry achieve the SAICM objectives.

Within the global chemicals sector, capacity building involves activities as diverse as working with stakeholders such as regulators and the authorities to prevent illegal traffic, developing emergency response programs, training distributors on safe handling, and promoting technology transfer on mutually agreed terms. Capacity building represents one of most important ways in which the unique chemicals management expertise of the global industry can be brought to bear for the benefit of broader society. At the company and association level, industry provides significant financial resources to SAICM implementation, but industry's most valuable contribution lies in the sharing of its knowledge and experience.

Legacy Issues—A New Approach

Responding to a challenge made at ICCM-2, ICCA began two initiatives to provide technical support and assistance to NGOs dealing with chemical legacy issues. In Ukraine, ICCA provided significant support for the Blacksmith Institute's remediation of the legacy hazardous materials site at the Gorlovka Chemical Plant in the Donetsk region. Industry experts provided technical assistance that will allow the remediation project to proceed safely and effectively.

In Maputo, Mozambique, ICCA is working with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the United Nations Industrial Development Organization (UNIDO) to build capacity for remediation of chemical sites in the region. A two-and-a-half day workshop was held for local participants as well as those from South Africa, Lesotho, Swaziland and Uganda. Participants visited a variety of potential sites as they learned how to structure and approach a site remediation project.

With ICCA support, a pilot project site area for inventory activities will be identified that will provide an opportunity to work together with various governmental agencies, universities and testing centers.

“Four volunteer remediation experts from ICCA accompanied Blacksmith Institute Project Managers to the site of the abandoned Gorlovka Chemical Plant (in Ukraine)...Blacksmith received a detailed and comprehensive report from these experts containing valuable safety analysis, suggestions, alternative options and recommended protocols. The work of these experts will be extremely valuable to use as we move into the training and implementation phases of the project. Safety is our number one priority at this site, and the recommendations of the volunteer experts have already begun to influence our plans.”

Richard Fuller, President, Blacksmith Institute
Letter to ICCA, Jan. 11, 2012

Capacity Building Activities

ICCA continues to work with companies and associations to expand Responsible Care® to new geographies as well as assist existing member associations in developing and enhancing their current programs. From 2009 through the end of 2012, more than 50 capacity building projects will have received ICCA support. In 2011, Responsible Care provided \$140,000 in funding to support 17 global capacity building projects and events, and in 2012 is slated to support an additional 22 projects.

Examples of some of the 2011 capacity building activities include:

Hands-on Workshop in the Arabian Gulf

The Gulf Petrochemicals and Chemicals Association (GPCA) developed Responsible Care® guidance materials that will be used for member implementation and presented at a workshop addressing transportation issues in 2012. The workshop will provide materials and activities that will educate and raise awareness of Responsible Care, through hands-on activities that will bring delegates up to a level where they feel confident and ready to develop individual procedures and implementation plans.

Brazil Reviews Benefits, Challenges of GPS

A two-day workshop in June 2011 featured presentations from member companies, members of the ICCA Chemicals Policy & Health Leadership Group, ASIQUIM (Chile), CCS (Colombia), CIQyP (Argentina) and various Brazilian government institutions. During the workshop, ICCA representatives gave several presentations on risk assessment guidance, product management in Latin America and benefits and challenges of GPS in Latin America.

Education through Conferences in China

The China Petroleum and Chemical Industry Federation (CPCIF) and the Association of International Chemical Manufacturers (AICM) organized the 2011 China Responsible Care Conference and a GPS workshop, bringing together chemical companies and stakeholders along the value chain to share excellent Responsible Care practices in China and to discuss how to improve capacity development for Responsible Care implementation. A Responsible Care Committee was established at the conference and presented a "Responsible Care Implementation Declaration." In addition, training materials and a Responsible Care evaluation matrix are being developed.

Colombia Convenes Leaders to Address GPS

In order to advance implementation of GPS, a thorough understanding of GPS and Process Safety Management is required. Thus, the Colombian Responsible Care staff

embarked on a careful review of existing GPS materials, conducted a gap analysis between GPS and PS and developed GPS implementation materials based on ICCA guidelines. With support from Responsible Care New Zealand and the American Chemistry Council, the Responsible Care staff organized a successful workshop in May 2011 focused on CEO awareness and the importance of GPS implementation. A second two-day workshop on chemical safety in March 2012, attended by 145 politicians, consultants, regulators, regional managers and Responsible Care coordinators, focused on: GPS; analysis and risk assessment; process safety; product safety; the Globally Harmonized System of Chemical Classification and Labeling; and enhancing awareness of Responsible Care.

