



**2011 Sustainability Progress Report**





# *Welcome to* **The Global Collaboratory™**

**DuPont science is driving inclusive innovation to help solve the world's greatest challenges.**

Our sustainability goals are tied to business growth in areas of agriculture and nutrition, safety and protection, materials, chemicals, electronics and communications, and energy. As the world's population approaches nine billion by 2050, we face unprecedented challenges to sustainably address the basic human needs of food, energy, and protection. So we are building alliances around the world. That's how we work best: alongside others, applying our vast range of scientific expertise and knowledge to complex problems. We think of this way of working as a collaboratory.



## **FOOD**

**Together, we can  
feed the world.**

One in seven people on earth goes to bed hungry each night. Ensuring that enough healthy, nutritious food is available for people everywhere is one of the most critical challenges facing humanity. We commit 60% of our R&D dollars to ensuring that the world's growing population has enough food.



## **ENERGY**

**Together, we can  
build a secure energy future.**

By 2035, global demand for energy will increase by 36%. DuPont is uniquely positioned to address the rising demand for secure, environmentally sustainable and affordable energy sources. With a growing population, we will need to use our existing resources more responsibly and find new and cleaner energy sources.



## **PROTECTION**

**Together, we can  
protect what matters most.**

A growing global population places increased pressure on people and the environment. And as the world develops, humanity places greater value on both life and earth. One of our greatest challenges in the coming decades will be adequately protecting humanity and the world we share.



DuPont's vision is to be the world's most dynamic science company, creating sustainable solutions essential to a better, safer, healthier life for people everywhere. As often as we repeat these words, we remind ourselves that they are more than an inspirational goal — they inform our everyday reality and are part of the way we do business at DuPont.

In support of that vision, we are currently focused on developing sustainable solutions for three global challenges: feeding the world, decreasing our dependence on fossil fuels, and protecting people and the environment. These challenges line up with DuPont's unique scientific strengths. They offer outstanding business opportunities for our Company and will test our ability to deliver solutions that are both innovative and sustainable. In 2010, we spent \$1.7 billion in research and development. About 85 percent of our R&D resources went to support science related to these three megatrends.

But innovation is not the only measure of success. Ultimate success depends on solutions that are sustainable. Sustainability is part of how we operate at DuPont, and it is embedded in our science-driven innovation. Since 1990, we have reduced our absolute energy use by 6% while increasing production 40%. We currently source 6.5% of our global energy requirements from renewable sources. In 2010, we generated revenue of \$1.6 billion from products that help our customers or the final consumer reduce their greenhouse gas emissions. Much of the increase was from revenue growth in key areas like photovoltaics and from engineering polymers used in light weighting of vehicles. We estimate that these products have reduced greenhouse gas emissions in our supply chains by over 6.5 million metric tons from 2007 to 2010.

**“In 2010, we spent \$1.7 billion in research and development. About 85 percent of our R&D resources went to support science related to these three megatrends.”**

In 2011, we completed the acquisition of Danisco, a company with a shared commitment to sustainability. We look forward to providing results from our joined efforts in this progress report in the years to come.

We believe that the global companies that succeed in responding successfully and sustainably to 21<sup>st</sup> century challenges will be those that master the art of collaboration. We are building alliances with customers, companies, governments, NGOs, visionaries, thought leaders, and others around the world in an effort to address needs sustainably at the local level. We've adopted a new model that we call *inclusive innovation* — solving problems by designing solutions in cooperation with those who will benefit directly from the product. We welcome others to join us in this endeavor as we uncover unmet needs and respond to them. Our objective is to improve the lives of people everywhere, and together, we can accomplish what no one can do alone.

Ellen Kullman  
Chair of the Board &  
Chief Executive Officer





In 1987, the Bruntland commission gave us its now classic definition of sustainable development: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” We launched our sustainability work soon after the Bruntland report issued and sustainability continues to be a driving force in our growth strategy.

Energy efficiency is a major focus for DuPont. In May, we brought the site energy champions together to celebrate achieving our 2010 energy goal.

Through the hard work of hundreds of DuPont employees around the world, we surpassed our hold total energy flat goal — using 6% less energy than we did in 1990. We also launched a new energy goal — by 2020 we will reduce non-renewable energy use by 10% per adjusted dollar revenue compared to a 2010 baseline. We are committed to continue to seek energy efficiency and renewable energy projects that meet our criteria of having business and environmental benefits.

In 2010, DuPont enjoyed a rebound from the economic downturn in 2009. Since DuPont measures and reports in absolute numbers, the rebound is reflected in a 2009 to 2010 increase in many of the areas that we track for our footprint reduction goals. With many manufacturing sites idled for part of 2009, our overall energy, and water usage, as well as our greenhouse gas emissions, were significantly lower than 2010 when we were operating at full capacity. We are developing the projects necessary to assure that we meet or exceed each of our footprint reduction goals by 2015.

While reducing our footprint is important, our focus is on the activities in the market place and driving accomplishment of our market facing goals. We continue to increase our investment in R&D that will bring products to the market that facilitates our customers or consumers reducing their impacts. As these research programs move toward commercialization, we see DuPont having an expanded role to provide sustainable solutions to our customers around the world. Making the direct link between our customers and the markets we serve is the key to truly integrating sustainability as a growth strategy.

I am excited about the acquisition of Danisco, a company that, like DuPont, has a deep commitment to sustainable growth. It provides us a great opportunity to leverage the science and innovation of both companies to speed the delivery of more sustainable products to a broader set of customers and markets. As a combined organization, we can only strengthen our leadership in sustainability.

