2013 SUSTAINABILITY REPORT



# SHAPING SOLUTIONS FOR THE FUTURE



# **ABOUT THIS** REPORT

FMC developed this 2013 sustainability report to share information about our company's sustainability programs and the activities we undertake to have a positive impact. It follows the Global Reporting Initiative (GRI) 3.1 Sustainability Reporting Guidelines and received a GRI Application Level Check of B. Our full GRI Content Index can be found at **www.fmc.com/sustainability/griindex**. Covering activities in fiscal year 2013, this is the third annual sustainability report FMC has published.

This report encompasses all FMC globally owned and managed assets worldwide in the three strategic businesses that comprised our April 2013 realignment: FMC Agricultural Solutions, FMC Health and Nutrition and FMC Minerals. It does not reflect the 2014 announcement of FMC's intention to separate into two publicly listed companies, nor does it include results from the recently divested Peroxygens business. That business became a discontinued operation in third guarter 2013 and we have excluded its current and historical data from this report. In doing so, we are able to present meaningful comparisons and align with the GHG Initiative Protocol recommendation for handling divestitures. Additionally, we have included information on the environmental impacts from our Agricultural Solutions contract manufacturers for active ingredients this year because they are material to our business and we believe that it is our responsibility to work with our closest business partners to help reduce their impacts. All measurement techniques are indicated with the data.

For more information about FMC sustainability, please contact Linda Froelich, Global Sustainability Director, at **sustainability.info@fmc.com**.



Links to additional information are provided throughout the report and marked by the symbol above. Simply enter the appropriate number at fmc.com/sustainability to connect with your information.

# TABLE OF CONTENTS

	<b>FOSTERING SAFETY</b> : Shaping Safety Responsibility at FMC and Beyond	8
<b>(</b> )	<b>EMPOWERING TALENT</b> : Shaping Careers with the Right Chemistry	14
	<b>GROWING INNOVATION</b> : Innovations with a Sustainable Advantage	22
	<b>MINDING OUR RESOURCES</b> : Managing Resources for Greater Efficiency	30
	<b>CULTIVATING COMMUNITY</b> : Sharing in the Future of Our Communities	38





Our people are the heart of FMC's sustainability culture. Every day, more than 5,600 employees around the world are shaping innovative solutions that meet present and future customer needs. Whether we are enhancing food production, helping to improve human health and nutrition, or contributing to a more sustainable energy supply, we are always mindful of our responsibility to conserve natural resources, give back to the communities where we operate, and keep our employees safe.

We have embraced a new approach to R&D that requires a thorough evaluation of the potential sustainability impact before new products or applications are developed. Three years ago, we set a 2015 goal to allocate at least 50 percent of our R&D spending to projects that positively impact one or more of our five global sustainability challenges. We surpassed our goal in 2013.

I am also pleased to report steady progress last year in safety and community engagement. In 2013, our Total Recordable Incidence Rate was 0.41, well on our way to the 2015 goal of 0.37. And our Community Engagement Index rose to 83, on a steady path to reaching our 2015 target of 90.

Equally important, in 2013 we continued to integrate sustainability into our business processes.

Specifically, we:

- Expanded our vendor selection process to ensure suppliers meet our expectations regarding legal compliance, environmental, health, safety, ethical, human dignity and fair labor practices.
- Further integrated sustainability into our stage gate process for new product development.
  - Included sustainability in our Capital Deployment Process.

Companies that are flexible are often in the best position to embrace change, whether it means incorporating sustainability into decision making or pursuing a new company structure. Today, FMC is in the midst of significant change. In March 2014, we announced plans to separate into two independent, public companies: a new FMC Corporation that consists of our Agricultural Solutions and Health and Nutrition businesses; and

FMC Minerals, comprised of our Alkali Chemicals and Lithium businesses. This realignment is a natural progression of our Vision 2015 strategic plan, providing greater freedom for each company to optimize its respective business model. Although each company will serve different markets with its own experienced management team and talented workforce, both will inherit a common sustainability DNA that has become a defining characteristic of today's FMC. The marketplace will soon have two FMC legacy companies with solid frameworks in place to measure and maintain sustainability progress.

We are proud of our accomplishments, but we know there is more we can do to lessen our environmental footprint, broaden our sustainable product portfolio, improve safety and strengthen our community relationships. We accept these challenges and look forward to addressing them with our customers and in the communities where we operate throughout the world.

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Pierre Brondeau President, Chief Executive Officer and Chairman of the Board

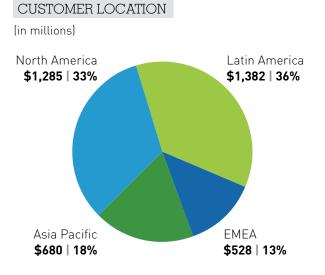
# SHAPING OUR ACTIVITIES FOR POSITIVE IMPACT

Chemistry touches all of us daily. Everything we see, feel, smell, taste and hear involves some form of chemical interaction or reaction. With the "right chemistry," FMC contributes to ensuring the wellbeing of people and our planet.

Our mission is to feed the world, protect health and provide the conveniences of life. We do this by leveraging our scientific expertise, innovative culture and collaborative relationships with partners across our value chain. We consider the potential benefits and liabilities of our products and work to make decisions that support more sustainable products both today and in the future.

We are continually seeking ways to further integrate sustainability into our business processes. Prior to investing capital in a new project, for example, we now have a formal assessment procedure that takes sustainability impacts into account. Our risk management process factors in sustainability by examining risk velocity (for example, defining a realistic timeframe for a sustainability impact). Planning and implementing these and other evaluation techniques are part of an evolutionary process that we consider on an ongoing basis.

**REVENUE BY** 



#### FMC BUSINESS GROUPS

AND PRODUCT LINES



#### **FMC Agricultural Solutions**

Main product lines: insecticides, herbicides, fungicides and biologicals

2013 Revenues:

\$2,146 million 55% of FMC total

**FMC Health and Nutrition** 







natural colorants and omega-3 fish oil 2013 Revenues:

Main product lines: microcrystalline cellulose, carrageenan, alginates,

# \$762 million 20% of FMC total



#### **FMC Minerals**

Main product lines: soda ash, sodium bicarbonate and lithium

2013 Revenues: \$970 million 25% of FMC total



#### 2013 ECONOMIC

HIGHLIGHTS (in millions)

Income Statement Data		
Revenue	\$3	8,875
Cost of Sales and Services	\$2	2,534
Research & Development	\$	118
Adjusted After-Tax Earnings	\$	528
Payments to Providers of Capital		
Payments to Providers of Capital Interest	\$	39
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Interest	Ţ	

# ASSESSING OUR IMPACTS

FMC's sustainability report is built on the premise that in order to address our most salient issues, FMC must collaborate with stakeholders to determine where we have the most material impacts. We therefore engage with key constituents to share ideas and discuss challenges. The input informs development of our materiality assessment, which in 2013 covered over 60 topics. The interplay between stakeholder engagement and materiality enables us to increase transparency and address high priority concerns.

#### **Engaging Our Stakeholders**

FMC considers our stakeholders to be people and organizations that share our objectives and whom we affect in some way. As they are the target audience for this report, we asked representatives of each key stakeholder group for feedback on the 2012 sustainability report and its content. Our goal was to determine how we could increase the effectiveness of our report and deliver on our commitment to engage with stakeholders in a way that met their needs and interests.

Respondents indicated that the report was relevant and showed FMC to be on a solid path to broadening its role as a responsible business. At the same time we learned that stakeholders wanted to see more hard data and yearly comparisons, explanations about our material impacts and simplification of the language in our report. We have listed and attempted to address these requests in this 2013 report.

Relationship-building is a constant journey and FMC is continuing to foster closer bonds with our most significant stakeholders. They are: 1

- Employees and prospective employees who have a personal and professional desire to be part of a responsible organization. Current employees have a vital stake in FMC's progress toward greater sustainability. They are concerned about and contribute to every facet of our business, including our ability to ensure a productive, supportive and safe environment in which they can enhance society's well-being. (See pages 14-21 for more information.)
- Business stakeholders who seek innovations in products, productivity and resource utilization to satisfy the world's demands. Our customers look to FMC to help improve their own sustainability. Suppliers and business partners are meeting procurement criteria that incorporate ethics, human rights, labor practices and other issues of global interest. We consider others in our industry to be valuable colleagues and actively work with them in trade associations. These organizations provide forums for sharing best practices and serve as advocates on industry's behalf. **2**

The following table includes some of the key suggestions from our stakeholder

engagement work and how we are working to address their comments.

Area for improvement	Stakeholder feedback	Ways we are addressing feedback	Ex.
TARGETS	The 2015 targets are a step in the right direction, but more specific targets on an expanded set of metrics are desired.	<ul> <li>Working to establish specific long-term targets for more of our metrics</li> <li>2013 commitments and results and 2014 goals provided in a separate table</li> </ul>	р. 7
DATA	Stakeholders want to see increased inclusion of meaningful data and direct explanations of impacts.	<ul> <li>Expanded reporting on environmental metrics and provided performance discussion on each metric</li> <li>Increased reporting of measurable impacts in other areas of the report; will continue to work on this in the future</li> </ul>	р. 33
TRANSPARENCY	Discuss challenges in addition to successes.	<ul> <li>Increased discussion of our challenges with use of clearer language throughout the report</li> </ul>	p. 31
MATERIALITY	Ensure reporting on issues that are most important to stakeholders and have largest impact.	<ul> <li>Expanded engagement efforts provided improved clarity on what is material to stakeholders</li> <li>Worked to allocate space in report towards most material impacts (e.g., community section now includes more information on biodiversity and stewardship vs. volunteerism and donations)</li> </ul>	р. 39

#### **STAKEHOLDER** ENGAGEMENT

• Communities, non-governmental organizations (NGOs) and governments with whom we must successfully interact in order to make progress. As a chemical company we challenge ourselves every day to improve the safety and efficacy of our products. No matter what the circumstance, we want stakeholders to understand FMC's commitment to and achievements in sustainability based on scientific facts about our products' chemistry and benefits. *(See pages 39-40 for more information.)* 

• *Investors* who recognize that corporate responsibility in all its forms is a business imperative that adds value to our company and society.

# MATERIALITY ASSESSMENT

In this report, we discuss sustainability topics that are deemed material – or of relatively greater significance – to our business and our stakeholders. We determined materiality by reviewing over 60 issues compiled from GRI's general list of issues and CERES 21<sup>st</sup> century roadmap. We grouped these issues into categories germane to chemical, agricultural and mining companies. Based on input from our stakeholders about their priorities and input from various internal team members, we ranked each topic for its materiality. All issues were evaluated using a five-test analysis that looked at financial impacts and risks, legal, regulatory and policy drivers, peer-based norms, stakeholder concerns and societal trends, and opportunities for innovation. All topics scoring above a certain threshold on this analysis are addressed in this report. Four topics made a step change in materiality this year compared to our 2012 materiality assessment: procurement, human rights, waste and global food supply. Topics deemed highly material in 2012 and that increased in importance in 2013 are: product safety, innovation, green chemistry, financial performance, health and safety, product stewardship and public safety.

The chart below shows the main categories under which we group issues and the most material topics within that category.



# OUR COMMITMENT TO SUSTAINABILITY PRINCIPLES

Sustainability is not a "program" at FMC. Rather, it is increasingly central to the way we work.

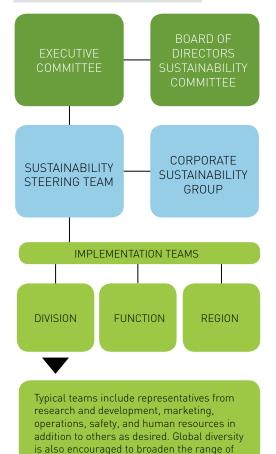
Five sustainability principles guide FMC's operating philosophy and decision-making: fostering safety, empowering talent, growing innovation, minding our resources and cultivating community. They align with our corporate Vision 2015, the five-year strategic roadmap we established in 2010 and are vital to how we shape our company and the choices we make as a sustainable, ethical and responsible business. By clearly articulating these five sustainability principles, FMC is better able to integrate sustainability into our daily activities and long-term planning. We constantly challenge ourselves to fulfill this responsibility.

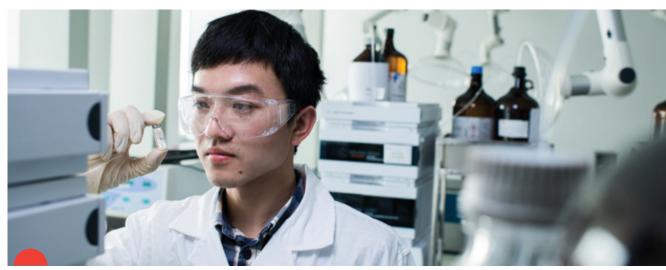
We know this is a journey that requires continual refinement and improvement, and our commitment to sustainability comes from the very top of our organization. This means we have the support necessary to pursue and take action on sustainability goals. With this focus, we always strive to improve alignment between our business strategy and our stakeholders' requirements and expectations.