Product Stewardship Workshop in Indonesia

A Product Stewardship/GPS Awareness workshop for ASEAN and Asia Pacific countries was held in Bali, Indonesia, in October 2011, in conjunction with the Asia Pacific Responsible Care Conference. This one-day interactive workshop provided an introduction to GPS and risk assessment guidance and reviewed a number of case studies addressing risk characterization and risk management. Workshop speakers included representatives from JCIA, Sumitomo Chemical, Mitsubishi Chemical, Indonesia National Science and the national association. A total of 70 people participated, from Colombia, India, Indonesia, Japan, Korea, Malaysia, Philippines, Saudi Arabia, Singapore, Chinese Taipei, Thailand, the United States and Vietnam.

Russia Promotes Responsible Care Education

The Russian Chemists Union (RCU) hired a contractor to translate essential documents for Responsible Care development into Russian, which will be available for download on RCU's updated web site. RCU also completed a pilot run of a course, "International Program of Sustainable Development in the Chemical Industry Responsible Care: Improving Enterprise Policies," at the Mendeleev Russian University of Chemistry and Technology, to educate the public about the Responsible Care initiative. In October

2011 in Kazakhstan, Cefic collaborated with RCU and the interstate council of CIS countries with the 4th International Conference, which included the following topics: regulation of safe chemical products; recommendations of the UN-GHS, rules and regulations of the Customs Union; REACH and CLP Kazakhstan; and promoting GPS initiatives.

Slovenia Enhances Commitment to Responsible Care®

The Association of Chemicals Industries of Slovenia (ACIS) reviewed its entire Responsible Care program as part of its efforts to raise commitment to the Responsible Care Global Charter. Between April and December 2011, the ACIS translated, redesigned and published the Responsible Care Global Charter; issued new guidance for Responsible Care implementation; developed new KPI reporting guidelines; developed logo guidelines and logo access forms; and issued declaration statements for new and existing Responsible Care companies to sign under charter principles. A GPS workshop for 2012 is being planned.

United Kingdom Reviews Product Stewardship Program

After conducting a survey and numerous site visits, the Chemical Industries Association (CIA) undertook a successful review of its Product Stewardship (PS) program in support of the Responsible Care Global Charter. The new CIA product stewardship guidelines were updated based on the identified needs of members and provides details of the role of the different departments within a company in supporting the Product Stewardship effort. This document was designed as an outline of the responsibilities of each individual during training and for discussion of the PS with senior management. CIA also revised its check-up tool in support of the guidelines. The tool allows companies to carry out a basic gap analyses of their chemical management activities, includes all elements that should be included in a standard PS program, and points out activities that go beyond minimum requirements. CIA developed two documents to help companies define which elements should be an integral part of training for chemical sector sales and purchasing staff. CIA plans to expand the documents for its members as part of the next stage of this exercise and include summaries of legislation that apply to the UK industry.

Associations That Received ICCA Capacity Building Support in 2010-11

Arabian Gulf	Brazil	China	Chinese Taipei	Colombia
Estonia	Germany	Hong Kong SAR	India	Indonesia
Korea	Malaysia	Mexico	Morocco	Philippines
Russia	Singapore	Slovenia	Sri Lanka	Switzerland
Thailand	Turkey	United Arab Emirates	United Kingdom	Ukraine
Uruguay				

Associations Approved to Receive ICCA Capacity Building Support in 2012

Arabian Gulf	Brazil	Chile	China	Chinese Taipei
Colombia	Estonia	Germany	Hong Kong SAR	India
Indonesia	Malaysia	Philippines	Russia	Singapore
Slovenia	Sri Lanka	United Kingdom	Ukraine	Uruguay

E. Combating Illegal International Traffic

The chemical industry works closely with governments and IGOs to control and eliminate illegal international traffic in chemicals. While there are obvious business reasons to prevent such activity, there is a far stronger social imperative—to prevent chemicals in commerce from falling into the hands of those who might use them to develop weapons.

