2015 Sustainability Goals
1Q 2013 Update

Reducing the Carbon Footprint for the Sochi 2014 Organizing Committee
40 U of M Students Named Dow Sustainability Fellows

Innovations for Tomorrow
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# 2015 Sustainability Goals
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Dow, Worldwide Partner and the Official Chemistry Company of the Olympic Games, has been announced on March 13 by the Sochi 2014 Organizing Committee as the Official Carbon Partner of the XXII Olympic Winter Games. The direct carbon footprint associated with the delivery of the Games will be mitigated through the implementation of energy-efficient technologies, with improved greenhouse gas (GHG) emissions performance in the key areas of infrastructure, industry and agriculture. All projects will be implemented in the Russian Federation, generating savings and long-lasting benefits to the host country’s economy.

Sochi 2014 has set the bold goal of delivering the Games with minimal impact on the climate. In order to help the Organizing Committee fulfill its vision toward generating positive change and raising awareness around climate change in Russia, Dow will work with local companies and marketing partners to mitigate the estimated carbon footprint associated with the hosting and delivery of the Games by the Organizing Committee. The energy-efficient projects planned for implementation in Russia will enable Sochi 2014 to mitigate its direct carbon footprint and will also bring long-term economic benefits to the Russian economy by targeting upgrades in building infrastructures, farming practices and industrial processes.

Dow’s unique capabilities to support Sochi 2014 are demonstrated by a track record of enabling emissions reductions for its customers and improving the Company’s performance at its operations worldwide. Since 1990, Dow products and technologies have helped its customers avoid over 1 billion tons of GHG emissions. During the same time period, the company aggressively managed its own footprint by preventing more than 270 million metric tons from entering the atmosphere.

Public engagement will play an important role on the journey to help transform Sochi 2014 into Games with minimal impact on the climate. Dow will work with partners to engage fans around the world to learn how to improve their own carbon footprint and conserve energy. Dow will also partner with Offsets Climate Solutions, the Official Supplier of Carbon Offsets of the Vancouver Organizing Committee in 2010, to develop the measurement tools to account for the carbon benefits of the solutions implemented in Russia. ERM, a leading global provider of environmental, health, safety, risk, and social consulting services, will provide critical review and assurance for the partnership. A key goal for this project is to highlight the science behind Dow’s solutions – moving beyond business as usual to accelerate the adoption of more energy efficient technologies across Russia.
Forty masters and professional-degree students from eight schools and colleges at the University of Michigan are beginning the Dow Sustainability Fellows Program, marking the first cohort of fellows in the program launched last spring. Established through a six-year, $10 million gift from The Dow Chemical Company, the Dow Sustainability Fellows Program supports U-M graduate students and postdocs who are committed to finding interdisciplinary, actionable, and meaningful sustainability solutions on local-to-global scales. The program aspires to prepare future sustainability leaders to make a positive difference in organizations worldwide.

The unique structure of the program will bring together a select group of the most promising students, and potential future leaders, from natural and social sciences, engineering, business, law, public health, public policy, architecture, urban planning, and other disciplines. These graduate and postdoctoral scholars will learn together how to integrate the power of their respective disciplines to help solve sustainability challenges including energy, climate change, water, food, housing, transportation and health. The program will cultivate nearly 300 leaders in global sustainability.

“We need to equip our leaders of tomorrow with an education experience that mirrors the real world they are inheriting,” said Neil Hawkins, vice president of EH&S and Sustainability for Dow. “That world requires unprecedented collaboration across professions and topics to institute change that we will all benefit from.”

“We are thrilled to announce this first cohort of Dow Sustainability Fellows,” said Donald Scavia, special counsel to the U-M president on sustainability. “To see so many different schools and colleges represented shows both the breadth of our students’ talents and the multifaceted nature of global sustainability challenges.”

In addition to receiving a $20,000 stipend, each masters-level fellow will participate in monthly seminars and workshops, team projects, co-curricular activities, and other exercises designed to foster interdisciplinary collaboration. They will tackle water, energy, health, transportation, the built environment, climate change, biodiversity, human behavior, and other environmental and social challenges. For more information about the Dow Sustainability Fellows Program — including a list of the masters and professional degree fellows — visit the U-M Planet Blue website. Read more.
New Phosphate Battery Material Unveiled

At the International Rechargeable Battery Expo in Tokyo, Dow Energy Materials announced that it has developed a new phosphate-based battery material, Lithium Manganese Iron Phosphate, which increases energy density by 10 to 15 percent in battery cells. As a result, this technology can enable energy storage systems to weigh less and require fewer cells, which in turn can lower cost. The components of an advanced lithium-ion battery represent 30 percent of the total cell cost, leading the industry to pursue material solutions that can increase performance and lower the overall price of battery systems. By increasing the amount of energy stored in the component materials, battery manufacturers can reduce the space and volume needed for batteries and increase system performance.

R&D Leader Receives Highest Honor in Engineering

Ganesh Kailasam, Research and Development (R&D) vice president, Performance Materials and Monomers, Resins & Intermediates, has been elected to the National Academy of Engineering. The election is the highest professional distinction accorded an engineer. The academy honors those who have made outstanding contributions to engineering research, practice, or education, pioneering new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education. Kailasam holds 27 patents in the areas of process engineering and product development and has received significant past recognition, including the 2011 Industry Leader Award from the American Institute of Chemical Engineers and the 1998 Albert W. Hull Award for Young Researchers from General Electric Corporate Research.