Our sustainability governance structure provides overall guidance, priority setting and access to resources, while allowing core teams in each business

#### FMC SUSTAINABILITY

GOVERNANCE STRUCTURE



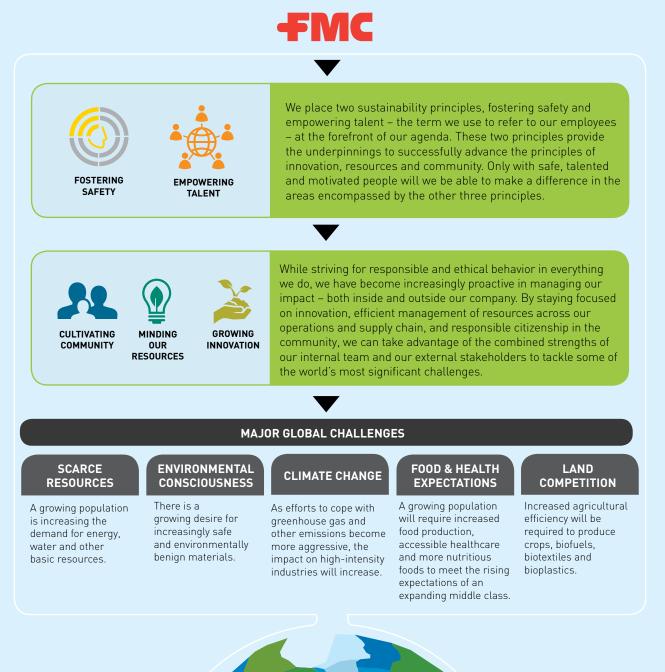


viewpoints.

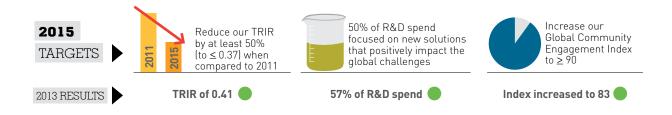
Weiwei Mao, lab technician, conducts high-performance liquid chromatography analysis of samples at the FMC Asia Innovation Center in Shanghai, China.

# INTEGRATING THE SUSTAINABILITY PRINCIPLES

All of what we do and can accomplish at FMC depends on our people and enabling them to thrive in a safe, supportive and ethical work environment.







and functional area to engage in detailed discussions that create value for FMC and its stakeholders.

#### Facing Major Global Challenges

FMC's mission and focus on improving lives worldwide led us to pinpoint five "market shaping shifts" that we can influence. When we began our formal sustainability program in 2011, these shifts served as a blueprint for taking a more strategic and comprehensive approach to our responsibilities in meeting the needs of a rapidly changing world.

Going forward we will refer to the "shifts" as "major global challenges." This revised terminology reflects the fact that these issues are among society's most profound concerns and have significant implications for our shared future. Because FMC and our products can make a positive contribution to mitigating the problems, they frame our direction and give greater meaning to our work.

More than anything, we want to shape FMC's future as a contributor to a better world. Creating solutions that address these major global challenges are vital to the stakeholders with whom we partner and share the goal of a more sustainable future.

#### **Evolving Our Role**

FMC has made a choice to embrace sustainability. We know that our influence goes beyond our company and our immediate stakeholders into the broader world. As a leading specialty chemicals company, we are in a position to make a meaningful difference – and we are committed to doing so.

#### SUSTAINABILITY GOALS

2013 COMMITMENTS	RESULTS	
Continue to integrate sustainability into existing business processes.	Integrated sustainability into the capital deployment process.	•
Ensure we have the infrastructure to quickly engage stakeholders in the event of an emergency.	Published and utilized a corporate incident management guide. ( <i>Read more on page 12</i> ).	•
Provide product stewardship training on secure storage and container management in Asia and Latin America.	Over 19,000 people were trained in Latin America. <i>(See pages 40-41 for more details).</i>	
Continue to embed sustainability into employees' everyday roles.	Conducted 'How You Can Make a Difference' campaign. Survey results indicate the need to continue making sustainabiltiy relevant for all employees.	•
In 2013, all employees will be retrained under FMC's Code of Ethics (revised in 2012).	In 2013, 97% of all employees were re-trained on the new code and the remaining 3% are expected to complete the program in 2014.	•
Civil treatment training for managers to be completed at all U.S. and Canadian sites.	All U.S. and Canadian managers completed civil treatment training in 2013.	
Requalify all significant suppliers against our updated vendor selection and management process.	In 2013, all of our most significant existing suppliers were requalified. (See page 37 for more details.)	•
In 2013, the EMCOE team will conduct comprehensive plant energy assessments.	Energy audits were conducted at our Rockland, Maine, and Milazzo, Italy, facilities. <i>(Read more</i> <i>on pages 31-32.)</i>	

#### 2014 GOALS

Pilot a focused sustainability training program.

Complete **social audit assessments** at five more sites.

Train all US employees in **Civil Treatment Program.** 

Validate all **existing raw materials suppliers and significant construction contractors** with FMC's vendor selection and management process.

Complete **Manufacturing Excellence programs** at two additional sites: Wyoming, Illinois and Middleport, New York.

Conduct an **energy assessment** by the EMCOE team at Green River, Wyoming, FMC's largest site.

Perform a **detailed waste assessment project** to inform our strategy for waste reduction.

Integrate sustainability considerations into **M&A and capital** allocation processes.



Whether welding at our Green River facility, working in a lab or driving home from work, safety is paramount at FMC.

Safety serves as the backbone of FMC's culture. Our substantial progress in embedding a safety mindset has heightened awareness of everyone's responsibility for his or her own safety and the safety of others with whom we interact inside and outside our organization.



Recordable Incident Rate





Safety-related ideas that employees exchange at the start of every meeting

With strong senior management commitment and employee involvement, safety vigilance is a constant ... and our effort is yielding results. Our 2013 safety results are the best in our history with a 35 percent reduction in injuries from 2012.

#### Embracing TH!NK. SAFE.

Shaping thinking and actions is a cornerstone of TH!NK. SAFE., the campaign we launched in 2012 to elevate safety awareness in all aspects of employees' lives. In 2013, to build on our momentum and keep safety messages fresh and top-of-mind, we routinely distributed highly visible posters, tabletop displays and door hangers throughout our facilities. These materials were translated into multiple languages to enable employees worldwide to have a more precise understanding of the initiative. The materials visually complement the prominent "safety share" ideas that employees exchange at the start of every meeting.

To heighten the impact of our safety messages, we produced three TH!NK. SAFE. videos featuring firstperson accounts by FMC employees. In dramatic portrayals of the difference that "one moment" makes, individuals described how, in a split second, a lack of attention to safety led to hazardous and sometimes fatal outcomes. As a means to further stimulate employee safety engagement, we asked employees to tell their story through a safety video campaign. Employee teams from nearly every FMC location submitted creative and impactful safety videos that were shared across the corporation.

Based on focus group and survey results, we found that our emphasis on safety is leading to behavioral changes. People are more careful, deliberate and attentive to the details that can make a difference in avoiding an injury. This safety focus contributed to a reduction in injuries and places us well on our path towards our 2015 goal of a Total Recordable Incident Rate (TRIR) less than 0.37.

In the area of process safety, FMC has been evaluating and benchmarking other companies' process safety programs as we work to enhance our own. In 2014 we plan to publish internal standards based on American Chemistry Council's (ACC)

	2011	2012	2013
Total Recordable Incident Rate (TRIR)	0.73	0.59	0.41
Lost Workday Case Incidence Rate	0.28	0.18	0.11
Work-related fatalities	1	0	0
Number of significant process safety incidents* (defined as ACC tier 1 & 2)	0	0	0

new process safety code. FMC did not experience significant process safety incidents in 2013.

#### **Answering the Green River Challenge**

We are undertaking additional safety initiatives that target the unique challenges of FMC's largest site – our Green River trona mining, soda ash, bicarb and caustic production facilities. In 2013 we assessed the actions that most frequently led to injuries and began work on communications and other mitigation programs to prevent reoccurrence.

The assessment revealed that both above and below ground there was a need for extra focus on identifying "line of fire" before and during tasks. Other key components involve keeping eyes on path and task, and concentrating on equipment – with surface activities needing to focus on using the correct tools for the task and mining operations conducting preshift inspections.

FMC site teams expanded formal and informal discussions about high hazard situations and other safety considerations. These topics are raised during small working group sessions, line manager meetings with staff, in one-on-one conversations as executives walk through the facility and during structured quarterly dialogues with the business president on progress and plans. To supplement site-wide communications, we developed a quarterly safety newsletter that is mailed to everyone's home to fully extend the safety education process. The inhome engagement also encourages greater safety conscientiousness among family members.

#### SAFE HANDLING OF LITHIUM MATERIALS

Safety training videos were updated to include infographics and more descriptive imagery so they would be more user friendly across all languages.



With the goal of achieving fewer injuries by 2015, a focused "Safety One Plan" program launched in 2014 with three components:

- Rethinking risk and lowering our risk tolerance.
- Keeping everyone involved and engaged in reducing injuries through increased leadership, communication and emphasis on "line of fire" safety.

UNION AND MANAGEMENT WORK TO ELIMINATE LEADING CAUSE OF INJURIES

At Green River, the Safe Workplace Initiative (SWI) – a program built and run by hourly workers – continues to improve safety. Through the program, workers can request an SWI, whereby a peer will observe their work and document unsafe conditions or behaviors. The worker receives honest feedback from the observer, and the information documented is submitted anonymously. The accumulated submissions generate a list of items of concern. In 2013, union and management worked together to increase focus in SWIs on how to recognize and avoid "line of fire," the leading cause of injuries in 2012. This effort has increased awareness and helped eliminate hazards such as pinch points. Being trained on how to identify such hazards and observing others keeps workers engaged and better able to recognize potential hazards all the time.

• Training and development to increase knowledge, capabilities and accountability.

Union members are invaluable partners to ensure continual improvement in safety performance. The union's assistance in engaging employees more deeply in safety practices helped reduce incidents by 25 percent compared to the previous year. Our safety record at Green River compares favorably to other mining companies and we are benchmarking some of our policies and programs against industry best practices in 2014.

#### **Advancing Safety Standards Worldwide**

FMC strives to maintain the same level of safety standards throughout our worldwide operations – even if local requirements are less stringent. When applicable, our facilities implement safety best practices that may have originated from other sites.

#### **Safety Alignment: Industry and Government**

FMC is an active participant in the American Chemistry Council and has adopted the principles of the ACC's Responsible Care<sup>®</sup> Program into our global Environmental, Health and Safety (EHS) Policy. In 2013 FMC received third-party certification of our conformance with the Responsible Care Management System (RCMS) at our Wyoming (Illinois), Philadelphia, Rockland and Charlotte facilities. With these certifications, 100 percent of our U.S. sites are now in conformance with RCMS.



Our safety manifesto is prominently posted at all FMC facilities worldwide, as seen in the Singapore facility above.

## RESPONSIBLE CARE

MANAGEMENT SYSTEM

100% of c

of our U.S. sites are now in conformance with RCMS.

#### **FMC ALKALI RECEIVES**

#### SAFETY RECOGNITION

For the second year in a row, FMC's Alkali Chemical operation was recognized by the Industrial Minerals Association of North America as the safest large company member of the organization (those with more than 700,000 exposure hours per year).

In 2013, the U.S. Occupational Safety and Health Administration (OSHA) issued an updated Hazard Communication Standard which more closely aligns with the United Nations Globally Harmonized System for Classification and Labeling (GHS). FMC is taking steps to comply with the new standard by:

- Updating our safety data sheet (SDS) management system to create SDS templates that meet OSHA's requirements.
- Distributing material explaining the GHS terminology and labeling.
- Offering an online GHS training module as another educational tool.

We will achieve compliance with the updated OSHA Hazard Communication Standard by June 1, 2015, as required.

#### Safety Across our Value Chain

We consider safety to be equally important whether on-site or off, and we take steps to continually protect FMC employees. For example, in Europe, one of our Health and Nutrition teams realized that non-FMC facilities may not have first aid treatments readily available. That team now provides a first aid kit to employees who travel to non-FMC facilities.