Under Responsible Care[®], national associations increasingly include facility, cyber and transportation security within the performance metrics. In the United States, ACC's Responsible Care Security Code requires the development, with verification, of a multi-level security program based on the categorization of actual risk. In fact, the industry program served as the basis for state and federal legislation that cover a broad range of facilities that use, store or ship chemicals, as well as those that produce them. Other ICCA members, including Cefic and GPCA, have developed their own security codes as well.

Chemical Weapons Convention

ICCA continues to be an active partner with the Organization for the Prohibition of Chemical Weapons (OPCW) in all efforts to implement the Chemical Weapons Convention (CWC), the first global arms-control treaty that focuses on the private sector. The CWC incorporates a reporting requirement for industrial facilities, including those not specifically dedicated to weapons programs.

In March 2012, the OPCW completed its 1,000th inspection of such chemical manufacturing facilities. "This milestone is yet another demonstration of the shared commitment of the OPCW, its states parties and the global chemical industry to ensuring that chemistry is only used for peaceful purposes," said OPCW Director-General Ahmet Üzümcü.

The years 2012 and 2013 will be important in the evolution of the OPCW, with the beginning of preparations for the Third Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention, to be held in April 2013. The two previous review conferences, in 2003 and 2008, focused on the destruction of chemical weapons declared by possessor States Parties. While this function of the OPCW will continue for some years to come, the long-term work of the organization must also take into account existing and emerging demands and trends including the weaponization of specific chemicals in commerce. ICCA will continue to work closely with the OPCW to ensure that the products of chemistry are used properly, safely and legally.

Innovation and a More Sustainable Future



sus-tain-a-ble (suh-stey'-neh-buhl') *adjective*. **1.** Capable of being confirmed or upheld. **2.**

Pertaining to a system that maintains its own viability by using techniques that allow for continual reuse. **3.** Able to be maintained or kept going, as an action or process. **4.** Able to be supported as with the basic necessities or sufficient funds.

Sustainability

ICCA believes that to achieve true global sustainability, poverty must be eradicated and economic opportunity for all must be encouraged in ways that do not harm the environment, health or safety. Partnerships and cooperation between the public and private sectors together with civil society will be key to progress, particularly in the face of persistent world poverty and lingering global economic uncertainty.

Innovation and deployment of new products and technologies are critical to future sustainable development, helping ensure society makes the best use of scarce resources as the global population grows.

The global chemical industry supplies many of the innovative products and technologies required for the transition to a more sustainable economy, and ICCA seeks policy frameworks that support the production, diffusion and deployment of these products and technologies.

Sound economic, social and environmental governance is necessary to create the conditions to develop a sustainable economy and promote greener growth.

Innovative, efficient solutions are required to achieve sustainable development goals. And contributions of the global chemical industry play an essential role in the transition to the sustainable economy envisioned by the recently concluded "Rio+20" conference.

"The main challenge facing humanity now is to sustain the process of poverty eradication and development while shifting gears. Developed countries must shrink environmental footprints as fast and as far as possible while sustaining human development achievements. Developing countries must continue to raise their people's living standards while containing increases in their footprints, recognizing that poverty eradication remains a priority. This is a shared challenge with a goal of shared prosperity."

UN Secretary-General's Report on the Objectives and Themes of the United Nations Conference

The products and technologies of chemistry enhance sustainable development in a number of ways:

- Promoting sustainable, local agriculture and improving the safety of the food supply;
- Improving human health through the development and deployment of vaccines and medicines;
- Developing technologies that supply clean drinking water to communities around the world;
- Supporting global efforts to reduce energy use and enabling renewable energy;
- Minimizing greenhouse gas (GHG) emissions; and
- Lightening the human footprint on our earth and its resources.

ICCA and its members are strongly committed to continually improving sustainability through the safe management of chemicals throughout their lifecycle.

Energy Efficiency & Renewable Energy

Without a clean, affordable, and secure global energy supply, we cannot eradicate poverty, grow the world economy and create shared prosperity. Even in the face of a slow economic recovery, global demand for energy will grow sharply in coming decades—according to some estimates, by as much as 53 percent between now and 2035—and much of this demand will come from large, transitioning economies.

