

DOW CHEMICAL CO /DE/  
Form 10-K  
February 14, 2014  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-K

☐ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended DECEMBER 31, 2013

or  
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 1-3433

THE DOW CHEMICAL COMPANY

(Exact name of registrant as specified in its charter)

Delaware

38-1285128

State or other jurisdiction of  
incorporation or organization

(I.R.S. Employer Identification No.)

2030 DOW CENTER, MIDLAND, MICHIGAN 48674

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: 989-636-1000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

Common Stock, par value \$2.50 per share

New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

☐ Yes ☐ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

☐ Yes ☐ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☐ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T

(§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

☐ Yes ☐ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). ☐ Yes ☐ No

The aggregate market value of voting common stock held by non-affiliates as of June 30, 2013 (based upon the closing price of \$32.17 per common share as quoted on the New York Stock Exchange), was approximately \$38.9

billion. For purposes of this computation, it is assumed that the shares of voting stock held by Directors and Officers would be deemed to be stock held by affiliates. Non-affiliated common stock outstanding at June 30, 2013 was 1,210,213,904 shares.

Total common stock outstanding at January 31, 2014 was 1,215,829,233 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Part III: Proxy Statement for the Annual Meeting of Stockholders to be held on May 15, 2014.

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FORWARD-LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, including estimates, projections, statements relating to business plans, objectives, and expected operating results, and the assumptions upon which those statements are based, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements may appear throughout this report including, without limitation, the following sections: “Item 1. Business,” “Management's Discussion and Analysis,” and “Risk Factors.” These forward-looking statements are generally identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” and similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. A detailed discussion of principal risks and uncertainties which may cause actual results and events to differ materially from such forward-looking statements is included in the section titled “Risk Factors” (Part I, Item 1A of this Form 10-K). The Dow Chemical Company undertakes no obligation to update or revise publicly any forward-looking statements whether because of new information, future events, or otherwise, except as required by securities and other applicable laws.

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The Dow Chemical Company and Subsidiaries  
PART I, Item 1. Business.

THE COMPANY

The Dow Chemical Company was incorporated in 1947 under Delaware law and is the successor to a Michigan corporation, of the same name, organized in 1897. The Company's principal executive offices are located at 2030 Dow Center, Midland, Michigan 48674. Throughout this Annual Report on Form 10-K, except as otherwise indicated by the context, the terms "Company" or "Dow" as used herein mean The Dow Chemical Company and its consolidated subsidiaries.

Available Information

The Company's annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, are available free of charge through the Investor Relations section of the Company's website ([www.dow.com/investors](http://www.dow.com/investors)), as soon as reasonably practicable after the reports are electronically filed or furnished with the U.S. Securities and Exchange Commission ("SEC"). The SEC maintains a website that contains these reports as well as proxy statements and other information regarding issuers that file electronically. The SEC's website is at [www.sec.gov](http://www.sec.gov). The Company's website and its content are not deemed incorporated by reference into this report.

General

Dow combines the power of science and technology to passionately innovate what is essential to human progress. The Company is driving innovations that extract value from the intersection of chemical, physical and biological sciences to help address many of the world's most challenging problems such as the need for clean water, clean energy generation and conservation, and increasing agricultural productivity. Dow's integrated, market-driven, industry-leading portfolio of specialty chemical, advanced materials, agrosiences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 180 countries and in high growth sectors such as packaging, electronics, water, coatings and agriculture. In 2013, Dow had annual sales of more than \$57 billion and employed approximately 53,000 people worldwide. The Company's more than 6,000 products are manufactured at 201 sites in 36 countries across the globe. The Company conducts its worldwide operations through global businesses, which are reported in six operating segments: Electronic and Functional Materials, Coatings and Infrastructure Solutions, Agricultural Sciences, Performance Materials, Performance Plastics and Feedstocks and Energy.

Strategy

Dow's strategy is to invest in a market-driven portfolio of advantaged and technology-enabled businesses that create value for our shareholders and customers.

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## BUSINESS SEGMENTS AND PRODUCTS

## ELECTRONIC AND FUNCTIONAL MATERIALS

Electronic and Functional Materials develops and markets customized materials using advanced technology and unique chemistries for specialty applications ranging from semiconductors and organic light-emitting diodes to microbial protection for the oil and gas industry and cellulose for innovative pharmaceutical drug formulation and healthier foods. These businesses serve the needs of market segments as diverse as: electronics and entertainment; healthcare and medical; energy; water; and consumer and home goods. The segment's commitment to continuous innovation and rapid new product development enable it to maximize opportunities in emerging geographies and high-growth industries.

Details on Electronic and Functional Materials' 2013 sales, by business and geographic area, are as follows:

## Dow Electronic Materials

Dow Electronic Materials is a leading global supplier of enabling materials for applications such as consumer electronic devices, flat-panel displays and telecommunications. The business produces materials for chemical mechanical planarization ("CMP"); materials used in the production of electronic displays, including films and filters; metalorganic precursors for light-emitting diodes ("LEDs"); organic light-emitting diode ("OLED") materials; products and technologies that drive leading-edge semiconductor design; materials used in the fabrication of printed circuit boards; and integrated metallization processes for metal finishing and decorative applications.

Dow Electronic Materials is comprised of four principal businesses, each serving one or more key market segments, as noted below:

Business	Market Segments	Technologies
Semiconductor Technologies	Integrated circuit fabrication for memory and logic	CMP consumables, photolithography materials
Interconnect Technologies	Printed circuit board, electronics and industrial finishing	Interconnect metallization and imaging process chemistries
Display Technologies	Display materials	Display films and filters, OLED materials
Growth Technologies	New and emerging technologies	Advanced chip packaging materials, metalorganic precursors, optical and ceramic materials

## Functional Materials

The Functional Materials portfolio of businesses creates performance-enhancing solutions that enable customers to differentiate their products in the global pharmaceutical, food, water, energy and home and personal care markets. This group also provides key materials for industrial uses around the world.

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Functional Materials principal businesses each serve one or more key market segments, as noted below:

Business	Market Segment	Technologies
Dow Consumer and Industrial Solutions	Personal care, home care, industrial materials and specialty applications	Technologies that differentiate our customers' products often with improved sustainability profiles
Dow Microbial Control	Energy (oil and gas), industrial and consumer goods, water and water processing	Comprehensive microbial control technology to predict, diagnose and sustainably solve the planet's most difficult microbial challenges Cellulosic and other technologies used to help bring new classes of medicines to market and
Dow Pharma and Food Solutions	Pharmaceutical, food and nutrition; energy (oil and gas); industrial materials	enable foods that are healthier (gluten-free, reduced oil/fat content). Materials used in coatings, oil and gas drilling and many other industrial applications

### Competition

Electronic and Functional Materials experiences competition in each business within the segment. The competitors include many large, multinational chemical firms as well as a number of regional and local competitors. The segment's products have unique performance characteristics that are required by customers who demand a high-level of customer service and technical expertise from the Company's sales force and scientists; therefore, Dow is well positioned to withstand competitive threats. Key competitors include Ashland, BASF, JSR Micro, Lonza and Shin-Etsu Chemical.

### Joint Ventures

Electronic and Functional Materials includes a portion of the Company's share of the results of Dow Corning Corporation, a joint venture that manufactures silicone and silicone products, which is owned 50 percent by the Company.

## COATINGS AND INFRASTRUCTURE SOLUTIONS

Coatings and Infrastructure Solutions is comprised of an industry-leading portfolio of businesses utilizing advanced technology to deliver products ranging from low volatile organic compound ("VOC") coatings to building insulation and adhesives to water technologies. With unmatched research and development ("R&D") capabilities, a broad range of chemistries, extensive geographic reach and strong channels to market, this segment is well positioned to capitalize on market trends. The segment has broad geographic reach with sales in nearly 140 countries and R&D and manufacturing facilities located in key geographic areas.

Details on Coatings and Infrastructure Solutions' 2013 sales, by business and geographic area, are as follows:

### Dow Building and Construction

Dow Building and Construction is comprised of three businesses - Dow Building Solutions, Dow Construction Chemicals and Dow Solar Solutions. Leveraging more than 60 years of building science experience and deep application expertise, Dow creates high-performance solutions designed to help make residential and commercial buildings more comfortable, last longer, save energy and reduce emissions. The business offers extensive lines of industry-leading insulation, air sealing and weatherization products and systems; construction chemical solutions for increased durability, water resistance and lower systems costs; and, building-integrated photovoltaics.





Table of Contents**Dow Coating Materials**

The Dow Coating Materials business manufactures and delivers solutions that leverage high quality, technologically advanced product offerings for architectural paint and coatings, as well as industrial coatings applications, including paper, leather, concrete, wood, automotive, maintenance and protective industries. Dow Coating Materials introduced the industry's first waterborne technology in 1953 and has since led the industry's conversion away from solvent borne technology to allow for lower VOC and an improved sustainability profile while pushing performance boundaries.

**Dow Water and Process Solutions**

Dow Water and Process Solutions is a leading provider of purification and separation technologies. The business provides the critical technology, including reverse osmosis membranes and ion exchange resins, to help customers with a broad array of separation and purification needs such as reusing waste water streams, making fresh drinking water from sea water, creating a closed loop water system for oil field operations, making controlled release drugs possible, and removing impurities in dairy processing. A primary goal of the business is to drive down the cost and energy requirements to treat water.

**Performance Monomers**

The Performance Monomers business produces specialty monomer products that are sold externally as well as consumed internally as building blocks used in downstream polymer businesses. The business' products are used in several applications, including cleaning materials, personal care products, paints, coatings and inks.

Coatings and Infrastructure Solutions' businesses each serve one or more key market segments, as noted below:

Business	Major Products	Applications/Market Segments
Dow Building and Construction	AQUASET <sup>TM</sup> acrylic thermosetting resins, DOW <sup>TM</sup> latex powders, FROTH-PAK <sup>TM</sup> foam insulation and sealants, GREAT STUFF <sup>TM</sup> insulating foam	Delivering energy efficiency and durability to new and retrofit construction; insulation, weatherization and air sealing; caulks and sealants; elastomeric roof coatings; exterior insulation finishing systems; roof tiles; siding
	sealants and adhesives, RHOPLEX <sup>TM</sup> and PRIMAL <sup>TM</sup> acrylic polymer emulsions, STYROFOAM <sup>TM</sup> brand insulation products, WALOCCEL <sup>TM</sup> cellulose ethers, XENERGY <sup>TM</sup> high performance insulation	high performance insulation; roofing and solar energy collector
Dow Coating Materials	ACRYSOL <sup>TM</sup> Rheology Modifiers, AVANSE <sup>TM</sup> acrylic binders, EVOQUE <sup>TM</sup> Pre-Composite Polymer, FORMASHIELD <sup>TM</sup> acrylic binder, RHOPLEX <sup>TM</sup> acrylic resin, TAMOL <sup>TM</sup> Dispersants, DOW ADSORBSIA <sup>TM</sup> selective media, DOW EDI <sup>TM</sup> modules, DOWEX <sup>TM</sup> and AMBERJET <sup>TM</sup> ion exchange resins, DOWEX <sup>TM</sup> OPTIPORE <sup>TM</sup> polymeric adsorbent resins, DOW FILMTEC <sup>TM</sup> reverse osmosis and nanofiltration elements, TEQUATIC <sup>TM</sup> PLUS fine particle filter, AMBERLYST <sup>TM</sup> polymeric catalysts	Acrylic binders; architectural paint and coatings; dispersants; rheology modifiers; surfactants for both architectural and industrial applications
Dow Water and Process Solutions		Providing the right, cost effective separation technology for water treatment and filtration; energy (power, oil and gas); pharmaceutical; food and beverage; chemical processing
Performance Monomers	Acrylates, methacrylates, vinyl acetate monomers	Super absorbents, water treatment, flocculants and detergents, acrylic sheets, coatings, inks and paints, molding compounds, impact modifiers and electronic displays, adhesives, textiles, automotive and architectural safety glass
Competition		

Competitors of the Coatings and Infrastructure Solutions segment include many large multinational chemical firms as well as a number of regional and local competitors. The segment's products have unique performance characteristics that are required by customers who demand a high level of customer service and expertise from our sales force and scientists; therefore, Dow is well positioned to withstand competitive threats. Key competitors include Arkema, Ashland, BASF, Elementis, Hydranautics, Lanxess, Owens-Corning and Shin-Etsu Chemical.

#### Joint Ventures

Coatings and Infrastructure Solutions includes a portion of the Company's share of the results of Dow Corning Corporation, a joint venture that manufactures silicone and silicone products, which is owned 50 percent by the Company.

Table of Contents**AGRICULTURAL SCIENCES**

The Agricultural Sciences segment is a global leader in providing crop protection and plant biotechnology products, urban pest management solutions and healthy oils. The business invents, develops, manufactures and markets products for use in agriculture, industrial and commercial pest management, and food service. The segment has broad global reach with sales in 130 countries and R&D and manufacturing facilities located in all geographic areas. Growth is achieved through the development of innovative new products and technologies, successful segmentation of market offerings with leading brands, diverse channels to market, cost competitive positions, strategic bolt-on acquisitions, and commercial and R&D collaborations. The Company is committed to the development of innovative new biological and crop protection products and technologies.

Details on Agricultural Sciences' 2013 sales, by business and geographic area, are as follows:

**Products**

Key product lines, including crop application, are listed below:

Key Product Lines	Crop Application									
	Canola	Cereals	Corn	Cotton	Range and Pasture	Rice	Soybeans	Sunflower	Trees, Fruits and Vegetables	Others
Insecticides	x	x	x	x		x	x	x	x	x
Fungicides		x				x	x		x	x
Herbicides	x	x	x	x	x	x	x	x	x	x
Seeds, Traits and Oils	x	x	x	x	x		x	x		x
Other			x						x	x

The Company's ability to produce seeds can be materially impacted by weather conditions and the availability of reliable contract growers.

Major brands, by key product line, are listed below:

**Key Product Lines Brands**

Insecticides LORSBAN™; RADIANT™; SENTRICON™; TELONE™; TRACER™

Fungicides DITHANE™

Herbicides BROADWAY™; CLINCHER™; FENCER™; GARLON™; LONTREL™; MILESTONE™; PRIMUS™; STARANE™; SURESTART™; TORDON™

Seeds, Traits and  
Oils AGROMENT™ seeds; BRODBECK™ seeds; DAIRYLAND SEED™; Grand Valley Hybrids; HYLAND™ seeds; MYCOGEN™ seeds; NEXERA™; PFISTER™ seeds; PHYTOGEN™; PRAIRIE BRAND SEEDS™; Renze Seeds; TRIUMPH™ seed

Other HARVISTA™; N-SERVE™; RIPELOCK™

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Agricultural Sciences is focused on delivering results through technology leadership, including the following:

- SmartStax® Insect Trait Technology<sup>(1)</sup>
  - POWERCORE™ Insect Trait Technology
  - REFUGE ADVANCED® powered by SmartStax®<sup>(1)</sup>
  - ENLIST™ Weed Control System<sup>(2)</sup>
  - Omega-9 Healthier Oils
  - New crop protection technologies - sulfoxaflor, spinetoram, pyroxsulam, aminopyralid and penoxsulam
- Smartstax® and POWERCORE™ multi-event technology developed by Dow AgroSciences LLC and Monsanto.