Motorist safety is another area emphasized globally across FMC. TH!NK. SAFE. posters and videos reinforced this emphasis and driver training continues to be offered at many sites. Driver training is mandatory for employees in sales, technical field service and other areas that require ground travel.

FMC safety policies are having an impact beyond our own operations. Supply chain partners realize that they need to collaborate with us to address safety concerns as an integral component of our business relationships.

• Just as FMC does, we ask customers, suppliers and other business colleagues to contribute "safety share" ideas when starting a meeting. Our approach to safety extends beyond our workplace. To the right, an example of a TH!NK. SAFE. campaign poster on mindful driving.



- The FMC Supplier Code of Conduct stipulates that suppliers provide a safe and healthy workplace that includes appropriate controls, training, procedures and personal protective equipment (PPE). They must also give priority consideration to health, safety and security in all aspects of product and process planning and manufacturing.
- Customers learn from our employees' observance of safety protocols and several have informed us that they changed their practices to align with FMC's. One customer who noticed our team wore full PPE decided to upgrade PPE standards for his own workforce. In another case an FMC employee informed a plant manager that a factory worker without PPE was operating equipment containing a hot liquid. The customer agreed that the situation was dangerous and agreed to rectify it.
- We often provide training seminars and tools such as videos and checklists to customers to make them more aware of safety best practices. One customer reported implementing several of the recommendations within weeks of FMC conducting a technology training session about PPE and safety requirements.



# UNLEASHING BEST PRACTICES

FMC's Bromborough, United Kingdom, facility chose the Chester Zoo as the setting for its annual Health and Safety Day. Experts drew parallels between the dangers inherent in entering a wild animal enclosure and working in a factory or vessel. They emphasized the need for constant mindfulness and "being in the present." When FMC staff toured the zoo we identified hundreds of "near miss" situations as the starting point for the launch of the zoo's own "near miss" program. There was a charitable component as well, with FMC donating tickets to a local charity so children with cerebral palsy could visit the zoo.



Responsibility for promoting safety extends to our communities. It is one of the four categories in our Community Engagement Index – a framework for quantifying our sites' success in enhancing local relationships. As part of our commitment to safety in the community, we participate in local emergency response organizations and drills, and in safety training and education programs. **?** 

#### **Enhanced Emergency Planning and Preparedness**

FMC developed and launched a "Corporate Incident Management Guide" to effectively coordinate on the ground efforts with corporate resources in an emergency situation in order to manage an incident and minimize its impact. It complements the emergency plans that already exist at each site. The approach facilitates an orderly, timely, and efficient flow of information among internal and external stakeholders. It allows us to have more comprehensive visibility into a serious incident and to support recovery by leveraging all our capabilities.

The guide came into play during the earthquake and typhoon that occurred in the Philippines in October and November, respectively. Both had devastating effects on the country and affected operations at our Cebu seaweed processing facility.

- Our first concern is always for personal safety and we were grateful to have rapidly accounted for all our employees' and contractors' well-being. FMC provided assistance to employees whose families were severely affected and the Manila site's sustainability committee organized a fundraising drive that collected funds from employees around the world. This contribution complemented our corporate donation of \$75,000 to the American Red Cross.
- After each natural disaster, site team members went into local neighborhoods to connect with our seaweed and agricultural farmers, understand their situations and determine what assistance was needed to help them resume farming. Our plant manager accompanied our representatives on these trips and helped in distributing food to those in need.



- Severe power outages followed the earthquake. Our team worked aggressively to make repairs in a safe, reliable and environmentally sound manner.
- Two days prior to the typhoon hitting the area we temporarily suspended production. This preparation contributed to the safe evacuation of our employees and drastically reduced the level of damage sustained at our plant. We reopened three days after the typhoon, with the facility sustaining only minor damage.

#### **Product Safety and Stewardship**

Our ability to improve lives through the right chemistry can only be achieved when our products are used safely and as directed. FMC has comprehensive programs in place to educate our customers – whether farmers or manufacturers – about appropriate use and interaction with our products.

- We made advances in clarifying product labels and safety data sheets according to GHS and other standards (as described on pages 10-11).
- Since pesticidal products are now available for sale online, we worked with several website owners to add product stewardship information to their websites in order to educate purchasers on the safe use of pesticides.
- We increased our training programs on secure storage of pesticides and proper management of empty pesticide containers in India and Brazil to help increase safety and reduce potential incidents.
- In our lithium business, we incorporated infographics and descriptive imagery into our safety training videos. The videos can now be used worldwide to better understand how to properly store, handle, use and dispose of our products.

#### **A Continual Evolution**

Advances in our TH!NK. SAFE. and product stewardship training efforts are helping us to achieve top safety performance as we strive for zero injuries. We continue to provide tools and training to help employees stay safe at work, at home and on the road.

# COMMUNITY MEMBERS KNOW THE DRILL

FMC's Agricultural Products plant in Lahore, Pakistan, put safety preparedness into action by inviting local community members to participate in quarterly simulations of an emergency situation. Through these simulated incidents, the community learned about emergency planning and protection procedures and everyone involved became better equipped to manage and lessen the impact of a serious incident.



SHAPING CAREERS WITH THE RIGHT CHEMISTRY

# EMPOWERING TALENT

Shirley Shen and Kevin Jiang discuss the FMC SeaGel<sup>®</sup> vegetarian capsule at the FMC Asia Innovation Center in Shanghai, China.

FMC's culture recognizes individual values and aspirations while encouraging teamwork and sharing of best practices. An empowered workforce is more motivated and better aligned with a company's business objectives, leading to higher productivity and increased success.

**14** SHAPING SOLUTIONS FOR THE FUTURE



Asia **24%** EMEA **13%** Latin America **19%** North America **44%** 

Our employees are the force behind FMC's success. We rely on their diverse talents, high energy and creativity to move the business forward. Together we strive to make a difference in the world – whether in our immediate environment or impacting the five identified global challenges.

#### **Career Growth and Enrichment**

Through a number of development opportunities, FMC strives to help employees reach their career goals. We encourage growth and mobility across disciplines and regions within our company.

#### Establishing Stronger Skill Sets

Nurturing an internal talent pipeline enables us to identify and grow future leaders who know FMC well and are dedicated to our mission. In addition to on-the-job training that occurs throughout the company, over 100 leaders around the world participated in formal training programs to ensure they are equipped with the proper skills and competencies. Additionally, in 2014 we will launch the FMC Strategic Leadership program to address the development of our more senior leaders.

There are additional training and development programs for employees such as seminars, symposiums and conferences; however, we currently do not track all details on involvement in these programs. We are evaluating ways to track this information in the future to ensure that our employees continue to gain additional skills and knowledge.

In several countries, the company offers an Educational Assistance Program. The program provides tuition reimbursement to employees who wish to further their education through courses that relate to a present or probable assignment at FMC. Tuition reimbursement is available to full-time employees who meet certain requirements when taking courses at accredited colleges and universities.

#### **Technical Career Paths**

Technology and innovation are critical to our business, and we have made a concerted effort to create an environment that develops relevant skills.



Supporting more women in STEM fields is a focus for FMC. At FMC Singapore, women scientists are advancing knowledge on liquid stabilizers and providing solutions to FMC customers across Asia and the globe.

# FOSTERING CONTINUOUS IMPROVEMENT

The effort to enhance skills in diverse disciplines led to our Burton-upon-Trent site in Staffordshire, England, offering plant operators Food Manufacturing Excellence training. Through workshops that continue into 2014, participants will learn about effective teamwork, working safely, food safety, Six Sigma, process analysis, problem solving, and the Kaizen approach to continuous improvement.



## POSTER CONTEST HIGHLIGHTS COLLABORATIVE CULTURE

We held the company's second annual Science Poster Contest to capitalize on the talents and ideas of people in each of our businesses and to encourage company-wide collaboration. More than 100 FMC employees worldwide submitted entries for consideration by the Technology Council. Several participants demonstrated the power of cooperation as they applied resources and knowledge from inside and outside the scope of their specific businesses. The first-place poster, for example, was developed by a team from Agricultural Solutions that suggested a new use of alginates a staple raw material used in Health and Nutrition



#### SINGAPORE FACILITY

#### PUTS ACADEMIC ENRICHMENT FRONT AND CENTER

We encourage employees to broaden their skills through a variety of programs. FMC's Singapore office and laboratories are supporting the academic endeavors of several employees through our Educational Assistance Program. See our video to learn more about our initiatives in Singapore.

The FMC Technology Council's mission is to foster greater innovation by:

- Leveraging cross-fertilization of technology and innovation best practices.
- Establishing a strong intellectual property strategy.
- Setting directions for expanding science resources in rapidly developing economies.
- Establishing proactive approaches to attracting, growing and rewarding talent across the globe.

In 2013, the Technology Council described the various positions and career directions available to employees through the Technical Professional Career Program. This roadmap is designed to empower employees to own and drive their development paths as well as to attract talented people to FMC. It provides a framework for consistent knowledge- and competency-building, performance reviews and understanding of FMC's technical career opportunities.

#### **Manufacturing Career Paths**

The Manufacturing Council is responsible for developing the processes, tools and talent that enable operational excellence at FMC manufacturing and contract manufacturing locations. It:

- Ensures effective management of talent across our enterprise.
- Identifies future leaders at early stages of their careers so they can grow into broader roles.
- Prepares a slate of "ready-now" candidates to fill key manufacturing leadership positions.

In 2013 the Manufacturing Council focused on preparing a strong pipeline of global manufacturing and engineering talent, a key component of which was to hold meetings at FMC locations globally to foster networking and relationship building. To get to know people from the different businesses who worked in these areas, the Council held both formal presentation sessions and informal meet-and-greets. The engagements allowed employees from around the world to meet and share ideas in person.



# CECILIA NG

FOOD TECHNOLOGIST

Not interested in a desk-bound job, Cecilia knew early on that the active life of a lab was for her. She is expanding her managerial skills as she leads development of solutions for FMC customers.



#### THENG THENG SIM

#### SEA DAIRY TECHNICAL MANAGER

Supporting young scientists is a key part of Theng's job. She invests herself in their passion for good science and reminds them that by asking "why?" we provide more value to our customers.

#### **Creating Global Consistency and Interaction**

To foster collaboration, innovation, communication and movement across businesses and geographies, we began creating a more uniform employee experience. This effort represents an evolution toward greater consistency in role definitions, onboarding processes, fundamentals training, ongoing coaching and performance review standards around the world. Although we are in the early stages of creating this level of uniformity, we have achieved success with the immediate immersion of new employees and newly acquired businesses into our safety and ethics cultures.

#### Encouraging a Diverse Workplace

We rigorously screen internal and external candidates to match the best talent with each position and consider diversity a vital aspect of our strategy. A gifted and diversified workforce enables us to compete more effectively in today's complex global marketplace by attaining more balanced insights into stakeholder needs and a multiplicity of perspectives on new products, services and processes.

One high priority element of FMC's diversity emphasis is increasing representation of women in professional and leadership positions. As we



Amongst our people, FMC counts many women scientists, engineers, managers, and office and trade professionals. Several of our leaders represented FMC at the 2013 Society of Women Engineers Conference.

continually seek the most qualified individuals to join our team, women are increasingly filling senior leadership positions throughout the company - on our Executive Committee, our Board of Directors and in key business and functional roles. We have offered training internships to recent female graduates in the U.S., many of whom we were introduced to through a relationship with the Society of Women Engineers. We continue to monitor recruitment progress and

# WOMEN

#### IN MANAGEMENT

<u>*</u> **	2012	2013
Percentage of women employed at FMC	23.0%	23.7%
Women in professional roles*	26.2%	25.8%
Women in senior management*	19.5%	21.3%

\*Exempt Workforce

Professional roles are defined by certain types of responsibilities or requirements, such as independent judgment and decision making that impact the business.

Senior management roles are a smaller subset of professional roles defined by more specific leadership criteria.

# VOLUNTARY

# TURNOVER RATE

(Voluntary resignations, divided by average total number of employees)

	2012	2013
Globally	5.0%	6.1%
Non-Exempt	5.9%	8.4%
Hourly	2.3%	2.7%
Exempt	5.9%	6.4%

In 2013, FMC's master data management project was expanded internationally, allowing us to better track turnover around the world. We continue to review turnover on a quarterly basis and our rates remain comparable or lower than local averages in our industry.



#### CAILING ANG FOOD TECHNOLOGIST

FMC offered to support Cailing's final year honors project with expert mentorship and lab time. After graduating, she took a part-time position at FMC and recently accepted an offer to become a full-time scientist.



#### IAN ROBINSON MARKETING AND COMMERCIAL DEVELOPMENT MANAGER, ASIA

As a manager, lan knows the value of mentorship and hands-on, practical learning for young staff and scientists at FMC.