A sustainable, greener economy demands a new energy future. It requires making more and better use of renewable resources, dramatic changes to consumption patterns and developing innovative technologies that maximize scarce, non-renewable resources to vastly improve energy efficiency around the world. The chemical industry is already playing a crucial role in making this happen—but more needs to be done.

Nearly all emerging energy sources and technologies—wind, solar, natural gas, fuel cells and new vehicle technologies—depend on further innovations in chemistry to become more efficient, affordable and scalable.

Examples include: lithium ion batteries that will power the next generation of electric cars and lightweight aircraft; advanced biofuels; more cost-effective materials for solar panels; and materials and production techniques for advanced wind energy technologies.

The global chemical industry also is transforming how energy is used, enabling technologies that increase energy efficiency in homes, offices, factories and vehicles—everything from lightweight auto parts, to energy efficient windows, doors, lighting, and insulation, to lightweight packaging. A study by McKinsey and Company conducted for ICCA found that for every unit of CO₂ emitted in the manufacture of the products of chemistry, two units of CO₂ are saved, largely through the energy efficiency gains enabled by the products, such as insulation and energy-efficient lighting. And by 2030, it is estimated that this GHG savings-to-emissions ratio could increase to four-to-one.

ICCA is not standing still. The next phase of its carbon reduction effort will cover the development of guidelines on avoided emissions. ICCA also aims to develop guidelines on when to commission lifecycle analyses of carbon use and emissions.

A third piece of the energy puzzle is reuse—using recovery technologies to transform hard-to-recycle discarded products into valuable, alternative energy. Every day, tons of high-energy-content products, like plastics, are buried in landfills.

Energy from discarded products can be recovered in traditional facilities that convert these materials into electricity, or through innovative technologies that convert plastics into alternative fuels. Modern energy recovery facilities meet some of the most stringent environmental standards and use some of the most advanced emissions control equipment available, producing less pollution than even the best landfills.

ICCA's New Energy "Roadmaps"

ICCA is examining three additional ways for the industry to reduce energy consumption and carbon emissions, with the goal of developing plans or "roadmaps" to guide industry performance worldwide. Working with the International Energy Agency (IEA) and other partners, ICCA is focusing on:

- **Catalysis:** ICCA is developing an approach to the use of catalysts and related process improvements to reduce "in-fence" energy consumption at the facility level.
- **Energy Efficient/Low Carbon Buildings:** Accelerating the development of low-carbon energy technologies in buildings can contribute to global energy security, reduced GHG emissions and economic growth, and ICCA is developing a technology roadmap to address the industry's contribution in this crucial arena.
- **Biofuels and Bioenergy:** ICCA contributed to the IEA Roadmap on Biofuels for Transport (2011) and Roadmap on Biofuels for Heat and Power (2012). The chemical industry is acknowledged as an important player in achieving the roadmap's vision.

In all of these areas and many others, chemistry will continue to drive the world to a more affordable, efficient, clean energy future.

Enabling Innovation & Technology

in-no-va-tion (in'-e-vay'-shen) *noun*.

1. The act of introducing something new.
2. Something newly introduced.

Widespread innovation across all sectors, from agriculture to healthcare to advanced manufacturing, is a critical element in building a sustainable world economy. Achieving a more efficient, clean, and equitable global landscape requires deploying new products and technologies to help a growing population make best use of the world's scarce resources.

Chemistry will continue to enable the breakthroughs this new economy requires. The global chemical industry invests in research to develop new technologies and processes that enable other industries and sectors to improve their environmental performance and the quality of their products.

Such goods and materials are so pervasive across our world economy that we rarely think about their basis in chemistry. These products include lightweight plastics, coating and adhesives, fertilizers, pharmaceuticals, textiles with specialist properties, building materials, advanced non-food-based fuels, improved crops for specific growing conditions and many more.

Energy Efficiency—Leading By Example

The global chemical industry is reducing its own energy consumption. For example:

- The European chemical sector emitted 49% less CO₂ equivalent in 2009 compared to 1990, while production climbed 60% over the same period.
- Between 1990 and 2007, the Japanese chemical industry improved energy efficiency by 16%, and reduced absolute GHG emissions by 17%.
- In the United States, the industry's absolute GHG emissions fell 16% between 1990 and 2008. At the same time, chemical industry production rose 39%. As a result, GHG intensity fell by 39.4%.
- Since 1974, U.S. industry has improved energy efficiency by 53%.