*Linda Fisher*

Linda J. Fisher  
Vice President of DuPont Safety,  
Health, & Environment  
and Chief Sustainability Officer

**“We also launched a new energy goal — by 2020 we will reduce non-renewable energy use by 10% per adjusted dollar revenue compared to a 2010 baseline.”**



## PERFORMANCE SUMMARY



### MARKET-FACING

**\$667 MILLION**

INVESTED IN R&D FOR  
PRODUCTS THAT REDUCE  
ENVIRONMENTAL IMPACTS

**928 PRODUCTS**

OR SERVICES THAT MAKE  
PEOPLE SAFER

**\$1.6 BILLION**

IN REVENUE FROM PRODUCTS  
THAT REDUCE GREENHOUSE  
GAS EMISSIONS

**\$7.7 BILLION**

IN REVENUE FROM PRODUCTS BASED  
ON NON-DEPLETABLE RESOURCES



### FOOTPRINT

**10.5% REDUCTION**  
GREENHOUSE GAS EMISSIONS

**9% REDUCTION**  
WATER CONSUMPTION OVERALL

**16% REDUCTION**  
WATER CONSUMPTION IN SCARCE  
AND STRESSED AREAS

**62% U.S. VEHICLES**  
USING LEADING TECHNOLOGY

**49% REDUCTION**  
AIR CARCINOGEN EMISSIONS

**92% ISO 14001**  
CERTIFIED SITES



### ENERGY



**6 PERCENT**

REDUCTION TOTAL ENERGY  
CONSUMPTION SINCE 1990

Avoided over \$6 billion in  
energy expenditures from 1990  
to 2010 while growing the  
Company by 40%.



**6.5 PERCENT**

TOTAL ENERGY  
FROM RENEWABLES

Significant progress made but  
goal was not met. Our new  
energy goal focuses on non-  
renewable energy use.



# Our Commitment to Tackle Global Challenges

We discuss the unique role of promising technology and collaboration to meet the demand for food, energy, and protection for decades to come...

## EXTRAORDINARY CHALLENGES ARE AHEAD

to achieve a sustainable future. Global population will exceed 9 billion by 2050 — or about 150,000 more people on the planet every day — with much of the growth in Africa and Asia. This translates into critical challenges to feed the world, reduce our dependence on fossil fuels and keep people and the environment safe in a sustainable way. We devote about 85 percent of our R&D resources to tackle these challenges.



## FOOD

### James C. Borel

*Executive Vice President*

*Agriculture*

*Nutrition & Health*



The challenge of feeding the growing global population becomes more daunting every day. Ensuring more nutritious food is available is a complex issue on a scale never experienced before, and further complicated by environmental challenges. But, DuPont — and its collaborators across the food chain — are optimistic, as scientific innovations have already significantly enhanced the quality and quantity of food production.


New technology is a critical component to ensure sustainable agriculture and DuPont is applying science-powered innovation to deliver solutions.

We're working with farmers around the world to deliver a unique combination of seeds, crop protection products, services and management advice that will increase yields on the same amount of land, even in the world's most challenging environments.

We are developing solutions that are culturally acceptable and that can provide nutritional benefits to help combat over nutrition while preventing under nourishment. Our Danisco and Solae businesses provide more sustainable ingredients to help food companies make food safer, healthier and great tasting.

Statistics indicate that 30% of all food that is grown is lost to waste. Our food packaging solutions can play an important role in preserving the quality and nutritional value of food.

Global food security is bigger than one company, organization or government can tackle alone. If we work together along the full food supply chain, we can tackle this challenge. Solutions must be implementable at a local level. Our focus is on supporting public-private partnerships designed to improve access to healthy, affordable food for everybody.



Together, we can accomplish  
what no one can do alone.



## ENERGY

**Thomas M. Connelly, Jr.**

*Executive Vice President &  
Chief Innovation Officer  
Industrial Biosciences  
Performance Coatings  
Performance Materials*

We have to work right now to gain grid parity for a variety of renewable energy sources. Solar, wind, hydro, and biofuels — we must transform these energy sources from the margins to the mainstream.

With a growing population, we will need to find new energy sources and ways to use our existing resources more responsibly. We are working with our partners to take what we know of microbiology, fermentation, polymer science and electrochemistry to help the world transition from fossil fuels to more sustainable alternatives.

We are focused on second generation biofuels such as cellulosic ethanol from non-food feedstocks like corn stover and switch grass. In our Butamax™ partnership, we are working on biobutanol which has higher energy density and can be essentially a drop-in fuel for our existing transportation fuel infrastructure.

Solar power offers the unique potential to power the world, with ample energy to meet the needs of future generations, in a very sustainable way. In most of the world, solar energy costs have to drop by about half for solar electricity to be competitive with the electricity you get off the grid today. DuPont is committed to bringing solar energy into the mainstream by reducing the cost of current photovoltaic systems by at least 50 percent.

To meet the growing demand for hybrid and electric vehicles, DuPont recently introduced the first battery separator that boosts the performance and safety of lithium ion batteries allowing drivers to travel farther on a single charge.

Whether it's building a more efficient solar panel, biofuel or more fuel-efficient car components, science and innovation are going to be key to fueling new industries and cleaner economies.



## PROTECTION

**Mark P. Vergnano**

*Executive Vice President  
Safety & Protection  
Electronics & Communications  
Performance Chemicals*

The increasing complexity of industrialization, demographic and geographic shifts in the global workforce and the unprecedented scale of urban growth, particularly in the developing world — these all present daunting protection challenges today. These shifts bring environmental and social changes. It can also be positive if we recognize the value of long-term sustainable solutions.