(1) Smartstax®, the Smartstax® logo, POWERCORE™ and the POWERCORE™ logo are trademarks of Monsanto Technology, LLC.

(2) Components of the ENLIST™ Weed Control System have not yet received regulatory approvals; approvals are pending.

## Patents, Trademarks and Licenses

Agricultural Sciences has significant technology-driven growth, led by plant biotechnology traits and crop protection products that utilize proprietary formulations. As a result, the Company uses patents, trademarks, licenses and registrations to protect its investment in germplasm, traits and proprietary chemistries and formulations. The Company also licenses plant biotechnology traits from third parties and engages in research collaborations with global industry, academia, and governments. The Company does not regard the Agricultural Sciences segment as being materially dependent on any single or group of related patents, trademarks, licenses or registrations.

## Competition

Agricultural Sciences competes with producers of crop protection chemicals and agricultural biotechnology in the United States and abroad. The Company competes on the basis of technology and trait leadership, price, quality and cost competitiveness. Key competitors include BASF, Bayer, E. I. DuPont de Nemours, Monsanto and Syngenta.

## Distribution

Agricultural Sciences has a diverse worldwide network which markets and distributes the Company's brands to customers globally. This network consists of the Company's sales and marketing organization partnering with distributors, independent retailers and growers, cooperatives and agents throughout the world.

## Seasonality

Agricultural Sciences sales and EBITDA are strongest in the first half of the year, aligning with the planting and growing season in the northern hemisphere, where approximately 65 percent of the segment's annual sales are generated. Inventory tends to be at its low point in the second quarter of the year, consistent with peak sales in the northern hemisphere, and reaches its highest levels in the third and fourth quarters. Accounts receivable tend to be highest in the first quarter of the year, also consistent with the peak sales period.

## PERFORMANCE MATERIALS

The Performance Materials segment is comprised of eleven market-focused, technology-driven, customer-centric businesses that are advantaged through integration and driven by innovative technology and solutions. Products produced by this segment are back-integrated into feedstocks, supporting a low-cost manufacturing base and consistent, reliable supply. The Performance Materials segment is positioned for growth through diverse markets and product offerings. The segment has broad geographic reach with sales in over 140 countries and manufacturing facilities located in all geographic areas. Performance Materials has a diverse product line that serves customers in a large number of industries, including automotive, consumer, construction, infrastructure, oil and gas, appliance and electronics.

Details on Performance Materials' 2013 sales, by business and geographic area, are as follows:



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## Products

Major products by business and applications/market segments are listed below:

Business	Major Products	Applications/Market Segments
Amines	Chelants, ethanolamines, ethyleneamines, isopropanolamines	Agriculture, construction, consumer and institutional goods, electronics, home and personal care, industrial applications, paper, transportation, utilities
Chlorinated Organics	Chloroform, methyl chloride, methylene chloride, perchloroethylene, trichloroethylene	Cleaning applications, construction, fluoropolymers, pharmaceuticals, refrigerants, water treatment
Dow Automotive Systems	Composites, polyurethane foams, composite, elastic and structural adhesives, acoustical foam, one-coat adhesives	Automotive, transportation
Dow Formulated Systems	Formulated epoxy and polyurethane systems	Construction insulation, commercial appliances, composites, flooring, footwear, furniture, industrial applications, infrastructure, wind energy solutions
Dow Oil, Gas & Mining	Demulsifiers, drilling and completion fluids, heat transfer fluids, perchloroethylene, rheology modifiers, scale inhibitors, shale inhibitors, specialty amine solvents, surfactants, water clarifiers	Enhanced oil recovery, gas processing, oil and gas exploration and production, oil and gas transmission, power, refining
Dow Plastics Additives	Additives for the processing and modification of thermoplastic and thermosetting plastic materials	Building and construction, consumer goods, electronics, packaging, transportation
Epoxy	Epoxy resins, hardeners and intermediates	Civil engineering, composites, consumer goods, electrical laminates, infrastructure
Oxygenated Solvents	Acetone derivatives, butyl glycol ethers, glycol ethers, low-VOC solvents, methyl isobutyl	Agriculture, coatings, consumer and industrial goods, electronics, lubricant additives
Polyglycols, Surfactants & Fluids (PS&F)	Heat-transfer fluids, polyalkylene glycol, polyethylene glycol, surfactants	Aircraft deicing, consumer goods, industrial goods, infrastructure, food, pharmaceutical, transportation
Polyurethanes	Polyether polyols, methylene diphenyl diisocyanate ("MDI"), toluene diisocyanate ("TDI")	Appliances, automotive, bedding, building and construction, electronics, flooring, footwear, furniture, industrial, infrastructure, packaging and transportation
Propylene Oxide / Propylene Glycol (PO/PG)	Propylene oxide (produced via the chlorohydrin process; also produced using hydrogen peroxide to propylene oxide manufacturing technology (1)), propylene glycol, synthetic glycerine	Aircraft deicing fluids, animal feed, beverages, cosmetics, food and flavorings, heat transfer fluids, hydraulic and brake fluids, paints and coatings, pharmaceuticals, unsaturated polyester resins, urethanes

Hydrogen peroxide to propylene oxide manufacturing technology is utilized by MTP HPPO Manufacturing Company Limited, a Thailand-based consolidated variable interest entity ultimately owned 50 percent by the (1) Company and 50 percent by SCG Chemicals Co. Ltd.; and BASF DOW HPPO Production B.V.B.A., a Belgium-based joint venture ultimately owned 100 percent by HPPO Holding & Finance C.V., which is owned 50 percent by the Company and 50 percent by BASF.

## Competition

Competition for the Performance Materials segment varies based on the business. Key competitors include large, international chemical companies as well as chemical divisions of major national and international oil companies. Performance Materials back-integration into feedstocks supports a low-cost manufacturing base and consistent, reliable product supply. Dow is a full-service supplier with a global technical service network located close to the customer, which allows the Company to fuel growth in specialty applications and collaborate with customers to invent unique chemistries and tailored solutions. In addition to its competitive cost position, reliable supply and superior customer service, the Company also competes worldwide on the basis of quality, technology and price. Key competitors include BASF, Bayer and Huntsman.

#### Distribution

The Performance Materials segment markets its products primarily through the Company's sales force and also utilizes distributors worldwide.



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## Joint Ventures

Key joint ventures that impact the Performance Materials segment are listed below:

Map Ta Phut Olefins Company Limited - effective ownership is 32.77 percent of which the Company directly owns 20.27 percent and indirectly owns 12.5 percent through its equity interest in Siam Polyethylene Company Limited and Siam Synthetic Latex Company Limited. This Thailand-based company manufactures propylene and ethylene. A portion of the results of Sadara Chemical Company - a development-stage Saudi Arabian company that will manufacture chlorine, ethylene and propylene for internal consumption and will produce and sell high-value added chemical products and performance plastics; owned 35 percent by the Company.

## Divestitures

The Performance Materials segment included Dow Haltermann until it was fully divested at December 31, 2011.

## PERFORMANCE PLASTICS

The Performance Plastics segment is a solution-oriented portfolio composed primarily of three businesses, Dow Elastomers, Dow Electrical and Telecommunications, and Dow Packaging and Specialty Plastics. These businesses serve high-growth, high value sectors where Dow's world-class technology and rich innovation pipeline creates competitive advantages for customers and the entire value chain. These businesses have complimentary market reach, asset capabilities and technology platforms that provide the Company with immediate and long-term growth synergies. The segment has broad geographic reach with sales in more than 100 countries and manufacturing facilities located in all geographic areas. Market growth is expected to be driven by major shifts in population demographics, improving socioeconomic status in emerging geographies, consumer and brand owner demand for increased consumer convenience, efforts to reduce food waste, growth in telecommunications networks, specifically broadband and LTE networks, and global development of electrical transmission and distribution infrastructure and renewable energy applications.

Details on Performance Plastics' 2013 sales, by business and geographic area, are as follows:

## Products

Major products by business and applications/market segments are listed below:

Business	Major Products	Applications/Market Segments
Dow Elastomers	Elastomers, polyolefin plastomers, ethylene propylene diene monomer elastomers ("EPDMs")	Adhesives, footwear, housewares, infrastructure, sports recreation, toys and infant products, transportation
Dow Electrical and Telecommunications	Wire and cable insulation, semiconductive and jacketing compound solutions, bio-based plasticizers	Building and construction, electrical transmission and distribution infrastructure, telecommunications infrastructure
Dow Packaging and Specialty Plastics	Acrylics, polyethylene, low-density polyethylene, linear low-density polyethylene, high-density polyethylene, polyolefin emulsions, polyolefin plastomers	Adhesives, food and specialty packaging, hygiene and medical, industrial and consumer packaging, photovoltaic

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The segment strategically locates its polyethylene production units near its hydrocarbon cracking facilities to enable back-integration into feedstocks. As a result, the segment sources ethylene primarily from internally produced sources and propylene from both internal and external sources. In 2013, the Performance Plastics segment consumed 71 percent of Dow's internal ethylene production.

### Competition

Competition for the Performance Plastics segment includes chemical divisions of major national and international oil companies, which provide competition in the United States and abroad. Dow competes worldwide on the basis of product quality, product supply, technology, price and customer service. Performance Plastics will continue to benefit from an advantaged feedstock position, including favorable shale gas dynamics in the United States, which will further strengthen the Company's low-cost position and enhance global cost competitiveness. Key competitors include ExxonMobil, INEOS, LyondellBasell, Mitsui and SABIC.

### Joint Ventures

Joint ventures play an integral role within the Performance Plastics segment by dampening earnings cyclicality and improving earnings growth. Key joint ventures are listed below:

#### Aligned 100 percent with Performance Plastics

Univation Technologies, LLC - a United States-based company that develops, markets and licenses the UNIPOL™ polyethylene process technology and related catalysts, including metallocene catalysts; owned 50 percent by the Company.

Performance Plastics includes a portion of the results of:

• EQUATE Petrochemicals Company K.S.C. - a Kuwait-based company that manufactures ethylene, polyethylene and ethylene glycol; owned 42.5 percent by the Company.

• The Kuwait Olefins Company K.S.C. - a Kuwait-based company that manufactures ethylene and ethylene glycol; owned 42.5 percent by the Company.

The SCG-Dow Group consists of Siam Polyethylene Company Limited - owned 50 percent; Siam Polystyrene Company Limited - owned 50 percent; Siam Styrene Monomer Co., Ltd. - owned 50 percent; and Siam Synthetic Latex Company Limited - owned 50 percent. These Thailand-based companies manufacture polyethylene, polystyrene, styrene and latex.

Sadara Chemical Company - a development-stage Saudi Arabian company that will manufacture chlorine, ethylene and propylene for internal consumption and will produce and sell high-value added chemical products and performance plastics; owned 35 percent by the Company.

### Divestitures

On December 2, 2013, the Company sold its Polypropylene Licensing and Catalysts business to W. R. Grace & Co. On September 30, 2011, the Company sold its global Polypropylene business to Braskem SA. Both businesses were reported in the Performance Plastics segment through the date of divestiture.

### Future Investments

During 2013, the Company announced the location of four new Performance Plastics production units to be built on the U.S. Gulf Coast. Leveraging an advantaged feedstock position from U.S. shale gas, these production units will support expected profitable growth of the Company's high value Performance Plastics franchise. The businesses, production units and locations impacted are as follows:

• Dow Packaging and Specialty Plastics: An ELITE™ polymer production unit will be built in Freeport, Texas; and a Low Density Polyethylene (LDPE) production unit will be built in Plaquemine, Louisiana.

Dow Elastomers: A NORDEL™ metallocene EPDM production unit will be built in Plaquemine, Louisiana; and a High Melt Index (HMI) AFFINITY™ polymer production unit will be built in Freeport, Texas.

Table of Contents**FEEDSTOCKS AND ENERGY**

The Feedstocks and Energy segment is the largest global producer of ethylene, chlorine, caustic soda and purified ethylene oxide. This segment is also a leading purchaser and producer of propylene and one of the world's largest industrial energy producers. Combining best-in-class technologies, unparalleled scale and highly integrated operations, Feedstocks and Energy supplies cost-advantaged building blocks to our performance and market driven businesses. The majority of Dow's advantaged internal feedstock supply is used to enable our downstream businesses. In 2013, Dow's higher-margin performance businesses consumed 100 percent of propylene, approximately 90 percent of ethylene and ethylene oxide and more than 80 percent of chlorine produced internally by Dow. The Company strategically locates its downstream production units near its hydrocarbon cracking facilities to enable back-integration into feedstocks.

Dow's global scale and feedstock flexibility creates a cost-advantaged foundation for the Company's downstream, market-driven businesses. In North America, new shale gas opportunities - and the resulting increased supplies and stabilized raw material prices - have made the Company's ethane- and propane-based production more cost-competitive and also offer cost benefits to the energy-intensive chlor-alkali manufacturing process. The Company's U.S. and European hydrocarbon cracking facilities allow Dow to use different feedstocks in response to price conditions. Meanwhile, the Company's U.S. Gulf Coast investments will strengthen ethylene and propylene integration and establish a platform for growth of Dow's downstream businesses.

Details on Feedstocks and Energy's 2013 sales, by business and geographic area, are as follows:

**Products**

A listing of the businesses, with products and key applications/market segments, are listed below:

Business	Major Products	Applications/Market Segments
	Chlor-Alkali provides cost-advantaged chlorine and caustic soda feedstock for Dow's performance businesses	Chlor-Alkali - Automobiles, bedding, electronics, furniture, personal protection equipment, pharmaceuticals, textiles
Chlor-Alkali / Chlor-Vinyl	Chlor-Vinyl includes the marketing of caustic soda, a co-product of the Chlor-Alkali manufacturing process; ethylene dichloride (EDC) and vinyl chloride monomer (VCM) essential to production of polyvinyl chloride (PVC)	Chlor-Vinyl - Agricultural chemicals; alumina, pulp and paper; bleaches and detergents; building and construction materials; medical devices; municipal and residential water piping systems; pharmaceuticals; textiles
Energy	Power, steam and other utilities Ethylene oxide (EO) feedstock supply for downstream derivatives; approximately 90 percent EO - intermediates that are used in personal of EO manufactured by Dow is consumed by Dow care, household products, paints and coatings, businesses or joint ventures	Primarily for use in Dow's global operations and oil and gas exploration
Ethylene Oxide / Ethylene Glycol (EO/EG)	Ethylene glycol (EG) is supplied to MEGlobal, a 50:50 joint venture and a world leader in the manufacturing and marketing of merchant monoethylene glycol and diethylene glycol	EG - aircraft and runway deicers, food and beverage containers, polyester fiber and polyester film
Hydrocarbons	Ethylene, propylene, benzene, butadiene, cumene, octene, aromatics co-products, crude C4	Product integration ranging from feedstocks and monomers to a myriad of products used by derivative businesses

Advantaged feedstock positions in the United  
States, Canada, Argentina and the Middle East

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### Joint Ventures

Joint ventures play an integral role within the Feedstocks and Energy segment by dampening earnings cyclicality, improving earnings growth and enabling access to high growth markets. Key joint ventures are listed below:

#### Aligned 100 percent with Feedstocks and Energy

MEGlobal - headquartered in Dubai, United Arab Emirates and manufactures and markets monoethylene glycol, diethylene glycol and polyethylene terephthalate resins; owned 50 percent by the Company.