Consider the following examples:

- Use of advanced insulation foams in building save 2.4 billion tons of greenhouse gases each year. Efficient insulation can reduce energy costs by as much as 60 percent.
- Chemical products for vehicles save 230 million tons of GHG emissions every year through lighter plastic parts that reduce a car's weight, tires that create less emissions, and gasoline and diesel additives that reduce fuel consumption.
- Modern compact fluorescent light bulbs offer more effective lighting and have a longer life than incandescent bulbs, saving 700 million tons of GHG emissions annually.
- Metallocene catalyst technology, which makes polyethylene films stronger and lighter, lowering direct emissions, is a major breakthrough in plastics manufacturing. Metallocene polymers also enable modified plastics to be used more widely in automotive applications, replacing steel.
- Detergent enzymes represent one of the largest and most successful applications of modern industrial biotechnology. Using enzymes reduces the amount of electricity needed to do a laundry by 30 percent. The duration of the washing cycle and water consumption can be reduced when enzymes are added to a detergent. Since enzymes are bio-degradable, their use also leads to a reduced environmental footprint.

The net effect of these innovative products and materials—and so many others enabled by chemistry—is a more sustainable, energy efficient, green economy.

Chemical Industry Contributions to Millennium Development Goals

In September 2000, world leaders met in New York to adopt a new global partnership to reduce extreme poverty and embrace a series of "Millennium Development Goals" (MDGs). With its focus on a more sustainable global economy for all, Rio+20 provided an opportunity to assess progress toward those goals.

Achieving the MDGs requires a comprehensive, global effort that includes all sectors. The challenges of extreme poverty, hunger, sanitation, maternal and child health, environmental sustainability and education are too vast and pervasive to be tackled by governments alone. The global economic crisis has not only exacerbated the challenge for so many, but also has complicated the fiscal picture for many governments. Innovative, effective and affordable solutions are needed.

Among the most urgent MDGs, the chemical industry has an impact on the following:

- Eradicating Poverty and Hunger
 - Development of new, efficient and environmentally friendly fertilizers increases and improves global agricultural production, helping to alleviate world hunger.
 - Economic growth is critical to solving social and environmental problems; the chemical industry is a crucial component of economic and social development.
 - Full and productive employment has been created for the 7 million people worldwide who are directly employed in the global chemical industry; counting indirect employment that figure rises to more than 20 million people worldwide.
- Improving Global Health
 - Medical breakthroughs and innovative technologies made possible by chemistry provide deeper understanding of the causes of, and treatments for, infectious diseases, enabling people to live longer, healthier lives.
 - Chemistry is essential to safe drinking water. The World Health Organization estimates diseases associated with dirty water kill 6,000 people every day.
 - Clean water is a vital component in reduced child mortality and improved maternal health. Chlorine chemistry is the most effective weapon against waterborne bacteria and viruses.

The ambition to halve, between 1990 and 2015, the proportion of people who suffer from hunger remains a massive challenge, requiring development of new, efficient and environmentally friendly fertilizers to increase crop yields and improve global agricultural production, as well as sustainable methods for controlling insects, disease and rot.

Food also must be safely and efficiently transported around the globe. And local farmers must have access to the crops, tools and training they need to sustainably farm their own land and feed their families and communities. The chemical industry, in partnership with other industries and international NGOs, contributes to each of these goals and continues to look for ways to expand our partnerships at ICCM-3 and beyond.

At the same time, medical breakthroughs and innovative technologies made possible by chemistry and biotechnology provide a deeper understanding of the causes of, and how to prevent and treat, infectious diseases, enabling people to live longer, healthier lives. Wide-scale production and distribution of medicines is one clear contribution enabled by chemistry. But so too are: plastics used for delivery of vaccinations and other life-saving medicines, hydration and other treatments; mosquito nets treated with insect repellent and other tools to fight malaria and other diseases; and quick, clean, safe transportation of water and other vital supplies, especially in times of disaster.