Jaipur Foot Initiative Receives Innovation Award

Recently, Dow India’s Jaipur Foot initiative won the ET Now World CSR Awards 2013 for the Best Innovation in corporate social responsibility (CSR). The award highlights the value of sustainable CSR, which needs to be built into the fabric of the business. Loss of a limb, in addition to the obvious physical loss, can also affect quality of life and greatly restrict mobility and productivity. There is a need for high quality sustainable prosthetic limbs that are both accessible and affordable. Dow India provides three-pronged support to the Jaipur Foot initiative: technology to enable a lighter, cheaper and more flexible prosthetic; employee volunteerism; and financial support of $1.5 MM. The result: mobility and independence for 26,000 amputees.

Liveris Discusses Policy and Energy at Davos

Andrew Liveris, Chairman and Chief Executive Officer of The Dow Chemical Company, participated in two main panel discussions during the World Economic Forum Annual Meeting in Davos, Switzerland. Besides taking part in a discussion on energy, Liveris joined a panel discussion on cross-border mergers and acquisitions. He advocated for government policies that fairly assess mergers using common measures that take into account national security concerns and promote healthy competition, but do not foster protectionism. Liveris also moderated a separate session at the Annual Meeting for chemical industry CEOs from around the world. While in Switzerland, Liveris met with customers, media representatives, and government officials from Europe, the Middle East and India. A highlight of the visit was a private meeting with the Russian Minister of Economy, German Gref, to further discussions on Dow’s plans in Russia.

Clean, Safe Drinking Water Solutions

According to the United Nations, nearly 1 billion of the Earth’s 7 billion-plus people do not have access to clean water, and our world’s population is expected to grow by another 3 billion people within the next 40 years. Dow has entered into a collaborative agreement with Ahlstrom, a global, high-performance fiber-based materials company, to use Ahlstrom Disruptor® technology for drinking water applications. Dow will incorporate Ahlstrom’s high-performance, breakthrough filter medium into a new set of drinking water purification products that offer excellent pathogen rejection while operating at high flow and low pressure. This technology can be applied to a number of drinking water applications, including under-the-sink purification, post filtration for reverse osmosis, a countertop or pitcher unit, or a unit internal to a refrigerator. The agreement combines Dow’s industry-leading market, Research & Development, and manufacturing expertise with Ahlstrom’s innovative nonwoven fiber technology to address an unmet need in drinking water applications.

Innovations for Tomorrow

We contribute to the sustainability of society and our planet by developing innovative technologies for current and future markets.
Dow Releases 2013 Energy Plan for America

Dow's 2013 Energy Plan for America: Manufacturing a Strong Future, presents an intellectual framework for improved national policy. The document represents the Company’s Vision for manufacturing as the United States moves from energy scarcity to energy abundance. Last year, Dow released the 2012 Energy Plan for Europe, which helped Dow frame a set of arguments facilitating the successful negotiation of more than $1 billion in credits against the price of carbon emissions. Dow's 2013 Energy Plan for America outlines a progression to a sustainable energy future, supporting policy recommendations that will help set a clear, coherent national strategy on energy policy.

Test Community to Generate Energy Efficiency Data

Science is enabling a new generation of energy efficient solutions for high-performance residential buildings. Dow Building Solutions recently announced a five-year collaboration with Cobblestone Homes on an energy-efficiency test community of 12 occupied single-family homes in Midland, Michigan. As the nation’s first active subdivision specifically designed to capture quantitative and qualitative analytical data, this project will help to educate builders and homebuyers about the accessibility and affordability of energy-efficient homes. This industry-leading initiative – called Twelve Energy Efficient Test Homes or “TEETH” – represents another example of Dow’s commitment to bring above grade, below grade and air sealing solutions together to cost-effectively achieve high-performing homes with enhanced sustainability. Read more.

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Developing Carbon Fiber Intermediates for Russia

Dow and DowAksa Advanced Composites Holdings B.V., RUSNANO and Holding Company Composite signed a memorandum of intent to develop a comprehensive strategy to launch production of carbon fiber intermediates, composite materials, and solutions in Russia. The parties have agreed to explore opportunities in the areas of aerospace, infrastructure, energy, oil and gas, and transportation, and to explore supplying the Russian domestic and global markets. The signing of the memorandum marks a significant step forward in Dow's innovation and growth strategy, and strengthens our commitment to addressing the growing needs of emerging geographies such as Russia.

Making the Case for Innovation in India

Dow participated in the 6th Annual India Chemical Industry Outlook Conference, organized by the India Chemical Council with participation from some 200 industry-leading chemical companies. Vipul Shah, president, CEO and chairman, Dow India, discussed Dow's innovation strategy and its role in addressing global challenges and developing solutions to create business opportunities. Innovation in key industries – such as water purification, food, pharma, agrosciences, paints and coating, renewable energy, packaging, footwear, home and personal care – was addressed in panel discussions.

Separations Process Expertise Benefits Water Partnership

Dow participated in a high level steering group for the European Innovation Partnership on Water in Brussels. Dow's work with the group has resulted in increased emphasis on separation process technologies, including Dow Water and Process solutions, in the partnership's strategic implementation plan – an outcome that could enhance funding allocation for process technologies. The 40-member high level steering group includes the environmental Ministers of Denmark and Bulgaria, the Secretaries of State of Germany and Spain, non-government organizations, small and medium enterprise, associations and local governments.

