

Sustainability Matters
cabot corporation's 2011/2012 sustainability update

Cabot is a global specialty chemicals and performance materials company headquartered in Boston, Massachusetts, USA. Our principal products are rubber grade and specialty grade carbon blacks, fumed metal oxides, inkjet colorants, activated carbons, aerogel and cesium formate drilling fluids. Cabot and its affiliates have manufacturing facilities and operations in over 20 countries. Cabot's business was founded in 1882 and incorporated in the State of Delaware in 1960.

We appreciate your interest in Cabot, and we invite you to read this updated report to learn how we continue to incorporate sustainability into everything we do.

# **Our Products**

| Segment                    |   | <b>Product Lines</b>               | Applications  |
|----------------------------|---|------------------------------------|---|
| Reinforcement<br>Materials |   | Rubber Blacks                      | Tires, hoses, belts, extruded profiles, molded goods  |
| Performance<br>Materials   |   | Specialty Carbons<br>and Compounds | Toners, coatings, adhesives, sealants, plastics, pipe, wire and cable, electronics, inks, film, fiber, plastic molding, cable jacketing |
|                            | 1 | Fumed Metal<br>Oxides              | Silicones, composites, adhesives, sealants, coatings, toners, polishing slurries  |
| Advanced<br>Technologies   |   | Specialty<br>Fluids                | Oil and gas well drilling and completion fluids   |
|                            |   | Aerogel                            | Specialty insulation, subsea pipelines, building and construction, coatings, apparel  |
|                            |   | Inkjet Colorants                   | Small office and home office, commercial and industrial inkjet printing   |
|                            |   | Security<br>Materials              | Covert security taggants  |
|                            |   | Elastomer<br>Composites            | Tires, defense, mining, industrial rubber goods   |
| Purification<br>Solutions  |   | Activated Carbons                  | Environmental protection, air and water purification, food and beverages, pharmaceuticals and catalysts                                 |

This Sustainability Update summarizes Cabot's performance and progress since the issuance of our 2010/2011 Sustainability Report. All data included in this update is for calendar year 2011, with the exception of financial data which is based on Cabot's fiscal year from October 1, 2010 through September 30, 2011. This update also includes information on Cabot's sustainability activities from 2011 through the first half of 2012. The data and information contained in this report does not include Norit N.V., which we acquired in July 2012.

Additional information on Cabot's sustainability efforts can be found in our comprehensive 2010/2011 Sustainability Report which was completed using the Global Reporting Initiative guidelines. The full report is available on our website at www.cabotcorp.com/sustainability.

# **Sustainability Matters**



Thank you for taking the time to review our progress in sustainability. It is an important measure of Cabot Corporation's continued success. Our product offerings and portfolio of businesses are well positioned to address many critical global trends such as energy efficiency, increasing globalization and mobility. As we continue to improve in our own sustainability efforts, we remain focused on process improvements in our manufacturing operations and the development of new products and technologies in line with these megatrends that meet critical customer needs.

Our top priority is always the safety and well-being of our people, employees and contractors alike. With the continuation of our strong focus on safety, we have been able to reduce total recordable injuries by over 25% in the past five years. Despite our notable progress, we experienced two fatalities in late 2011. These tragic events have reinforced our commitment to building an even stronger safety culture. We have increased our focus on incident prevention by continuing to engage and train our employees, identify and mitigate our risks, and promote safety in everything we do.

Cabot's commitment to social responsibility starts in the communities where we operate. Our employees continue to demonstrate an unparalleled enthusiasm for supporting our communities through numerous outreach efforts. These initiatives and activities help us stay aligned with the priorities of the community and ensure that our presence continues to be welcome.

In July 2012, we completed our acquisition of Norit, the world's leading producer of activated carbon. Activated carbon is integral to a wide array of technical solutions that purify air, water, food, beverages and many other consumer products. Norit, and their portfolio of activated carbon products, will give Cabot a direct entry into the air and water purification markets. Further, it is a high-growth, high-margin, non-cyclical business, demonstrating that what is good for the planet is also good for shareholders.

