



BUILD IT
GREEN



The miracles of science™

WHY BUILD GREEN?

The built environment has a profound impact on our natural environment, economy, health and productivity.

IN THE UNITED STATES ALONE,
BUILDINGS ACCOUNT FOR:

65%

OF ELECTRICITY CONSUMPTION¹

30%

OF RAW MATERIALS USE²



30%
OF GREENHOUSE GAS EMISSIONS³

36%
OF TOTAL ENERGY USE⁴

¹ U.S. Department of Energy, Energy Information Administration, March 2001, Monthly Energy Review.

² Lenssen and Roodman, 1995; "Worldwatch Paper 124: A Building Revolution: How Ecology and Health Concerns are Transforming Construction," Worldwatch Institute.

³ U.S. Department of Energy, Energy Information Administration, "Emissions of Greenhouse Gases in the United States 1999."

⁴ Ibid.

What is Sustainable Green Design?

There are many terms that fall under the umbrella of “green” design — sustainable, high-performance, energy and resource efficient. All of these refer to design and construction practices that significantly reduce or eliminate the negative impact of buildings on the natural environment and people. Green design fosters improvements across a wide range of environmental, economic and social health issues including:

Sustainable site planning

Water efficiency and conservation

Energy efficiency and renewable energy

Material and resource conservation

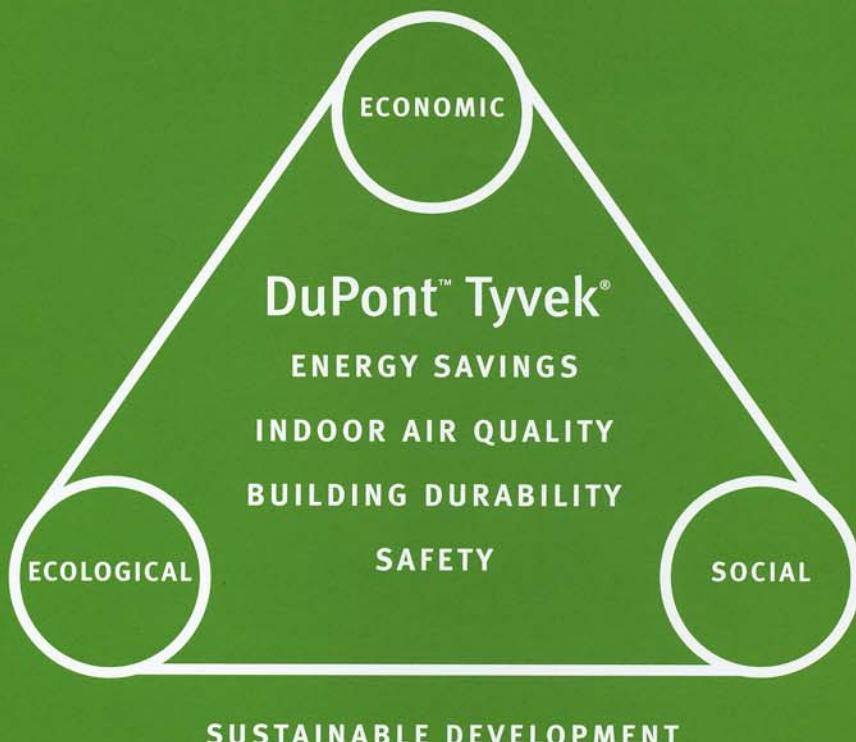
Indoor environmental quality

Overall, green building design reduces the energy needed for heating and cooling, which in turn helps to preserve natural resources and reduce greenhouse gas emissions. Maximizing the operational efficiency of HVAC and other building systems reduces operating costs and improves the overall life-cycle performance of a building for a better bottom-line. Green buildings also provide healthier conditions for the people inside and diminishes the strain on local infrastructures by reducing utility consumption and diverting more construction waste away from landfills.

Build It Green with DuPont

DuPont is committed to creating innovative materials that help builders and architects produce sustainable “green” buildings that cost less to operate, are easier to maintain and provide better comfort year round.