For DuPont, this presents a fundamental challenge — to adequately protect humanity and the world we share in a sustainable manner.

To address these challenges, we must work collaboratively with our partners on an impactful scale to deliver scientific innovations that provide protection for people at work, home and all areas in between.

Working with academics, governments, other companies and organizations, we are developing a vast range of materials, products and services that protect life and the environment. From life-saving body and car armor to next generation refrigerants that have a significantly lower global warming potential, we're working on products and services that protect. Our Safety & Protection business produces the world's leading brands — DuPont™ Kevlar®, Nomex®, and Tyvek® — which help protect millions of industrial workers, firefighters, law enforcement, military personnel and emergency first responders. Our global consulting services and technology delivery business, DuPont Sustainable Solutions, provides expertise, and proven methodologies and training to empower clients in many market sectors to improve employee, contractor and process safety, reduce incidents, and enhance operational performance.

I believe we can, along with our partners, provide transformative technologies and products to address the global protection challenge. Our drive toward market-driven science and innovation saves lives and optimizes sustainable business operations.



# EVERY INNOVATION and collaboration is driven by our global

and their disciplined execution to operate responsibly, perform with excellence and

Here are six portraits of individuals who are making a difference



## Jaime Cristancho

*Product Stewardship Leader*  
**DuPont Crop Protection**

One of the most important contributions is to work with our customers on sustainable agricultural practices in many countries of the MACC Region (Mexico, Andean Countries, Central America, and Caribbean). We have implemented a Product Stewardship Program that teaches growers and distributors how to use our products in a safe and environmentally responsible way. So far, we have reached more than 20,000 growers in at least six countries in the last year, making a real difference in terms of the way we support the food production process to attend to the global demand.

## Robin Jenkins

*Chemical Engineer*  
**Life Cycle Assessment**

I conduct Life Cycle Assessments for DuPont Danisco Cellulosic Ethanol, LLC, a wholly owned subsidiary of DuPont focused on the sustainable production of cellulosic ethanol. As we commercialize this new, large-scale industry, it is critical that we aim to reduce the environmental footprint across our supply chain and sustain future generations while reducing dependence on fossil fuels. To help accomplish this, I represent DuPont on the Council on Sustainable Biomass Production (CSBP), one of the leading groups in bioenergy sustainability standardization. It is rewarding to work with diverse stakeholders to develop voluntary sustainability standards for biomass and bioenergy production in the United States. Current membership includes bioenergy and biomass producers, academic institutions, non-governmental organizations, and government agencies. We have developed a draft standard for agriculture, which includes sustainability principles ranging from air emissions and soil quality to biodiversity and socio-economic well-being.



## Mark Scialdone

*Organic Chemist*  
**DuPont Central Research & Development**

Insect-borne disease threatens human and animal populations across the globe. The use of effective insect repellents that are safe is an important part of a strategy to minimize bites from disease-carrying insects. Our team in DuPont has developed a safe and effective insect repellent active ingredient that is derived from nature. This material, Refined Oil of *Nepeta cataria* (commonly known as catmint) is now a registered insect repellent with the U.S. EPA. Topically applied formulations of this repellent have been demonstrated to be effective in deterring biting insects such as mosquitoes that are carriers for yellow fever and malaria. DuPont technology has made this repellent possible and promises to make safer the lives of those where these diseases are prevalent.



# network of 60,000 employees

capture new opportunities for sustainable growth

## Robin Czyzewicz

*Mechanical Field Engineer*

**DuPont Packaging and Industrial Polymers**

Reducing dependence on fossil fuels can benefit the environment and help fight soaring energy prices. Photovoltaic power generation is a technology that can help, especially as solar modules get more affordable and reliable. That is why it is inspiring to be a team member working on developing DuPont™ ionomer encapsulants. One of the biggest challenges is the harsh environment that solar modules endure such as rain, hail and snow loads. Encapsulants protect the modules' active elements and are key to manufacturing efficiency and module life. I develop mechanical measurement and modeling techniques to simulate module strength in real applications. It is real applications that matter, so I collaborate with customers to demonstrate the unique properties of our encapsulants that enable modules to be more reliable and have lower installation costs.



## Monica Patterson

*Senior Marketing Manager*

*Technology Launch*

**Pioneer Hi-Bred®**

Drought causes global crop losses at \$13 billion annually. Continual maize improvements and conserving valuable resources are requisites for long-term sustainable production. I represent a team of collaborators who helped develop Optimum® AQUAmax™ hybrids, bringing to market new hybrids and practices that improve yield potential under stressful growing conditions. To develop and bring this to market, our experts included breeders, molecular biologists, agronomists, environmental modelers, and others. We work directly with growers and universities to test, deliver these hybrids to market, and learn from one another. As a result, growers have choices and rural prosperity, and more effectively utilize the valuable natural resources needed to grow a crop.



## Gabriela Burgos

*Ph.D. Chemical Engineer,*

*Technical Marketing Manager*

**DuPont Titanium Technologies**

I lead a terrific team of scientists and sales and marketing experts from Mexico, Brazil and the United States to demonstrate the sustainable value that DuPont™ Ti-Pure®, a titanium dioxide white pigment, brings to roofing applications. We call it the Cool Roofing Project. The white pigment has intrinsic high solar reflectance and reduces heat absorption into buildings to improve comfort and reduce the average energy consumption. For our customers, cool roofs promote sustainable construction and contribute toward regulatory targets for the mitigation of CO<sub>2</sub> emissions. Currently, we have a pilot for the Mexican and Brazilian housing market to quantify the environmental benefits and help improve the long-term performance of our product.