Cabot's actions are driven by our values of integrity, respect, excellence and responsibility. Our commitment to sustainable business practices, transparency and safety remains steadfast. In addition, we are dedicated to developing superior products and innovative solutions for our customers around the world to better meet their needs today and in the future.

I am very proud of the significant progress we have made along our sustainability path and the achievements we have accomplished since our last sustainability report. I recognize this journey takes time, and I look forward to the continued contributions of the more than 4,000 Cabot employees around the globe.

Sincerely,

President and Chief Executive Officer

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Performance 2

At Cabot, we are committed to bringing value to our customers and shareholders. In 2011, for the second straight year, we delivered record earnings. We achieved our goal of \$3 adjusted earnings per share and we delivered on this commitment a full year ahead of schedule. Our strategic focus on margin improvement continues to be a critical driver of performance, exemplified by our year-over-year increase in total segment earnings.

Throughout the past year, we also made several significant investments to support our long-term strategy to expand in emerging markets and accelerate the growth of the company.

With our joint venture partner China National Bluestar Group, we completed an expansion of our fumed silica facility in Jiangxi Province, China. The site now produces up to 15,000 metric tons of product annually, with the potential to further expand to 20,000 metric tons as demand in the region grows. We also completed construction of a masterbatch plant at our existing carbon black facility in Tianjin, China. This new plant has an annual capacity of approximately 45,000 metric tons and expansion capacity to 80,000 metric tons. The state-of-the-art manufacturing facility is a joint venture with Shanghai Coking and Chemical Corporation, a subsidiary of Shanghai Huayi Group Company, Ltd. This expansion in combination with our new facility currently under construction in Xingtai continues our commitment to expanding operations in China.

Cabot invested \$10 million to increase production capacity at our Inkjet Colorants facility in Haverhill, USA. The

#### **Cabot Corporation Financial Highlights**

(in millions, except per share amounts)

| Fiscal Year                         | 2009     | 2010    | 2011    |
|-------------------------------------|----------|---------|---------|
| Operating Results                   |          |         |         |
| Operating revenues                  | \$2,108  | \$2,716 | \$3,102 |
| to Cabot Corporation                |          | \$154   | \$236   |
| Per diluted common share            | \$(1.25) | \$2.35  | \$3.57  |
| Financial Position                  |          |         |         |
| Total Assets                        | \$2,676  | \$2,886 | \$3,141 |
| Net property, plant and equipment   | \$972    | \$937   | \$1,036 |
| Stockholders' equity                | \$1,237  | \$1,417 | \$1,616 |
| Adjusted return on invested capital | 2%       | 14%     | 16%     |

project, completed in March 2012, doubled production of two pigment dispersion product lines. We are also working on additional expansions in South America, Asia and Europe.

In January 2012, we sold our Supermetals business. Additionally, we closed our Hong Kong masterbatch facility and integrated masterbatch production at our new facility in Tianjin, China. These strategic moves have helped to focus our resources on growth initiatives in our other businesses and support new growth opportunities such as our recent acquisition of Norit.



# Xingtai, China Joint Venture

With joint venture partner Risun Chemicals Company, Ltd., we broke ground on a new carbon black manufacturing facility in Xingtai, China. The new facility will have an initial manufacturing capacity of 130,000 metric tons per year, and will enable us to increase our carbon black manufacturing capacity in China by 25%.

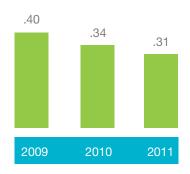
Cabot continues its Drive to Zero—our effort to achieve zero injuries, zero spills and zero environmental non-conformances. We track and monitor our progress through a variety of metrics that provide a clear picture of our current and historical performance.

While we achieved a world-class total recordable incident rate in 2011, the increase in the severity of injuries has caused us to increase our focus on injury prevention efforts. Renewed efforts are underway at all locations to identify and minimize the risk of injuries to all of our employees and contractors.

Our goal of safe plant operation is realized through consistent application of our process safety management (PSM) program. Changes to our manufacturing processes undergo process safety reviews to understand what new hazards might be introduced by the modifications and how to properly manage those hazards. Over the past year, we added resources to our PSM staff to provide additional expertise to our plants. Utilizing these new resources, we have begun a process by which individual plant hazard identification results are independently reviewed to ensure consistency and quality of the assessments.