The U.S. Department of Energy reports that up to 40% of the cost of heating and cooling a building is wasted by uncontrolled air leakage. DuPont construction products work together to help seal the building envelope, reducing air leakage, while allowing moisture vapors to escape. This helps prevent the formation of mold and mildew for safer, more energy-efficient structures.



**“SUSTAINABLE
DEVELOPMENT IS THE
MOST VIBRANT AND
POWERFUL FORCE TO
IMPACT THE BUILDING
DESIGN AND
CONSTRUCTION FIELD IN
MORE THAN A DECADE.”**

Building & Design Construction, “White Paper on Sustainability,” 2003.

A photograph of a modern office interior. In the foreground, a large, dark-colored office chair is partially visible. In the background, there are several more office chairs arranged around a desk. A large, leafy green plant is positioned near a window, adding a touch of nature to the space. The room is well-lit, with natural light coming through the windows.

IMPROVED INDOOR AIR
QUALITY AND INCREASED
INSULATION VALUE
PROVIDE A HEALTHIER,
MORE COMFORTABLE
ENVIRONMENT.

Energy Savings

Keeping drafts and wind out of wall cavities seals in thermal performance for greater comfort and reduced energy consumption. DuPont™ Tyvek® weather-resistant barriers help protect the installed R-value of insulation, allowing the HVAC system to run more efficiently. Regardless of the thickness of the insulation or the type of sheathing used, including tongue-and-groove sheathing and airtight drywall, DuPont™ Tyvek® helps eliminate air leaks.

Energy and GHG Savings	ENERGY ² (MILLION BTU)	GHG EMISSIONS (POUNDS OF CO ₂ EQUIVALENTS)
annual	12-60	1,600-8,100
30 years	360-1,800	49,000-244,000
plastics life cycle ¹	1.2-1.8	70-98
pay back (days)	7-54	3-22

Studies indicate significant reductions in energy use and (GHG) greenhouse gas emissions resulting from the application of plastic housewrap to a typical house located in the United States.³

Healthier Indoor Air

The fibrous structure of DuPont™ Tyvek® is specially engineered with microscopic pores that allow moisture vapors to escape the wall cavity, but are so small that bulk water and air cannot penetrate the building envelope. Better ventilation of wall cavities prevents the formation of mold and mildew, improving indoor air quality. Reducing the air flow from outside to inside also minimizes temperature differences for greater comfort.

Durability

DuPont™ Tyvek® reduces uncontrolled air leakage which allows for the optimization of HVAC systems. This improves the total life cycle of a building by providing operational system efficiency and protection from corrosion and mold growth.

Safety

DuPont™ Tyvek® weather-resistant barriers help protect building occupants and workers on the job site. DuPont™ Tyvek® is easy to install and requires no special protective apparel during installation. By reducing the potential for mold and mildew in the wall system you reduce the risk of occupant illness, increasing productivity and comfort level.

Economic Benefits

Sealing the building envelope with DuPont™ Tyvek® helps reduce the overall operating costs for a building, a powerful selling point for owners and potential buyers. In addition, protecting the wall cavities from bulk water prevents deterioration, increasing the asset value of the structure. Improved indoor air quality and increased insulation value provide a healthier, more comfortable environment.

¹Cradle-to-manufacture energy and GHG for producing plastic housewrap. Range reflects values for two different types of plastics used. Feedstock energy is included.

²Based on 10-50% reduction in air infiltration compared to absence of any plastic wrap.

³Franklin Associates, "Plastics' Energy and Greenhouse Gas Savings Using Housewrap Applied to the Exterior of Single Family Residential Housing in the U.S. and Canada, A Case History," February 2000.

Innovative Solutions for Better Buildings

DuPont™ Tyvek® construction products work together to help create a complete building envelope seal for more durable, energy efficient, healthy commercial buildings and homes.

Weather-Resistant Building Wraps



DuPont™ Tyvek® HomeWrap®

Unique, nonwoven-fiber structure resists air infiltration and water intrusion, yet is engineered to readily allow moisture vapor to diffuse through the sheet, helping prevent mold and mildew buildup and wood rot.



DuPont™ Tyvek® CommercialWrap®

Stronger, higher-performance weather barrier designed specifically to help protect exterior wall systems in today's commercial construction.