MIT Names 50 Disruptive Companies for 2013

Dow has been named as one of 2013’s 50 Disruptive Companies in the field of Energy and Materials by the Massachusetts Institute of Technology, Technology Review. Dow made the list of the world's most innovative technology companies for commercializing the DOW POWERHOUSE™ Solar Shingle, a first-of-its kind solar roofing product that combines the benefits of solar technology with the durability and performance of traditional roofing materials. Honorees are nominated by the publication’s editors, who look for companies demonstrating original and valuable technology, taking that technology to market at significant scale, and clearly influencing their competitors. Spanning energy and materials, internet and digital media, computing and communications, biomedicine, and transportation, the companies listed represent the commercial disruptive innovations most likely to change our lives. Read more.
Partners for Change

We are leaders in advancing all aspects of sustainability, openly collaborating with customers, suppliers, communities, civil society and governments.

Dow and The Nature Conservancy Publish Collaboration Report

In 2011, Dow and The Nature Conservancy embarked on a unique experiment to help build a roadmap for how companies assess, incorporate and invest in nature and the services it provides – such as fresh water, clean air and flood protection. The second annual Collaboration Progress Report shares the collaboration objectives, results from the first pilot site at Dow Texas Operations, methodologies to be applied at the second pilot site in Santa Vitoria, Brazil, and efforts to advance awareness of the Collaboration's work around the globe. The two organizations plan to report publicly on the collaboration each year and to release new discoveries or results as they occur. Read more.

Liveris Fosters Business and Government Partnerships

Andrew Liveris, Dow chairman and CEO, was elected chairman of The Business Council at the organization’s fall meeting and began his role with the organization in January 2013. In 1933, the Business Council was established as an advisory body for the Department of Commerce. In 1961, the group renamed itself The Business Council and broadened its scope to include advisory functions to all elements of the national government. Today, the Council is a learning, networking and best-practice-sharing organization for CEOs of the world’s most competitive enterprises. By fostering partnerships between the public and private sectors, the group facilitates solutions to challenges that are too substantial for either business or government to accomplish alone.

World Environment Center Conference in Berlin

Recently, Dow welcomed strategic customers, sustainability leaders, and chief officers from environmental organizations including the World Environment Center to an executive roundtable in Berlin. The two-day, intensive roundtable showcased successful collaboration projects between companies and environmental organizations. Participants discussed shared values, while working to identify the future potential of innovative business models and promote game-changing collaboration to accelerate progress.

Celebrating 30 Years with Habitat for Humanity

Dow recently announced its recommitment to Habitat for Humanity International, marking 30 years of financial, volunteer and product contributions supporting Habitat’s goal of creating safe, affordable housing in partnership with low-income families around the world. In honor of the partnership, Habitat recognized Dow in Times Square in New York City with an electronic banner ad that appeared on International Corporate Philanthropy Day. As one of Habitat’s first corporate partners, Dow has been instrumental in the construction of nearly 39,000 homes in 24 countries on six continents. As part of its anniversary commitment, Dow volunteers are helping to build homes in 30 communities. The company has also pledged more than $1.3 million in funding and anticipates $4 million in gift-in-kind contributions of STYROFOAM™ brand insulation products. To date, Dow has contributed $56.9 million in cumulative giving to Habitat. Read more.

Haitians Turn Trash to Treasure

The impact of the 2010 earthquake in Haiti was staggering: more than 250,000 people dead, another 2 million left homeless, and the country’s economy shattered. In addition, millions of pounds of garbage (much of it plastic) had washed across the nation – clogging canals, fouling landscapes and harboring disease. Executives Without Borders turned to Dow for information about recycling. Through Dow’s relationship with Haiti Recycling Inc., of Port-au-Prince, a country-wide recycling program was created. In the new program, which involves multiple corporate partners, Haitians collect waste plastic and take it to local recycling centers to be processed and sold. They use the income to buy food and other essentials, and to send their children to school. The program also produces usable material for local and global production of consumer goods, offering potentially wider economic benefits.

Major United Kingdom Energy Efficiency Drive

Dow recently took center stage at the UK government’s Energy Efficiency Mission launch. Aimed at making the UK a world leader in energy efficiency, the program could potentially be replicated around the globe. Some 200 leaders from industry, government, and major trade associations gathered at the Royal Society in Westminster. Prime Minister David Cameron stressed that tackling climate change, reducing demand and improving energy efficiency had to be a shared endeavor between government, industry and other partners. Russel Mills, Dow’s global director, energy and climate change policy, gave the keynote address. The address focused on the need for comprehensive, coherent, and long-term strategic thinking behind the country’s energy efficiency strategy and stressed the need for governments to incentivize growth, work in partnership with industry, and support skills development. Dow representatives also participated in a series of workshops at the event.

dow.com/sustainability
Manufacturing Plan Developed for Kenya

Dow leaders met with Kenyan government leaders to present and discuss Dow’s Advanced Manufacturing Plan for Kenya as part of the Kenya Vision 2030 initiative. Dow’s experience in manufacturing in economies around the world can be leveraged in developing a national strategy with the right elements to encourage growth. Dow offered insights on how Kenya can continue to develop a prosperous and sustainable manufacturing sector. The plan is a framework for sustainable manufacturing growth through a focus on value-added projects, new processes and job creation in an energy- and resource-constrained environment.