# 'SCIENCE OF CURIOSITY' INITIATIVE WINS AWARD

An FMC initiative that helped science teachers motivate their students earned a Pepperpot Award from the Philadelphia chapter of the Public Relations Society of America (PRSA). "Teaching the Science of Curiosity" involved some 150 FMC employees who contributed materials and money to create 125 volcano-making kits that Philadelphia teachers used for hands-on experiments in the classroom. As many schools do not have the funding to carry out such activities themselves, opportunities for children to experience scientific exploration can be limited. The project exposed children to new areas of knowledge in a fun way and hopefully will inspire some to pursue STEM education.



work to ensure that a diverse pool is considered for all positions. FMC's Executive Committee reviews progress on a quarterly basis.

#### **Expanding the Talent Pool**

In an environment where the demand exceeds the supply of technically-skilled workers, FMC encourages people to pursue science, technology, engineering, and mathematics (STEM) education and careers. We offer scholarship programs in established and emerging markets where we have an expanding presence, such as Asia and other regions.

For example, to raise awareness of FMC in a rapidly developing region and enrich our talent pipeline, we provided scholarships to four food engineering university students in Turkey. The scholarships, awarded for the third consecutive year, enable FMC to forge collaborative relationships with universities in Central and Eastern Europe and Turkey while helping support the students for the remainder of their studies. FMC is the first food ingredient supplier to sponsor this type of program in the region.

To broaden global exchange, we launched corporate Facebook and LinkedIn pages. The FMC LinkedIn page, used to assist in talent recruiting, gained 16,000 new followers in 2013, up 63 percent from the year before. The use of social media is helping strengthen awareness of FMC and expanding engagement with our company worldwide. We expect to take further advantage of these and similar platforms as visibility and recruiting tools in the coming year.

#### Advancing Sustainability Engagement

Studies<sup>1</sup> have shown that many people aspire to do work that has a direct and positive impact on the world. This desire is increasing in importance to both current and future generations and is linked to increased job satisfaction and engagement. To better assess employees' understanding of FMC's sustainability program and solicit suggestions for further engagement and involvement, FMC conducts an annual sustainability survey.

Our initial survey found there was enthusiasm for the program, but still room for progress. Based on the input received, in 2013 we:

• Developed communications that encouraged employees to utilize the sustainability resources available on our intranet.

<sup>1</sup> https://netimpact.org/whatworkerswant





Xiaochun's interest in food science stems from her love of baking and her healthconscious family. As a technical staff intern, she is gaining practical experience as she continues her university studies.



#### JOYCE TOH FOOD TECHNOLOGIST

When presented with a doctoral study opportunity, Joyce was persuaded by her FMC managers to consider a part-time MSC instead. Through FMC sponsorship of her degree, Joyce was able to study while continuing her professional development.

In our second survey, employees reporting use of the sustainability intranet as a primary information source increased significantly.

- Disseminated a poster series demonstrating how employees in the R&D, sales and marketing, legal, operations, and human resources functions could "make a difference" in sustainability.
- Provided Sustainability Implementation Teams with a sustainability report toolkit to promote readership of the report, answer questions and facilitate information-sharing with customers, suppliers and other external stakeholders.

In our second survey conducted in late 2013, we were pleased to discover that 73 percent of respondents read at least part of the most recent sustainability report. However, we are challenged to grow this rate and to address survey responses that were either flat or slightly lower than the previous year. Given the high energy around the 2011 launch of our sustainability program, the slight decline in results is to be expected. We are working to ensure this is not a trend and that sustainability integration continues to progress.

Specifically, the survey results indicated the need for more information on the relationship of sustainability to employees' jobs, training on how to advance our program with outside partners,



Outreach posters, detailing departmentspecific ways to impact sustainability, were distributed in multiple languages.

# SPARKING BIG IDEAS

To empower talent, encourage innovation, foster teamwork and promote awareness of sustainability, the Alkali Chemical business held its first Sustainability Idea Contest. The contest, created and coordinated by Alkali's Sustainability Implementation Team, sought well-developed ideas with significant potential impact on sustainability.

Employee "inventors" worked individually and in teams across the spectrum of job functions and business locations. In total, they submitted more than 50 new ideas. Awards were given for the "best-defined idea" and the idea with the "greatest potential for significant impact." Winning entries recommended:

- Lowering energy consumption by installing natural gas turbines, routing "waste" heat to existing gas boilers, and using steam generated for electricity.
- Reducing water use by replacing regular shower heads with high efficiency ones.

The first idea is being further reviewed and defined; the second will be implemented. Another winning idea remains undisclosed because it is being considered for patent protection. After the judging, contest winners received cash awards, as did six participants who were selected in a random drawing.



#### \*APROSOJA

Brazilian Association of Soybean Producers – a non-profit entity comprised of rural soybean producers In 2013, FMC partnered with APROSOJA to provide training for 8 future professionals on:

- Insect, weed and disease management in soybean plantations
- 7 Habits of Responsibility
- Business, including futures and commodity markets

# FUN, GAMES AND WELLNESS IN SUZHOU

FMC's site in Suzhou, China, held Autumn Fun Games to build team spirit and promote good health for employees. Ping pong, rope skipping and hula hooping were activities used to reinforce the plant's goals of fostering a healthy lifestyle and team spirit.





and business-specific information on their team's progress. Therefore, we will work on the following communications objectives throughout 2014:

- Continue to make sustainability relevant to employees and their jobs.
- Increase employee understanding of FMC's sustainability metrics, targets and progress.
- Provide tools to increase the effectiveness of sustainability implementation teams.

We expect to pilot a focused training program in 2014 to help advance the objectives above.

#### Fostering a Culture of Wellness

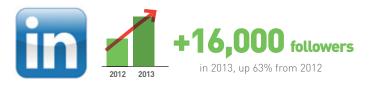
Health and wellness programs help create a positive work culture which in turn contributes to employee satisfaction and well-being.

FMC's voluntary U.S. program "Choose Well, Live Well" provides an opportunity for employees and their family members to learn more about managing their health. Through the program FMC participants can take advantage of tools that encourage positive steps toward reducing health risks and improving personal wellbeing. A new addition to the program in 2013 enables employees and their spouses to elect to work one-on-one with health coaches to address a range of issues from lifestyle challenges such as stress and weight management to chronic health conditions like arthritis and diabetes. FMC encourages and supports participation in certain programs through financial incentives.

Efforts to support healthy behaviors are evident at FMC locations around the world. In 2013, several locations ran health fairs and many invited members from their local community to join. Some sites initiated walking or weight competitions. More nutritious food choices were offered at several large global meetings as well as exercise activities such as yoga and Zumba classes.

#### SOCIAL MEDIA

To broaden global interchange, we continue to expand our social media presence.



The use of social media is helping strengthen awareness of FMC and expanding engagement with our company worldwide.

#### \*RENOVAÇÃO

In 2009, the state of São Paulo amended laws to phase out emissions from sugarcane waste burning practices.

FMC, the sugarcane industry union and other production companies developed a training program to help rural workers become compliant with the law. From 2009-2013, qualified 75,700 workers in 30 courses

In 2013, trained 1,000 harvesters and family members

Female participation in the program increased from 1.2% to 12%

#### **\*INTERNS**

FMC partnered with our distributors to host 9 internships that identified key talent and developed technical and leadership skills.

#### Maintaining Respect and Ethical Behavior

Affirming human dignity internally and across our value chain is a core value. In 2013 we expanded the Civil Treatment Program to managers throughout our global network – another step forward in becoming an ever-more inclusive and respectful workplace. We will expand the program throughout 2014 and will integrate it into the on-boarding process for all new employees. (1)

Additional activities that reinforced a culture of shared respect and ethical behavior included:

- Retraining and recertifying 97 percent of employees on the FMC Code of Ethics and Business Conduct. The remaining 3 percent are expected to complete the program in 2014 to ensure total compliance with the Code. 12
- Evaluating significant suppliers by Global Procurement based on our Supplier Code of Conduct. (13)
- Initiating a Social Responsibility Program to increase transparency into all aspects of business practices at our manufacturing facilities.
- Updating our social media policy to provide guidance on dealing appropriately with the increasing intersection of one's personal and professional profiles. 15
- Good faith collective bargaining in union relationships and ongoing dialogue in non-union sites to facilitate trust and collaboration.

#### **Enabling a Winning Team**

We continue to nurture talent internally, encourage STEM-talented youth, explore ways to increase workforce diversity and promote employee health and wellness. We are firmly committed to creating a culture that facilitates professional and personal growth, satisfaction and well-being in an inclusive and ethical environment.

#### LIGHTHEARTED TONE DELIVERS SERIOUS ETHICS MESSAGE

To highlight the importance of reporting any potential ethical issues, we produced an entertaining yet informative set of wallet cards and posters promoting the FMC Ethics Response Line and other ways to report possible infractions. Translated into 13 languages, the imagery and messages were tailored to accommodate cultural nuances. Attention-grabbing visuals such as the Loch Ness monster and a flying saucer helped communicate the serious need to report possible ethical improprieties without fear of retaliation.



INNOVATIONS WITH A SUSTAINABLE ADVANTAGE

# GROWING INNOVATION

Zheng Chen, senior analytical chemist, conducts gas chromatography analysis in the Chemical Development Center at the FMC Asia Innovation Center in Shanghai, China.

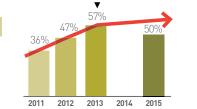
Each of our businesses applies "the right chemistry" when developing new solutions. Our focus is on addressing customer needs and global challenges.

## **SHAPING THE** FUTURE

R&D Spend Targeted

Challenges

To Impact Major Global





In 2013 we spent 57 percent of our total R&D expenditures on projects that positively impact global challenges, exceeding our 2015 target.

Prior to developing a new product or application for an existing product, FMC considers its potential sustainability impact. This establishes an inseparable link between innovation and sustainability. In 2013 we spent 57 percent of our total Research and Development (R&D) expenditures on projects that positively impact global challenges, exceeding our 2015 target of 50 percent.

#### Focused on Sustainability and Efficiency

Each of our businesses has developed an assessment tool that determines if a project makes a positive impact on one or more of the five major global challenges FMC has identified. By using the assessment tool to analyze each project, our innovators must always consider ways to create new products that deliver positive benefits to society before initiating a project.

Our Agricultural Solutions business has developed a more comprehensive assessment tool to prioritize its R&D projects. This tool guides analysis of projects based on strategic value, innovation potential, financial contribution, risk exposure and sustainability. To be considered for development, a project must perform at a neutral or better level on the sustainability criteria compared to existing market solutions. **17** 

Along with the efficiencies derived from screening potential projects through the tool, Agricultural Solutions streamlined communications between the global R&D and marketing groups to further maximize resources. Now the R&D and marketing groups meet quarterly to review their entire project portfolio and ensure it meets the criteria set out in the scorecard tool. Initial meetings and prioritizations in 2013 led to a 57 percent decrease in the number of products being worked on with hardly any loss of potential revenue.

#### **Customer-Driven Innovation**

FMC's product development is shaped by the needs of our customers. By staying close to the people who use our products we are able to move quickly to create more effective ways to address geographically specific needs. These focused relationships are maintained at local and regional levels and contribute to our market differentiation.

#### Hands-On Approach Yields Solutions

To strengthen engagement with and responsiveness to customers, we have "localized" much of our R&D function. We work directly with customers around the world to understand their concerns and then develop customized solutions based on their input. This is made possible through our diverse global research network.

Our scientists establish hands-on relationships with customers. For example, in Turkey we provided training at our food labs and conducted joint trials with a major chocolate and candy manufacturer. During educational demonstrations, prototypes were prepared which showed the creamy texture and stability imparted by our microcrystalline cellulose (MCC). MCC comes from specialized cellulose sourced from sustainably harvested trees and adds texture to food products. At another training session attended by several leading confectionary manufacturers, the Istanbul Innovation Center hosted tutorials on natural colors and pectin.



Globally, FMC is actively engaging its customers in developing product solutions. In the photo above, FMC staff members in Brazil tour a cotton field with customers.

ASIA INNOVATION CENTER Shanghai, China

The AIC brings together 200 scientists, technicians, sales and marketing, support and executive staff.



Simultaneously we are finding ways to encourage dialogue, sharing and cross-fertilization of ideas. The FMC Asia Innovation Center (AIC) in Shanghai, China, opened in late 2013 and brings together approximately 200 scientists, technicians, sales and marketing, support and executive staff. By addressing the Asia-Pacific market from a central location, we expect to benefit from greater synergy and collaboration on product innovation and customer service. The AIC houses world-class food and pharmaceutical application laboratories where FMC customers can learn how to use our products in their formulations.