# 2015 MARKET-FACING GOALS



## Goal In Action

### Better Protection For Those Who Protect Us

Those who protect us from harm, military and law enforcement, need protection themselves. Bullet-resistant vests and helmets have been around for decades, but for them to be protective and effective, they must be lightweight and flexible enough for use in a stressful environment, where speed and mobility may mean the difference between life and death.

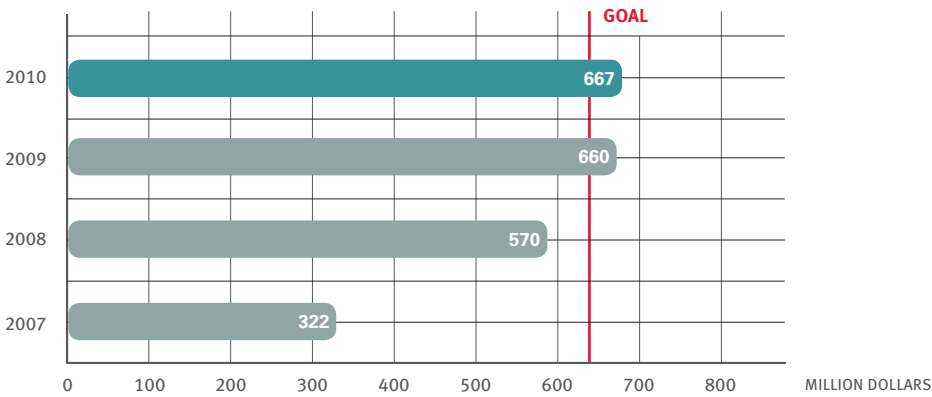
Recent collaborations with military and law enforcement agencies have helped DuPont produce its latest technology—Kevlar® XP™ for Hard Armor, now available for military helmets. This patent-pending technology offers 20% higher ballistic performance in helmets and tactical plates, with less weight. That lightens the load of a U.S. Military Advanced Combat Helmet by a full half-pound, without sacrificing specified performance.

Providing products that better protect the lives of those who protect us has always been a top priority at DuPont. DuPont is currently constructing a new \$500 million DuPont™ Kevlar® fiber facility near Charleston, South Carolina to meet the needs of first responders and the men and women in our military who put themselves in harm’s way for us back home.

Our market-facing goals capture safety, environment, energy, and climate challenges facing global markets. The goals identify opportunities where we put our research and development dollars to develop new products and service offerings that help our customers and consumers meet their performance needs and expectations.

**GOAL:** Double investment to \$640 million in R&D programs with direct, quantifiable environmental benefits for our customers and consumers.

**PROGRESS:** \$667 million was invested in 2010.

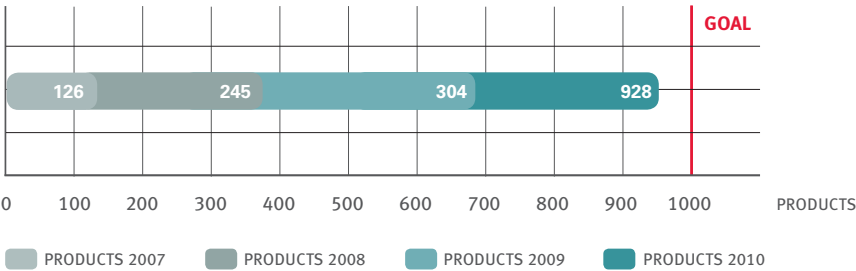


We assess our R&D programs against the following ten product sustainability categories related to environmental performance as seen by the customer/consumer. To qualify, programs provide a clear superior benefit in one or more categories while being at least on par with the incumbent product in all other categories qualified for inclusion.

- Climate Change
- Energy Use
- Pollution
- Material Use
- Waste
- Disposal
- Ecosystems and Biodiversity
- Water
- Toxicological Risk
- Use of Non-Depletable Resources

**GOAL:** Introduce at least 1,000 new products or services that help make people safer globally.

**PROGRESS:** Grew to 928 new products.





## 2015 MARKET-FACING GOALS



### Goal In Action

#### Photovoltaic Solutions

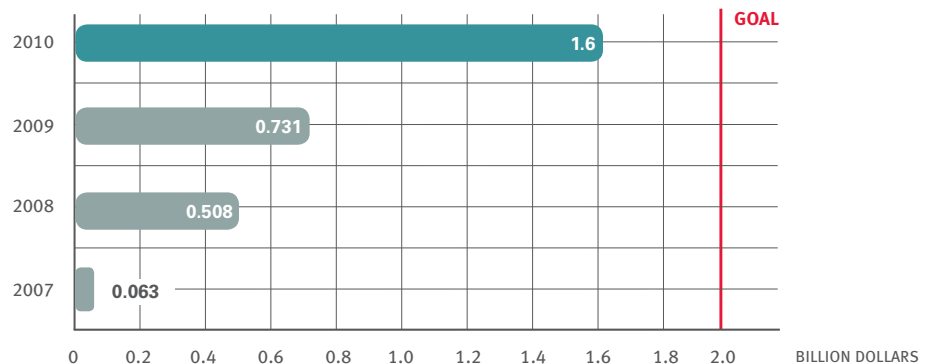
The generation and storage of renewable energy will be the fastest growing sector in the energy market for the next 20 years. DuPont is a critical player in the solar industry, and DuPont materials continue to set new photovoltaic (PV) industry standards around the world. With more than 30 years of experience in PV materials development, applications know-how, manufacturing expertise and global market access, our broad and growing portfolio of solutions is key to both crystalline silicon and thin film solar cells and modules. We have invested hundreds of millions of dollars across all businesses in PV, including \$295 million for a multi-phased DuPont™ Tedlar® capacity expansion to more than double the capacity for Tedlar® PV2001 film.