Feedstocks and Energy includes a portion of the results of:

EQUATE Petrochemicals Company K.S.C. - a Kuwait-based company that manufactures ethylene, polyethylene and ethylene glycol; owned 42.5 percent by the Company.

The Kuwait Olefins Company K.S.C. - a Kuwait-based company that manufactures ethylene and ethylene glycol; owned 42.5 percent by the Company.

The SCG-Dow Group consists of Siam Polyethylene Company Limited - owned 50 percent; Siam Polystyrene Company Limited - owned 50 percent; Siam Styrene Monomer Co., Ltd. - owned 50 percent; and Siam Synthetic Latex Company Limited - owned 50 percent. These Thailand-based companies manufacture polyethylene, polystyrene, styrene and latex.

### Freeport LNG

Dow has a long-term agreement with Freeport LNG Development, L.P. ("FLNG") to use 0.5 billion cubic-feet-per-day of regasification capacity at FLNG's 1.6 billion cubic-feet-per-day liquified natural gas ("LNG") receiving terminal in Quintana, Texas. In addition, Texas LNG Holdings LLC, a subsidiary of Dow, owns a 7.5 percent limited partner interest in FLNG. The initial investment in FLNG was made in 2004 when the cost of developing oil and gas reserves in the United States was sufficiently high that LNG was a competitive alternative for securing natural gas, an essential raw material and energy source for Dow's operations. Current market conditions favor the flow of LNG to overseas markets; therefore, Dow's utilization of the FLNG's terminal is expected to be limited. Dow is responsible for monthly process-or-pay payments to FLNG irrespective of whether it utilizes the terminal for regasification. The financial impact of this capacity underutilization is not expected to be material to the Company's future earnings or cash flows.

On November 25, 2013, the Company sold 50 percent of its 15 percent limited partner interest in FLNG.

### CORPORATE

Corporate includes results of the Company's insurance company operations, the results of Ventures (which includes new business incubation platforms focused on identifying and pursuing new commercial opportunities); Venture Capital; non-business aligned technology licensing and catalyst activities; environmental operations; enterprise level mega project activities; gains and losses on sales of financial assets; stock-based compensation expense and severance costs; asbestos-related defense and resolution costs; foreign exchange results; and certain corporate overhead costs and cost recovery variances not allocated to the operating segments.

### INDUSTRY SEGMENTS AND GEOGRAPHIC AREA RESULTS

See Note 24 to the Consolidated Financial Statements for information regarding sales, EBITDA and total assets by segment as well as sales and total assets by geographic area.

### SIGNIFICANT CUSTOMERS AND PRODUCTS

All products and services are marketed primarily through the Company's sales force, although in some instances more emphasis is placed on sales through distributors.

Thirteen percent of the sales of the Feedstocks and Energy segment in 2013 were to one customer with which the Company has ongoing supply contracts. Other than sales to this customer, no significant portion of any operating segment's sales is dependent upon a single customer.

No single product accounted for more than 5 percent of the Company's consolidated net sales in 2013.

Table of Contents**RAW MATERIALS**

The Company operates in an integrated manufacturing environment. Basic raw materials are processed through many stages to produce a number of products that are sold as finished goods at various points in those processes. The two major raw material streams that feed the integrated production of the Company's finished goods are chlorine-based and hydrocarbon-based raw materials.

Salt, natural brine and electricity are the base raw materials used in the production of chlor-alkali products and derivatives. The Company owns salt deposits in Louisiana and Texas; Alberta, Canada; Brazil; and Germany. The Company also produces a portion of its electricity needs in Louisiana and Texas; Alberta, Canada; and Germany.

The Company purchases hydrocarbon raw materials including ethane, propane, butane, naphtha and condensate as feedstocks. These raw materials are used in the production of both saleable products and energy. The Company also purchases certain monomers, primarily ethylene and propylene to supplement internal production. The Company purchases natural gas, mainly to generate electricity, and purchases electric power to supplement internal generation. Expenditures for hydrocarbon feedstocks and energy accounted for 38 percent of the Company's production costs and operating expenses for the year ended December 31, 2013. The Company purchases these raw materials on both short- and long-term contracts.

The Company had adequate supplies of raw materials during 2013, and expects to continue to have adequate supplies of raw materials in 2014. Significant raw materials, by operating segment, are listed below:

**Significant Raw Materials**

Raw Material	Electronic and Functional Materials	Coatings and Infrastructure Solutions	Agricultural Sciences	Performance Materials	Performance Plastics	Feedstocks and Energy
Acetone		x		x		
Ammonia		x		x		
Aniline				x		
Benzene		x		x		x
Bisphenol A					x	
Butadiene				x		
Butane						x
Butene				x	x	x
Carbon Monoxide				x		
Cumene				x		
Chlorine (1)	x		x	x		x
Condensate						x
Electric Power						x
Ethane						x
Ethylene (2)		x			x	x
Hexene					x	
Hydrogen Peroxide (3)				x		
Liquified Petroleum Gases						x
Methanol		x		x		
Naphtha						x
Natural Brine						x
Natural Gas						x
Octene					x	x



Phenol				X	
Propane	X				X
Propylene (2)	X	X		X	X
Pygas					X
Salt					X
Styrene		X		X	
Toluene Diamine				X	

(1) Produced by the Company for internal consumption.

(2) Produced by the Company and procured from external sources for internal consumption.

(3) Primarily produced and procured by a consolidated variable interest entity.

Table of Contents**RESEARCH AND DEVELOPMENT**

The Company is engaged in a continuous program of basic and applied research to develop new products and processes, to improve and refine existing products and processes, and to develop new applications for existing products. Research and development expenses were \$1,747 million in 2013, \$1,708 million in 2012 and \$1,646 million in 2011. At December 31, 2013, the Company employed approximately 6,400 people in various research and development activities.

**PATENTS, LICENSES AND TRADEMARKS**

The Company continually applies for and obtains U.S. and foreign patents and has a substantial number of pending patent applications throughout the world. At December 31, 2013, the Company owned 3,879 active U.S. patents and 15,556 active foreign patents as follows:

**Patents Owned at December 31, 2013**

	United States	Foreign
Electronic and Functional Materials	1,049	3,864
Coatings and Infrastructure Solutions	607	2,887
Agricultural Sciences	706	2,789
Performance Materials	586	2,547
Performance Plastics	720	2,975
Feedstocks and Energy	68	213
Corporate	143	281
Total	3,879	15,556

**Remaining Life of Patents Owned at December 31, 2013**

	United States	Foreign
Within 5 years	923	2,761
6 to 10 years	1,074	4,842
11 to 15 years	1,040	6,224
16 to 20 years	842	1,729
Total	3,879	15,556

Dow's primary purpose in obtaining patents is to protect the results of its research for use in operations and licensing. Dow is also party to a substantial number of patent licenses and other technology agreements. The Company had revenue related to patent and technology royalties totaling \$327 million in 2013, \$448 million in 2012 and \$437 million in 2011. The Company incurred royalties to others of \$198 million in 2013, \$185 million in 2012 and \$114 million in 2011. Dow also has a substantial number of trademarks and trademark registrations in the United States and in other countries, including the "Dow in Diamond" trademark. Although the Company considers that its patents, licenses and trademarks in the aggregate constitute a valuable asset, it does not regard its business as being materially dependent on any single or group of related patents, licenses or trademarks.

Table of Contents**PRINCIPAL PARTLY OWNED COMPANIES**

Dow's principal nonconsolidated affiliates at December 31, 2013, including direct or indirect ownership interest for each, are listed below:

Principal Nonconsolidated Affiliate	Ownership Interest	Business Description
Dow Corning Corporation	50.00	% A U.S. company that manufactures silicone and silicone products
EQUATE Petrochemical Company K.S.C.	42.50	% A Kuwait-based company that manufactures ethylene, polyethylene and ethylene glycol
The Kuwait Olefins Company K.S.C.	42.50	% A Kuwait-based company that manufactures ethylene and ethylene glycol
Map Ta Phut Olefins Company Limited (1)	32.77	% A Thailand-based company that manufactures propylene and ethylene
MEGlobal	50.00	% A company, headquartered in Dubai, United Arab Emirates, that manufactures and markets monoethylene glycol, diethylene glycol and polyethylene terephthalate resins
Sadara Chemical Company	35.00	% A development-stage Saudi Arabian company that will manufacture chlorine, ethylene and propylene for internal consumption and will produce and sell high-value added chemical products and performance plastics
The SCG-Dow Group		
Siam Polyethylene Company Limited	50.00	% A Thailand-based company that manufactures polyethylene
Siam Polystyrene Company Limited	50.00	% A Thailand-based company that manufactures polystyrene
Siam Styrene Monomer Co., Ltd.	50.00	% A Thailand-based company that manufactures styrene
Siam Synthetic Latex Company Limited	50.00	% A Thailand-based company that manufactures latex
Univation Technologies, LLC	50.00	% A United States-based company that develops, markets and licenses the UNIPOL™ polyethylene process technology and sells related catalysts, including metallocene catalysts

The Company's effective ownership of Map Ta Phut Olefins Company Limited is 32.77 percent, of which the (1) Company directly owns 20.27 percent and indirectly owns 12.5 percent through its equity interest in Siam Polyethylene Company Limited and Siam Synthetic Latex Company Limited.

See Note 8 to the Consolidated Financial Statements for additional information regarding nonconsolidated affiliates.

**FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES**

In 2013, the Company derived 67 percent of its sales and had 47 percent of its property investment outside the United States. While the Company's international operations may be subject to a number of additional risks, such as changes in currency exchange rates and geopolitical risks in emerging geographies, the Company does not regard its foreign operations, on the whole, as carrying any greater risk than its operations in the United States. Information on sales and long-lived assets by geographic area for each of the last three years appears in Note 24 to the Consolidated Financial Statements, and discussions of the Company's risk management program for foreign exchange and interest rate risk management appear in Part I, Item 1A. Risk Factors; Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk; and Note 10 to the Consolidated Financial Statements.

**PROTECTION OF THE ENVIRONMENT**

Matters pertaining to the environment are discussed in Part I, Item 1A. Risk Factors; Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations; and Notes 1 and 14 to the Consolidated Financial Statements. In addition, detailed information on Dow's performance regarding environmental matters and

goals can be found online on Dow's Sustainability webpage at [www.dow.com](http://www.dow.com). The Company's website and its content are not deemed incorporated by reference into this report.

#### EMPLOYEES

As of December 31, 2013, the Company employed approximately 53,000 people on a full-time basis, with approximately 50 percent located in North America, 25 percent located in Europe, Middle East and Africa, and 25 percent located in other locations.

#### OTHER ACTIVITIES

Dow engages in the property and casualty insurance and reinsurance business primarily through its Liana Limited subsidiaries.

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## EXECUTIVE OFFICERS OF THE REGISTRANT

Set forth below is information related to the Company's executive officers as of February 14, 2014.

Name - Age	Present Position with Registrant	Year Elected to be an Officer	Other Business Experience since January 1, 2009
Ronald C. Edmonds, 56	Vice President and Controller	2009	Business Finance Vice President for Performance Plastics and Chemicals and Market Facing Businesses 2007 to June 2009. Vice President and Assistant Controller July 2009 to November 2009. Present position held since November 2009.
James R. Fitterling, 52	Executive Vice President, Feedstocks, Performance Plastics and Supply Chain	2010	President Basic Plastics 2007 to 2009. Vice President Corporate Development 2009 to August 2010. Dow Executive Vice President and President, Plastics and Hydrocarbons August 2010 to September 2011. Executive Vice President and President, Feedstocks & Energy and Corporate Development September 2011 to September 2012. Executive Vice President, Feedstocks, Performance Plastics, Asia and Latin America September 2012 to December 2013. Present position held since December 2013.
Gregory M. Freiwald, 60	Chief Human Resources Officer, Aviation, Corporate Affairs, and Executive Vice President	2008	Senior Vice President, Human Resources and Corporate Affairs 2008 to 2009. Present position held since 2009.
Heinz Haller, 58	Chief Commercial Officer, President of Dow Europe, Middle East and Africa, and Executive Vice President	2006	Executive Vice President, Performance Plastics and Chemicals 2007 to 2009. Executive Vice President, Health, Agriculture and Infrastructure Group February 2009 to May 2009. Executive Vice President, Performance Systems May 2009 to August 2010. Executive Vice President and Chief Commercial Officer August 2010 to September 2012. Present position held since September 2012.
Joe E. Harlan, 54	Executive Vice President, Chemicals, Energy and Performance Materials	2011	Executive Vice President of Electro and Communications Business, 3M Company 2004 to 2009. Executive Vice President of Consumer & Office Business, 3M Company 2009 to August 2011. Executive Vice President, Performance Materials September 2011 to September 2012. Present position held since September 2012.
Peter Holicki, 53	Corporate Vice President, Manufacturing and Engineering, and Environment, Health & Safety Operations	2014	Global Manufacturing Vice President, Hydrocarbons May 2009 to October 2012. Vice President for Manufacturing & Engineering Europe, Middle East & Africa May 2009 to October 2012. Vice President of Operations for Europe, Middle East and Africa and the Ethylene Envelope October 2012 to December 2013. Present position held since 2014.
Charles J. Kalil, 62		2004	

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	General Counsel, Corporate Secretary, and Executive Vice President		General Counsel 2004 to date and Corporate Secretary 2005 to date. Executive Vice President 2008 to date.
David E. Kepler, 61	Executive Vice President, Chief Sustainability Officer and Chief Information Officer	2000	Chief Information Officer 1998 to date. Corporate Vice President with responsibility for eBusiness 2000 to date. Responsibility for Business Services 2004 to date. Chief Sustainability Officer 2007 to date. Executive Vice President 2008 to date.
Andrew N. Liveris, 59	President, Chief Executive Officer and Chairman of the Board	2003	President and Chief Executive Officer 2004 to date and Chairman 2006 to date.
Fernando Ruiz, 58	Corporate Vice President and Treasurer	2001	Corporate Vice President and Treasurer 2001 to date.
A. N. Sreeram, 46	Corporate Vice President, Research & Development	2013	Vice President, Research & Development, Dow Advanced Materials 2009 to October 2013. Present position held since October 2013.
Howard I. Ungerleider, 45	Executive Vice President, Advanced Materials	2011	Vice President, Investor Relations 2008 to March 2011. Senior Vice President and President, Performance Plastics March 2011 to September 2012. Present position held since September 2012.
William H. Weideman, 59	Chief Financial Officer and Executive Vice President	2006	Vice President and Controller 2006 to November 2009. Vice President and Interim Chief Financial Officer November 2009 to March 2010. Dow Executive Vice President and Chief Financial Officer March 2010 to date. Executive Vice President of Finance, Dow AgroSciences and Corporate Strategic Development since September 2012.

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The Dow Chemical Company and Subsidiaries

PART I, Item 1A. Risk Factors.

**RISK FACTORS**

The factors described below represent the Company's principal risks.

**Global Economic Conditions:** The Company operates in a global, competitive environment which gives rise to operating and market risk exposure.

The Company sells its broad range of products and services in a competitive, global environment, and competes worldwide for sales on the basis of product quality, price, technology and customer service. Increased levels of competition could result in lower prices or lower sales volume, which could have a negative impact on the Company's results of operations.