DuPont™ Tyvek® StuccoWrap®

Designed for construction with stucco or synthetic stucco siding.

DuPont™ Tyvek® DrainWrap®

Advanced water drainage protection for wood and fiber cement siding facades. Scientifically engineered "groove" surface will not wrinkle, shrink or absorb water, even after repeated wetting and drying.

Specially-Engineered Flashing Systems



DuPont™ StraightFlash™

Durable flashing tape for maximum barrier protection around straight window heads and jams.

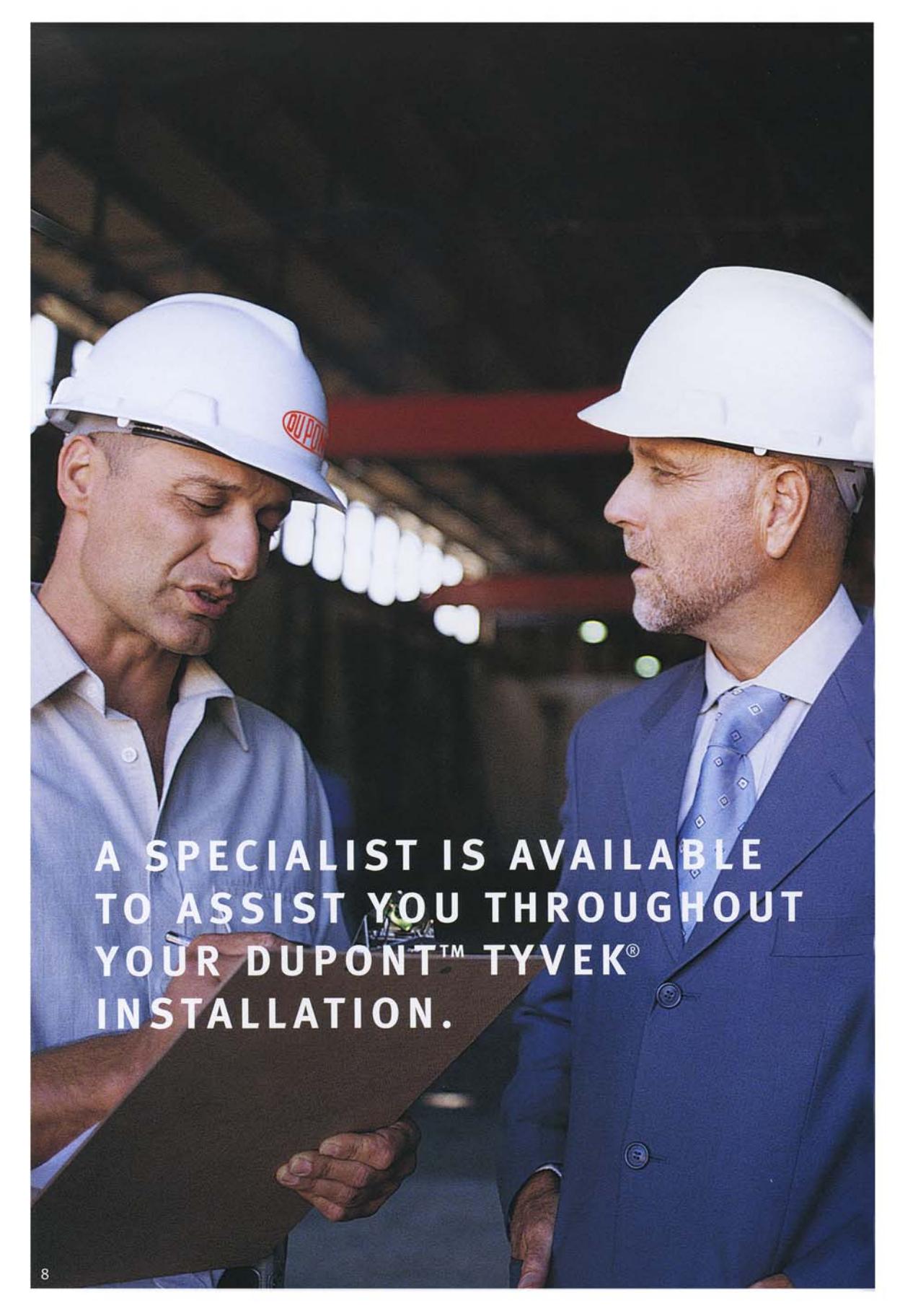


DuPont™ FlexWrap™

Specially-designed, moldable flashing barrier for vulnerable windowsills and curved or custom shapes.