#### **Achieving Shared Objectives**

We believe that innovations that positively influence society will add to our success. Many of our customers share this belief, and together we are collaborating on product development to help achieve customer sustainability targets as we pursue our own. For example:

- A leading global consumer packaged goods company is contributing to a lower carbon footprint by using our natural soda ash instead of the synthetic alternative in products, including detergents and container glass. 19
- Food companies in China are bringing better nutrition to the population by adding FMC products that improve shelf life, stability and texture of beverages. Successes include use of our products in protein drinks, peanut milk, teas and coffee mixes. 20
- A European health products company used our Nutricol<sup>®</sup> HN Glucomannan to develop a weight management product that fosters feelings of a full stomach. With so many people overweight or

# TECNOCALDA







In 2013 we acquired Epax, the world's leading producer of premium-grade omega-3 fish oils.





Key omega-3 ingredients offer health benefits for brain, heart and eye functions.

obese and the numbers projected to increase, this product may help alleviate food cravings and may play a role in helping curb weight gain.

- In cooperation with a German manufacturer of sausage casing technology, we developed alginate-based sausage casings that perform better on their equipment than any other casing system in the market. FMC is being granted a patent for the casing in the U.S. and has additional patent applications underway. Potential customers began conducting trials with the system in 2013.
- In North America, our Agricultural Solutions group examined customer container size preferences and buying patterns to identify products that could be more efficiently packaged by changing to larger size product containers. This effort to "rightsize" containers delivers products in a more economical, less resource-intensive way.

#### **Building Health and Nutrition Solutions**

As consumers continue to look for products that improve their health and well-being, FMC is exploring ways to address those demands by developing more sustainable and renewable products while increasing the use of natural ingredients.

#### **Expansion in Nutraceuticals**

Consumer interest in nutraceuticals, products derived from food sources that provide extra health benefits, has grown rapidly in recent years. FMC strengthened our investment in this area with the acquisition of Epax®, the world's leading producer of premium-grade, omega-3 fish oils. Clinical research shows that the key omega-3 ingredients, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) may help support heart, eye and brain functions.

The world's seafood supply is challenged by overfishing that can lead to food shortages and collapse of ecosystems. With some 80 percent of our fish oil derived from anchovies, FMC has worked to ensure the longevity of this fish stock and has required all of our anchovy suppliers to be certified by Friends of the Sea. This certification affirms these suppliers meet sustainable fishery and aquaculture standards. We also work with governments to foster species protection.



Situated in a traditional marine and fishery area, the Epax production facility in Ålesund, Norway, continues a long local history in producing excellent and superior quality products from the sea.

# COMMITTED TO ANIMAL WELFARE

Many of our newly developed products require animal testing as a condition of regulatory approval by government agencies. FMC takes animal testing seriously and strives to limit such testing. We have had several discussions with an animal rights organization, People for the Ethical Treatment of Animals (PeTA), over the past year on alternative animal testing methods and strategies for using other scientifically relevant information to negate the need for additional animal testing. In 2013 we published an Animal Welfare and Testing Policy that defined our guiding principles and commitment to the "3 Rs" of animal testing: 22

- **Replace** animal tests with alternative methods when feasible.
- **Reduce** the number of animal tests when feasible.
- **Refine** animal test methods to make them as humane as possible.





 vegetarian alternative to animalderived gelatin products

**more heat resistant** than gelatin capsules, minimizing the problems of capsules sticking together



Sales of SeaGel capsules nearly tripled in 2013 as demand grew.

# LEVERAGING OUR EXPERIENCE WITH NATURE



#### Protasea<sup>™</sup> Fucoidan

Drawing from our 65-plus years of experience in sustainably harvested seaweeds, FMC developed Protasea Fucoidan, a Norwegian brown seaweed polysaccharide extract. We submitted a new dietary ingredient notification that was accepted in the United States. To our knowledge, this is the only fucoidan available on the market that has completed this process.



#### Maquiberry

Maguiberry fruit is one of the most concentrated sources of natural antioxidants. The fruit's color is used to dye natural textile fibers like cotton and hemp, and in some countries its juice may be used to improve the color of wines and other beverages. FMC has concentrated the juice from maquiberries to produce a highly purified product called MaQBerry<sup>®</sup>, which contains high levels of anthocyanins that may boost the antioxidant capacity of several functional foods and nutritional supplements.

Our manufacturing technology is highly efficient and recovers nearly 100 percent of available DHA and EPA. In 2013, we added new capacity to our site in Seal Sands, United Kingdom, based on simulated moving bed chromatography – the most efficient means known to concentrate EPA and DHA, affording higher yields and greater purity than any other known purification technology. Production from this facility will be used to produce omega-3 for the pharmaceutical industry and ultra high omega-3 concentrates for nutraceutical products. We are also considering the feasibility of using fish oil byproducts as biofuel to maximize use of our resources and minimize fuel consumption.

#### **Growth in Pharmaceuticals**

In 2012, FMC launched our SeaGel® soft capsule product – a vegetarian alternative to animal-derived gelatin products. SeaGel capsules are more heat resistant than gelatin capsules, helping to minimize the problems of capsules sticking together if the product is shipped and stored in warmer climates. Sales of SeaGel capsules nearly tripled in 2013 as demand grows.

#### Advancing Biological Alternatives

FMC is looking to nature for guidance in advancing agricultural solutions. It is through this lens that we are exploring biologicals – materials derived from renewable plant and/or microbial sources. Biologicals improve soil health, foster seed germination, increase growth of plants, allow for better management of nutrients, fight diseases and insects and increase crop resistance to stressed environmental conditions. This direction complements our continued exploration and production of synthetic agricultural solutions which together with biologicals form the basis of a successful integrated crop management strategy. (See graphic at right).

As we expand our capabilities as a unified BioSolutions business, our team focuses its research on real customer needs. The biological discovery platform begins with "smart selection," an approach that brings customer-driven innovation to life and allows for rapid response to emerging concerns. The location of our new Center of Excellence for Agricultural BioSolutions on the Campus of RTI International in North Carolina's Research Triangle Park lets us access unique technical skills available at a leading research institute, world class universities, global businesses and technology start-ups.

# SHAPING THE FUTURE OF BIOSOLUTIONS

Two strategic transactions added strong competencies in biologicals to the Agricultural Solutions portfolio.

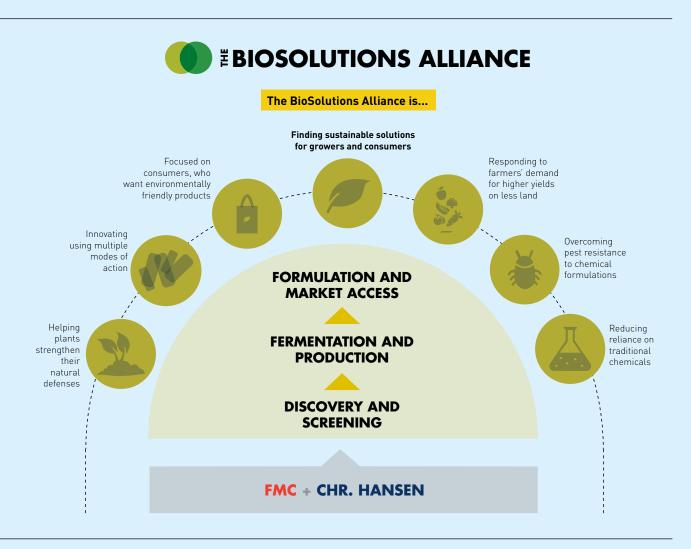


We acquired the Center for Agricultural and Environmental Biosolutions (CAEB) from RTI International. The acquisition included extensive intellectual property in sustainable agriculture, strong capabilities in conducting field trials and a worldrenowned scientific team leading the R&D effort.

# CHR HANSEN Improving food & health

FMC formed an exclusive, global strategic alliance with Chr. Hansen, a leading company in biosciences and its applications. CAEB's rich product pipeline, which is in various stages of development, feeds directly into Chr. Hansen's fermentation manufacturing capabilities.

These R&D relationships enable us to build a comprehensive portfolio that includes world-class, end-to-end biological platforms. They build on our traditional strengths in synthetic crop protection chemistries, allow for leadership in the fast-growing biological market and advance our ongoing evolution toward better crop management and protection systems using both biological and synthetic products.



#### LITHIUM

We are at the forefront of innovation with breakthroughs that extend EV driving range and battery longevity.



#### SOLUTION MINING

FMC's patented directional drilling technique for solution mining allows for greater resource cultivation while reducing greenhouse gas emissions. There are also water resources savings throughout the solution mining process.

# GIVING EVs THE CHARGE THEY NEED



FMC participated in a multi-year project to study how Stabilized Lithium Metal Powder (SLMP) in lithium ion batteries could reduce costs and increase energy density. Lithium ion batteries are used in most of today's hybrid, plug-in hvbrid and all-electric vehicles (EVs). The research was conducted as part of the Integrated Laboratory Research Program sponsored by the Department of Energy Vehicle Technology Office in partnership with two national laboratories – Lawrence Berkeley National Laboratory and Argonne National Laboratory and SAFT, a lithium battery manufacturer. The team found that incorporating SLMP into lithium batteries enhanced performance, increased capacity and would be able to meet requirements for EV batteries in the future. Both labs have been recognized in 2014 for their significant contributions to SLMP research and accelerating integration of SLMP into the commercial production of lithium ion batteries. Future research will focus on validation and commercial application of the technology.

#### Influencing the Future of Transportation

Currently 3.5 percent of all automobiles are electrified in some way and use lithium ion batteries. Although electric vehicles (EVs) show great promise in the battle to cut carbon emissions worldwide, consumer adoption is slower than anticipated. Nonetheless, leading EV manufacturers and some industry analysts believe that EVs' environmental and economic advantages eventually will accelerate consumer adoption.

As one of the world's largest and most innovative lithium suppliers, FMC is an active participant in the effort to encourage EV use. We have a leading market share in advanced technologies for EVs and remain at the forefront of innovation with breakthroughs that extend EV driving range and battery longevity.

In addition to helping power EVs, FMC's lithium solutions are used to make synthetic rubber for more fuel-efficient "green" tires. Although these tires have better gas mileage performance, we are challenged by the significant amount of waste generated in the production process. We have made marginal improvements in this area and continue to explore waste reduction opportunities.

#### **Measuring and Reducing Impact**

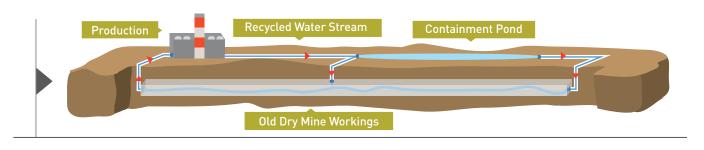
#### Life Cycle Analysis

To gain greater awareness of the impacts caused by production of specific FMC products, we initiated a life cycle analysis (LCA) program. An LCA quantifies a specific product's environmental impacts throughout the resource chain.

In 2013, FMC performed an LCA of SeaGel<sup>®</sup> capsule technology from our Health and Nutrition business, and clomazone, one of our key active herbicide ingredients from Agricultural Solutions. Results are being used to understand at what stages in the development and manufacturing process our products have the largest opportunity for impact.

#### **Process Innovation**

Discovering innovative ways to make our operations more environmentally friendly and cost effective are high priorities. This is especially true in mining, where FMC is deriving significant



benefits through solution mining at our Green River, Wyoming, facility. Using secondary recovery process technology, we inject recycled water into the old mine workings and then pump that water back to the surface. This process substantially improves the recovery of trona ore that remained after traditional dry mining.

We continually look for ways to improve our extraction technology. FMC recently partnered with a local university to conduct tests that would increase our understanding of hydrodynamic behavior in our solution mining. Testing results are being used to maximize trona recovery, allowing us to minimize energy consumption in our soda ash production process.

#### **Connecting R&D to Sustainability Values**

Our solutions, the chemistry behind them and the processes we have put in place have the potential to positively influence major global challenges. By aligning product and process R&D with sustainability, moving toward deeper cooperation with customers and measuring progress on our research goals, we expect innovation to continue shaping solutions for the future.



Chemical analysts Jie Luan, Bryan Kong and Susan Xu conduct a regulatory study in the Chemical Development Center at the FMC Asia Innovation Center in Shanghai, China.

# PIONEERS IN THEIR FIELD

FMC's recent acquisitions have brought more to the company than opportunities for growth in new markets in health and agriculture. The bright minds of Daniel van der Lelie, Safiyh Taghavi and Baldur Hjaltason are now part of the FMC team.