We collaborate with cell and module manufacturers, equipment suppliers, academic institutions, industry associations and government entities around the world. We have expanded our global capabilities for product R&D, testing and application support closer to customers in every region. Our PV materials increase the lifetime and efficiency of solar cells and modules, reducing overall system costs. Bringing the cost of solar energy down in line with other forms of power generation encourages faster and broader adoption of solar energy and it helps reduce the dependence on fossil fuel.

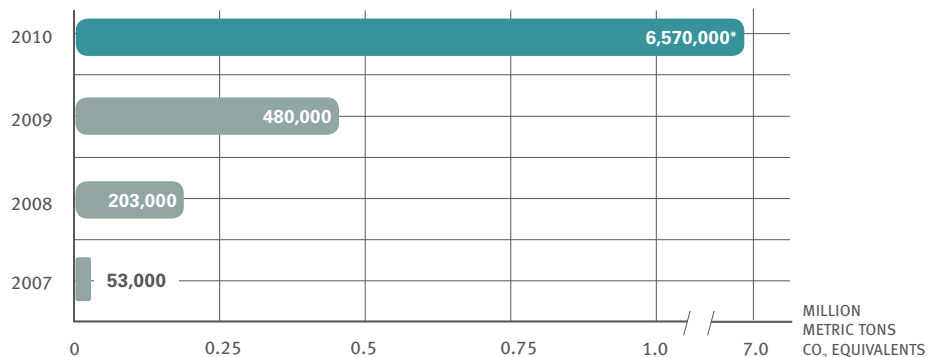
**GOAL:** Increase annual revenue by at least \$2 billion from products that create energy efficiency and/or significantly reduce greenhouse gas emissions. We estimate these products will contribute at least 40 million tons of additional CO<sub>2</sub> equivalent reductions by our customers and consumers.

**PROGRESS:** Grew to \$1.6 billion in revenue.

#### REVENUE FROM PRODUCTS THAT REDUCE GHG EMISSIONS



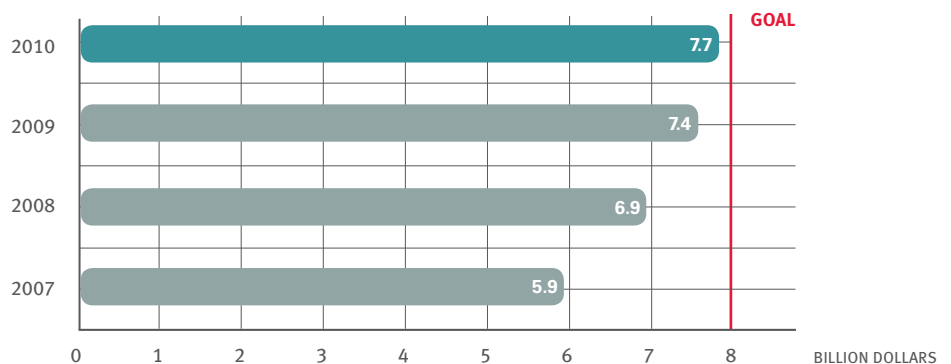
#### CUMULATIVE GHG EMISSIONS REDUCTION



\*Equivalent to annual emissions from over 1.2 million passenger vehicles

**GOAL:** Nearly double revenue from non-depletable resources to at least \$8 billion.

**PROGRESS:** Grew to \$7.7 billion in revenue.





## 2015 FOOTPRINT GOALS



### Goal In Action

#### Dordrecht Reduces Water Consumption

The DuPont Performance Polymers facility in Dordrecht, Netherlands, manufactures specialty acetal resins for the automotive and consumer markets. The facility strives to reduce waste and improve performance toward sustainable solutions.

Teaming up with GE Power and Water, a company DuPont partners with for making its production even more sustainable, the Dordrecht facility decreased water consumption and improved the operational efficiency for a cooling tower that was a key water input for the DuPont™ Delrin® acetal resin production process.

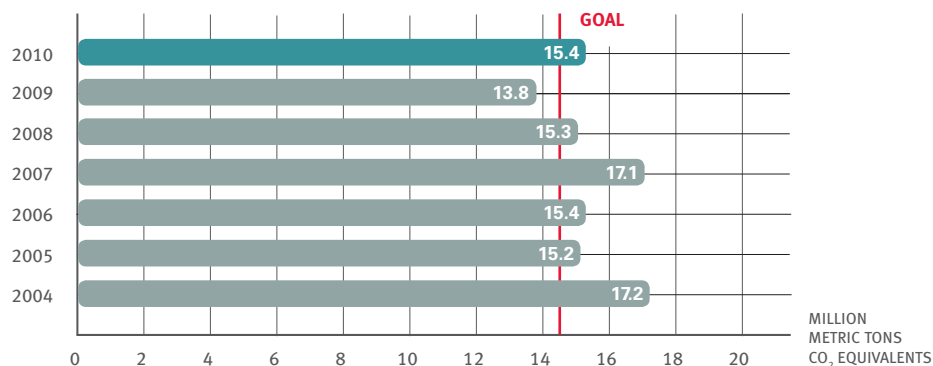
This resulted in a reduction of annual intake of freshwater by 100,000 cubic meters, which is equivalent to the amount consumed by 700 average Dutch households per year.