One World Futbols’ Donation Outlasts Tough Soccer Students

Young players at the Steve Beeks’ Soccer School will have the chance to put their endurance skills to the test following the donation of 25 specially designed training balls from Dow Building Solutions UK. One World Futbols are made with Dow technology and are designed to be puncture-resistant, ultra-durable and require no pump or needle. Even if an over-eager squad member does manage to puncture a Futbol, it will not go flat. The donations were part of a Dow program in the UK to celebrate the Year of London, 2012. Many Dow products played a key role in the London 2012 Olympic and Paralympic Games, ranging from the wrap around the Olympic Stadium to insulation used in the Olympic and Paralympic Village. Dow has since funded a series of UK causes in an effort to extend the positive spirit of the London Games.

Membership in SAVE FOOD Will Reduce Food Waste

Through the efforts of Dow Performance Packaging, Dow has become an official member of the SAVE FOOD initiative – an important step in Dow’s efforts to address the global issue of food shortage and food waste. The initiative is a joint campaign of the United Nations’ Food and Agriculture Organization and Messe Düsseldorf GmbH; it is aimed at fighting global food loss by networking the know-how of participating organizations and enterprises. As a major supplier to the food packaging industry, Dow aims to develop the best possible packaging solutions to safeguard food. Membership with SAVE FOOD provides opportunities for Dow to engage with the industry and contribute to the development of next-generation packaging materials that will drive the reduction of food waste. Read more.

India Celebrates Women’s Role in Agriculture

Dow AgroSciences India recently participated in an event organized by the Farm Science Centre to acknowledge the role of women in agriculture and promote the safe use and storage of farm chemicals. The program, organized at Navsari Agriculture University, was attended by more than 3,000 women farmers, university and state agriculture department officials, and members of the local farming community. Dow AgroSciences India was the only agrochemical company invited to attend. The event created awareness of the fruitful role of women farmers in the evaluation of new technologies, while providing training in general agricultural practices and the safe use of pesticides.

GLAD Funds Scholarships for Students Supporting LGBT Equality

For 11 years, the Gays, Lesbians and Allies at Dow (GLAD) Employee Network has partnered with National Parents, Families and Friends of Lesbians and Gays (PFLAG) to promote science and technology scholarships for lesbian, gay, bisexual, transgender and ally (LGBT) students. Dow’s partnership with PFLAG’s national scholarship program demonstrates the Company’s vision for diversity and inclusion in the workplace. Students must show a strong interest and skill set in science, technology, engineering and/or math and support LGBT equality in their communities to receive the scholarship. Each recipient will receive $3,500 toward their college education costs.

Solutions Provided for Farmers in Kenya

Two Dow AgroSciences employees recently traveled to Kenya to educate subsistence farmers on better agricultural practices and help a local school grow food to feed its students. The trip was organized by AgriStewards, a mission group started by farmers in Lebanon, Indiana. The group began a partnership with the Missions of Hope School in Nairobi, Kenya, which serves meals to more than 10,000 students from preschool through high school and another 2,000 students from two boarding schools. Team members focused on educating and training, while working to get the next season’s crops planted. Greater agricultural output directly increases the local food supply, resulting in improved nutrition for local populations.

Dow supports STEM School in Egypt

Dow has a longstanding commitment to science, technology, engineering and math (STEM) education, a key focus area for Dow’s charitable efforts. Along with United States Agency for International Development and World Learning, Dow Egypt recently hosted 120 students from a newly established STEM school in Egypt at the Dow Cairo Formulated Systems House. The students learned about the latest innovations and products from Dow, as well as the raw materials, chemical interactions, sustainable thinking and manufacturing process expertise that go into producing a wide range of solutions.
Smart Solutions for Today

Our technologies enable our customers, and their customers, to develop more sustainable products and services.

Wind Energy Application Center Opens in Switzerland
Dow Formulated Systems recently opened a Global Wind Application Center in Switzerland. The center includes new system formulation capabilities, process testing equipment and semi-scale lab demonstration tools. This development gives Dow enhanced capabilities to deliver a complete solutions portfolio of resins, foams and adhesives to wind blade manufacturers. The lab expansion is a result of continuous efforts to provide reliable innovation to customers in the wind energy business while further strengthening Dow’s ability to advance technologies and solutions in sustainable energy.

Fine Particle Filter Receives Award
The TEQUATIC™ PLUS F-50 fine particle filter from Dow received the Infinite Possibility for Market Growth Award in the Awards for Composites Excellence program. The award was presented to Ershigs Inc., a Dow supplier, for creating a product with the potential to notably increase composites use while exemplifying innovation, creativity and commercial potential. Ershigs worked closely with Dow to produce the housing for the filter. Breakthrough, patented technology combines continuous cleaning, cross-flow filtration with centrifugal separation and solids collection in one device. It can handle a wide range of difficult-to-treat feed waters more cost-effectively and consistently than traditional technologies – in part due to the housing. The TEQUATIC™ PLUS filter continues to prove its value in field trials and installations. Read more.

Web Tool Addresses Water Challenges
In celebration of World Water Day, Dow launched a new digital platform to promote increased understanding of water use and expanded its work to implement clean water technologies around the globe. Dow is advancing filtration technology and working with customers, non-governmental organizations and governments around the world to identify risks and opportunities for securing more clean water for more people. Dow’s new interactive web tool, H2OME, illuminates everyday items that represent the output of Earth’s natural resources and the collective efforts of a cast of millions. From the intense amount of water used to mine copper for pots and pans, to the ultrapure water needed to ensure powerful electronics, the tool helps users to understand both the underlying challenges and progress related to water, while highlighting why global water cooperation is critical.