Economic conditions around the world, and in certain industries in which the Company does business also impact sales prices and volume. As a result, market uncertainty or an economic downturn in the geographic areas or industries in which Dow sells its products could reduce demand for these products and result in decreased sales volume, which could have a negative impact on Dow's results of operations.

In addition, volatility and disruption of financial markets could limit customers' ability to obtain adequate financing to maintain operations, which could result in a decrease in sales volume and have a negative impact on Dow's results of operations. The Company's global business operations also give rise to market risk exposure related to changes in foreign exchange rates, interest rates, commodity prices and other market factors such as equity prices. To manage such risks, Dow enters into hedging transactions pursuant to established guidelines and policies. If Dow fails to effectively manage such risks, it could have a negative impact on the Company's results of operations.

**Financial Commitments and Credit Markets:** Market conditions could reduce the Company's flexibility to respond to changing business conditions or fund capital needs.

Adverse economic conditions could reduce the Company's flexibility to respond to changing business and economic conditions or to fund capital expenditures or working capital needs. The economic environment could result in a contraction in the availability of credit in the marketplace and reduce sources of liquidity for the Company. This could result in higher borrowing costs.

**Raw Materials:** Availability of purchased feedstocks and energy, and the volatility of these costs, impact Dow's operating costs and add variability to earnings.

Purchased feedstock and energy costs account for a substantial portion of the Company's total production costs and operating expenses. The Company purchases hydrocarbon raw materials including ethane, propane, butane, naphtha and condensate as feedstocks. The Company also purchases certain monomers, primarily ethylene and propylene, to supplement internal production, as well as other raw materials. The Company purchases natural gas, mainly to generate electricity, and purchases electric power to supplement internal generation.

Feedstock and energy costs generally follow price trends in crude oil and natural gas, which are sometimes volatile. While the Company uses its feedstock flexibility and financial and physical hedging programs to help mitigate feedstock cost increases, the Company is not always able to immediately raise selling prices. Ultimately, the ability to pass on underlying cost increases is dependent on market conditions. Conversely, when feedstock and energy costs decline, selling prices generally decline as well. As a result, volatility in these costs could impact the Company's results of operations.

The Company has announced a number of investments in the U.S. Gulf Coast to take advantage of increasing supplies of low-cost natural gas and natural gas liquids ("NGLs") from shale gas. As a result of these investments, the

Company's exposure to purchased ethylene and propylene is expected to decline, offset by increased exposure to ethane and propane feedstocks. The first project to come online was the restart of an ethylene facility in Louisiana, which was completed at the end of December, 2012. The Company intends to also build a new on-purpose propylene facility in Freeport, Texas, with start-up expected in 2015 and a new world-scale ethylene production facility in Freeport, Texas, with start-up expected in 2017.

While the Company expects abundant and cost-advantaged supplies of NGLs in the United States to persist for the foreseeable future, if NGLs were to become significantly less advantaged than crude oil-based feedstocks, it could have a negative impact on the Company's results of operations and future investments.



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Also, if the Company's key suppliers of feedstocks and energy are unable to provide the raw materials required for production, it could have a negative impact on the Company's results of operations.

**Supply/Demand Balance:** Earnings generated by the Company's chemical and plastic products vary based in part on the balance of supply relative to demand within the industry.

The balance of supply relative to demand within the industry may be significantly impacted by the addition of new capacity, especially for basic commodities where capacity is generally added in large increments as world-scale facilities are built. This may disrupt industry balances and result in downward pressure on prices due to the increase in supply, which could negatively impact the Company's results of operations.

**Litigation:** The Company is party to a number of claims and lawsuits arising out of the normal course of business with respect to commercial matters including product liability, governmental regulation and other actions.

Certain of the claims and lawsuits facing the Company purport to be class actions and seek damages in very large amounts. All such claims are contested. With the exception of the possible effect of the asbestos-related liability of Union Carbide Corporation ("Union Carbide") and certain urethane matters, described below, it is the opinion of the Company's management that the possibility is remote that the aggregate of all such claims and lawsuits will have a material adverse impact on the Company's consolidated financial statements.

Union Carbide is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past three decades. At December 31, 2013, Union Carbide's asbestos-related liability for pending and future claims was \$501 million (\$602 million at December 31, 2012) and its receivable for insurance recoveries related to the asbestos liability was \$25 million (\$25 million at December 31, 2012). At December 31, 2013, Union Carbide also had receivables of \$66 million (\$154 million at December 31, 2012) for insurance recoveries for defense and resolution costs. It is the opinion of the Company's management that it is reasonably possible that the cost of Union Carbide disposing of its asbestos-related claims, including future defense costs, could have a material impact on the Company's results of operations and cash flows for a particular period and on the consolidated financial position of the Company.

The Company, among others, was named as a defendant in multiple civil class action lawsuits alleging a conspiracy to fix the price of various urethane chemical products, namely polyurethane chemicals, including methylene diphenyl diisocyanate, toluene diisocyanate, polyether polyols and system house products. These lawsuits were consolidated or have been tolled. In January 2013, the class action lawsuit went to trial in the U.S. District Court for the District of Kansas with the Company as the sole remaining defendant. On February 20, 2013, the jury in the matter returned a damages verdict of approximately \$400 million against the Company. The Company filed post-trial motions on March 5, 2013, requesting the District Court grant judgment in favor of the Company, grant the Company a new trial and/or decertify the class. On May 15, 2013, the District Court denied the Company's request to overturn the verdict and, under antitrust laws, tripled the damages verdict resulting in a \$1.2 billion judgment. On July 26, 2013, the District Court entered an amended judgment in the amount of \$1.06 billion. The Company is appealing this amended judgment. The Company has concluded it is not probable that a loss will occur and, therefore, a liability has not been recorded with respect to these matters.

**Environmental Compliance:** The costs of complying with evolving regulatory requirements could negatively impact the Company's financial results. Actual or alleged violations of environmental laws or permit requirements could result in restrictions or prohibitions on plant operations, substantial civil or criminal sanctions, as well as the assessment of strict liability and/or joint and several liability.

The Company is subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to pollution, protection of the environment, greenhouse gas emissions, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. At December 31, 2013, the Company had accrued obligations of \$722 million (\$754 million at December 31, 2012) for probable

environmental remediation and restoration costs, including \$73 million (\$69 million at December 31, 2012) for the remediation of Superfund sites. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Company has accrued liabilities, although it is reasonably possible that the ultimate cost with respect to these particular matters could range up to approximately two and a half times that amount. Costs and capital expenditures relating to environmental, health or safety matters are subject to evolving regulatory requirements and depend on the timing of the promulgation and enforcement of specific standards which impose the requirements. Moreover, changes in environmental regulations could inhibit or interrupt the Company's operations, or require modifications to its facilities. Accordingly, environmental, health or safety regulatory matters could result in significant unanticipated costs or liabilities.

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**Chemical Safety:** Increased concerns regarding the safe use of chemicals in commerce and their potential impact on the environment have resulted in more restrictive regulations from local, state and federal governments and could lead to new regulations.

Concerns regarding the safe use of chemicals in commerce and their potential impact on health and the environment reflect a growing trend in societal demands for increasing levels of product safety and environmental protection. These concerns could manifest themselves in stockholder proposals, preferred purchasing and continued pressure for more stringent regulatory intervention. These concerns could also influence public perceptions, the viability of the Company's products, the Company's reputation and the cost to comply with regulations. In addition, terrorist attacks and natural disasters have increased concerns about the security and safety of chemical production and distribution. These concerns could have a negative impact on the Company's results of operations.

Local, state and federal governments continue to propose new regulations related to the security of chemical plant locations and the transportation of hazardous chemicals, which could result in higher operating costs.

**Operational Event:** A significant operational event could negatively impact the Company's results of operations. As a diversified chemical manufacturing company, the Company's operations, the transportation of products, cyber attacks, or severe weather conditions and other natural phenomena (such as drought, hurricanes, earthquakes, tsunamis, floods, etc.) could result in an unplanned event that could be significant in scale and could negatively impact operations, neighbors or the public at large, which could have a negative impact on the Company's results of operations.

Major hurricanes have caused significant disruption in Dow's operations on the U.S. Gulf Coast, logistics across the region, and the supply of certain raw materials, which had an adverse impact on volume and cost for some of Dow's products. Due to the Company's substantial presence on the U.S. Gulf Coast, similar severe weather conditions or other natural phenomena in the future could negatively affect Dow's results of operations.

**Cyber Vulnerability:** The risk of loss of the Company's intellectual property, trade secrets or other sensitive business information or disruption of operations could negatively impact the Company's financial results.

Cyber attacks or security breaches could compromise confidential, business critical information or cause a disruption in the Company's operations. The Company has attractive information assets, including intellectual property, trade secrets and other sensitive, business critical information. While the Company has a comprehensive cyber security program that is continuously reviewed, maintained and upgraded, a significant cyber attack could result in the loss of critical business information and/or could negatively impact operations, which could have a negative impact on the Company's financial results.

**Company Strategy:** Implementing certain elements of the Company's strategy could negatively impact the Company's financial results.

The Company currently has manufacturing operations, sales and marketing activities, joint ventures, as well as proposed and existing projects of varying size in emerging geographies. Activities in these geographies are accompanied by uncertainty and risks including: navigating different government regulatory environments; relationships with new, local partners; project funding commitments and guarantees; expropriation, military actions, war, terrorism and political instability; uninsurable risks; suppliers not performing as expected resulting in increased risk of extended project timelines; and determining raw material supply and other details regarding product movement. If the manufacturing operations, sales and marketing activities, and/or implementation of these projects is not successful, it could adversely affect the Company's financial condition, cash flows and results of operations.

**Goodwill:** An impairment of goodwill could negatively impact the Company's financial results.

At least annually, the Company assesses goodwill for impairment. If an initial qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit exceeds its estimated fair value, additional

quantitative testing is performed. The Company may also elect to skip the qualitative testing and proceed directly to quantitative testing. If the quantitative testing indicates that goodwill is impaired, the carrying value of goodwill is written down to fair value with a charge against earnings. Since the Company utilizes a discounted cash flow methodology to calculate the fair value of its reporting units, continued weak demand for a specific product line or business could result in an impairment. Accordingly, any determination requiring the write-off of a significant portion of goodwill could negatively impact the Company's results of operations.

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Pension and Other Postretirement Benefits: Increased obligations and expenses related to the Company's defined benefit pension plans and other postretirement benefit plans could negatively affect Dow's financial condition and results of operations.

The Company has defined benefit pension plans and other postretirement benefit plans (the “plans”) in the United States and a number of other countries. The assets of the Company's funded plans are primarily invested in fixed income and equity securities of U.S. and foreign issuers. Changes in the market value of plan assets, investment returns, discount rates, mortality rates, regulations and the rate of increase in compensation levels may affect the funded status of the Company's plans and could cause volatility in the net periodic benefit cost, future funding requirements of the plans and the funded status of the plans. A significant increase in the Company's obligations or future funding requirements could have a negative impact on the Company's results of operations and cash flows for a particular period and on the Company's financial condition.

Implementation of ERP system: The Company's implementation of a new enterprise resource planning (“ERP”) system may adversely affect the Company's business and results of operations or the effectiveness of internal control over financial reporting.

Beginning in the first quarter of 2011, the Company began business implementation of a new ERP system that will deliver a new generation of work processes and information systems. ERP implementations are complex and time-consuming projects that involve substantial expenditures on system software and implementation activities that take several years. ERP implementations also require transformation of business and financial processes in order to reap the benefits of the ERP system. The staging of implementation allows a gradual build of risk in terms of business impact. The Company expects to complete its ERP system implementation in 2014. If the Company does not effectively implement the ERP system as planned or if the system does not operate as intended, it could adversely affect financial reporting systems, the Company's ability to produce financial reports, and/or the effectiveness of internal control over financial reporting.

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The Dow Chemical Company and Subsidiaries  
PART I, Item 1B. Unresolved Staff Comments.  
UNRESOLVED STAFF COMMENTS  
None.

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The Dow Chemical Company and Subsidiaries

PART I, Item 2. Properties.

**PROPERTIES**

The Company operates 201 manufacturing sites in 36 countries. Properties of Dow include facilities which, in the opinion of management, are suitable and adequate for the manufacture and distribution of Dow's products. During 2013, the Company's production facilities and plants operated at 81 percent of capacity. The Company's major production sites, including consolidated variable interest entities, are as follows:

Location	Segment using manufacturing facility					
	Electronic and Functional Materials	Coatings and Infrastructure Solutions	Agricultural Sciences	Performance Materials	Performance Plastics	Feedstocks and Energy
United States:						
Plaquemine, Louisiana	x	x		x	x	x
Hahnville (St. Charles), Louisiana	x	x		x	x	x
Louisville, Kentucky		x		x	x	
Midland, Michigan	x	x	x	x	x	x
Freeport, Texas	x		x	x	x	x
Seadrift, Texas				x	x	x
Texas City, Texas		x		x		x
Deer Park, Texas	x	x				
Canada:						
Fort Saskatchewan, Alberta					x	x
Joffre, Alberta						x
Germany:						
Boehlen		x				x
Bomlitz				x		
Leuna					x	
Schkopau	x	x		x	x	x
Stade	x		x	x		x
Terneuzen, The Netherlands				x	x	x
Tarragona, Spain				x	x	x
Bahia Blanca, Argentina					x	x
Candeias, Brazil				x		
Map Ta Phut, Thailand	x	x		x	x	

Including the major production sites, the Company has plants and holdings in the following geographic areas:

United States:	73 manufacturing locations in 25 states.
Canada:	6 manufacturing locations in 3 provinces.
Europe, Middle East and Africa:	51 manufacturing locations in 18 countries.
Latin America:	29 manufacturing locations in 5 countries.
Asia Pacific:	42 manufacturing locations in 11 countries.

All of Dow's plants are owned or leased, subject to certain easements of other persons which, in the opinion of management, do not substantially interfere with the continued use of such properties or materially affect their value. A summary of properties, classified by type, is provided in Note 7 to the Consolidated Financial Statements. Additional information regarding leased properties can be found in Note 18 to the Consolidated Financial Statements.





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The Dow Chemical Company and Subsidiaries

PART I, Item 3. Legal Proceedings.

LEGAL PROCEEDINGS

Asbestos-Related Matters of Union Carbide Corporation

Union Carbide Corporation ("Union Carbide"), a wholly owned subsidiary of the Company, is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past three decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both actual and punitive damages. The alleged claims primarily relate to products that Union Carbide sold in the past, alleged exposure to asbestos-containing products located on Union Carbide's premises, and Union Carbide's responsibility for asbestos suits filed against a former Union Carbide subsidiary, Amchem Products, Inc.

It is the opinion of Dow's management that it is reasonably possible that the cost of Union Carbide disposing of its asbestos-related claims, including future defense costs, could have a material impact on the Company's results of operations and cash flows for a particular period and on the consolidated financial position of the Company.

For additional information, see Part II, Item 7. Other Matters, Asbestos-Related Matters of Union Carbide Corporation in Management's Discussion and Analysis of Financial Condition and Results of Operations, and Note 14 to the Consolidated Financial Statements.