Daniel van der Lelie, Ph.D., M.B.A., and Safiyh Taghavi, Ph.D., are pioneers in environmental microbiology with over 20 years of research in the field. They join FMC as the Global Director for Biological Research, and Fellow and Head of the Center of Excellence for Agricultural BioSolutions (CEAB), respectively, where they are working to advance agricultural and biotechnology research on plantmicrobe interactions to enable a wide range of commercial applications. Before their time at the CEAB, Daniel van der Lelie and Safiyh Taghavi developed new genomic tools to study the functioning of microorganisms. Their research has appeared in more than 130 publications and peer-reviewed journals, including Nature, Nature Chemistry, Nature Biotechnology and PLoS Genetics.

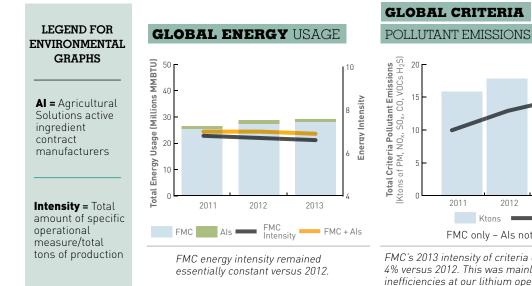
Baldur Hjaltason, Senior Fellow and Manager at Epax, is an industry veteran and top expert on trends and science in omega-3s. Hjaltason was recently presented with the 2014 Global Organization for EPA and DHA Omega-3 (GOED) Industry Leadership Award. His work at GOED has brought together a multitude of stakeholders in the omega-3 industry to advance the industry while preserving and protecting quality omega-3 sources. Hjaltason has also published thought leadership through papers and book chapters on omega-3s.

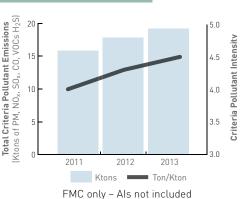
MANAGING RESOURCES FOR GREATER EFFICIENCY

# MINDING OUR RESOURCES

As a principal source of sodium carbonate, trona ore is a raw material that is in high demand. FMC is committed to mining this resource safely and with increasing efficiency.

FMC is committed to responsible management of scarce resources – one of the major global challenges that we can influence.





FMC's 2013 intensity of criteria emissions increased 4% versus 2012. This was mainly due to combustion inefficiencies at our lithium operation in Argentina. The site is focusing on improving this metric in 2014.

As a specialty chemical solutions company, FMC's environmental performance affects our own footprint as well as our customers'. We are working to reduce our own environmental impact and that of others in our supply chain.

#### Measurement and Transparency

FMC measures and monitors our environmental impacts to better assess opportunities for improvement. Our primary focus includes energy utilization, greenhouse gas emissions, water use and waste management. We have established key performance indicators (KPIs) for each of these areas and report guarterly to senior management on progress.

FMC is expanding the scope of the data provided for 2013 to encompass both our direct impacts and those that are material to our business and where we have influence. To this end, our selected 2013 and historical performance now includes contract manufacturers for Agricultural Solutions that make our active ingredients. These manufacturers are significant partners in our supply chain and they produce material amounts of waste. For increased transparency we have also added information on high volume/low toxicity materials resulting from FMC operations.

The Peroxygens business became a discontinued part of FMC operations in third quarter of 2013. As a result, we do not include that business in any 2013 results and have removed historical data so that year-to-year information is comparable.

#### **Impact Reduction and Productivity Initiatives**

We have implemented several initiatives to increase our operational efficiencies and manage our sustainability performance.

#### **Energy Management**

FMC has always focused on energy management and for years our facilities have implemented energy efficiency projects. Yet we are convinced there are additional energy savings opportunities still to be explored. To gain fresh perspectives on these possibilities

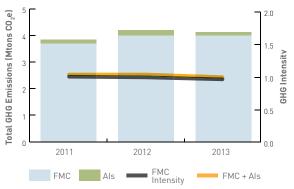
## **ROCKLAND SITE TO SWITCH FROM** FUEL OIL TO COMPRESSED NATURAI. GAS

In 2012 we began a project to convert the Rockland, Maine, facility from No. 6 fuel oil to compressed natural gas. Throughout the 2013 planning process we conducted extensive reviews with community the changeover – which will be completed in 2014 – will reduce greenhouse gases by 33 percent, and other emissions by even more.

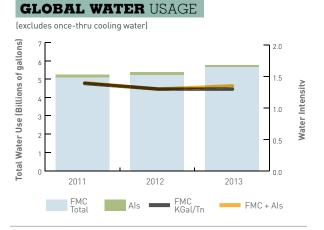
#### we launched our Energy Management Center of Excellence (EMCOE) in 2012. 24

The mission of EMCOE is to drive continuous improvement in energy management and efficiency across all FMC facilities. This team is partnering with plant staff and consultants to systematically identify ways to reduce energy and carbon intensity at our manufacturing facilities. We conduct energy audits at select sites and use the findings to identify and implement new energy saving initiatives. We also share best practices that could be adopted at other FMC facilities.

GLOBAL GHG EMISSIONS (includes both direct and indirect emissions)



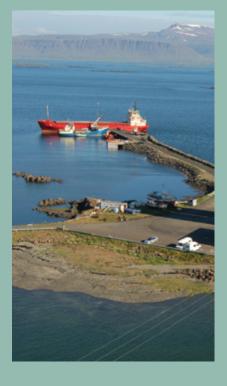
Greenhouse gas intensity decreased 3 percent primarily due to decreased process emissions at our Green River facility.



FMC's water intensity increased 5 percent. The increase was driven by drought conditions at our Green River site which necessitated increased water intake to maintain the proper water level in its containment lake.

## RENEWABLE ENERGY POWERS FMC SITES

Renewable energy is a key source of power at our Argentina and Iceland facilities. The Minera del Altiplano site high in the Andes Mountains uses solar evaporation ponds as a primary part of its lithium production process. The Iceland seaweed processing facility (below) capitalizes on the heat generated from geothermal underground pools for 100 percent of its energy.



In 2013, the cross-functional EMCOE team and third-party experts completed audits of two manufacturing sites: Rockland, Maine, and Milazzo, Italy. These sites were selected for pilot analyses because they are at different stages of energy monitoring and management, and as such, the results could provide information on the range of energy savings that might exist across FMC. Based on the audit results and cost/benefit assessments, we began implementation of several projects including repair of compressed air leaks and the installation of three heat recovery boilers, variable-frequency drives, piping and tank insulation, and programmable controls. The next audit will be conducted in 2014 at our largest operation and energy consuming facility in Green River, Wyoming.

#### **Greenhouse Gas Emissions**

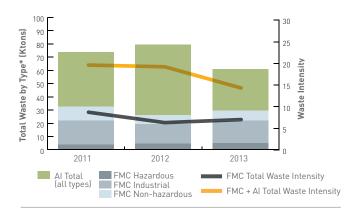
Our natural soda ash mining and processing operation in Green River consumes the largest share of FMC's energy usage and generates the most greenhouse gas emissions (GHG). Our GHG emissions include both those occurring from fuel use, as well as process emissions – naturally occurring emissions released during the mining and processing of natural soda ash. FMC's 2013 GHG emission intensity decreased 3 percent due to lower process emissions at this facility.

We will conduct an EMCOE audit in 2014 to find new ways to decrease Green River's energy and greenhouse gas emissions. However, it is important to note that production of natural soda ash from our Wyoming site already uses 40 percent less energy and produces about 40 percent less GHG than production of the alternative synthetic soda ash. 25

#### Water Management

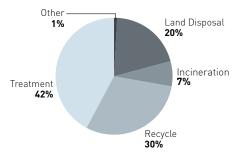
In 2013, FMC's water intensity increased 5 percent versus 2012. The Green River site is our largest consumer of water, where in addition to use in solution mining, water sources are used to remove naturally occurring impurities that enter our process with the trona ore. We collect this process water in a containment lake, allowing us to recover any remaining soda ash value. Process water from the containment lake is also used as an extremely energy-efficient

#### **GLOBAL WASTE BY TYPE**



FMC's 2013 waste intensity increased by 11 percent vs. 2012. This was driven by lower demand for a large volume by-product produced by one of our sites in 2013, necessitating disposal of the material. 2013 waste intensity is still 20 percent lower than 2011 levels.

#### **GLOBAL WASTE BY DESTINATION**



Includes FMC hazardous, non-hazardous and industrial waste only. (AI data not included)

FMC will perform a detailed waste assessment project in 2014. We expect this project to inform our strategy for waste reduction and decreasing waste-to-landfill.

source of cooling capacity versus energy-intensive mechanical chillers. However, the lake depends on natural precipitation for level maintenance. With continued drought conditions in the Western United States, the containment lake reached critically low levels in 2013 and additional water intake was necessary to maintain the appropriate lake level. This maintenance was the primary driver for FMC's increased water intensity in 2013.

It is well recognized that major global shifts involving population growth and climate change are creating substantial concerns about water availability. To understand FMC's exposure and to determine how to mitigate potential risks, we conducted a Water Risk Assessment (WRA) that cross-referenced water use details from our manufacturing sites with the World Resources Institute's "Aqueduct" water mapping tool. Based on those results, we analyzed the potential water source risk for our manufacturing sites, our Agricultural Solutions contract manufacturers and key suppliers.

The WRA identified nine FMC facilities in water stressed areas with significant water dependency but only two – Green River, Wyoming, and Minera del Altiplano, Argentina – indicated future potential water instability. We are confident that we have adequate water availability in the near term. As a result of these findings we are working to better understand each situation and develop conservancy and contingency strategies to ensure long-term availability.

In addition, to ensure that potential water risks are considered in all future investment decisions, the WRA is being integrated into FMC's long-term corporate planning. It will factor into decisions involving mergers and acquisitions and the Capital Deployment Process.

#### **Waste Reduction**

FMC's 2013 waste intensity increased by 11 percent versus 2012. This was driven primarily by increased waste shipments from our Bessemer City, North Carolina, location in 2013 versus 2012. One of the site's large volume by-products could not be distributed in a timely manner due to demand fluctuations necessitating disposal. Other significant factors included increased focus on elimination of out-of-service equipment and materials across all of our sites and, and in some cases, tighter crosscontamination standards leading to increased rinsing of equipment and resulting wastewater.

Our decision to include Agricultural Solutions active ingredients contract manufacturers in our results also has a significant impact on waste. FMC employees work closely with these partners to continuously improve process yields and reduce waste intensity. In 2013, several significant reduction projects were implemented, including:

• Modification of process routes for several key active ingredients to improve overall yields and reduce waste loading.



Containment lake at the FMC Green River site in Wyoming, United States.

#### SUSTAINABLE PACKAGING

#### \*GROWING PLASTICS

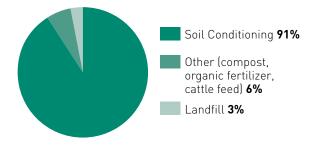
In 2011, FMC Brazil began offering its line of Green Jugs. The manufacturing of these products generates less greenhouse gas emissions than traditional plastic packaging. They represent the next generation in sugar-based bioplastic packaging solutions.

- Improvement in recovery of solvent streams and spent catalyst materials.
- Implementation of a system to recover a key raw material from a waste gas stream.
- Elimination of packaging material by converting material supplied in drums to bulk supplied material.

In addition to more standard waste types, processing of trona ore and seaweed results in high-volume/ low-toxicity materials that must be disposed of or re-used. Volumes of these materials are associated with production as they are largely unused portions of a raw material being processed. We work to minimize the amount of material going to landfills and seek beneficial applications whenever possible.

- Processing of trona ore results in large amounts of excess inert shale (rock). FMC produced approximately 866,000 tons of this material in 2013. Additionally, production of steam and electricity required to process trona ore generated approximately 44,000 tons of boiler ash. We use the following hierarchy to determine how best to dispose of the materials:
  - Continued use in the process (this allows us to recover any remaining alkaline value).
  - Return shale to its place of origin underground in formerly mined areas.
  - Manage on-site via a well-engineered storage area that is regularly inspected by regulators.
- FMC repurposes bio-solids at each of our Health and Nutrition production sites that generate them. Rather than going to a landfill, the materials are used for practical applications including:
  - Composting the material
  - ▶ Use in organic fertilizers
  - Soil conditioning or 'landfarming'
  - Cattle feed supplements

The chart below shows the total amounts of biosolids produced and their final destination:



#### Manufacturing Improvements

FMC's Manufacturing Excellence (ME) program, launched in 2012, drives sustainability and safety improvements in key performance metrics and encourages long-term changes in organizational culture. While each project may address different areas of manufacturing, they all build on an integrated three-phase process: pre-assessment, analysis and implementation.