#### **Total Recordable Incident Rate**

measures number of total recordable injuries/200,000 hours worked



# Total Iniuries

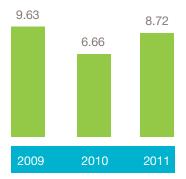


First Aid Incidents

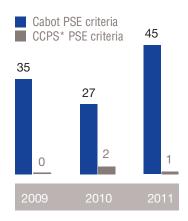
# 2009 2010 2011

#### **Severity Rate**

measures number of lost work days/ 200.000 hours worked



#### **Process Safety Events**



\*Center for Chemical Process Safety



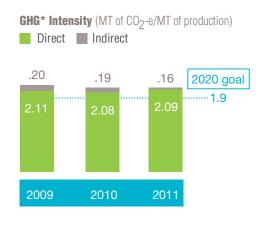
#### **Milestone Achievements**

The Cabot Chairman's Award is presented to plants that operate more than six years without any recordable safety incidents, environmental non-conformances or significant process safety events—while earning positive SH&E audit results. Our Jiangxi, China and Shimonoseki, Japan plants were the first recipients of this award in 2012.

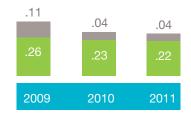
The Cabot President's Club Award is presented to plants that have shown leadership in safety by achieving three years without a recordable incident, or one million person-hours and six months without a recordable incident. The award has been presented to facilities in Billerica, USA; Campana, Argentina; Frankfurt, Germany; Haverhill, USA; Jiangxi, China; Merak, Indonesia; Midland, USA; Shimonoseki, Japan; and Tianjin, China.











# **Commitment to Progress**

Cabot is committed to delivering high quality products in an environmentally responsible manner. We work hard to maintain compliance with our operating permits and are constantly looking for ways to reduce waste and improve efficiency. Over the past year, we have continued to make strides to minimize our environmental footprint while still meeting our customers' needs.

We invested over \$35 million in fiscal year 2011 on environmentally-related capital projects to improve efficiency and maintain regulatory compliance. Some of these projects helped us make progress on our goal of a 20% reduction in greenhouse gas emission intensity by 2020, using 2005 as our baseline year.

One example is the heat recovery advancement project to convert exhaust heat to steam at our fumed metal oxides plant in Rheinfelden, Germany. The steam produced is used in the plant if needed or sold to a neighboring company. This project has the potential to reduce GHG emissions by 1,400 MTs each year. We have several projects in the works that will help us further reduce our GHG intensity and keep us on track to meet our goal.

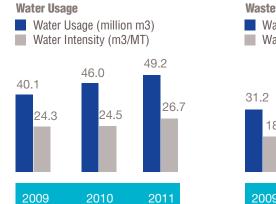


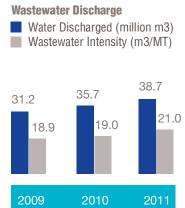
## **Botlek Energy Center Turns Steam into Electricity**

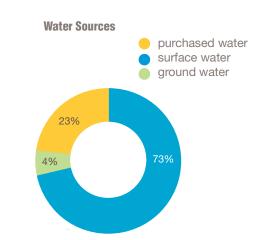
We continue to invest significant funds in projects that recover energy at many of our operating locations. We recently constructed an energy recovery plant to generate electricity at our site in Botlek, The Netherlands. The energy center takes waste steam and turns it into electricity through a steam turbine generator set. The generator produces all of the power needed for operations at the Botlek site. In addition, we also export up to 6.5MW of electricity to supply the local community and electricity grid.

# **Focus on Emerging Issues**

Water is a crucial part of Cabot's operations and we recognize the value of this important resource. In 2012, we embarked on the development of a strategic Water Management Plan to help identify water reduction and recycling opportunities. This plan will highlight efficiency opportunities and also evaluate current and potential water issues in the communities where we operate so we can better plan for our operations in the years to come. We will share our progress on implementing the Water Management Plan in future reports.

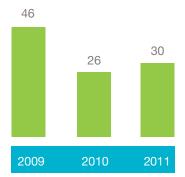






Please note: Water and wastewater data for 2009 and 2010 have been updated from prior reports to reflect improvements in data collection and inclusion of a previously excluded non-contact cooling water stream.