Environmental Matters

Following a 2008 Risk Management Program ("RMP") inspection by the Environmental Protection Agency ("EPA") at the Company's Freeport, Texas manufacturing facility, the EPA determined that the facility had two deficiencies in its then-applicable RMP plan. Although EPA Region Six officials confirmed that all corrective actions were made within a reasonable period of time, the EPA sought to collect an administrative penalty in excess of \$100,000. On May 7, 2013, a proposed settlement between the Company and the EPA was finalized whereby the Company was assessed a \$134,500 administrative penalty of which \$82,000 was paid to the EPA and \$52,500 was allocated to a Supplemental Environmental Project ("SEP"). The SEP was resolved when a report documenting the completion of the SEP was submitted to the EPA on January 10, 2014.

Dow Benelux B.V., a Netherlands-based wholly owned subsidiary of the Company, received a summons dated July 20, 2012 from the Public Prosecutor in The Netherlands to appear before the criminal section of the District Court in Breda, The Netherlands (which venue was subsequently changed to the District Court of Middelburg) (the "Court"). The allegations contained in the summons relate to seven process safety incidents and environmental spills that occurred between 2005 and 2008 at Dow Benelux B.V.'s Terneuzen manufacturing facility. The Public Prosecutor alleges that each of the incidents constitutes a violation of certain Netherlands safety procedures and environmental regulations, notably Section 5 of the Major Accidents Decree 1999 and/or Section 18.18 of the Environmental Act. In addition, five of the incidents allegedly also constitute a violation of Section 173a of the Dutch Criminal Code. If convicted, Dow Benelux B.V. may face sanctions including fines in excess of \$100,000 for some of the violations. The trial on this matter was held in the District Court in Middelburg and began on January 14, 2014 and ended on February 7, 2014. The Court is expected to render its judgment by the end of March 2014.

The Company received an Administrative Complaint dated May 23, 2013 from the Texas Council of Environmental Quality ("TCEQ") alleging violations of various environmental requirements regulating air emissions from operations at its Freeport, Texas manufacturing facility. The TCEQ is seeking a fine in excess of \$100,000 for a number of independent violations of air permits and regulations. The Company is currently negotiating with the TCEQ.



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Derivative Litigation

On March 6, 2013, Jeffrey Kaufman, purportedly in the name of and on behalf of the Company (“Kaufman”), commenced an action in the United States District Court for the District of Delaware against the Company and certain officers and directors of the Company (“Defendants”) alleging, among other things, that between 2007-2012, Defendants violated federal securities and state law surrounding equity awards and disclosures involving the 1988 Award and Option Plan and the 2012 Stock Incentive Plan (the “Plans”) with respect to the tax-deductible nature of certain awards under the Plans. The relief sought in this litigation includes the recovery of certain equity awards and injunctive relief, as well as monetary damages and attorneys' fees. The Company first moved to dismiss the complaint on May 14, 2013. In response to the subsequent filing by Kaufman of an amended complaint, the Company filed an amended motion to dismiss on August 30, 2013, and that motion remains pending. The Company believes the lawsuit to be without merit.

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The Dow Chemical Company and Subsidiaries

PART I, Item 4. Mine Safety Disclosures.

MINE SAFETY DISCLOSURES

Not applicable.

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The Dow Chemical Company and Subsidiaries

PART II, Item 5. Market for Registrant's Common Equity,  
Related Stockholder Matters and Issuer Purchases of Equity Securities.

**MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER  
PURCHASES OF EQUITY SECURITIES**

The principal market for the Company's common stock is the New York Stock Exchange, traded under the symbol "DOW."

Quarterly market and dividend information can be found in Quarterly Statistics at the end of Part II, Item 8. Financial Statements and Supplementary Data.

At December 31, 2013, there were 69,810 registered common stockholders. The Company estimates that there were an additional 525,618 stockholders whose shares were held in nominee names at December 31, 2013. At January 31, 2014, there were 69,486 registered common stockholders.

On December 12, 2013, the Board of Directors declared a quarterly dividend of \$0.32 per share, payable January 30, 2014, to stockholders of record on December 31, 2013. On January 29, 2014, the Board of Directors announced the declaration of a quarterly dividend of \$0.37 per share, payable April 30, 2014, to stockholders of record on March 31, 2014. The 15 percent increase in the dividend in the first quarter of 2014 demonstrates Dow's commitment to consistently and increasingly reward shareholders through ongoing earnings growth. Since 1912, the Company has maintained or increased the amount of the quarterly dividend, adjusted for stock splits, with the exception of February 12, 2009. During this 102-year period, Dow has increased the amount of the quarterly dividend 50 times (approximately 12 percent of the time), reduced the dividend once and maintained the amount of the quarterly dividend approximately 88 percent of the time.

See Part III, Item 11. Executive Compensation for information relating to the Company's equity compensation plans.

**Issuer Purchases of Equity Securities**

The following table provides information regarding purchases of the Company's common stock by the Company during the three months ended December 31, 2013:

**Issuer Purchases of Equity Securities**

Period	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of the Company's publicly announced share repurchase program (1)	Approximate dollar value of shares that may yet be purchased under the Company's publicly announced share repurchase program (1)
October 2013	238,000	\$39.32	238,000	\$1,356,458,256
November 2013	2,613,300	\$39.37	2,613,300	\$1,253,577,619
December 2013	1,533,869	\$39.17	1,533,869	\$1,193,489,017
Fourth quarter 2013	4,385,169	\$39.30	4,385,169	\$1,193,489,017

On February 13, 2013, the Company announced the Board of Directors approved a share buy-back program, (1) authorizing up to \$1.5 billion to be spent on the repurchase of the Company's common stock. Purchases under this program began in May 2013.

On January 29, 2014, the Board of Directors announced an expansion of the Company's share buy-back authorization, authorizing an additional amount not to exceed \$3 billion to be spent on the repurchase of the Company's common stock over a period of time. As a result, the authorized amount of the current ongoing share repurchase program has increased to \$4.5 billion. The Company expects the share repurchase program to be completed in 2014.

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The Dow Chemical Company and Subsidiaries  
PART II, Item 6. Selected Financial Data.

## SELECTED FINANCIAL DATA

In millions, except as noted (Unaudited)	2013	2012	2011	2010	2009	
Summary of Operations (1)						
Net sales	\$57,080	\$56,786	\$59,985	\$53,674	\$44,875	
Net income from continuing operations	4,816	1,100	2,784	2,321	566	
Per share of common stock (in dollars):						
Net income from continuing operations per common share - basic	3.72	0.71	2.06	1.75	0.22	
Net income from continuing operations per common share - diluted	3.68	0.70	2.05	1.72	0.22	
Cash dividends declared per share of common stock	1.28	1.21	0.90	0.60	0.60	
Book value per share of common stock	22.59	17.73	19.28	19.23	18.42	
Year-end Financial Position						
Total assets	\$69,501	\$69,605	\$69,224	\$69,588	\$66,018	
Long-term debt	16,820	19,919	18,310	20,605	19,152	
Financial Ratios						
Research and development expenses as percent of net sales	3.1	% 3.0	% 2.7	% 3.1	% 3.3	%
Income from continuing operations before income taxes as percent of net sales	11.9	% 2.9	% 6.0	% 5.2	% 1.0	%
Return on stockholders' equity	19.4	% 5.0	% 13.1	% 11.0	% 2.0	%
Debt as a percent of total capitalization	39.0	% 48.8	% 48.0	% 51.3	% 51.4	%

(1) Adjusted to report sale of the Calcium Chloride business in 2009 as discontinued operations.

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The Dow Chemical Company and Subsidiaries  
PART II, Item 7. Management's Discussion and  
(Unaudited) Analysis of Financial Condition and Results of Operations.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	Page
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<u>Results of Operations</u>	<u>32</u>
<u>Segment Results</u>	<u>39</u>
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## ABOUT DOW

Dow combines the power of science and technology to passionately innovate what is essential to human progress. The Company is driving innovations that extract value from the intersection of chemical, physical and biological sciences to help address many of the world's most challenging problems such as the need for clean water, clean energy generation and conservation, and increasing agricultural productivity. Dow's integrated, market-driven, industry-leading portfolio of specialty chemical, advanced materials, agrosiences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 180 countries and in high growth sectors such as packaging, electronics, water, coatings and agriculture. In 2013, Dow had annual sales of more than \$57 billion and employed approximately 53,000 people worldwide. The Company's more than 6,000 products are manufactured at 201 sites in 36 countries across the globe. The Company conducts its worldwide operations through global businesses, which are reported in six operating segments: Electronic and Functional Materials, Coatings and Infrastructure Solutions, Agricultural Sciences, Performance Materials, Performance Plastics and Feedstocks and Energy.

In 2013, 36 percent of the Company's sales were to customers in North America; 32 percent were in Europe, Middle East and Africa ("EMEA"); while the remaining 32 percent were to customers in Asia Pacific and Latin America.

## 2013 OVERVIEW

During 2013, Dow continued to face a challenging business environment with ongoing, persistent headwinds in Western Europe and hesitant growth in other geographic areas. In this uncertain economic environment, the Company remained committed to its strategy - implementing cost and cash flow actions, which gained momentum as the year progressed; liberating and deploying cash to enhance the Company's capital structure and reward shareholders; and investing in strategic projects focused on long-term sustainable growth. The Company also paid down debt, continued to maintain a strong liquidity position and rewarded shareholders through dividends and share repurchases.



Net sales for 2013 were \$57.1 billion, up 1 percent from \$56.8 billion in 2012. Sales increased in all operating segments except Performance Materials (down 2 percent) and Feedstocks and Energy (down 8 percent). Excluding the impact of a divestiture<sup>(1)</sup>, sales increased in all geographic areas except Europe, Middle East and Africa ("EMEA") (down 5 percent).

(1) Excludes sales related to Nippon Unicar Company Limited, which was divested on July 1, 2013.

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Price increased 1 percent in 2013 compared with 2012, driven by increases in Performance Plastics (up 4 percent) and Agricultural Sciences (up 1 percent).

Volume remained flat in 2013 compared with 2012, with mixed results by operating segment. Excluding the impact of a divestiture, volume increased in all geographic areas except EMEA (down 5 percent).

On May 6, 2013, the Company and Petrochemical Industries Company (K.S.C.) ("PIC") entered into a Deed providing for payment of the Company's claims against PIC under the K-Dow arbitration. On May 7, 2013, the Company confirmed the receipt of a \$2.195 billion cash payment from PIC. The cash was utilized for debt reduction measures. The Company delivered \$7.8 billion of cash from operating activities in 2013, which includes the impact of the K-Dow arbitration award, and ended the year with \$5.9 billion of cash and cash equivalents. Interest expense and amortization of debt discount declined \$168 million compared with 2012 as the Company reported a \$3 billion reduction in total debt in 2013.

On February 13, 2013, the Board of Directors approved a share buy-back program, authorizing up to \$1.5 billion to be spent on the repurchase of the Company's common stock over a period of time. As a result, the Company repurchased \$307 million of common stock during 2013.

Other notable highlights from 2013 include:

On March 14, 2013, the Company announced the Dow Polypropylene Licensing and Catalysts business was being marketed for divestment, as part of the Company's ongoing commitment to portfolio management. The business was sold to W.R. Grace and Co. on December 2, 2013 for \$490 million, net of working capital adjustments and costs to sell.

On March 18, 2013, the Company announced its intention to build several new Performance Plastics production units on the U.S. Gulf Coast, further connecting the Company's U.S. manufacturing operations with cost-advantaged feedstocks resulting from increasing supplies of shale gas in North America. These production units will support expected profitable growth of the Company's high value Performance Plastics franchise. On August 27, 2013, the Company announced the location of these four new production units:

Dow Packaging and Specialty Plastics: An ELITE™ polymer production unit will be built in Freeport, Texas; and a Low Density Polyethylene (LDPE) production unit will be built in Plaquemine, Louisiana.

Dow Elastomers: A NORDEL™ metallocene ethylene propylene diene monomer ("EPDM") production unit will be built in Plaquemine, Louisiana; and a High Melt Index (HMI) AFFINITY™ polymer production unit will be built in Freeport, Texas.

On June 17, 2013, the Company announced the signing of the main financing for Sadara Chemical Company ("Sadara") whereby Sadara entered into definitive agreements with certain export agencies, commercial banks and the Public Investment Fund of the Kingdom of Saudi Arabia for approximately \$10.5 billion of additional project financing ("Additional Project Financing"). The Additional Project Financing closed on June 28, 2013, bringing the total project financing for Sadara to approximately \$12.5 billion.

On December 2, 2013, the Company announced the planned carve-out of a portion of its chlorine chain, including the Company's U.S. Gulf Coast Chlor-Alkali/Chlor-Vinyl business, the global Chlorinated Organics business and the Epoxy business, in preparation for transactions involving select chlorine and derivative businesses over the next 12-24 months.

Dow was named to the Dow Jones Sustainability World Index - the 13th time the Company has received this recognition since the index was launched.

Dow earned an A+ Rating by UN Global Compact Communication on Progress for its 2012 Global Reporting Initiative (GRI) Sustainability Report - the 6th year in a row Dow has received this designation.

Dow was named to the Thomson Reuters 2013 Top 100 Global Innovators - the Company has received this recognition in each of the three years since the program was launched.

Dow was named by Chief Executive Magazine as one of the 40 best companies for leaders for the second consecutive year.

Dow was awarded the 2013 U.S. Presidential Green Chemistry Challenge Award for its EVOQUE™ Pre-Composite Polymer Technology which helps coatings formulators improve paint performance while using less titanium dioxide.



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Dow AgroSciences received registration in the United States for sulfoxaflor, a new insecticidal active ingredient that offers extremely effective control of many important sap-feeding insect pests.

Dow and its joint venture partner Tasnee Sahara Olefins Company announced the mechanical completion of the first acrylic monomer production facility in the Middle East. The plant will help provide a reliable, cost-advantaged supply of acrylic emulsion polymers for coatings and adhesives applications to support growth in emerging geographies.

Dow AgroSciences and Monsanto Company reached new cross-licensing agreements to enable the creation of next-generation SmartStax® corn, including additional insect protection and access to Dow AgroSciences' new ENLIST™ Weed Control System herbicide-tolerant trait, pending regulatory approval.

Dow inaugurated its new Northeast Technology Center, a state-of-the-art innovation hub for Dow's Advanced Materials businesses. Located in Collegeville, Pennsylvania, the technology center is one of Dow's largest global research and development hubs and serves key end-markets including electronics, consumer non-durables, infrastructure, transportation and energy.

Dow Packaging and Specialty Plastics launched Pack Studios Freeport, the first of four Pack Studio centers around the globe, to help customers turn packaging ideas into innovative solutions. Once fully launched, studios will be located in Freeport, Texas; São Paulo, Brazil; Horgen, Switzerland; and Shanghai, China.

Dow's SILVADUR™ antimicrobial technology for fabrics and EVOQUE™ Pre-Composite Polymer Technology for paints won R&D 100 Awards.

The Polyurethanes business launched two expansion projects to meet customer needs in Asia Pacific and the United States. The business will construct a polyether polyols facility at the Company's Map Ta Phut, Thailand site. In addition, the Company will increase its polyol and copolymer capacity as a result of debottlenecking at its Freeport, Texas facility.

Dow Water and Process Solutions announced the global launch of TEQUATIC™ PLUS fine particle filter. The cost-effective, high-performance filter will be supported by a new manufacturing center in Menlo Park, California.