WEATHER-RESISTANT
BARRIER MATERIALS WORK
TOGETHER TO CREATE A
COMPLETE BUILDING
ENVELOPE SEAL.

A photograph of two men in a construction setting. The man on the left, wearing a white hard hat with a red DuPont logo, is looking down at a handheld device, possibly a tablet or smartphone. The man on the right, wearing a white hard hat and a dark blue suit, is looking towards the left. They are standing in front of a dark, textured wall, possibly a concrete or metal surface. The lighting is dramatic, with strong shadows and highlights.

A SPECIALIST IS AVAILABLE
TO ASSIST YOU THROUGHOUT
YOUR DUPONT™ TYVEK®
INSTALLATION.

DuPont™ Tyvek® Specialist Network

The DuPont™ Tyvek® Specialist Network is an elite team of field representatives who have undergone years of rigorous training with the best minds in building science. Your local DuPont™ Tyvek® Specialist is available to assist you throughout your Tyvek® installation. DuPont™ Tyvek® Specialists can help you determine the best Tyvek® products for each project, provide information on new code requirements and green building design and conduct on-site inspections to ensure that each installation is done right.



With DuPont™ Tyvek®, you get not only the most advanced weather-resistant protection available, you also get the peace of mind that comes from working with DuPont.

DuPont—Making Life Better Everyday

DuPont is at the forefront of the search for solutions that improve comfort, enhance life around the world and have zero impact on the environment. Safety and health, environmental stewardship, ethical behavior and respect for people are the timeless values that guide everything we do. They are practiced everywhere the company does business.

Our Commitment to Environmental Stewardship

Our year-after-year environmental performance showed generally small changes in waste and emissions, despite a 36% increase in production volume since 1991. Overall, global greenhouse gas emissions on a CO₂-equivalent basis are down 67% and rigorous use of Six Sigma methodology has been employed across the company to eliminate waste, increase recycling and reduce our overall environmental footprint.

DuPont works closely with industry leaders to develop increasingly sustainable building solutions and we participate in several government and nonprofit programs that promote green building practices. DuPont has been an ENERGY STAR® Partner since 1994, and DuPont™ Tyvek® is an important part of the ENERGY STAR® Home Sealing labeling program. DuPont™ Tyvek® also helps contribute toward LEED® (Leadership in Energy and Environmental Design) credits by helping seal the building envelope for improved energy efficiency, reduced air quality issues and diversion of construction debris from landfills for reduced environmental impact.

DuPont also participates in energy-related organizations such as EEBA (Energy and Environmental Building Association), PATH (Partnership for Advancing Technology in Housing) and Affordable Comfort.