#### **Environmental Non-Conformances**



The number of environmental non-conformances, our internal metric tracking reportable spills, regulatory violations, complaints and permit deviations, increased slightly in 2011. By sharing the learnings from these incidents across the company and increasing focus on spill prevention and permit compliance, our environmental performance has improved thus far in 2012. In fact, by focusing attention on spill prevention and storage area containment, we reduced the number of reportable spills by one third from 2010 to 2011.



#### **Innovative Environmental Protection**

Our Shanghai plant is the first carbon black plant in China and throughout Cabot to adopt a new tail gas firing boiler that includes lower nitrogen oxide combustion technology, emissions controls and a de-sulfurization technology for the boiler flue gas treatment. This project has had a positive impact on the air quality in the vicinity of the plant.

The combination of these advanced environmental protection systems enables the plant to sell high quality steam to our partner, Shanghai Coking Company. The steam can be used to generate electricity for Shanghai Coking or for other steam users to help reduce the need for fossil fuel-based steam boilers.

Innovation 6

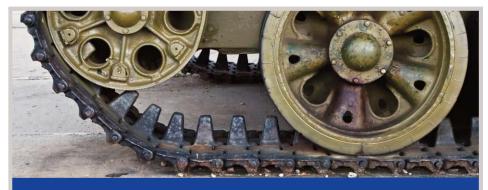


## **Aerogel Performs in New York**

TEN23, a 12-story apartment building in New York, has become the world's first large residential project to use our Lumira<sup>TM</sup> aerogel within its window system. Our material, used within Advanced Glazings' Solera® insulated glass units, allows for maximum daylight to enter a building, while providing superior levels of insulation and sound resistance.

As the market for green and sustainable building construction continues to grow, we understand that energy efficiency and sustainability are top priorities for architects in the design and construction of today's buildings. TEN23 is a testament to the need for products that can provide high performance insulation and energy efficiency, while also delivering additional benefits such as natural lighting and noise reduction. Our collaboration with Advanced Glazings is one example of how our technical partnerships can deliver innovative products containing Cabot's aerogel materials to meet the needs of the market today and in the future.

Innovation is an important driver both in creating a more sustainable world and in our future growth and success. We are committed to continuing to work with our customers to develop innovative solutions and products that deliver significant value and enable our customers to meet their goals and excel within their markets. Our products are generally based on technical expertise and innovation in one or more of our three core competencies: making and handling very fine particles; modifying the surfaces of very fine particles to alter their functionality; and designing particles to impart specific properties to a composite. We focus on creating particles with the composition, morphology, surface functionalities and formulations to support our customers' existing and emerging applications.



**Transfinity: A High Performance Line of Elastomer Composites** 

Our Elastomer Composites business launched game-changing technology, the new Transfinity™ high performance line of elastomer composites. Transfinity materials dramatically improve elastomer durability and deliver transformational performance in abrasive wear and vibration fatigue applications. Transfinity products are composites made from elastomer latex, which is a liquid form of rubber, and reinforcing particles, such as carbon black. The products are produced in a patented process that creates composites that are stronger than conventional elastomer materials. Customers in the mining, defense, automotive and aerospace industries can use Transfinity materials to engineer significantly longer lasting and/or smaller products for demanding applications.



# **Advanced Battery Products**

We debuted our PBX51™ performance additive and LITX50™ conductive additive, which will help accelerate the growth of energy-efficient vehicles and consumer electronics. The PBX51 performance additive is designed to help micro-hybrid automotive manufacturers solve a major barrier to mass market adoption by enabling longer lasting, smaller battery performance at a lower cost. The LITX50 conductive additive is designed to solve the challenge of getting the most power and energy out of a lithium-ion battery for use in electric and hybrid vehicles as well as high-end consumer electronics, at the lowest cost.

People 7

With over 4,000 employees worldwide, Cabot continues to create a diverse environment rooted in values and sustainability. In 2011, we hired approximately 600 employees globally. Roughly 98% of all Cabot employees are full-time and the remaining are part-time. In addition, 99.3% of our employees are permanent.