ME projects were completed at three sites in 2013:

• *Green River*: We developed and implemented safety and productivity systems and processes at pilot portions of the site that are expected to accelerate both safety and operational progress. Initial ME results included:



Martin McQuaide (left) and Bob Davis assemble a pump to ensure optimal operation at the FMC Health and Nutrition manufacturing facility in Newark, Delaware, United States.

#### **\*CUSTOMER SOLUTION**

#### (RE)PACKAGED

To answer customers' needs, in 2013 FMC introduced the Double Green jug. This solution features an inner layer of nylon for use with solvent-based products and its stackable design eliminates 172 kilotons of cardboard packaging.



- Managing facility operations at optimal production run rates.
- Increased visibility into reporting systems enabling faster, more insightful process operations decision-making.
- Increased interaction and response time with less equipment downtime through new communications involving the maintenance, production and other departments at the shop floor level.
- *Bessemer City, North Carolina*: We restructured operations and reconfigured job functions, resulting in a number of new opportunities for employees. Unfortunately it also involved a reduction in staff as we needed to leverage long-term efficiencies and increase accountability throughout the workforce. In the reconfigured organization, all employees are gaining a better understanding of the processes in which they are involved and are leveraging technology more effectively while maintaining a high focus on safety in the work environment.
- *Haugesund, Norway*: The process at Haugesund focused on getting in place the right structure, processes and systems for safe, effective and efficient sourcing and production. Highlights include:
  - Installation of a data focused culture to drive improved rates and yields. This production workstream proved the most challenging, as significant operational knowledge had been lost due to retirements and turnover in recent years and there were equipment failures throughout the project. The site is finally starting to see results as rates, quality and customer satisfaction have all improved considerably and process knowledge has deepened due to the changes.
  - Development of a new organizational design to ensure effective operational oversight and cross-departmental alignment.
  - An upgraded maintenance system that focuses on preventative rather than reactive maintenance.



Doug Wasson, an operator at FMC's Green River bicarbonate plant, focuses on ensuring optimal production in a safe working environment.

• A supply chain analysis to increase efficiency of our seaweed harvesting system.

Agricultural Solutions is planning to implement ME at two sites in 2014: Wyoming, Illinois, and Middleport, New York.

#### Effective Financial Decision-Making

We are transforming our Finance group into a globally integrated organization capable of supporting a growing and diverse enterprise. The initial design phase of the project began in 2013 and over the long term will address:

- Enhanced scalability with redesigned systems to help improve organizational efficiency.
- Increased value from partnerships between Finance and the businesses by enhancing areas such as financial planning and analysis.
- Fostering career opportunities and professional development to build organizational strength within the function.

The Capital Deployment Process (CDP) developed in 2013 establishes a methodical framework for evaluating capital investments including sustainability criteria. It raises specific questions about impacts

#### -FMC

#### SHAPING SUPPLIER

RELATIONSHIPS

FMC Supplier Code of Conduct

2012 New supplier Code of Conduct and screening process are launched

# Since launch in 2012, all new suppliers are subject to the screening process and must adhere to the Code.

## FRONT ROYAL FORGES FORWARD

At the Avtex Fibers Superfund Site in Front Royal, Virginia, FMC is completing over 20 years of remedial construction activities. The cleanup of the historical plant area provides land for a business development area encompassing approximately 170 acres and the creation of open space in the remaining areas, including a conservation park. Within the conservation area is a brand new water treatment plant to treat the contaminated groundwater.

The conservation park created by FMC contains areas which were once waste disposal basins and are now open fields and ponds that provide a habitat for the ever increasing biodiversity in the area. Warm season grasses native to Virginia were planted to help return this area to much the same state that existed hundreds of years ago, albeit with access to walking and bicycle trails.





on stakeholder interests and the major global challenges FMC has defined. (See page 6 for more information.)

CDP takes into account how sustainability will be incorporated throughout a project's development and execution phases using metrics on resource intensities, efficiencies derived and long-term impacts through the project's life cycle. In 2013, it was applied to selected capital planning projects greater than \$2 million. In 2014, it will be applied to all projects over \$2 million and selected projects greater than \$500,000 will go through a "light" version of the process. One goal of the process is to make more informed, quantifiable decisions about a project's sustainability risks and benefits.

#### Legacy Remediation

As a company with an operating history of over a century, FMC has a number of legacy sites we are working to remediate. Our remediation strategy emphasizes community engagement when determining the best way to return former sites to productive use. 20

#### **Responsible Value Chain Partners**

Sustainability at FMC extends into productive collaboration with our value chain partners – especially customers and suppliers. We work together on programs that drive greater responsibility, accountability and transparency.

#### **Customer Relationships**

As meaningful partners, we seek ways to help our customers meet their own sustainability goals. For example, knowing that key customers wanted more information about social responsibility in their supply chains, we developed a Social Responsibility Assessment (SRA) program. Created in partnership with a thirdparty audit firm, the SRA assesses performance of our sites on environmental, health, safety, labor and other aspects of our business.

Our first SRAs were conducted at Health and Nutrition sites because of their strategic importance to the interests of end consumers. We concluded two SRAs in 2013 at our Newark, Delaware, and Rockland, Maine, locations. Results have been positive thus far, with only one finding that was quickly corrected. We are planning to undertake five more audits in 2014 and are working to expand the program into selected parts of our supply chain. Significant, existing raw material suppliers are screened against vendor management process.



How does FMC define "significant" suppliers?

✓ Type of material
 ✓ Sole source of material
 ✓ Geographically sensitive

#### GOAL

2014

All existing raw material suppliers and significant construction contractors will be requalified.



#### Supplier Relationships

FMC believes that responsible corporate citizenship extends to our suppliers' business practices.

In 2012 FMC published its first Supplier Code of Conduct and updated our vendor management process to ensure that our raw material suppliers and contractors sourced responsibly and provided the best value and support to our businesses and communities. 22

- Since publication in 2012, new suppliers are required to adhere to the Code and have gone through our screening and verification process prior to joining our network.
- By the end of 2013 all of our most significant, existing raw material suppliers were also screened against our criteria. We identified these initial suppliers based on the types of material they supply, if they were the sole source of a material, or if there were other areas of concern such as geographic sensitivity.
- In addition to continuing to use the criteria for new suppliers, in 2014 our goal is to requalify all of FMC's existing raw material suppliers and significant construction contractors who were working with us before the process was enacted. Given the large number of suppliers, a third-party auditor will undertake this screening process.

Looking ahead, we will leverage our management practices around responsible sourcing to manage supply risk and opportunities, continue to work with our supply chain partners to integrate our processes into site policies and work closely with suppliers to improve practices and drive innovation.

#### **Regulatory Compliance**

To ensure FMC's compliance with the reporting requirements of the U.S. Dodd–Frank Wall Street Reform and Consumer Protection Act and to improve management of potential supplier risk, we established processes to trace materials through our supply chain. Our efforts included the development of a Conflict Mineral Policy, obtaining technical data on the composition of our materials to understand if they contain conflict minerals, and conducting further due diligence with our suppliers to understand country of origin for materials containing tin, tungsten, tantalum and gold.

In May 2014, FMC filed its report on capital Form SD with the U.S. Securities and Exchange commission, as required under the Dodd-Frank Act.

## Sharing Responsibility for Resource Management

FMC's resource management projects are elements of a systematic effort to enhance visibility into and influence the impact we have on the environment and our stakeholders. We are taking steps to identify, analyze and act on opportunities to use natural resources more efficiently and to reduce our environmental footprint. We are strengthening collaboration with members of our value chain to deal effectively with some of the world's most challenging issues.



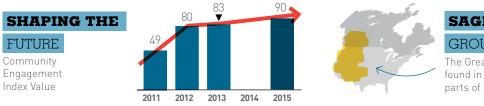
FMC Lithium's Lectro<sup>®</sup> Max line of customized lithium foils is used as the anode in lithium batteries. Lithium, being both the lightest and the most electronegative, provides the highest electrochemical equivalence of all metals.

## OF OUR COMMUNITIES CULTIVATING COMMUNITIES

SHARING IN THE FUTURE

FMC employees from Philadelphia volunteered at the Cradles to Crayons Backpack-a-thon where company-provided school supplies were stuffed into more than 22,000 backpacks for students in need.

FMC is taking action to be a positive force in the communities where we live and work.



GROUSE The Greater Sage-grouse can be found in 10 western states as well as parts of southern Canada.

Our focus includes engagement with neighbors, dedication to product stewardship worldwide and remaining a committed employer in the communities where we operate. (20)

#### **Biodiversity and Stewardship**

FMC firmly believes that business growth and ecological responsibility are compatible goals. We monitor and mitigate our potential impacts on wildlife and engage with our stakeholders about protecting nature and biodiversity.

#### **Protecting Natural Habitats**

At our facilities in Green River, Wyoming, we are working proactively to protect local species and their habitats. For example, we are committed to protecting the Greater Sage-grouse, a bird that is a candidate species for listing as threatened or endangered within the U.S. Endangered Species Act.

Our site is helping to stabilize the species in Wyoming by partnering with local landowners, government and community stakeholders on a long-term conservation effort. The effort has three primary components:

- Improving understanding of local Sage-grouse habitat utilization and population trends through various inventories and counts, including the installation of trail cameras. These activities will enable a more exact understanding of the species' population trends to help further focus conservation efforts.
- Habitat restoration and enhancement.
- Ongoing minimization of our impact. For example, looking critically at location and design of temporary and permanent roads and structures.



A male Greater Sage-grouse performs its courtship display.

#### Community-Based Conservation Efforts

For the past four years we have partnered with Panthera, an organization that leads effective conservation strategies for the world's largest and most endangered cats. With FMC support in 2013, Panthera was able to expand the "Living with Lions" program into a new site in the Zambezi

#### SAFEGUARDING WYOMING'S WILDLIFE



To reduce unintended harm to animals near our Green River mining facility, FMC converted two miles of fencing from net wire to more wildlife-friendly fencing. The work was done in partnership with the Rock Spring Grazing Association and Uinta Development, the associations responsible for managing grazing leases, the Bureau of Land Management (BLM), and the Wyoming Conservation Corps. To keep birds – especially the Sage-grouse – from flying into the fence, we supported a local Eagle Scout candidate's project to install flight deflectors on the fence wire. Another fencing project around two small ponds helps protect grazing sheep, antelope and other wildlife while still allowing them access to water.



In 2013, FMC Agricultural Solutions continued training on the '7 Habits of Responsibility,' focusing efforts on Asia and Latin America.

19,324 people trained in Latin America

training events held in Latin America

Region of Namibia, as well as provide continued support to Ruaha, Tanzania, and Hwange, Zimbabwe. The following results have led Panthera to consider the FMC project to be a successful and replicable model:

- In parts of Kenya, Tanzania and Zimbabwe, lion killings have been completely eliminated.
- Areas of Zimbabwe have experienced a 50 percent decline in the number of cattle killed by lions.
- In its first year of operation, the program in Namibia led to over 200 lion "alerts" and a 50 percent decline in livestock losses.

In addition, we worked with Panthera in Brazil to address jaguar conservation in the states of Mato Grosso and Pará where our Furadan® insecticide was allegedly being used to harm jaguars. As a precautionary measure, we stopped selling the product in those two areas. To help educate farmers and their families on the safe use of pesticides, we continue to sponsor two plays, "Planting the 7 Habits" and "Tree of Life." We also conducted product stewardship training that included: secure storage of pesticides, wearing personal protective equipment when making applications, how to read

## 7 HABITS OF RESPONSIBILITY

- 1. Use only registered pesticides and always read the label
- 2. Wear personal protective equipment
- **3.** Properly maintain and calibrate equipment
- **4.** Triple rinse empty containers and properly dispose of them
- **5.** Store pesticides securely in their original containers
- **6.** Transport pesticides safely and have spill kits available
- **7.** Practice personal hygiene after using pesticides

and understand a product label, and proper container disposal. 29

#### **Bee Colony Responsibility**

Pollinating bees are an essential part of both agriculture and food production. Given bees' significant ecological value, FMC pays close attention to the latest research about their declining population. Scientists consider some amount of bee loss to be normal, so their concern focuses on a syndrome called "Colony Collapse Disorder" (CCD).

Current studies about the cause of CCD have not been definitive, in most cases because they have not adequately tested the diverse threats that bees face in real-life field situations. Efforts to correlate CCD with pesticide exposure have yielded varied results and indications are that multiple factors are involved in CCD. FMC is involved in organizations including CropLife America, which in conjunction with the U.S. Environmental Protection Agency and the U.S. Department of Agriculture, sponsored a Pollinator Summit in March 2013. The summit provided a forum for stakeholders (beekeepers, growers, pesticide manufacturers including FMC, and federal and state agencies) to network and learn about current research and technologies, best practices and other stewardship activities to protect bees and improve pollinator health.