The effort had other positive results: in safety, by cutting additive deliveries from 130 to 15 per year; in operational costs; and for the environment, fewer deliveries reduced CO<sub>2</sub> emissions.

Footprint goals are not linked to production volumes within DuPont. Since 1990, production volumes have grown by approximately 40 percent, while water consumption, emissions and energy use have been driven down.

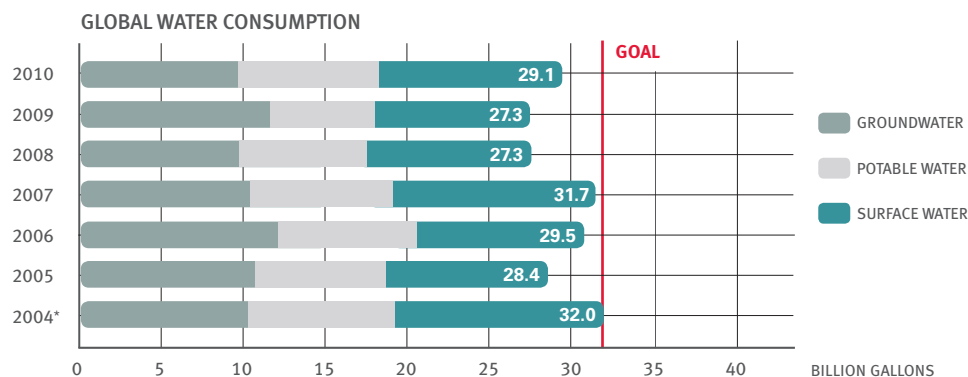
**GOAL:** Since 1990, DuPont has reduced global greenhouse gas emissions measured as CO<sub>2</sub> equivalents by 72 percent. Further reduce at least 15 percent from a base year of 2004.

**PROGRESS:** Reduced 10.5 percent since 2004.

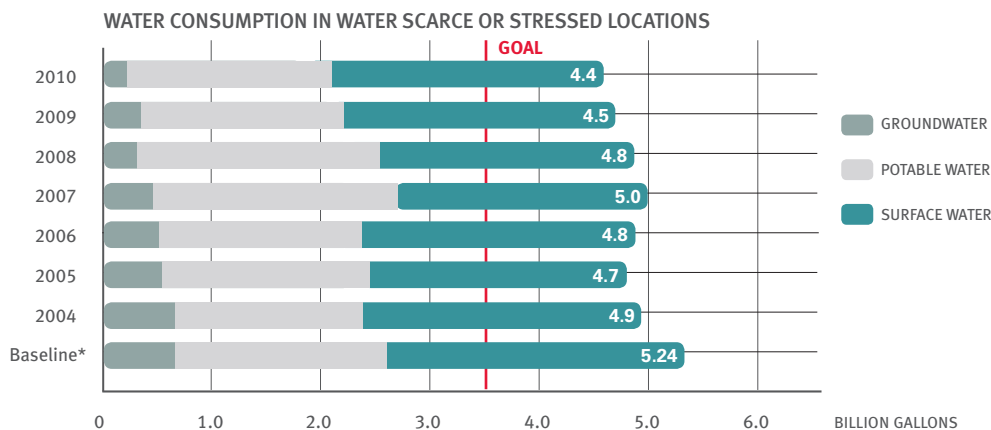


**GOAL:** Reduce water consumption by at least 30 percent at global sites that are located where the renewable freshwater supply is either scarce or stressed as determined by the United Nations analysis of river basins globally. For all other sites, we will hold water consumption flat on an absolute basis through the year 2015, offsetting any increased demand from production volume growth through conservation, reuse and recycle practices.

**PROGRESS:** Reduced 16 percent at sites in water scarce and stressed areas and 9 percent at all DuPont sites since the baseline.



\*2004 baseline and subsequent years adjusted to reflect all divestitures and acquisitions.



\*Baseline includes 2004 consumption in first year at sites in design or construction when goal was announced. 2004 baseline and subsequent years adjusted to reflect all divestitures and acquisitions.

## 2015 FOOTPRINT GOALS



### Goal In Action

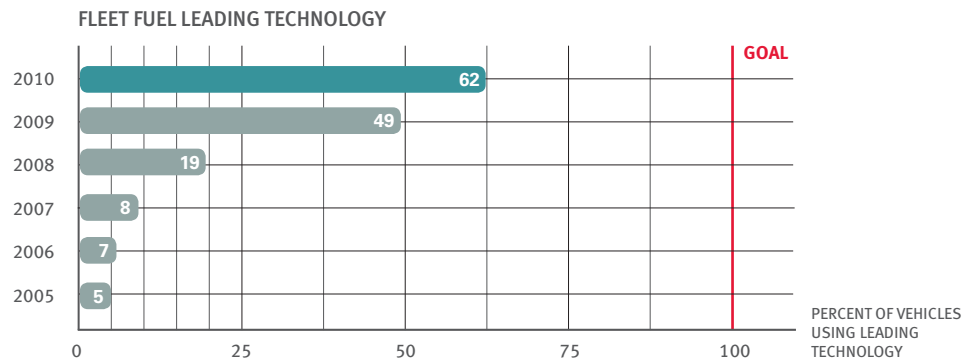
#### Circleville Reduces Air Carcinogen Emissions

For over 50 years, the DuPont™ Kapton® polyimide film manufacturing process at the DuPont site in Circleville, Ohio used a highly toxic and now suspected carcinogenic material, methylene chloride, to cool the process equipment. Recently the site made the decision to eliminate the use of methylene chloride to lower risk and reduce annual emissions. Site engineers identified a substitute material, Dynalene HC-30, that could be used without changing equipment. A team was formed to implement the change. The methylene chloride in the process was drained and shipped off-site for recycling.