# **Training and Education**

We have a long-standing commitment to conducting business ethically and in compliance with laws wherever we operate. As part of our continual efforts to improve and enhance Cabot's compliance programs, we began a new training program that requires all employees to complete a course on Cabot's Global Ethics and Compliance Standards on an annual basis. In addition, employees complete specific subject matter training relevant to their job functions.

Over the past two years, our Human Resources professionals and the senior leadership team have been working together to provide a new development program for leaders across Cabot. The "Developing Leaders" program was launched in 2011 and will be rolled out to approximately 1,000 employees globally throughout 2012. The purpose of the program is to provide first line leaders in all functional areas throughout the company with the formal skill development and knowledge training for them to be outstanding leaders. Employees participate in a four component program focused on Cabot values and compliances, location specific issues, skill development and function related topics.

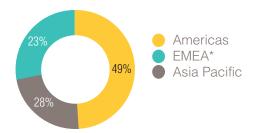
In addition, we completed Emergency Management Plan training for all sites to address emergency response and crisis communications in each region. The training included crisis communication and media skills to help Cabot employees respond quickly in the event of an emergency.

In August 2011, Cabot began workshops to introduce employees to a renewed set of corporate values and show how they guide our day-to-day work life. Almost all of our employees around the world have attended one of over 150 sessions.



We track training on a site-by-site basis. The above chart reflects the average hours of training from those locations that track training based on an employee's role.

**Cabot Workforce by Region** (as of 12/31/2011) Total number of Cabot employees: 4,160



\* Europe, Middle East, Africa



#### **Texas Workforce Commission Lauds Cabot Pampa**

The Texas Workforce Commission selected Cabot Pampa for a Texas Manufacturing Star Award. Businesses are chosen for the award based on local economic impact, partnerships with economic development organizations or training providers and workforce training and development efforts. Specifically, the award recognizes Cabot's efforts to train its workforce and keep manufacturing jobs in Texas. We employ 120 people in Pampa and offer tuition support to help employees gain skills needed for career advancement and work with local colleges to establish additional skills training programs.

People 8

Cabot's global philanthropic efforts focus primarily on science and technology education, safety and health, environmental improvements and programs to improve health and human services in the communities where we operate. Over the past year, we have delivered over \$1.9 million in total donations through the Cabot Corporation Foundation and our local facilities. Underscoring our belief that education is a cornerstone of community sustainability, we enthusiastically support programs to improve science and technology literacy.

- For over 20 years, Cabot has been the lead sponsor of the Massachusetts State Science & Engineering Fair's middle school science fair. Cabot employees participate in the middle and high school science fairs as masters of ceremonies and expert judges.
- We have been a principal funder of the Epiphany School's science program since the school's founding fifteen years ago in Boston. This independent middle school provides tuition-free education for children from economically disadvantaged families.
- We help fund student participation in science and engineering programs provided by TechGYRLS Science and Technology Program in Albuquerque, USA and the University of Massachusetts Lowell DESIGNCAMP.
- We provided funds to support science programs at the Hill View Montessori Charter School in Haverhill, USA and the science and math programs in the Independent School District in Pampa, USA.

Examples of other projects we have recently supported include:

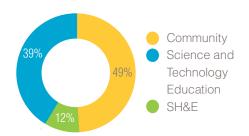
- Purchasing a hematology analyzer for the San José Hospital in Campana, Argentina;
- Supporting the United Nations Association of Greater Boston with a grant to help fund student participation in the Model UN program;
- Supplying adaptive technologies in Colombia including assistive and rehabilitative devices for people with disabilities; and
- Funding the Advanced Coronary Treatment Foundation's CPR and defibrillator training to students in Lambton-Kent and Chatham, Canada.



#### **Bridging the Distance**

We provided funds to build three additional classrooms and one office at the Warnasari village primary school, located a few kilometers from our Cilegon, Indonesia plant. Prior to the project, about two-thirds of the students travelled a significant distance to attend another school. The expanded capacity permits approximately 400 more students to attend school close to their homes and increases school attendance.

## **Funding by Giving Category**





Cabot presents award to middle school science fair participant.