FASTRACK™ HD-21A Binder Improves Traffic Paint
Dow announced its new FASTRACK™ Polymer technologies to make traffic paint more durable, reliable, and sustainable at the American Traffic Safety Services Association Traffic Expo. FASTRACK HD-21A Binder was developed to increase durability and decrease dry time when striping roads with waterborne traffic paint. FASTRACK HD-21A Binder accelerates the dry speed of waterborne road stripes that are up to two times thicker than standard and can adhere to a variety of roadway surfaces. Dow Coating Materials recently conducted a Life Cycle Assessment demonstrating a substantially smaller environmental impact potential in 10 out of 10 categories, including a 250% reduction in volatile organic compounds, a 175% reduction in human toxicity and a 250% reduction in chemical oxygen demand. Read more.

Technology Provides New Hope for Farmers
Farming under most circumstances is difficult. Drought, disease, pests and price volatility all force farmers to make decisions that can determine their success or failure. Too often, subsistence farmers in Colombia make those decisions without the basic information necessary to choose wisely. The Grameen Foundation, which has long recognized the role of mobile technology in fighting global poverty, began a project for creating an information database that could be easily accessed with a standard mobile phone. Dow AgroSciences in Colombia joined the foundation and Bankers without Borders to develop a database with all kinds of information, such as agricultural best practices, pest control, disease control, soil management and market prices.

NOAA Federal Chemical Compatibility Tool Update
National Oceanic and Atmospheric Administration (NOAA) has worked with chemical industry experts to release a major update to a federal software program used to prevent chemical incidents and help protect emergency workers responding to these events. This newest version of the program is the result of a two-year-long collaboration between the agency’s chemical response specialists, technical experts from Dow and other companies, and the Center for Chemical Process Safety. The free software, known as the Chemical Reactivity Worksheet, predicts potential hazards from mixing chemicals and is designed for use by emergency responders and planners, as well as the chemical industry. The benefit of the system is a safer work environment for people in the chemical industry or responders to chemical incidents – and a safer world. Read more.

dow.com/sustainability
Plans Begin for Surface Water Ultrafiltration Plant
Dow Water & Process Solutions and HidroLotus LLC announced plans to build the world’s largest surface water ultrafiltration plant in Baku, Azerbaijan. Leveraging Dow’s advanced technology and world-class engineering support as well as the regional power of HidroLotus in civil engineering and water infrastructure, the plant will turn water from Ceyranbataran Lake into a valuable clean water resource. The project will use DOW Ultrafiltration IntegraPac™ skids and modules, a pre-engineered and ready-to-assemble solution allowing for quick installation to meet the project’s delivery schedule. Upon completion, the plant is projected to reach daily capacity of 520,000 cubic meters and become a primary drinking water source for Baku’s 3 million people. Read more.

Revitalize Home Demonstrates Real World Retrofit Savings
Dow and Cobblestone Homes have joined together on a living case-study to broaden awareness of opportunities for energy efficiency in retrofits of existing family homes. The demonstration home in Midland, Michigan, showcases practical, energy-efficient remodeling projects that offer homeowners tangible benefits in comfort, indoor air quality and energy savings. The energy-efficient upgrades will enable approximately 30% in energy savings annually, using only advanced insulation and air sealing. The Dow Revitalize Home is also expected to reduce carbon dioxide emissions by nearly 33% per year. It represents what needs to be done to improve the energy efficiency and sustainability of 130 million existing US homes. Read more.

New Technology Improves Hydraulic Fracturing
Preferred Sands, one of North America’s largest hydraulic fracturing sand manufacturers, has launched the first non-phenolic, resin-coating technology for hydraulic fracturing proppants – coated sand that “props open” the fracturing fissure. This innovative coating process allows for coated sand to be produced using less energy and minimizing environmental impact compared to phenolic resins. It also provides the industry with an outstanding performance-to-cost value, enabling users to substantially improve operations while curtailing expenses. It is the first product to be launched through a new strategic collaboration between Preferred Sands and Dow. The resin performs well under a range of conditions and depths while improving the sustainability of the drilling process.

Milk Pouches That Don’t Require Refrigeration
Liquid milk consumption in Colombia is on the rise – with a growth rate of 14 percent annually and 120 liters consumed per capita. Due to the country’s lack of access to cold chain logistics, transporting dairy products comes at a cost. Colombian dairy producers are constantly brainstorming ways to meet increasing consumer demands while keeping energy costs low and improving their bottom lines. Dow collaborated with Alquería, a leading dairy products brand owner in Colombia, to develop ultra-high temperature treated milk pouches. The specially packaged milk provides consumers with the same nutritional benefits as traditionally refrigerated milk but doesn’t require refrigeration – resolving many of the country’s logistical transportation issues.

VORAFORCE™ Composite Systems Certified for Vehicle Cylinders
Gastank Sweden AB offers high-performing and cost effective pressurized gas cylinders for automotive, commercial transportation, and industrial uses. The company recently obtained certification to the United Nations ECE R110 standard for its Type IV Compressed Natural Gas cylinders for motor vehicles, which utilize composite resin technology from Dow together with HiPer-tex glass fiber from 3B. VORAFORCE™ TW toughened epoxy systems from Dow enable the production of lightweight and durable composite cylinders with improved impact resistance, dynamic fatigue and low-temperature performance. Demand for natural gas vehicles is growing fast and Dow’s strong and durable composite pressure vessels enable better mileage and reduced emissions versus traditional metal cylinder tanks. Read more.