FMC's product stewardship involves extensive distributor and farmer training on agricultural products with which bees might inadvertently come in contact. We consider potential bee toxicity before bringing any new insecticide to market and are developing more naturally based agricultural products to ensure that any risk to biodiversity is minimized.

#### **Strengthening Community Relationships**

FMC has developed a framework to guide community interaction, while at the same time allowing each site to assess local priorities and determine how best to use our skills for positive impact.



Through support of CropLife Latin America, we support the following programs and impacts.



Training program to promote responsible . use of crop protection products.



A solution for empty pesticide containers. Hundreds of collection points are available where farmers can bring empty, triplewashed containers for recycling.



#### **Measuring Community Interaction**

FMC has an overall goal of having "a positive impact in communities where we live and work." In order to measure this, we established a common framework for reporting on various interactions in our communities. Called the Community Engagement Index, it consists of four categories that we consider important factors in building and maintaining effective relationships. They are:

- **Safety** We provide community training on relevant safety topics, participate in local emergency response organizations and support other activities that foster community safety.
- **Operational transparency** We exchange information about our operations through community advisory panels, plant tours and other activities.
- **Community leadership** –FMC employees bring their leadership skills to roles that strengthen the community. This may include participation in local Chambers of Commerce, service on charitable and non-profit boards and other roles that demonstrate leadership in the community.
- **Community partnership** This includes our involvement in volunteerism and philanthropic endeavors. Each site discerns the best ways to support their local community in terms of financial contributions, shared time and expertise of employees and in-kind donations.

We have a target of achieving an Index value of 90 or greater by 2015. Attaining this Index level would indicate that most sites are engaging with their communities in the ways outlined above over the course of the year.

Our 2013 Index score – adjusted for the exclusion of our Peroxygens business – increased from 80 in 2012 to 83 in 2013. This year, several acquisitions were included in the Index for the first time. Many of these facilities are in early stages of understanding community needs and establishing programs. We are confident

Employees of FMC Patancheru work with the local Traffic Police Department on spreading the important message of defensive driving.



#### FMC HELPS MANILA SCHOOL IN THE LONG-TERM

Employees at FMC's Manila office have built a long-term partnership with a local school, Itass Elementary, volunteering time and expertise on a number of projects that benefit the school. It all started with the building of a water tank and a rain collector. In 2013 FMC employees constructed much-needed bookshelves for the school, and taught teachers how to use Excel for the students' grading sheets.

that we will achieve our goal in 2015, and are already thinking about how we can continue to understand our communities and assess the value of our impact.

#### Supporting Safer Communities

Our safety manifesto states: "We believe safety is a universal human right. We each have a fundamental responsibility to our fellow employees, friends, families and communities to be safe." This interdependency is reflected in our efforts to share our safety knowledge and awareness with the broader community.

Our community engagement extends beyond conducting drills with local emergency responders. We initiate interaction on community safety issues more broadly.

• In India employees of our lithium facility partnered with the Patancheru Traffic Police

#### CATAMARCA & SALTA PROVINCES

We work to achieve socially conscious results through relationships with the area surrounding the Salar del Hombre Muerto, Argentinean Puna, where our lithium products originate.



→ 10 to Catamarca National Univ

National University to Salta National University

Department to "hit the road" and spread the message of defensive driving to the general public.

• As part of our many educational programs in the small communities near our Minera del Altiplano,

#### FMC GOES TO SCHOOL WITH UNIQUE PARTNERSHIP

FMC became an official job partner of Cristo Rey Philadelphia High School, a new model of private high school that partners with local educators, businesses and universities. Each week, eight students work with various FMC departments in our corporate headquarters. Through the program students gain real world skills, earn money for their education and become better equipped to attend college.



Argentina, facility, FMC volunteers provided training on first aid for poisonous snakes – commonplace in the region.

scholarships

are given

every year.

• FMC Lithium's plant in Zhangjiagang, China, held its annual Health, Safety & Environment (HSE) Family Day to help increase safety awareness among employees and their families, as well as to celebrate the plant's safety achievements and recognize employees' contributions to HSE. Family members visited the plant and participated in workshops that included safety videos and training in proper use of a fire extinguisher.

#### **Emergency Responsiveness**

When it comes to emergency situations, FMC provides aid how and where it will do the most good. To best assist in disaster situations anywhere in the world we fostered a closer relationship with the American Red Cross in 2013. This organization has a global network and is equipped to deliver resources for life's basic needs to those affected by devastation.

By providing the Red Cross with funding or in-kind support if appropriate, FMC can effectively help people worldwide. After the Philippines experienced two natural disasters in November, for example, FMC donated \$75,000 as a corporation and additional funds were donated by employees. The organization dispersed the funds to the Philippines Red Cross which is handling the on-ground response. *(See pages 12-13 for more information.)* 

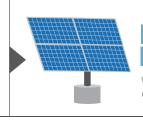
#### **Contributing to Vibrant Communities**

Aligned with our focus on community leadership and community partnership, FMC is actively involved in supporting:

- Philanthropic donations and employee volunteerism.
- Educational opportunities to encourage students to pursue science, technology, engineering and mathematics (STEM) studies.
- Economic development.

#### **Giving and Volunteerism**

In 2013 we invested more than \$1.8 million in our communities across the globe. In addition to volunteer outreach projects, over 90 percent of employees in the U.S. made donations to our annual





We provided solar panels to generate electric power at the local hospital.



We will provide access to a gas pipeline we are building to power our Minera del Altiplano facility, providing much-needed heat and electricity to remote communities.

## HIGH ALTITUDE ENGAGEMENT

Our lithium products originate in the Salar del Hombre Muerto, Argentinean Puna, where we work to achieve socially conscious results through supportive and transparent relationships with our neighbors, specifically the provinces of Catamarca and Salta. We look for ways to increase community education and accessibility, for example:

- FMC subsidizes nutrition programs at two soup kitchens and a school in Antofagasta de la Sierra. We also carry out regular nutrition checkups in conjunction with the community and with professionals from Antofagasta de la Sierra Hospital, and re-evaluate menus as necessary to ensure good nutrition. Parents and soup kitchen committees are also offered nutrition education.
- Throughout the year we trained the local community of Antofagasta de la Sierra on topics related to health and first aid.
- We provided solar panels for the generation of electric power at the local hospital, and have contributed lithium batteries for solar panels to other neighbors.



- When needed, we drive or fly patients and people at risk (such as pregnant women) to more complex medical centers than exist nearby.
- Twenty scholarships are given every year; 10 for students to attend Catamarca National University, and 10 for students at Salta National University.
- FMC partners with the Junior Achievement Foundation on educational programs at primary and secondary schools in General Güemes.
- We will provide community members access to a gas pipeline we are building to power our Minera del Altiplano facility. With construction planned to begin in 2014, three remote communities will be able to tap into it to get heat and electricity. In addition to providing a much-needed energy source, the pipeline reduces truck traffic and thereby improves safety and energy delivery reliability while reducing emissions.





To support the viability of our seaweed supply chain, we undertook several community support programs in 2013.

#### \*DENTAL CARE IN THE PHILIPPINES



96 percent of children in the Philippines aged 6 to 12 suffer from tooth decay.



FMC arranged for Swedish and Danish dentists to treat 384 children.

## SUPPORT FOR SEAWEED SUPPLIERS

Seaweed is the primary raw material for FMC's carrageenan products and FMC makes a conscientious effort to provide support for the farmers, their families and neighbors. In 2013 we undertook several community support and enhancement programs to continue to support the viability of our supply chain:

- FMC sponsored and participated in a dental mission to treat children on Guindacpan Island, Philippines. This effort is critical because 96 percent of children in the Philippines aged 6 to 12 suffer from tooth decay. FMC employees arranged all the logistics and served as assistants and translators to the team of dentists from Sweden and Denmark who visited for a five-day mission. They treated 384 children, many of whom had suffered long-term pain from lack of dental care. To ensure an ongoing benefit of the mission, teachers at the elementary school were taught correct tooth-brushing techniques so they could, in turn, instruct their students. FMC has been involved with the initiative for four years, visiting different islands each time.
- In celebration of World Oceans Day, FMC worked with our Madagascar seaweed supplier to promote beach clean-ups in three seaweed farming communities. Prizes were awarded to the local

families who collected the most refuse, and a total of 1.2 tons of trash was collected along with 200kg of used household batteries. Activities during the event included games for children and adults, and educational discussions about the importance of healthy ocean ecosystems for seaweed farming communities.

- Approximately 90 percent of the seaweed farms in the Bantayan Islands in North Cebu, Philippines, were destroyed by typhoon Haiyan in November 2013. FMC partnered with our main seaweed supplier to support recovery of the farms. FMC's portion of the donation is being used to replace ropes and ties – materials that are essential for seaweed farming.
- FMC helped address a lack of toilet facilities near the seaweed farms at Mjini Kiuyu, Pemba Island, Zanzibar, Tanzania by providing materials and managing the toilet construction project. We also provided materials and project management needed for members of the community to build a new staircase that gives farmers an easier and safer path to carry seaweed from the shore up to drying structures. More than 200 farmers are benefiting from these projects.



#### **\*WORLD OCEANS DAY**

IN MADAGASCAR FMC arranged beach

clean-ups in three seaweed farming communities.



tons of trash were collected. kg of used household batteries were collected.

#### **\*TOILET & STAIRCASE**

CONSTRUCTION IN TANZANIA



farmers are benefiting from these projects.



A local farmer checks his seaweed crop in Mataya, Coron, Palawan Province, Philippines.

United Way fundraising drive to support health and human services causes. The company provided a matching gift averaging 50 percent of employee contributions.

Among the myriad of organizations we support in Philadelphia is the largest hunger relief organization in the area, Philabundance. Selected because of its strategic fit with our emphasis on access to nutritious foods, Philabundance is supported by FMC volunteers who help hand out food every month. Over the course of 2013, more than 150 area employees donated their time to help feed some of the approximately 72,000 people Philabundance serves weekly.

#### Economic Development and Education

Economic development, job creation and improved community resources are all vital to community advancement and FMC is an established, committed neighbor.

 In Philadelphia we have signed a 16-year lease in a building to be named the FMC Tower at Cira Centre South. Under construction currently and with a move-in date of mid-2016, this 49-story building is expected to receive Leadership in Energy and Environmental Design (LEED) certification. Maintaining our presence in Philadelphia continues support of the Philadelphia school district through local sales and income taxes. • Our research and development facilities are important contributors to employment and education. As an example, FMC's Global Innovation Center in Ewing, New Jersey, employs approximately 200 people, is a significant taxpayer to the town and works with nearby schools such as the College of New Jersey to create awareness of the company among students who may want to consider future employment with us.

FMC is a significant employer in many of the locations where we operate. Particularly in more remote areas, we strive to improve the welfare of the communities through comprehensive community support. This can take many forms, for example through focus on continued health and nutrition education and accessibility or through ecological clean-up and disaster recovery. (See the case studies on pages 43 and 44 for specific examples.)

#### Making a Positive Difference

FMC has committed to making a measurable difference as we strive to improve the quality of life of people in communities where we live and work. We are doing this in areas of safety, operational transparency, leadership and philanthropy, as well as through our products themselves. Our goal is to continue to build and maintain relationships based on mutual trust and understanding with our communities.

## EXPLORE OUR WORLD ON THE WEB

FMC.com/sustainability is our digital home. We invite you to explore these online assets to learn more about our sustainability efforts. Follow the link or QR code to learn more.



#### COMMUNITY INITIATIVE MAP



FMC is investing in the people and communities where we live and work. Our community partnerships and service activities are opportunities for us to further our commitment to shaping a better future for all. 35

#### GRI INDEX



FMC uses the Global Reporting Initiative (GRI) to inform our sustainability reporting. FMC has been GRI-checked as a level B reporter for our 2013 report. GRI provides organizations with guidance in applying its comprehensive sustainability reporting framework covering economic, environmental and social sustainability disclosure criteria. **31** 



#### OUR APPROACH TO SUSTAINABILITY



At FMC, our approach to sustainability is about creating enduring value by managing our innovation, operations and business practices to meet the changing demands of our markets, our shareholders and society. 32

#### OTHER RESOURCES



We invite you to explore our archive of sustainability and annual reports, as well as our video library and other publications related to our sustainability work. **34** 

#### DATA CENTER



Our data center presents the key performance indicators included in this report, as well as additional data and information on scope and definitions. This expanded data center is part of our effort to increase transparency on our progress. 33

## REPORT WEB

Use these symbols to access additional information at **fmc.com/sustainability**. Simply enter the appropriate number to connect with your information.

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