On July 30, 2013, the Company announced that Bill Banholzer, Chief Technology Officer and Executive Vice President, had elected to retire. A. N. Sreeram was named Corporate Vice President of Research and Development, effective August 1, 2013.

On December 31, 2013, Carol Williams, Executive Vice President, Manufacturing and Engineering, Supply Chain and Environmental, Health and Safety ("EH&S") relinquished her line responsibilities and will retire from Dow later in 2014.

Dow's results of operations and financial condition for the year ended December 31, 2013 are described in further detail in the following discussion and analysis.

## RESULTS OF OPERATIONS

### Net Sales

Net sales for 2013 were \$57.1 billion, up 1 percent from \$56.8 billion in 2012, with price up 1 percent and volume flat. Price increases in Performance Plastics (up 4 percent) and Agricultural Sciences (up 1 percent) more than offset price declines in Feedstocks and Energy (down 3 percent), Electronic and Functional Materials (down 2 percent) and Coatings and Infrastructure Solutions (down 1 percent). Performance Materials prices remained flat. Price increased in North America and Latin America (both up 2 percent), which more than offset a decline in Asia Pacific (down 2 percent). Prices in EMEA remained flat. Volume was mixed by operating segment, with increases in Agricultural Sciences (up 11 percent), Electronic and Functional Materials and Coatings and Infrastructure Solutions (both up 4 percent) offset by volume declines in Feedstocks and Energy (down 5 percent), Performance Plastics (down 3 percent) and Performance Materials (down 2 percent). Excluding the impact of a recent divestiture, Performance Plastics

volume was down 1 percent. Volume increased in Latin America (up 8 percent), Asia Pacific (up 4 percent) and North America (up 1 percent), which was offset by a decline in EMEA (down 5 percent).

Net sales for 2012 were \$56.8 billion, down 5 percent from \$60.0 billion in 2011, with price down 3 percent and volume down 2 percent. Price was unfavorably impacted by currency, which contributed to more than 60 percent of the price decrease. Price declined in all geographic areas, with the largest decrease in Asia Pacific (down 5 percent), and all operating segments except Agricultural Sciences (up 3 percent) with the most pronounced decreases in Coatings and Infrastructure Solutions and Performance Materials (both down 6 percent). The decline in volume reflected the impact of recent divestitures including: the

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Polypropylene business, divested on September 30, 2011, and Dow Haltermann, divested during 2011. Excluding these divestitures, volume increased 1 percent. Volume improved or remained flat in all operating segments except Feedstocks and Energy (down 3 percent) and Electronic and Functional Materials (down 1 percent), with the most pronounced increase in Agricultural Sciences (up 10 percent). Volume increased in Asia Pacific (up 3 percent) and EMEA (up 1 percent), remained unchanged in North America, and declined in Latin America (down 1 percent). See Note 5 to the Consolidated Financial Statements for additional information concerning the Company's divestitures.

Sales in the United States accounted for 33 percent of total sales in 2013 and 32 percent of total sales in 2012 and 2011. See the Sales Price and Volume tables at the end of the section titled "Segment Results" for details regarding the change in sales by operating segment and geographic area. In addition, sales and other information by operating segment and geographic area are provided in Note 24 to the Consolidated Financial Statements.

### Gross Margin

Gross margin was \$9.5 billion in 2013, and \$9.0 billion in 2012 and 2011. Gross margin in 2013 was positively impacted by higher selling prices, lower turnaround costs, and lower expenses resulting from the 2012 restructuring activities which more than offset a \$319 million increase in purchased feedstock and energy costs and increased performance-based compensation costs. Gross margin in 2013 was reduced by \$181 million for asset impairments and related costs, including the shutdown of manufacturing facilities, in the Chlor-Alkali/Chlor-Vinyl business, Dow Building and Construction business, Dow Formulated Systems business, Dow Plastics Additives business, Epoxy business and Corporate. The asset impairments and related costs were reflected in the following segments: Coatings and Infrastructure Solutions (\$61 million), Performance Materials (\$38 million), Feedstocks and Energy (\$66 million) and Corporate (\$16 million). Gross margin in 2013 was also reduced by \$40 million in implementation costs related to the Company's restructuring programs (reflected in Corporate). See Note 11 to the Consolidated Financial Statements for additional information regarding the asset impairments.

Gross margin was \$9.0 billion in 2012 and 2011. Gross margin in 2012 was flat compared with the prior year as a decline in selling prices and decreased volume was offset by a \$2.5 billion decrease in purchased feedstock and energy costs and the favorable impact of currency on costs. Gross margin was also favorably impacted by the recovery of previously expensed product liability claims, pursuant to an Insurance Allocation Agreement with Dow Corning.

Gross margin in 2011 was positively impacted by higher selling prices, which more than offset a \$4.3 billion increase in purchased feedstock and energy costs, lower operating rates, increases in other raw material costs and the unfavorable impact of currency on costs. In 2011, gross margin was reduced by \$77 million in asset impairments and related costs, including environmental costs, in the Polyurethanes business (reflected in Performance Materials) and a \$60 million warranty accrual adjustment related to an exited business (reflected in Coatings and Infrastructure Solutions). See Environmental Matters in Management's Discussion and Analysis of Financial Condition and Results of Operations; and Note 11 to the Consolidated Financial Statements for additional information concerning these matters.

### Operating Rate

Dow's global plant operating rate was 81 percent of capacity in 2013 and 2012 and 80 percent in 2011. Operating rates remained flat in 2013 compared with the prior year. In 2012, operating rates increased from 2011 due to actions taken by management to rationalize capacity through shutdowns contributing to the improvement.

### Personnel Count

Personnel count was 52,731 at December 31, 2013, down from 54,353 at December 31, 2012. Headcount decreased from year end 2012 due primarily to the Company's 2012 restructuring programs. Personnel count at December 31, 2012 increased from 51,705 at December 31, 2011 due to growth initiatives and the inclusion of 1,946 seasonal employees in the Agricultural Sciences operating segment as part of the Company's personnel count. This increase

was partially offset by decreases related to the 2012 restructuring programs.

#### Research and Development Expenses

Research and development (“R&D”) expenses were \$1,747 million in 2013, compared with \$1,708 million in 2012 and \$1,646 million in 2011. In 2013 and 2012, R&D expense increased largely due to higher spending on strategic growth initiatives in Agricultural Sciences. In 2013, R&D expenses were also impacted by increased performance-based compensation costs and \$2 million of implementation costs related to the Company's restructuring programs (reflected in Corporate).

#### Selling, General and Administrative Expenses

Selling, general and administrative (“SG&A”) expenses were \$3,024 million in 2013, compared with \$2,861 million in 2012 and \$2,788 million in 2011. In 2013, SG&A expenses increased 6 percent from 2012, primarily due to increased performance-based compensation costs and increased spending on growth initiatives in Agricultural Sciences. In 2012, SG&A expenses

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increased 3 percent from 2011, primarily due to increases in Agricultural Sciences due to growth initiatives. In addition, SG&A expenses were impacted by \$2 million of implementation costs related to the Company's restructuring programs in 2013 and \$21 million of restructuring program implementation costs in 2012 (reflected in Corporate).

#### Production Costs and Operating Expenses

The following table illustrates the relative size of the primary components of total production costs and operating expenses of Dow. More information about each of these components can be found in other sections of Management's Discussion and Analysis of Financial Condition and Results of Operations, and Notes to the Consolidated Financial Statements.

#### Production Costs and Operating Expenses

Cost components as a percent of total	2013		2012		2011	
Hydrocarbon feedstocks and energy	38	%	37	%	42	%
Salaries, wages and employee benefits	15		13		13	
Maintenance	4		4		4	
Depreciation	4		4		4	
Restructuring charges	—		3		—	
Supplies, services and other raw materials	39		39		37	
Total	100	%	100	%	100	%

#### Amortization of Intangibles

Amortization of intangibles was \$461 million in 2013, \$478 million in 2012 and \$496 million in 2011. In 2013, amortization of intangibles was impacted by a \$3 million asset impairment charge (impacting Corporate). See Notes 9 and 11 to the Consolidated Financial Statements for additional information regarding this matter.

#### Goodwill Impairment/Testing

The Company performs annual goodwill impairment tests during the fourth quarter of the year. In 2013, the Company performed qualitative testing for 14 of its 19 reporting units carrying goodwill and quantitative testing for 5 of its reporting units. As a result of this testing, no goodwill impairments were identified.

During the fourth quarter of 2012, the Company performed qualitative testing for 11 of the 20 reporting units carrying goodwill. The qualitative assessment indicated that it was more likely than not that the fair value exceeded carrying value for those reporting units. The Company performed the first step of the quantitative testing for the remaining 9 reporting units. The Company utilized a discounted cash flow methodology to calculate the fair value of the reporting units. Based on the fair value analysis, management concluded that fair value exceeded carrying value for all reporting units except the Dow Formulated Systems reporting unit. Management completed the second step of the quantitative test for Dow Formulated Systems which compared the implied fair value of the reporting unit's goodwill to the carrying value. As a result of this test, the Company recorded an impairment loss of \$220 million in the fourth quarter of 2012, which is included in "Goodwill impairment loss" in the consolidated statements of income and reflected in Performance Materials. The goodwill impairment loss represents the total amount of goodwill carried by the Dow Formulated Systems reporting unit.

During the fourth quarter of 2011, the Company performed qualitative testing for all reporting units carrying goodwill. As a result of this testing, no goodwill impairments were identified. See Critical Accounting Policies in Other Matters in Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 9 to the Consolidated Financial Statements for additional information regarding goodwill and the impairment tests conducted in each year.



#### Restructuring Charges (Credits)

On March 27, 2012, the Company's Board of Directors approved a restructuring plan ("1Q12 Restructuring") as part of a series of actions to optimize its portfolio, respond to changing and volatile economic conditions, particularly in Western Europe, and to advance the Company's Efficiency for Growth program, which was initiated by the Company in the second quarter of 2011. The 1Q12 Restructuring plan included the shutdown of a number of facilities and a global workforce reduction. These actions were substantially complete at December 31, 2013. As a result of the 1Q12 Restructuring activities, the Company recorded pretax restructuring charges of \$357 million in the first quarter of 2012 consisting of costs associated with exit and disposal activities of \$150 million, severance costs of \$113 million and asset write-downs and write-offs of \$94 million. The impact of these charges is shown as "Restructuring charges (credits)" in the consolidated statements of income and reflected in the Company's segment results as follows: \$17 million in Electronic and Functional Materials, \$41 million in Coatings and Infrastructure Solutions, \$186 million in Performance Materials and \$113 million in Corporate. During the fourth quarter of 2012, the Company recorded a favorable adjustment to the 1Q12 Restructuring charge related to the impairment of long-lived assets and other assets of \$4 million, impacting the Coatings and Infrastructure Solutions segment.

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On October 23, 2012, the Company's Board of Directors approved a restructuring plan ("4Q12 Restructuring") to advance the next stage of the Company's transformation and to address macroeconomic uncertainties. The restructuring plan included the shutdown of a number of facilities, an impairment charge related to the write-down of Dow Kokam LLC's ("Dow Kokam") long-lived assets and a global workforce reduction. These actions are expected to be completed primarily by March 31, 2015. As a result of the 4Q12 Restructuring activities, the Company recorded pretax restructuring charges of \$990 million in the fourth quarter of 2012 consisting of costs associated with exit or disposal activities of \$39 million, severance costs of \$375 million and asset write-downs and write-offs of \$576 million. The impact of these charges is shown as "Restructuring charges (credits)" in the consolidated statements of income and reflected in the Company's segments results as follows: \$48 million in Electronic and Functional Materials, \$16 million in Coatings and Infrastructure Solutions, \$192 million in Performance Materials, \$26 million in Performance Plastics, \$7 million in Feedstocks and Energy and \$701 million in Corporate.

During the fourth quarter of 2013, the Company recognized a pretax gain of \$16 million for adjustments to asbestos abatement costs and contract cancellation fees related to the 1Q12 Restructuring plan and a \$6 million pretax gain for adjustments to contract cancellation fees related to the 4Q12 Restructuring plan. These gains were included in "Restructuring charges (credits)" in the consolidated statements of income and reflected in Performance Materials (\$15 million), Performance Plastics (\$6 million) and Coatings and Infrastructure Solutions (\$1 million). See Note 3 to the Consolidated Financial Statements for details on the restructuring charges.

### Acquisition-related Integration Expenses

Charges totaling \$31 million in 2011 were recorded for integration costs, legal expenses and other transaction costs related to the acquisition of Rohm and Haas. These charges were shown as "Acquisition-related integration expenses" in the consolidated statements of income and reflected in Corporate.

### Equity in Earnings of Nonconsolidated Affiliates

Dow's share of the earnings of nonconsolidated affiliates in 2013 was \$1,034 million, compared with \$536 million in 2012 and \$1,223 million in 2011. In 2013, equity earnings increased primarily due to increased earnings at Dow Corning Corporation ("Dow Corning"), EQUATE Petrochemical Company K.S.C., The Kuwait Sytrene Company K.S.C. and MEGlobal as well as improved results from The SCG-Dow Group, Sadara and Map Ta Phut Olefins Company Limited. Equity earnings for 2013 also include a \$10 million loss related to asset impairment charges at a formulated electrolytes manufacturing joint venture (reflected in Corporate). In 2012, equity earnings decreased primarily due to lower earnings at Dow Corning, MEGlobal and The SCG-Dow Group as well as equity losses from Sadara equal to the Company's share of development expenses. Equity earnings for 2012 also include a \$73 million loss related to project development and other costs associated with the contribution of development costs to Sadara (reflected in Corporate).

The Company's share of equity earnings from Dow Corning decreased substantially in 2012 compared with 2011, primarily due to weakness in the silicon value chain. During 2012, Dow Corning's sales of solar-grade polycrystalline silicon products declined, driven by depressed prices and declining sales volumes that resulted from the July 2012 Chinese Ministry of Commerce ("MOFCOM") antidumping and countervailing duty investigations of U.S. and Korean-based solar-grade polycrystalline silicon products. In response to these market conditions, Dow Corning recorded an impairment charge in the fourth quarter of 2012 related to the abandonment of a partially constructed polycrystalline silicon plant expansion. The Company's share of this charge was \$59 million. Dow Corning also delayed the start-up of another polycrystalline plant expansion, pending market condition improvements. Furthermore, Dow Corning initiated restructuring actions in the fourth quarter of 2012, including workforce reductions and asset impairments of which Dow's share of the charge was approximately \$30 million. During the fourth quarter of 2012, Dow Corning conducted impairment testing of its polycrystalline silicon business. The estimate of undiscounted cash flows indicated the polycrystalline silicon asset group was expected to be recovered.

During 2013, Dow Corning evaluated its polycrystalline silicon asset group for impairment, in response to a preliminary determination and imposed provisional antidumping and countervailing duties by MOFCOM. Dow Corning's estimate of future undiscounted cash flows continued to indicate the polycrystalline silicon asset group is recoverable. However, due to continued pricing deterioration, ongoing oversupply in the market and other adverse conditions that result in non-performance by customers under long-term contracts, it is reasonably possible that the estimate of undiscounted cash flows could change in the near term, resulting in the write-down of assets to fair value. If an asset impairment is recorded at Dow Corning related to the polycrystalline silicon asset group, the maximum potential after-tax impact to Dow is estimated to be approximately \$930 million.