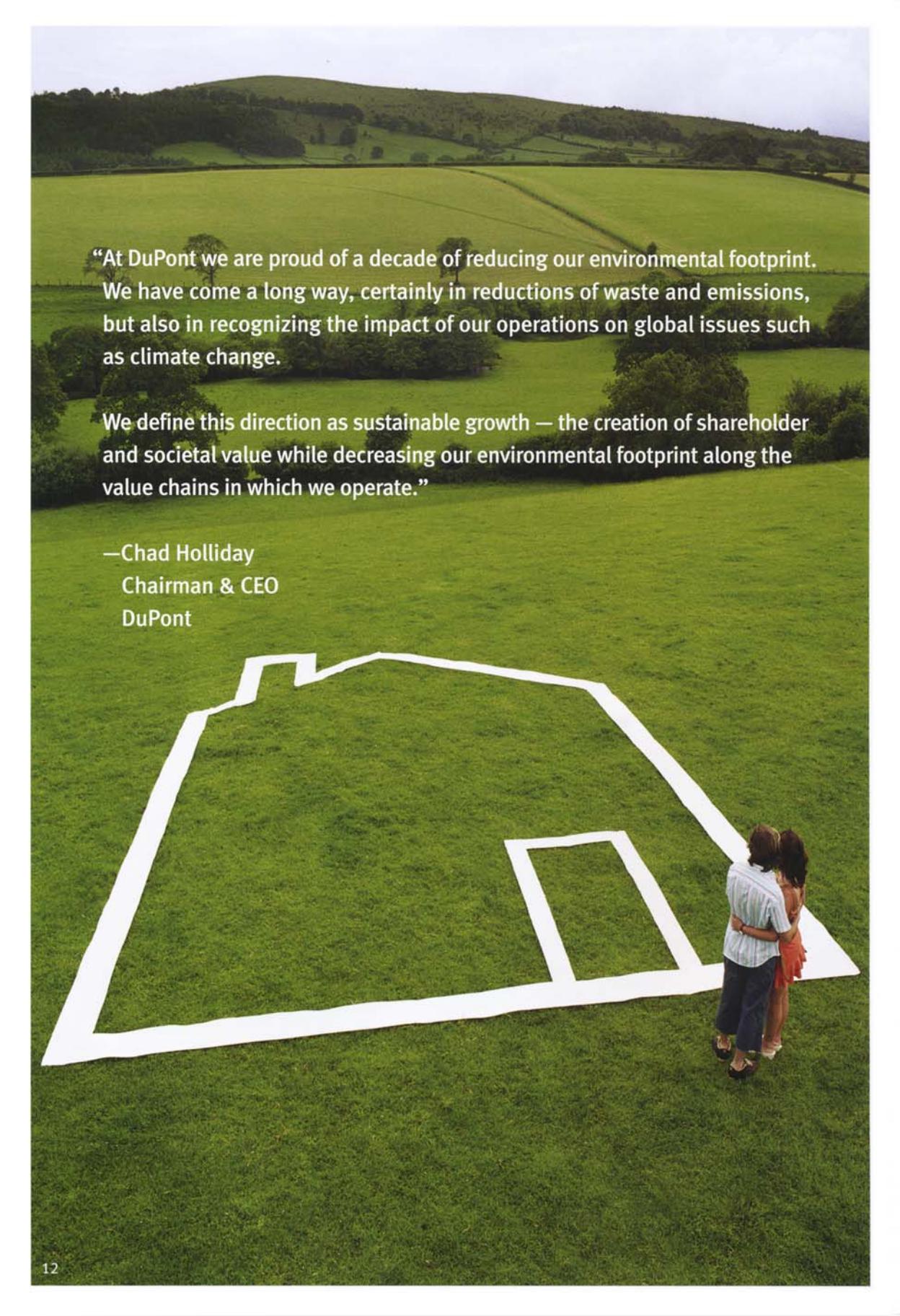
All of these efforts support our vision to be the world's most dynamic science company, creating sustainable solutions essential to achieve a safer, healthier life for people everywhere.

A photograph of a man and a woman looking out of a window. The man is on the right, smiling, wearing a dark blue button-down shirt. The woman is on the left, wearing glasses and a dark top. They are looking out at a blurred cityscape.

DESPITE A
36%
INCREASE IN PRODUCTION
VOLUME SINCE 1991,

OVERALL GLOBAL GREENHOUSE GAS
EMISSIONS, ON CO₂-EQUIVALENT BASIS,
ARE DOWN

67%



“At DuPont we are proud of a decade of reducing our environmental footprint. We have come a long way, certainly in reductions of waste and emissions, but also in recognizing the impact of our operations on global issues such as climate change.

We define this direction as sustainable growth — the creation of shareholder and societal value while decreasing our environmental footprint along the value chains in which we operate.”

—Chad Holliday
Chairman & CEO
DuPont





DUPONT HAS BEEN AN ENERGY STAR®
PARTNER SINCE 1994.



DUPONT IS PROUD TO BE A FOUNDING
MEMBER OF THE WBCSD.



DUPONT HAS BEEN LISTED ON THE DJSI
SINCE ITS INCEPTION IN 1999.

Learn more about DuPont™ Tyvek®
and sustainable green design.

DuPont™ Building Innovations™
1-800-44-TYVEK®
www.Tyvek.com



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