The new material, Dynalene, has superior heat transfer characteristics that have allowed the cooling system to operate warmer, resulting in significant annual energy savings. The conversion from methylene chloride to Dynalene was not inexpensive and required considerable effort, but everyone involved is proud that the site was able to eliminate a hazardous material, while also reducing emissions and lowering energy costs.

**GOAL:** 100 percent of the off-site fleet of cars and light trucks will represent the leading technologies for fuel efficiency and fossil fuel alternatives.

**PROGRESS:** 62 percent of U.S. vehicles are using leading technology.



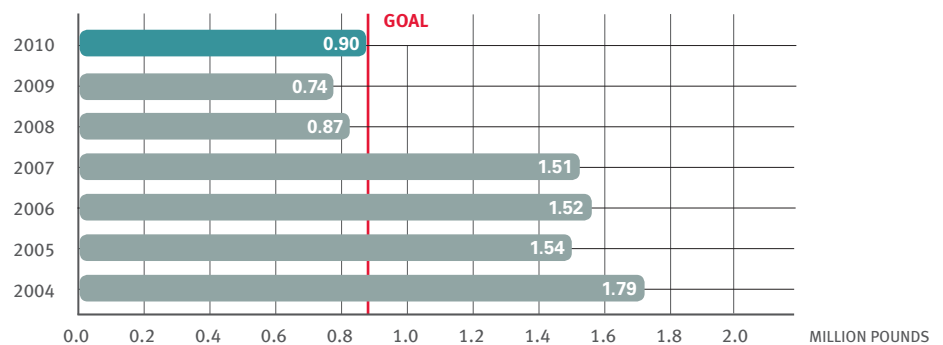
**Leading technology vehicles currently considered for fuel efficiency are:** Flexible Fuel Vehicles, Hybrid, Clean Diesel and E85. Through our fleet management company, PHH, we are also tracking improvements in fuel efficiency of the fleet for DuPont and Pioneer, a DuPont business.

#### FLEET DATA

Average MPG Per Car	2008	2009	2010
DuPont	19.7	20.4	21.1
Pioneer	15.0	15.2	15.1
Average CO <sub>2</sub> Emissions Per Car (g/km)			
Europe	195	186	186

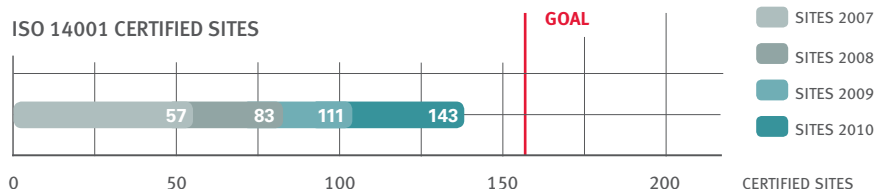
**GOAL:** Since 1990, DuPont has reduced global air carcinogen emissions by 92 percent. Further reduce by at least 50 percent from a base year of 2004.

**PROGRESS:** Reduced 49 percent since 2004.



**GOAL:** 100 percent of our global manufacturing sites will complete an independent third-party verification of the effectiveness of their environmental management goals and systems.

**PROGRESS:** 92 percent of sites are ISO 14001 certified.





## 2010 ENERGY GOALS



### Goal In Action

#### Sabine Awarded For Energy Efficiency

The Sabine River Works site in Texas was recognized by the American Chemistry Council (ACC), a U.S. trade association, with an Energy Efficiency Award for upgrading the site's ethylene unit furnaces with a new burner equipment design which improved fuel and air mixing while maintaining reliability and reducing greenhouse gas emissions.

Winners were selected by the ACC's Energy Team, comprised of member representatives, academics and experts in the field of energy efficiency. As a result of this initiative, the site saved 540,000 million BTU of energy, enough to power 3,800 homes. More than 67 million BTU per hour fuel savings have been achieved by developing this new burner system. In addition, the change reduced CO<sub>2</sub> emissions by 31,000 tons per year.

Sabine River Works is the largest DuPont site in Texas and makes high performance ethylene copolymers used for packaging, automotive components, construction materials and many everyday items. It employs over 800 people.

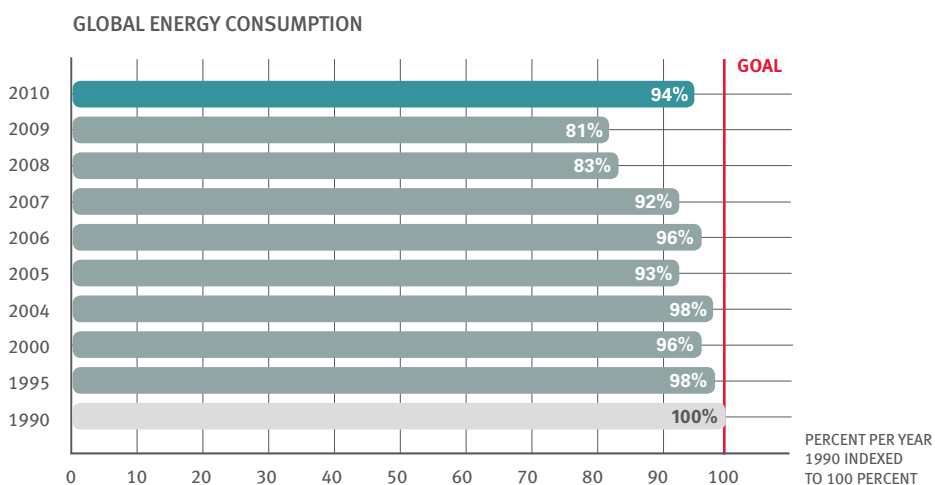
DuPont successfully met the goal of holding total energy flat with 1990 levels and further reduced by 6 percent below flat. This effort avoided over \$6 billion in energy expenditures from 1990 to 2010 while we grew the Company by over 40 percent.