Clean water is a vital component of improved world health and a major factor in reducing child mortality, improving maternal health and combating sickness. The World Health Organization estimates that diseases associated with dirty water kill 6,000 people every day. Chlorine chemistry is the most effective weapon against waterborne bacteria and viruses and is essential to safe drinking water.

Other critical areas of global need include sanitation and housing. Lightweight, easily transportable building materials are essential to improve living conditions for the millions of people who live in slums and other unsafe conditions. Chemical companies have teamed with organizations like Habitat for Humanity to build sustainable, affordable homes in countries around the world using innovative building materials that reduce natural gas usage and decrease electricity costs.

Sustainable development “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Brundtland Commission, 1987

These are just some of the areas in that are helping the world community meet the Millennium Development Goals. ICCA and its members also are working to create a more sustainable, clean, efficient and affordable energy future. And we remain strongly committed to continually improving the sustainability and safe management of chemicals throughout the lifecycle, particularly in developing and transitioning economies. A sustainable world economy benefits us all, and ICCA and its members will continue to do our part, working with the United Nations and other partners around the world.

2015 & Beyond—Sustainable Development Goals

At the Rio+20 conference, ICCA members welcomed the decision to establish a new set of Sustainable Development Goals (SDGs) by 2015. While the new SDGs have yet to be articulated, it is clear that the global community cannot achieve greater sustainability without the products of chemistry. ICCA looks forward to providing input to new discussions to identify the SDGs and determine how to achieve them.

The Road Ahead: ICCM-4 and SAICM 2020

course (kôrs) *noun*. **1.** Onward movement in a particular direction. **2.** The directions of continuing movement. **3.** The route or path taken by something that moves.

CCA MEMBERS KNOW there is a lot of work to be done to reach the 2020 goal for sound chemicals management set at the 2002 World Summit on Sustainable Development. But the associations and companies that comprise ICCA believe the pattern for success has already been established through Responsible Care®, active participation in SAICM, and the ongoing partnerships with governments, UNEP, OECD and other organizations. In short, the industry has set its course to the future, although ICCA associations and member companies know they cannot get there alone.

Partnerships—The ICCA Way

Several types of partnerships are already part of the ICCA approach to chemicals management.

Public-Private Partnerships

ICCA has long held that the combination of effective government regulation and voluntary industry action offers the best option for chemicals management and product stewardship. Regulatory regimes such as Canada's risk-based Chemical Management Plan and national laws in Japan, the United States, Europe and other chemical-producing nations can be most effective if they are formulated and administered in a collaborative rather than adversarial manner.

The chemical industry has a strong track record of working with governments in areas such as security, trade, emergency response, product, workplace and process safety. Often, such partnerships begin with the sharing of basic information about products and processes. Information provided by the industry is routinely incorporated into regulatory frameworks. For example, chemical facility security laws in the United States are based on the industry's Responsible Care Security Code.

Conversely, regulatory systems often help guide industry efforts. At a workshop in 2011, ICCA noted that REACH registration deadlines will set priorities for ICCA's Global Product Strategy (GPS) programming. The REACH information requirements cover almost 100 percent of GPS requirements, though chemicals produced in lower volumes with high (eco)-toxic profiles may need additional information under GPS.

Beyond partnerships at the governmental level, ICCA maintains strong relationships with intergovernmental organizations such as OECD and UNEP, often with the goal of strengthening SAICM. These include:

- Partnering with UNEP on capacity building activities in developing regions, particularly Africa and China;
- Working with UNEP to develop guidance for governments on how chemical management systems can be harmonized;
- Developing a regulatory toolbox to provide guidance to local governments on how to integrate GPS elements into their national legislative requirements; and
- Continuing to work with OECD and other organizations on issues ranging from High Production Volume chemicals to nanotechnology.

Additional partnerships are helping to achieve sustainable development. Companies work with national and local governments to provide a wide range of services and products to promote human health and protect the environment. Projects range from clean water to mosquito netting that helps prevent malaria.