DOW POWERHOUSE™ Solar Shingles Offered on East Coast
NEXUS EnergyHomes, Inc., the 2012 Energy Value Housing Award Builder of the Year, is the first homebuilder to offer the revolutionary DOW POWERHOUSE™ Solar Shingle on the East Coast. The company will offer POWERHOUSE to homebuyers for the upcoming Nexus GeoSolar Communities and new-construction, luxury custom homes in the Baltimore-Washington Metropolitan area. Combining the best in net-zero energy achievable technologies under one roof provides homes with the ability to produce as much energy as they use, saving homeowners thousands of dollars per year in utility bills.

Solutions Enable Energy Efficiency at Bolshoy Ice Dome
Russia recently celebrated the one-year-to-go mark for the Sochi 2014 Olympic Winter Games at the Bolshoy Ice Dome. The Dome, which is one of Sochi’s most iconic venues, features a number of Dow contributions. Dow worked closely with contractors to provide a number of unique solutions, including insulation and heat transfer fluids that enable an energy-efficient and reliable, long-lasting ice rink. Dow’s science and technology-based contributions help deliver more sustainable, safer and higher-performing venues for the Games. Read more.
Responsible Operations

Our infrastructure has a positive impact on our Company, our communities and ourselves. Our operations are a model for others, wherever we operate.

Solvents Added to EPA Safer Products List
Scientists from Dow have partnered with the U.S. Environmental Protection Agency and the National Sanitation Foundation International to add three glycol ether solvents to the CleanGredient List. The agency-sponsored Design for the Environment Formulator Program is a highly visible and widely recognized consumer labeling program that offers the program label to company partners who design or reformulate high-performance, cost-effective, innovative products using low hazard chemical ingredients. The program recognizes best-in-class, wet-based consumer and industrial formulations with a label that allows purchasers to easily recognize the high-standard products. Additional Dow products may be submitted for CleanGredients evaluations in the future.

Riverside Site Earns Sanctuary’s Marlin Perkins Award
Dow’s Riverside site in Pevely, MO, received the World Bird Sanctuary’s Marlin Perkins Conservation Organization of the Year award in recognition of Dow’s strong commitment to fostering programs and educational initiatives that instil the importance of environmental preservation and water conservation. The award is given annually to the organization that best meets the overall criteria of exhibiting concern and interest in the plight of all wildlife species and their respective environments. Riverside was recognized for its significant contributions to protecting the Bald Eagle at Dow’s 20th annual 2013 Eagle Days event. The four-day program engaged more than 900 local fifth-grade students in hands-on activities and field experience to learn more about the habitat and conservation of birds of prey.

Louisiana Beautiful Receives DOWGives Grant
Keep Louisiana Beautiful, a non-profit volunteer organization dedicated to litter prevention and waste reduction, recently received $3,900 from the DOWGives Louisiana Community Grant Program toward its “Seeding for a Better and More Beautiful Tomorrow” project. The project will distribute cypress seedlings to the community while promoting environmental sustainability and protection of Louisiana’s natural resources. Read more.

Building Solutions Germany Certified as Member of EPD Body
Dow Building Solutions Germany has become a member of the German Institute for Construction and Environment, a body which manages Environmental Product Declarations (EPDs) for building products. The Dow Germany team received a certificate declaring its membership during the BAU 2013 exhibition in Munich earlier this year. Becoming a member will allow Dow Building Solutions Germany to create and publish EPDs for its products in future. EPD certificates are independently verified before they are published.

Strong Scores for Employee Health Management Practices
Dow recently assessed how it compares to peer organizations in using best practices for employee health management. The Health Enhancement Research Organization’s best-practice scorecard was used to assess six foundational elements of employee health management, including strategic planning, leadership engagement, program-level management, programs, engagement methods, and measurement and evaluation. Dow scored in the 90th percentile of the 814 participating employers – 35 percent above the average score for employers with 5,000 or more employees.
Goal Updates

Sustainable Chemistry

The percentage of sales from Dow products that are Highly Advantaged by sustainable chemistry increased from 4.3% in 2010 to 4.8% in 2011. Most of the 2010 Highly Advantaged sales remained Highly Advantaged for 2011, and as a group their sales grew by an impressive 27% from 2010 to 2011. Highly Advantaged sales new for 2011 were achieved due to improved manufacturing efficiency and growth in sales with sustainable chemistry advantages. A series of business review meetings was conducted with businesses having sales that are close to becoming Highly Advantaged. This engagement with business leadership continues to help further integrate sustainability into business discussions.

The Sustainable Chemistry Index (SCI) increased to 21.8 for 2011. The aggregate scores of sales with environmental and social benefits continued to increase from 2010 performance, and the manufacturing efficiency score recovered some of the ground lost in the previous year. The SCI continues to be an important point of discussion during business strategy reviews, as business interest and engagement around the SCI has reached unprecedented levels. The annual SCI analysis is in progress. The 2012 SCI and 2015 goal status will be reported in our 2Q 2013 sustainability report.