# Family Hospice Receives Essential Upgrades

The Cabot Foundation donated funds to Tŷ Hafan, a family hospice based in Wales that offers comfort, care and support for children with terminal illnesses and their families. The funds will be used to replace the existing spa pool with an allinclusive hydrotherapy pool, which is an essential part of the care services program. The pool will be used by the children to help stimulate their minds and support their physical therapy. In addition, Cabot's contribution will allow the organization to refurbish its family rooms with new adaptable beds to cater to various family sizes and groups including parents, grandparents and siblings.

# Safety, Health and Environment Highlights



# Shimonoseki Employees Achieve Safety Milestone

In February 2012, the Cabot Shimonoseki, Japan manufacturing facility reached 10,000 days without experiencing a recordable injury. The site's zero incident culture extends across all critical performance areas, from safety to environmental compliance, controls, quality and reliability. The safety culture begins with an engaged management team that inspires all members of the site to become active participants in continuous improvement processes that encompass the full scope of the operation. In one year, more than 1,500 improvement proposals were evaluated by eight safety teams for consideration and implementation. On average, this means that nearly 36 safety improvement opportunities were identified by each employee.



## Jiangxi, China Site Awarded as Model Enterprise in Safety

The Jiangxi Administration of Work Safety awarded Cabot Bluestar Chemical Co., LTD as a Jiangxi Model Enterprise in Safety. The appraisal committee selected Cabot after reviewing the company's work procedures, safety programs and site management.



## Tuscola Facility Earns Sustainability Award from Illinois Governor

Cabot was named a 2011 Illinois Governor's Sustainability Award winner for outstanding performance at its Tuscola, USA facility. The award, presented by the University of Illinois Sustainability Technology Center, recognized the Tuscola site for accomplishments in recycling, reduced water and electricity usage and packaging efficiency. Tuscola achieved this honor by implementing projects that save nearly 10 million gallons of water annually, recycling 76 tons of material and reducing electricity usage enough to power 17 homes.



#### Cabot Restores Waterway in Gainesville, Florida

Cabot invested approximately \$500,000 to clean up Springstead and Hogtown Creeks in Gainesville, USA. Cabot temporarily rerouted the creeks and removed contaminated sediments from a number of locations. Precautions were implemented to minimize the environmental impact of the work, which helped improve water quality and enhance the aquatic habitat of the streams. Cabot also donated \$30,000 to the City of Gainesville for improvements at the Loblolly Woods Nature Park adjacent to the creek. The funds will be used for new signage and fencing, installation of new overlooks and improvements to the boardwalk to provide better accessibility.

# **Awards and Recognition**

We recognize and thank all Cabot employees, contractors, and partners for the hard work that stands behind the progress contained in this report. Since our last report we have continued to focus on the priority issues and have made solid progress in many areas. For example:

- We reduced our total recordable injury rate and continued to invest time and money in making Cabot a safe place to work;
- We continue to invest in improving the foundation of our process safety management program both in terms of resource deployments and standard verification processes;
- We launched training and development efforts for our leaders to help them manage a myriad of issues, especially safety and environmental programs; and
- We continue to develop innovative products that will provide solutions for the future and process improvements that can reduce our impact on the environment today.

Our progress in safety, greenhouse gas emissions reductions and waste minimization strengthens our resolve to focus on other important areas such as preventing severe incidents and reducing our water footprint. The general increase in the severity of injuries from last year has resulted in a renewed commitment to reach our goal of zero: zero injuries, zero process safety events and zero environmental non-conformances. This is an important goal for all of us at Cabot, and we will not be satisfied until we achieve it.

Thank you for your interest in Cabot. I encourage you to provide us with your comments as we continue our sustainability journey.

Sincerely,

Martin J. O'Neill,

Senior Vice President, Safety, Health and Environment

**Cabot Corporation** 

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# **Cabot Named to Calvert Social Index**

In March 2011, Cabot was named to the Calvert Social Index®, a broad-based, rigorously constructed benchmark for measuring the performance of US-based, socially responsible companies. Cabot was added after successfully meeting the sustainable and responsible standards set for the Index. Cabot's inclusion in the Index affirms its commitment to environmental disclosure and management.