Industry & Business Relationships

2011 marked the International Year of Chemistry, a celebration of the achievements of chemistry and a commemoration of the 100th anniversary of Marie Curie's Nobel Prize research. IYC 2011 was a joint initiative of the International Union of Pure and Applied Chemistry (IUPAC) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and ICCA was pleased to be an active participant at the global, national and local levels. One of the most significant IYC 2011 activities was the Global Experiment, "Water: A Chemical Solution." The experiment united students from around the globe, enabling them to examine the role chemistry plays in water purification and the provision of safe drinking water. The experiment covered intriguing chemical concepts while requiring minimal equipment and resources so that students in all nations were able to participate and post results on a universally accessible web site.

"UNEP has a long-standing relationship with the International Council of Chemical Associations which has had valuable results for both government agencies and the chemicals industry. By exchanging experiences and lessons learned, we have been able to work together to improve the safe management of chemicals and reduce industrial risk in communities around the globe. UNEP supports the chemicals industry in its commitment to the environment by promoting stewardship of hazardous materials throughout their life cycle and in its effort to further improve corporate responsibility."

Sylvie Lemmet
Director, Division of Technology, Industry and Economics, UNEP

In addition to working with chemical societies and university researchers, ICCA also works directly with the entire value chain including suppliers and customers. At the association and company levels, ICCA messages about chemicals management and product stewardship are shared with other industries (including the automotive, soap and detergent and paint and coating sectors) as chemical producers help these important partners understand their roles in protecting their communities, employees and customers.

NGOs

ICCA also is pleased to work directly with nongovernmental organizations (NGOs), finding common ground even where there has been prior disagreement. For example, in its guide to risk assessment for GPS, ICCA notes, "increasing awareness of animal welfare has emphasized the need to reduce use of laboratory animals." This understanding reflects an ongoing series of discussions with animal rights groups that have included joint efforts to ask national regulatory regimes to accept data from non-animal testing sources, where feasible.

In addition, ICCA works with a variety of environmental organizations on matters ranging from hazardous materials clean-up to product safety, including the German Center for International Cooperation (GIZ) and the Blacksmith Institute.

The Path Forward: ICCM-4 & the 2020 Goal

SAICM is the preferred international forum for making progress toward the 2020 goal of safer chemicals management. ICCA was encouraged by the call at Rio+20 for SAICM to be strengthened, and is committed to working with other SAICM stakeholders to make this a reality.

As the industry and other parties move forward, ICCA believes:

- SAICM and other institutional frameworks should foster sustainable development and the innovation required to support it. Efficiencies should be pursued wherever they can promote sustainable outcomes. The private sector has technical and implementation-related expertise that can inform policy decisions and improve implementation.
- UNEP should be strengthened to enable it to more effectively coordinate and address environmental issues within the overall context of sustainable development.
- The science-policy interface should be strengthened among international institutions, including participation from developing countries. Links between policy frameworks and financing for relevant institutions also must be strengthened.
- The institutional framework should help build capacity to support implementation at the national level.
- The challenges of globalization require active collaboration among governments, business and other stakeholders. New approaches that facilitate innovative collaborations among business, government and civil society are needed.
- SAICM provides an innovative model of how multi-stakeholder frameworks can advance sustainable development objectives.

ICCA will do its part, both on its own and through its continued partnership with UNEP and other like-minded stakeholders.

Therefore, by ICCM-4 in 2015, ICCA will:

- Significantly increase the number of chemicals in commerce listed on the GPS portal.
- Expand the family of Responsible Care® regions to include new areas of Eastern Europe, Africa, Latin America and Asia.
- Publish metrics that show improvement in such measures as resource use, workplace safety and transportation incidents, among others.
- Continue to work with all stakeholders—UNEP, UNITAR, other IGOs, regional and national authorities, NGOs, the business community and the public—to promote SAICM implementation worldwide, especially in developing countries.

Above all, ICCA's goal is to demonstrate that the global chemical industry continues to be a reliable partner, meeting its commitments, fulfilling its pledges and moving forward on the journey to achieve the goals of the WSSD.