2015 Goal

- Increase the percentage of sales to 10% for products that are Highly Advantaged by sustainable chemistry
Addressing Climate Change, Energy Efficiency and Conservation

In the first quarter of 2012, Dow added an absolute Greenhouse Gas (GHG) commitment to Dow’s Climate Change goal – Dow will maintain GHG emissions below 2006 levels on an absolute basis for all GHGs. Dow will find ways to grow, but not grow GHG emissions. Related to this additional metric to manage our Dow’s footprint, Dow is investing in the development of a Net Impact Tracking Tool. This technique will sharpen Dow’s focus on the full life-cycle benefits of Dow products.

A sustainable energy future requires constant manufacturing efficiency improvement inside the Company, while maximizing the contributions of Dow products to improve efficiency and expand affordable alternatives. Energy is an enabler of global economic growth, and energy efficiency remains critical to meeting the world’s energy demands. Dow’s innovation engine is driving energy solutions that meet society’s needs and provide a competitive advantage to the Company and our customers.

By 2015, Dow has a goal to achieve an additional 25% improvement in Energy Intensity. The average Energy Intensity for the year 2005, adjusted for mergers and acquisitions, is the basis for calculating performance against this target. Dow’s goal for Energy Intensity for the full year of 2012 is 3,324 BTU/lb, or 80% of the value in 2005. Dow’s actual performance through Q1 2013 was 4,119 BTU/lb, which is 99.1% of the 2005 baseline.

Greenhouse Gas Reduction

Dow’s energy efficiency and chemicals management efforts have significantly reduced the Company’s GHG emissions footprint. As a result, Dow has prevented more than 270 million metric tons of GHG emissions from entering the atmosphere since 1990. This is equivalent to the annual emissions of more than 16 million single-family homes. Dow’s goal is to maintain GHG emissions below 2006 levels on an absolute basis for all GHGs, thereby growing Dow not the carbon. Dow will continue to focus on managing Dow’s footprint and delivering solutions to help customers manage theirs. For example, Dow’s insulation products contribute to greater energy efficiency, helping avoid millions of metric tons of GHG emissions per year.

Dow has reported to the Carbon Disclosure Project (CDP) since 2006. The CDP is a not-for-profit organization working to understand the risks and to drive greenhouse gas emissions reduction from business. In 2012, Dow reported on its 2011 Greenhouse Gas (GHG) performance and commitment to being a solution provider to the Climate Change challenge. The report scored 91 out of a possible 100 points. This excellent result highlighted Dow’s commitment to strong Governance and complete disclosure through transparent Emission Reporting.
Product Safety Leadership

At the end of 1Q 2013, 488 Product Safety Assessments (PSAs) had been posted to Dow's product safety website. Dow’s published Product Safety Assessments now cover products accounting for more than 87% of Dow’s annual revenue. Additionally 100% of Dow’s 222 High Priority chemicals are now covered by a PSA. We are on track to meet our 2015 Goal to have a Product Safety Assessment publically available for applicable Dow products.

PSAs are written for the lay public and cover topics such as basic hazards, exposure potential and risk management measures. They complement other product safety, handling and stewardship documents, which are part of the product responsibility 'package' Dow offers to strengthen relationships with communities and customers. This holistic approach enables Dow customers and the communities in which Dow does business to stay informed about the Company’s products and the plants that produce them. Dow is dedicated to providing the public with accurate information and building trust as it uses technology to develop better products.

Cumulative Product Safety Assessments

Sales Covered by Assessments

Breakthroughs to World Challenges

The graphic is a visual representation of the ongoing process of using Dow science and technology to find breakthroughs that can help make the world a better place to live. In June, we announced Omega-9 healthy oils as Dow’s first Breakthrough to World Challenges. We have a robust pipeline of candidates for further Breakthroughs to meet our goal, and look forward to announcing more Breakthroughs as they meet the criteria.
Contributing to Community Success

As Dow continues its drive to engage in community success, St. Charles Operations (SCO) in Louisiana is the latest site to be surveyed. SCO showed positive improvement in the important “quality of life” measure, with 46 percent of respondents noting that the Company had a favorable impact in this area, up from 40 percent in 2007. The measure from SCO is derived from those who have a generally good impression of Dow and have firsthand knowledge, or at least awareness, that Dow has positively impacted their community in some way.

Globally, all Dow sites to date that have been re-measured have improved on this indicator. The chart below shows their progress.

In SCO, the data also show a 7 percent increase in general impression, from 64 percent in 2007 to 71 percent in 2012. This score is derived from respondents who are least a little familiar with Dow. To date, all Dow sites engaged in the Contributing to Community Success Goal have improved on this re-measure.

These Community Success measures are important data points as Dow sites determine the best ways to engage with their communities. It is also important to note that these positive numbers are a direct result of Dow’s continued commitment in working with key stakeholders to actively engage in quality of life issues that have been identified by our communities. In 2013, three more strategic Dow sites will be engaged in re-measures. Plans also are underway to re-measure Louisiana Operations in Plaquemine, as well as sites in Aratu, Brazil, and Zhangjiagang, China, later in 2013.

Another important activity this year is the launch of the Community Success Process Guide and instructional video, which outlines the steps needed for any Dow site to implement a robust Community Success process, regardless of the site’s location, size or breadth. The Guide will be available in second quarter, 2013.
Local Protection of Human Health and the Environment

Dow leads the way across virtually every facet of environment, security, health and safety performance. Dow was one of the first companies to introduce innovative protection equipment for workers – in 1897. And today, Dow engages our neighbors through Community Advisory Panels and more. Dow’s Vision of Zero is a leadership attitude and a corporate culture that is committed to zero accidents, zero injuries and zero excuses.