Equity earnings for 2011 included an \$86 million gain related to cash collected on a previously impaired note receivable related to Equipolymers (reflected in Performance Plastics). See Note 8 to the Consolidated Financial Statements for additional information on nonconsolidated affiliates.

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### Sundry Income (Expense) - Net

Sundry income (expense) - net includes a variety of income and expense items such as the gain or loss on foreign currency exchange, dividends from investments, and gains and losses on sales of investments and assets. Sundry income (expense) - net for 2013 was net income of \$2.554 billion, compared with net expense of \$27 million in 2012 and net expense of \$316 million in 2011. In 2013, sundry income (expense) - net included a gain of \$2.161 billion related to damages awarded to the Company in the K-Dow arbitration proceeding (reflected in Corporate), a \$451 million gain on the sale of the Dow Polypropylene Licensing and Catalysts business (reflected in Performance Plastics), an \$87 million gain on the sale of a 7.5 percent ownership interest in Freeport LNG Development, L.P. (reflected in Feedstocks and Energy), a \$26 million gain on the sale of the Company's ownership interest in Dow Kokam (reflected in Corporate), gains on asset sales and equity method investments and a \$326 million loss on the early extinguishment of debt (reflected in Corporate).

In 2012, sundry income (expense) - net included \$123 million of losses on the early extinguishment of debt (reflected in Corporate), foreign currency exchange losses and non-income tax related expenses which were partially offset by gains related to small divestitures and asset sales and a gain related to post-closing adjustments on the sale of a contract manufacturing business (reflected in Performance Materials).

In 2011, sundry income (expense) - net included a \$482 million loss on the early extinguishment of debt (reflected in Corporate), a \$42 million loss on the sale of a contract manufacturing business (reflected in Performance Materials) and losses on foreign currency exchange, partially offset by a small gain on the divestiture of the Polypropylene business (reflected in Performance Plastics) and gains on other small divestitures and asset sales, \$25 million of dividend income received from the Company's ownership interest in Styron (reflected in Corporate), gains from the mark-to-market of trading securities, favorable working capital adjustments from prior divestitures, and a gain from the consolidation of a joint venture. See Liquidity and Capital Resources in Management's Discussion and Analysis of Financial Condition and Results of Operations; and Note 5 to the Consolidated Financial Statements for additional information concerning the Company's divestitures, Note 14 to the Consolidated Financial Statements for additional information related to the K-Dow arbitration proceeding and Note 16 for additional information related to the early extinguishment of debt.

### Net Interest Expense

Net interest expense (interest expense less capitalized interest and interest income) was \$1,060 million in 2013, down from \$1,228 million in 2012 and \$1,301 million in 2011, reflecting the impact of redemption of debt and lower debt financing costs. Interest income was \$41 million in 2013 and 2012 and \$40 million in 2011. Interest expense (net of capitalized interest) and amortization of debt discount totaled \$1,101 million in 2013, \$1,269 million in 2012 and \$1,341 million in 2011. See Liquidity and Capital Resources in Management's Discussion and Analysis of Financial Condition and Results of Operations for additional information regarding debt financing activity.

### Provision for Income Taxes

The provision for income taxes was \$1,988 million in 2013, compared with \$565 million in 2012 and \$817 million in 2011. The Company's effective tax rate fluctuates based on, among other factors, where income is earned, reinvestment assertions regarding earned income and the level of income relative to tax credits available. For example, as the percentage of foreign sourced income increases, the Company's effective tax rate declines. The Company's tax rate is also influenced by the level of equity earnings, since most of the earnings from the Company's equity company investments are taxed at the joint venture level.

The tax rate for 2013 was favorably impacted by increased equity earnings; the K-Dow arbitration award, due to favorable tax treatment of certain components of the award; and, changes in valuation allowances in the United States on state income tax attributes and capital loss carryforwards. The tax rate was unfavorably impacted by adjustments to uncertain tax positions related to court rulings on two separate tax matters and the establishment of valuation

allowances outside the United States. Additionally, the tax rate was unfavorably impacted by an increase in statutory taxable income in Latin America, primarily due to local currency devaluation. These factors resulted in an effective tax rate of 29.2 percent for 2013.

The tax rate for 2012 was negatively impacted by a change in the geographic mix of earnings, notably a decrease in earnings in Europe and an increase in earnings in the United States, as well as reductions in equity earnings. Equity earnings were further impacted by asset impairment and restructuring charges at Dow Corning. Additionally, the Company's impairment of Dow Formulated Systems goodwill and the impairment of the long-lived assets of Dow Kokam received minimal tax relief. The tax rate was favorably impacted by a change in the permanent reinvestment assertions of certain affiliates in Europe and Asia Pacific; however, this was primarily offset by unfavorable adjustments to uncertain tax positions and valuation allowances. These factors resulted in an effective tax rate of 33.9 percent for 2012.

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The tax rate for 2011 was positively impacted by a high level of equity earnings as a percentage of total earnings, earnings in foreign locations taxed at rates less than the U.S. statutory rate, the sale of a contract manufacturing business and the reorganization of a joint venture. The tax rate for 2011 was negatively impacted by a \$264 million valuation allowance recorded in the fourth quarter of 2011. The valuation allowance was recorded against the deferred tax assets of two Dow entities in Brazil. As a result of the global recession in 2008-2009, coupled with rapidly deteriorating isocyanate industry conditions and increasing local costs, these two entities were in a three-year cumulative pretax operating loss position at December 31, 2011. While the Company expects to realize the tax loss carryforwards generated by these operating losses based on several factors - including forecasted margin expansion resulting from improving economic conditions, higher industry growth rates in Brazil, improving Dow operating rates, and a restructuring of legal entities to maximize the use of existing tax loss carryforwards - Dow was unable to overcome the negative evidence of recent cumulative operating losses; and at December 31, 2011, the Company could not assert it was more likely than not that it will realize its deferred tax assets in the two Brazilian entities.

Accordingly, the Company established the valuation allowance against the deferred tax assets of these companies in the fourth quarter of 2011. If in the future, as a result of the Company's plans and expectations, one or both of these entities generates sufficient profitability such that the evaluation of the recoverability of the deferred tax assets changes, the valuation allowance could be reversed in whole or in part in a future period. These factors resulted in an effective tax rate of 22.7 percent for 2011.

### Net Income (Loss) Attributable to Noncontrolling Interests

Net income (loss) attributable to noncontrolling interests was net income of \$29 million in 2013, net loss of \$82 million in 2012 and net income of \$42 million in 2011. Net income (loss) attributable to noncontrolling interests increased in 2013, primarily due to reduced losses at Dow Kokam, which was impacted by a significant restructuring charge related to the write-down of long-lived assets in the fourth quarter of 2012. Net income (loss) attributable to noncontrolling interests decreased in 2012 compared with 2011 due to Dow Kokam's impairment charge and operating losses which more than offset improved results in the Performance Materials affiliates. On November 22, 2013, the Company sold its ownership interest in Dow Kokam. See Notes 3 and 5 to the Consolidated Financial Statements for details on the Dow Kokam impairment charge and divestiture. See Note 19 to the Consolidated Financial Statements for additional information concerning noncontrolling interests.

### Preferred Stock Dividends

Preferred stock dividends of \$340 million were recognized in 2013, 2012 and 2011. These dividends related to the Company's Cumulative Convertible Perpetual Preferred Stock, Series A. See Note 21 to the Consolidated Financial Statements for additional information.

### Net Income Available for Common Stockholders

Net income available for common stockholders was \$4,447 million (\$3.68 per share) in 2013, compared with \$842 million (\$0.70 per share) in 2012 and \$2,402 million (\$2.05 per share) in 2011.

### Certain Items Impacting Results

The Company's management believes that measures of income adjusted to exclude certain items ("non-GAAP" financial measures) provide relevant and meaningful information to investors about the ongoing operating results of the Company. Such financial measures are not recognized in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and should not be viewed as an alternative to U.S. GAAP financial measures of performance.

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The following table summarizes the impact of certain items recorded in 2013, 2012 and 2011:

Certain Items Impacting Results	Pretax Impact (1)			Impact on Net Income (2)			Impact on EPS (3) (4)		
In millions, except per share amounts	2013	2012	2011	2013	2012	2011	2013	2012	2011
Adjusted to exclude certain items (non-GAAP measures)				\$2,981	\$2,249	\$2,959	\$2.48	\$1.90	\$2.54
Certain items:									
Cost of sales:									
Asset impairments and related costs	\$(181 )	\$—	\$(77 )	(124 )	—	(51 )	(0.10 )	—	(0.05 )
Warranty accrual adjustment of exited business	—	—	(60 )	—	—	(38 )	—	—	(0.03 )
Restructuring implementation costs	(40 )	(1 )	—	(29 )	(1 )	—	(0.03 )	—	—
Research and development expenses:									
Restructuring implementation costs	(2 )	—	—	(1 )	—	—	—	—	—
Selling, general and administrative expenses:									
Restructuring implementation costs	(2 )	(21 )	—	(2 )	(13 )	—	—	(0.01 )	—
Amortization of intangibles:									
Asset impairments and related costs	(3 )	—	—	(2 )	—	—	—	—	—
Goodwill impairment loss	—	(220 )	—	—	(220 )	—	—	(0.19 )	—
Restructuring charges (credits) (5)	22	(1,343 )	—	21	(951 )	—	0.02	(0.82 )	—
Acquisition-related integration expenses	—	—	(31 )	—	—	(20 )	—	—	(0.02 )
Equity in earnings of nonconsolidated affiliates:									
Gain on collection of impaired note receivable	—	—	86	—	—	86	—	—	0.07
Dow Corning restructuring and asset abandonment	—	(89 )	—	—	(82 )	—	—	(0.07 )	—
Sadara development and other costs	—	(73 )	—	—	(70 )	—	—	(0.06 )	—
Asset impairments at a formulated electrolytes joint venture	(10 )	—	—	(6 )	—	—	(0.01 )	—	—
Sundry income (expense) - net:									
Gain from K-Dow settlement	2,161	—	—	1,647	—	—	1.37	—	—
Gain (Loss) on sale of contract manufacturing business	—	8	(42 )	—	8	44	—	0.01	0.04
Gain on sale of Polypropylene Licensing and Catalysts business	451	—	—	356	—	—	0.29	—	—

Gain on sale of a 7.5 percent interest in Freeport LNG Development, L.P.	87	—	—	69	—	—	0.06	—	—
Gain on sale of ownership interest in Dow Kokam	26	—	—	18	—	—	0.01	—	—
Loss on early extinguishment of debt	(326 )	(123 )	(482 )	(205 )	(78 )	(314 )	(0.17 )	(0.06 )	(0.27 )
Provision for income taxes:									
Uncertain tax position adjustments	—	—	—	(276 )	—	—	(0.23 )	—	—
Tax valuation allowance	—	—	—	—	—	(264 )	—	—	(0.23 )
Total certain items	\$2,183	\$(1,862)	\$(606 )	\$1,466	\$(1,407)	\$(557 )	\$1.21	\$(1.20 )	\$(0.49 )
Dilutive effect of assumed preferred stock conversion into shares of common stock							\$(0.01 )	\$—	\$—
Reported U.S. GAAP Amounts				\$4,447	\$842	\$2,402	\$3.68	\$0.70	\$2.05

(6) (7) (1) Impact on "Income Before Income Taxes."

(2) Impact on "Net Income Available for The Dow Chemical Company Common Stockholders."

(3) Impact on "Earnings per common share - diluted."

For the year ended December 31, 2013, conversion of the Company's Cumulative Convertible Perpetual Preferred Stock, Series A into shares of the Company's common stock was excluded from the calculation of "Diluted earnings per share adjusted to exclude certain items" as well as the earnings per share impact of certain items because the effect of including them would have been antidilutive.

"Restructuring charges (credits)" in 2012 include \$304 million of asset impairments and severance costs related to Dow Kokam LLC ("Dow Kokam") which, at the time of the charge, was owned 63.6 percent by Dow. The Dow Kokam restructuring impact on "Net Income Available for The Dow Chemical Company Common Stockholders" was reduced by \$7 million of tax credits and \$108 million of net loss attributable to noncontrolling interests. The Company's share of the Dow Kokam charge, after tax and noncontrolling interests, was \$189 million.

For the year ended December 31, 2013, an assumed conversion of the Company's Cumulative Convertible Perpetual Preferred Stock, Series A into shares of the Company's common stock was included in the calculation of diluted earnings per share (reported U.S. GAAP amount).

The Company used "Net Income Attributable to The Dow Chemical Company" when calculating diluted earnings per share (reported U.S. GAAP amount) for the twelve-month period ended December 31, 2013, as it excludes preferred dividends of \$340 million.



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## SEGMENT RESULTS

The Company uses EBITDA (which Dow defines as earnings (i.e., "Net Income") before interest, income taxes, depreciation and amortization) as its measure of profit/loss for segment reporting purposes. EBITDA by operating segment includes all operating items relating to the businesses; items that principally apply to the Company as a whole are assigned to Corporate. Additional information regarding the Company's operating segments and a reconciliation of EBITDA to "Income Before Income Taxes" can be found in Note 24 to the Consolidated Financial Statements.

Due to the completion of several divestitures (see Note 5 to the Consolidated Financial Statements), the change in sales volume from 2012 to 2013 and 2011 to 2012 excluding divestitures is also provided by operating segment, where applicable. Sales excluding divestitures exclude sales related to Nippon Unicar Company Limited, divested on July 1, 2013; sales of the Polypropylene business, divested on September 30, 2011; and sales of Dow Haltermann, divested during 2011.

## ELECTRONIC AND FUNCTIONAL MATERIALS

The Electronic and Functional Materials segment consists of two businesses – Dow Electronic Materials and Functional Materials – and includes a portion of the Company's share of the results of Dow Corning Corporation, a joint venture of the Company. Dow Electronic Materials includes Display Technologies, Growth Technologies, Interconnect Technologies and Semiconductor Technologies. Functional Materials includes Dow Consumer and Industrial Solutions, Dow Microbial Control and Dow Pharma and Food Solutions.

Electronic and Functional Materials In millions	2013	2012	2011		
Sales	\$4,591	\$4,481	\$4,599		
Price change from comparative period	(2	)%	(2	)%	6
Volume change from comparative period	4	%	(1	)%	3
Equity earnings	\$112	\$94	\$104		
EBITDA	\$1,040	\$958	\$1,084		
Certain items impacting EBITDA	\$—	\$(73	)	\$—	

## 2013 Versus 2012

Electronic and Functional Materials sales were \$4,591 million for 2013, up from \$4,481 million in 2012. Sales increased

2 percent from 2012, with volume up 4 percent and price down 2 percent (with nearly one-third of the price decline due to currency). Volume increased in all geographic areas, except EMEA, driven by higher demand for consumer electronics, specialty polymers used in home and personal care applications and specialty materials used in energy and industrial water applications. Price increases in North America and EMEA were more than offset by decreases in Latin America and most notably in Asia Pacific. Price decreased in most business units. EBITDA for 2013 was \$1,040 million, up from \$958 million in 2012. EBITDA improved from last year as increased sales volume, higher equity earnings from Dow Corning and lower R&D and SG&A expenses more than offset lower selling prices. EBITDA for 2012 was negatively impacted by \$65 million of restructuring charges. The 1Q12 Restructuring program included a \$17 million charge related to the write-off of a capital project. The 4Q12 Restructuring program included a \$48 million charge related to asset write-downs and write-offs and contract cancellation fees. In addition, EBITDA for 2012 included an \$8 million charge related to Dow Corning's restructuring and asset abandonment. See Notes 3 and 8 to the Consolidated Financial Statements for additional information on these charges.