We did not meet the 2010 goal for global renewable energy use. This was due to the global recession and balancing the economic and environmental costs and benefits. To continue to encourage renewable energy options, DuPont has made our new energy reduction commitment for non-renewable energy.

*The new energy goal is to reduce non-renewable energy use by 10 percent per adjusted dollar revenue by 2020 compared to a baseline of 2010. We have set a milestone of 3 percent reduction by 2015.*

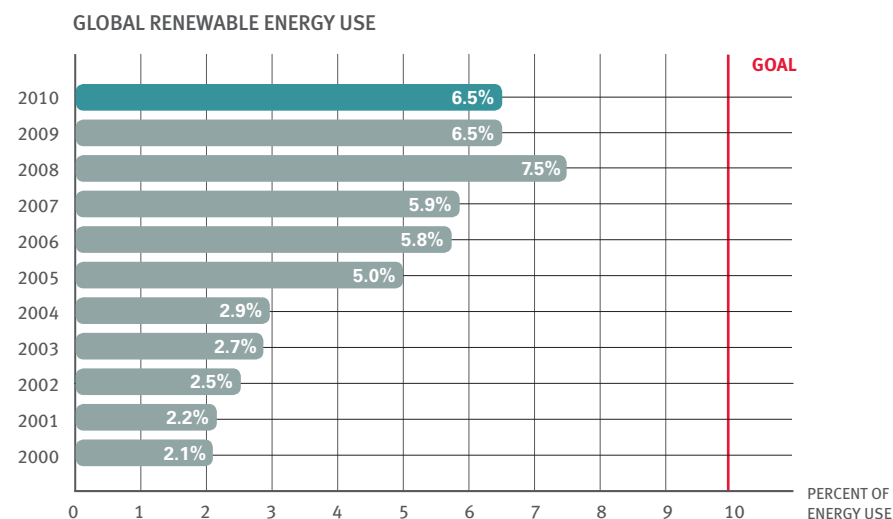
**GOAL:** Hold total energy flat with 1990 levels.

**PROGRESS:** Reduced 6 percent since baseline.



**GOAL:** Obtain 10 percent of energy from renewable sources at a cost that is competitive with the best available fossil fuels.

**PROGRESS:** 6.5 percent from renewable sources.





Aaron Sharp and Brooke Young — DeLisle Site

## DUPONT TITANIUM TECHNOLOGIES

### A business profile of contributions toward the 2010 energy consumption goal

#### DuPont Titanium Technologies is a leader in energy reduction.

Since 2001, the business has set aggressive energy reduction goals and consistently invested resources in saving energy. Today we use almost 30% less energy to make a pound of pigment than in 1990.

Achieving these outstanding results was accomplished by each site working to improve energy use day-by-day and implementing energy savings projects.

#### Key Projects

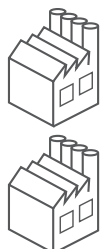
- At the New Johnsonville, Tennessee site, waste heat is now used to preheat process water. With direct contact heat transfer, the site saved 2.4% of its annual energy consumption and 26,000 tons of CO<sub>2</sub> in the first year.

- The DeLisle, Mississippi site uses landfill gas from a local municipal landfill to make steam resulting in annual energy savings of 480,000 million BTUs and 28,000 pounds of CO<sub>2</sub>.
- At the Edge Moor, Delaware site, a project team has minimized the additional energy required to operate a new facility and maximized the efficiency of the facility through process integration and heat recovery. By installing high efficiency burners and using waste heat for pre-heat, the site saves 2% of its annual energy use and avoids 3,500 tons of CO<sub>2</sub> emissions annually.

Projects like these are just part of the story. Each site sets energy reduction goals, monitors key performance indicators for energy, and makes energy and carbon footprint reduction a part of business decisions. Energy reductions are possible because everyone in the titanium dioxide business is part of achieving the goal.

**2.4% REDUCTION**  
IN ANNUAL ENERGY CONSUMPTION  
USING HEAT TRANSFER — JOHNSONVILLE

**480,000 MM BTU  
28,000 LB CO<sub>2</sub>**  
IN ANNUAL ENERGY SAVINGS USING  
LANDFILL GAS — DELISLE



**2% REDUCTION**  
IN ANNUAL ENERGY CONSUMPTION  
USING WASTE HEAT — EDGE MOOR





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As part of the 20-episode DuPont-sponsored “Horizons” TV series on BBC World News, host Adam Shaw journeys around the world to meet the people behind the business ideas that will affect how we consume energy, tackle food and water scarcity and beat major pandemics in the future.

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**2010 Annual Review**

**2010 Data Book**

**2011 Global Reporting Initiative Report**



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Inset photo on page 10, U.S. Army photo by Spc. Coltin Heller, 109<sup>th</sup> Mobile Public Affairs Detachment.

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