Dow announced 2015 goals to achieve on average a 75% improvement of key indicators for Environmental Health & Safety (EH&S) operating excellence from a 2005 baseline. These indicators include personal injury/illness of Dow employees and contractors, loss of primary containment incidents, process safety, severe motor vehicle accidents, emissions and transportation related incidents.

During the first 10-year goal period, the Company reduced the rate of injury and illnesses per 200,000 hours of work time by more than 80%. During the 2005 to 2015 timeframe, the goal is to achieve a similar reduction in the rate. Excellent progress is being made: Dow workers are now 15 times less likely to experience an injury or illness than the U.S. manufacturing rate reported for 2010.

Best of the Best Injury Performance

Recently, Dow benchmarked its injury performance against that of eight other major petrochemical companies; in terms of total rate and severity, Dow had the best performance. Dow’s total injury rate last year was 0.20 – well under the target of 0.24. Not only were total injuries reduced, but our Day Away from Work Cases were reduced by nearly one half.

We are off to a great start in 2013. At the end of the Q1 2013, our total injury rate stood at 0.15, which is better than target. While that is an impressive start, we still need to stay very focused, particularly as we enter the mid-year period where injuries and other unplanned events tend to spike. We made significant progress in tempering this spike in 2012, when we only had a 15% increase compared to the 40% average increase in injuries during previous mid-year periods.

Dow is also performing well with respect to reducing severe Injuries. Not only have we had a nearly 40% reduction in Day Away from Work (DAW) cases year-over-year for Q1 2013, but in March, we achieved for the first time ever ZERO DAW cases for an entire month! As you can see, we are getting closer and closer to making the vision of “ZERO” become a reality.

At the end of Q1 2013, the Injury and Illness rate was 0.15 per 200,000 hours of work. This is a 25% improvement compared to 2012. The 2015 Goal of 0.12 per 200,000 hours represents a 75% improvement from 2005.
At the end of Q1 2013, the Injury and Illness Severity rate was 0.41 per 200,000 hours of work. This is 43% better than our performance in 2012 and below our target for 2015. The 2015 Goal of 0.67 per 200,000 hours represents a 70% improvement from 2005.

At the end of Q1 2013, the Company had experienced 39 Loss of Primary Containment incidents. When annualized, the implied total of 156 would outperform 2012 results and is on track toward the 2015 Goal of 130 or fewer incidents. The 2015 Goal represents a 90% reduction from 2005.

At the end of Q1 2013, the Company had experienced 2 Process Safety Incidents (PSIs). When annualized, the implied total of 8 incidents for 2013 would be a considerable improvement over an excellent performance in 2012 and remain below the 2015 Goal. The goal in 2015 is to experience less than 25 PSIs, as classified by the new Center for Chemical Processing Safety and American Chemistry Council PSI definitions.
At the end of Q1 2013, the Severe Motor Vehicle Accident (MVA) rate was 0.19 accidents per million miles driven, better performance than 2012 and better than our target for 2015. Severe MVA was not measured in the heritage Rohm and Haas Company. The 2007-2009 values represent the heritage Dow population.

This quarter, Dow is providing an update for metrics that target achieving a 30% reduction in emissions levels by 2015. In each case, the results are better than Dow’s goal line as of the end of 2012.

Volatile organic compounds (VOCs) are found in the air as a result of naturally occurring processes and a variety of chemical processes. The Volatile Organic Compounds total is down by 29% when compared to 2005.

Nitrogen oxides (NOx) are produced during combustion, especially at high temperature, and contribute to acid rain. The NOx (nitrogen oxides) total was reduced 35% since 2005.

Priority compounds are a category of chemicals defined by Dow. Priority Compounds are comprised of chemicals with persistent, bioaccumulative, and toxic hazards, and chemicals with carcinogenic, mutagenic, and reproductive hazards. The Priority Compounds total is down by 42% when compared to 2005.
At the end of Q1 2013, Dow had experienced 4 Hazmat Transportation Loss of Primary Containment (LOPC) events, one classified as Highly Hazardous. When annualized, the implied total for 2013 is 13. Our 2015 Goal to reduce all Hazmat Transportation incidents to 14 or less represents a 75% improvement from 2005.

By reducing the number of tonne-miles of Highly Hazardous materials, Dow reduces the chance of in-transit incidents that could impact communities and areas through which Dow’s products travel. Annualized figures indicate that we would experience about 803 million tonne-miles shipped via road and rail. The goal for 2015 is to reduce these shipments to less than 705 million tonne-miles, representing a 50% reduction from the baseline in 2005.
Science for a Sustainable World

We only have one planet, with limited resources. So everything we do and how we do it matters. Dow is committed to minimizing our own footprint and to delivering solutions that help our customers and the rest of society do the same. The world needs solutions for big challenges like energy, climate change, water, food, housing and health. And Dow has some of the world’s best scientists and engineers dedicated to solving world challenges through innovation. When we do that, it’s not just good for the planet, it’s also good for business.

Dow remains committed to continuously improving its performance and publicly reporting its progress. Please visit dow.com for the latest Dow sustainability, business and performance news, and to share your comments or submit questions.