Acronyms

ABIQUIM	Associação Brasileira de Indústria Química
ACC	American Chemistry Council
ADR	International Carriage of Dangerous Goods
AICM	Association of International Chemical Manufacturers
AISE	International Association for Soaps, Detergents and Maintenance Products
APELL	Awareness and Preparedness for Emergencies at Local Level
ASEAN	Association of Southeast Asian Nations
ASIQUM	Asociación Gremial de Industriales Químicos de Chile
BSEF	Brominated Science and Environmental Forum
CAER	Community Awareness and Emergency Response
CAIA	Chemical and Allied Industries' Association (South Africa)
CCS	Columbian Safety Council
Cefic	European Chemical Industry Council
CIA	Chemical Industries Association
CIAC	Chemical Industry Association of Canada
CIQyP	Cámara de la Industria Química y Petroquímica
CIS	Commonwealth of Independent States
CLP	Classification, Labeling and Packaging
CP&HLG	Chemical Policy & Health Leadership Group
CWC	Chemical Weapons Convention
CPCIA	China Petroleum and Chemical Industry Association
CPCIF	China Petroleum and Chemical Industry Federation
E&CCLG	Energy & Climate Change Leadership Group
ECOSOC	United Nations Economic and Social Council

ECTA	European Chemical Transport Association
EHS	Environmental, Health, and Safety
EPA	Environmental Protection Agency (U.S.)
EU	European Union
GASDL	Global Automotive Declarable Substance List
GEF	Global Environmental Facility
GHG	Greenhouse Gas
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
GIZ	Gesellschaft für Internationale Zusammenarbeit
GPCA	Gulf Petrochemicals and Chemicals Association
GPS	Global Product Strategy
GST	Global Safety Team
HERA	Human and Environmental Risk Assessment
HPV	High Production Volume
ICE	Intervention in Chemical Transport Emergencies
ICCA	International Council of Chemical Associations
ICCM	International Conference on Chemicals Management
ICCTA	International Council of Chemical Trade Associations
IGO	Intergovernmental Organization
ISOPA	European Diisocyanate and Polyol Producers Association
JCIA	Japan Chemical Industry Association
KPI	Key Performance Indicators
LRI	Long-Range Research Initiative
MDG	Millennium Development Goals
MEP	Ministry of Environmental Protection
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
NCIP	Nanjing Chemical Industrial Park
NGO	Non-governmental Organization

NOAEL	No Observed Adverse Effect Level
NZCIC	New Zealand Chemical Industry Council
OECD	Organisation for Economic Co-operation and Development (UN)
OPCW	Organisation for the Prohibition of Chemical Weapons (UN)
QSP	Quick Start Programme
POP	Persistent Organic Pollutant
RCGC	Responsible Care® Global Charter
RCLG	Responsible Care® Leadership Group
RCU	Russian Chemists Union
REACH	Registration, Evaluation and Authorisation of Chemicals
SAICM	Strategic Approach to International Chemicals Management
SDA	Soap and Detergent Association
SDG	Sustainable Development Goal
SDS	Safety Data Sheets
SIDS	Screening Information Data Set
SMEs	Small and Medium-sized Enterprises
TOE	Ton(ne)s of Oil Equivalent
TRANSCAER	Transportation Community Awareness and Emergency Response
UCU	Ukraine Chemists Union
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICEF	United Nations International Children's Fund
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WCC	World Chlorine Council
WSSD	World Summit on Sustainable Development

Resources Available Online

- **Strategic Approach to International Chemicals Management (in six languages):** <http://www.saicm.org/>
- **ICCA Web Site:** www.icca-chem.org/.
Check here for:
ICCA's Responsible Care Status Report—2012;
Sustainability Report (prepared for Rio+20);
Capacity Building Report;
Report on Legacy Issues;
and all ICCA activities
- **ICCA Global Product Strategy:** www.icca-chem.org/Home/ICCA-initiatives/Global-product-strategy/
- **ICCA, *Product Stewardship Guidelines*:** <http://www.icca-chem.org/ICCADocs/Product%20Stewardship%20Guidelines%20-%20Final.doc>
- **ICCA, *Responsible Care Initiative*:** www.icca-chem.org/en/Home/Responsible-care/
- **UNEP & ICCA, *One Year On*:** www.icca-chem.org/ICCADocs/120130_UNEPandICCA_brochure.pdf
- **ACC Web Site:** www.americanchemistry.com/
- **Cefic Web Site:** www.cefic.be/
- **JCIA Web site:** www.nikkakyo.org/index.php3?sessLang=English



ICCA c/o Cefic
Avenue E. van Nieuwenhuyse, 4 box 1
B-1160 Brussels
Belgium
www.icca-chem.org