Dow Electronic Materials sales in 2013 were flat compared with 2012, with volume up 3 percent and price down 3 percent. Volume was higher in Display Technologies due to increased demand for organic light emitting diode materials used in mobile applications and televisions. Volume increased in Interconnect Technologies due to higher

demand for printed circuit boards and for advanced metallization used in electronic finishing. Volume decreased in Semiconductor Technologies as customers reduced inventory levels for chemical mechanical planarization pads and slurries despite semiconductor foundry utilization rates holding steady across the industry in 2013. The decrease in price was driven by continued competitive pressure and the unfavorable impact of currency, which represented nearly 40 percent of the decrease and was primarily due to the weakening Japanese yen.

Functional Materials sales in 2013 increased 5 percent from 2012, with volume up 5 percent and price flat. Volume increased in all geographic areas, except EMEA, driven by higher demand for home and personal care products, specialty biocides used in energy applications and acrolein derivatives. Price remained flat as price increases in acrolein derivatives were offset by decreases in Dow Pharma and Food Solutions due to price/volume optimization efforts, notably cellulose.

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In July 2012, the Chinese Ministry of Commerce ("MOFCOM") initiated antidumping and countervailing duty investigations of imports of solar-grade polycrystalline silicon products from the United States and Korea based on a petition filed by Chinese solar-grade polycrystalline silicon producers. The petition alleged that producers within these countries, including Dow Corning, exported solar-grade polycrystalline silicon to China at less than fair value, and that production of solar-grade polycrystalline silicon in the United States has been subsidized by the U.S. government. On January 20, 2014, MOFCOM issued a final determination that resulted in antidumping duties on producers in the United States and Korea ranging from 2.4 percent to 57 percent, including duties of 53.3 percent on future imports from Dow Corning. In addition, countervailing duties of 2.1 percent were imposed. The requirement for customers to pay provisional duties on imports from solar-grade polycrystalline silicon producers became effective July 24, 2013 for the antidumping duties and September 20, 2013 for the countervailing duties. Dow Corning will not be subject to duties for previous sales. Dow Corning is evaluating possible actions in response to the final determination. Dow Corning's polycrystalline silicon products accounted for a significant portion of its operating results.

### 2012 Versus 2011

Electronic and Functional Materials sales were \$4,481 million for 2012, down from \$4,599 million in 2011. Sales decreased 3 percent from 2011, with price down 2 percent (with more than one-half of the price decline due to currency) and volume down 1 percent. Price decreased in most geographic areas and across most major business units in response to decreasing raw material costs. Volume declined as increased demand for chemical mechanical planarization pads and slurries in Asia Pacific was more than offset by weaker demand for specialty polymers used in home and personal care applications and specialty cellulose used in food and pharmaceutical applications, notably in North America. EBITDA for 2012 was \$958 million, down from \$1,084 million in 2011. EBITDA decreased from 2011 as lower selling prices and higher operating costs associated with planned maintenance turnarounds more than offset lower raw material costs and lower SG&A expenses. EBITDA for 2012 was negatively impacted by \$65 million of certain items, as previously discussed.

Dow Electronic Materials sales in 2012 were down 3 percent from 2011, with price down 2 percent and volume down 1 percent. Price decreased in all geographic areas driven by continued competitive pricing pressure, especially in Asia Pacific. Volume declines in North America and Asia Pacific more than offset improvements in EMEA and Latin America. Volume declined in Display Technologies primarily due to lower demand for optical filters used in televisions and other displays. Volume decreased in Interconnect Technologies due to lower demand for printed circuit boards used in personal computers. Semiconductor foundry utilization rates held steady across the industry in 2012 and higher demand for chemical mechanical planarization pads and slurries drove volume growth in the Semiconductor Technologies business unit.

Functional Materials sales in 2012 were down 2 percent from 2011, entirely related to the unfavorable impact of currency on price. Price decreased in most geographic areas, especially in EMEA. Volume was flat as higher industrial demand for specialty amines and polymers was offset by lower demand for home and personal care products and lower demand for cellulose used in food and pharmaceutical applications.

### Electronic and Functional Materials Outlook for 2014

Electronic and Functional Materials sales are expected to increase due to continued global economic recovery and demand growth in the electronics, energy, pharmaceutical, food, personal care and home care industries. The Company expects continued strong demand in OLED used in mobile applications and televisions.

Dow Electronic Materials sales volume is expected to increase due to new product launches including advanced photoresists and advanced chip packaging used in personal computer memory applications and circuit boards, while continued but modest growth is expected for media tablet and mobile phone devices.

Functional Materials sales are expected to increase, especially in emerging geographies, due to higher demand for home and personal care products, higher demand for specialty biocides and for cellulose used in food and pharmaceutical applications.

Table of Contents**COATINGS AND INFRASTRUCTURE SOLUTIONS**

The Coatings and Infrastructure Solutions segment consists of the following businesses: Dow Building and Construction, Dow Coating Materials, Dow Water and Process Solutions, and Performance Monomers; and includes a portion of the Company's share of the results of Dow Corning Corporation, a joint venture of the Company.

Coatings and Infrastructure Solutions	2013	2012	2011
In millions			
Sales	\$7,132	\$6,898	\$7,200
Price change from comparative period	(1	)% (6	)% 13
Volume change from comparative period	4	% 2	% (4
Volume change, excluding divestitures	4	% 2	% (1
Equity earnings	\$121	\$50	\$321
EBITDA	\$832	\$823	\$1,167
Certain items impacting EBITDA	\$(60	) \$(134	) \$(60

**2013 Versus 2012**

Coatings and Infrastructure Solutions sales were \$7,132 million in 2013, up from \$6,898 million in 2012. Sales increased 3 percent with volume improving 4 percent and price declining 1 percent, due to currency. Volume was higher in all businesses and all geographic areas. Price increases in North America, driven by higher feedstock and energy costs, were offset by price declines in EMEA and Latin America as well as Asia Pacific, which declined due to the unfavorable impact of currency, most notably in Japan. Dow Coating Materials volume increased due to higher demand for architectural coatings in all geographic areas, except Latin America, driven by improved end-use market conditions. In addition, demand for industrial coatings was higher in North America. Dow Building and Construction volume increased due to higher demand for insulation products in all geographic areas, except North America. In North America volume was lower due to price/volume optimization and lower non-residential construction activity. Performance Monomers volume increased in all geographic areas driven by higher demand for acrylic acid used in coating and adhesive applications. Dow Water and Process Solutions volume increased as higher demand for reverse osmosis membranes used in residential and industrial water desalination projects more than offset weaker demand for ion exchange resins used in large industrial water projects.

EBITDA for 2013 was \$832 million, compared with \$823 million in 2012. EBITDA in 2013 included \$61 million of asset impairment and related costs in Dow Building and Construction and a \$1 million gain for an adjustment to asbestos abatement costs related to the 1Q12 restructuring program. EBITDA for 2012 was negatively impacted by restructuring charges of \$53 million. The 1Q12 Restructuring plan included \$37 million of restructuring charges, consisting of asset write-downs and write-offs of \$33 million and costs associated with exit or disposal activities of \$4 million. The 4Q12 Restructuring plan included \$16 million for asset write-downs and write-offs. In addition, EBITDA for 2012 included an \$81 million charge related to Dow Corning's restructuring and asset abandonment. See Notes 3 and 8 to the Consolidated Financial Statements for additional information on these charges. Excluding these certain items, EBITDA decreased in 2013 as lower selling prices and higher feedstock and energy and other raw material costs more than offset higher sales volumes and the favorable impact of currency on costs.

In July 2012, the Chinese Ministry of Commerce ("MOFCOM") initiated antidumping and countervailing duty investigations of imports of solar-grade polycrystalline silicon products from the United States and Korea based on a petition filed by Chinese solar-grade polycrystalline silicon producers. The petition alleged that producers within these countries, including Dow Corning, exported solar-grade polycrystalline silicon to China at less than fair value, and that production of solar-grade polycrystalline silicon in the United States has been subsidized by the U.S. government. On January 20, 2014, MOFCOM issued a final determination that resulted in antidumping duties on producers in the United States and Korea ranging from 2.4 percent to 57 percent, including duties of 53.3 percent on future imports from Dow Corning. In addition, countervailing duties of 2.1 percent were imposed. The requirement for customers to

pay provisional duties on imports from solar-grade polycrystalline silicon producers became effective July 24, 2013 for the antidumping duties and September 20, 2013 for the countervailing duties. Dow Corning will not be subject to duties for previous sales. Dow Corning is evaluating possible actions in response to the final determination. Dow Corning's polycrystalline silicon products accounted for a significant portion of its operating results.

#### 2012 Versus 2011

Coatings and Infrastructure Solutions sales were \$6,898 million in 2012, down from \$7,200 million in 2011. Sales decreased 4 percent with price declining 6 percent (with approximately one-third of the price decrease due to currency) and volume improving 2 percent. The decrease in price was across all geographic areas and across most businesses, driven in response to lower feedstock and energy and other raw material costs. Dow Coating Materials volume increased due to higher demand for

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industrial coatings. Despite market share gains achieved through technology innovations in paper coatings and in traffic paint, notably EVOQUE™, volume for architectural coatings declined slightly, driven by continued weak end-use market conditions, especially for residential construction in EMEA. Dow Water and Process Solutions volume was flat as higher demand for reverse osmosis membranes used in water desalination projects and for ion exchange resins used in ultrapure water applications was offset by weaker demand for ion exchange resins used in large industrial water projects. Dow Building and Construction volume declined due to price/volume optimization in North America and slower construction activity in EMEA, which more than offset volume gains in Asia Pacific. Performance Monomers volume increased in all geographic areas, especially in Asia Pacific, driven by favorable supply/demand conditions in Japan due to a competitor plant outage.

EBITDA for 2012 was \$823 million, down from \$1,167 million in 2011. Compared with 2011, lower selling prices and lower equity earnings from Dow Corning more than offset higher sales volumes, lower feedstock and energy costs and the favorable impact of currency on costs. EBITDA for 2012 was negatively impacted by \$134 million of certain items, as previously discussed. EBITDA was negatively impacted in 2011 by a \$60 million charge for a warranty accrual adjustment related to an exited business.

#### Coatings and Infrastructure Solutions Outlook for 2014

Coatings and Infrastructure Solutions sales are expected to grow modestly in 2014. Dow Coating Materials sales are expected to increase driven by higher demand for architectural coatings due to continued recovery in the housing industry, especially in developed geographies. Increased demand is also expected for industrial coatings, driven by global economic conditions. Dow Building and Construction sales are also expected to increase, primarily driven by higher demand for insulation products in North America due to continued recovery of residential construction and continued improvement in non-residential construction activity. Dow Water and Process Solutions sales are expected to increase slightly due to higher demand for reverse osmosis membranes used in water desalination projects and ion exchange resins used in ultrapure water applications. Performance Monomers sales are expected to increase due to improved end-market conditions and increased demand from emerging geographies.

#### AGRICULTURAL SCIENCES

The Agricultural Sciences segment is a global leader in providing crop protection and plant biotechnology products, urban pest management solutions and healthy oils. The business invents, develops, manufactures and markets products for use in agriculture, industrial and commercial pest management, and food service. Agricultural Sciences consists of two businesses - Crop Protection and Seeds, Traits and Oils.

Agricultural Sciences In millions	2013	2012	2011	
Sales	\$7,137	\$6,382	\$5,655	
Price change from comparative period	1	% 3	% 5	%
Volume change from comparative period	11	% 10	% 11	%
Equity earnings	\$6	\$1	\$4	
EBITDA	\$969	\$977	\$913	

#### 2013 Versus 2012

Agricultural Sciences sales were \$7,137 million in 2013, up 12 percent from \$6,382 million in 2012, a record for the segment and both businesses. Sales gains were driven by the introduction and ramp up of new products and technologies. Compared with last year, volume increased 11 percent and price increased 1 percent. Latin America reported 21 percent sales growth and North America sales increased 13 percent. Crop Protection sales were up 10 percent compared with 2012, driven by new product sales which increased 14 percent, while strong sales growth was also reported for the spinosyns and the corn and cereal herbicide portfolios. Seeds, Traits and Oils sales increased 19

percent compared with 2012 with strong growth across most major crop portfolios. SmartStax® corn hybrids posted record sales growth driven by the ramp up of POWERCORE™ Insect Trait Technology in Latin America and REFUGE ADVANCED® in North America.

EBITDA for 2013 was \$969 million, compared with \$977 in 2012. EBITDA declined slightly primarily due to higher operating expenses and increased spending on growth investments which offset strong sales growth in the Americas led by favorable global agricultural and food industry conditions, new product sales and new seed technologies.



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## 2012 Versus 2011

Agricultural Sciences sales were \$6,382 million in 2012, up 13 percent from \$5,655 million in 2011. Compared with 2011, volume increased 10 percent and price was up 3 percent. Regionally, North America reported 27 percent sales growth while Latin America and Asia Pacific also reported strong increases. Sales growth was reported in the Seeds, Traits and Oils and Crop Protection businesses due to new product launches and the continued ramp up of new technologies. Sales of Seeds, Traits and Oils increased 27 percent compared with 2011 driven by strong growth in the corn, soybean and healthy oils portfolios. SmartStax® technology sales more than doubled from 2011 performance, driven by the 2012 introduction of POWERCORE™ Insect Trait Technology in Latin America and REFUGE ADVANCED® in North America. Crop Protection sales increased 10 percent, with volume up 8 percent and price up 2 percent. New Crop Protection product sales were up 19 percent compared with the year ago period with spinetoram insecticide up 50 percent and double-digit growth in aminopyralid herbicide and pyroxsulam herbicide.

EBITDA for 2012 was a record \$977 million, compared with \$913 million in 2011. EBITDA increased as sales volume growth in Seeds, Traits and Oils and Crop Protection combined with selling price increases more than offset increased investment in R&D and SG&A to support continuing growth initiatives.

## Agricultural Sciences Outlook for 2014

Agricultural Sciences sales for 2014 are expected to grow above the levels achieved in 2013 with growth in all geographic areas. A continuation of 2013 industry momentum is anticipated to be tempered by a greater level of uncertainty around crop commodity prices. The Seeds, Traits and Oils business expects gains in corn from the continued ramp up of SmartStax® technology, as well as growth in the soybean portfolio. The Crop Protection business is expected to experience continued growth from Isoclast™ insecticide, pyroxsulam herbicide, spinetoram insecticide, penoxsulam herbicide and aminopyralid herbicide. Investments in technology, capacity and geographic reach in the Seeds, Traits and Oils business remain a priority.

## PERFORMANCE MATERIALS

The Performance Materials segment consists of the following businesses: Amines; Chlorinated Organics; Dow Automotive Systems; Dow Formulated Systems; Dow Oil, Gas & Mining; Dow Plastics Additives; Epoxy; Oxygenated Solvents; Polyglycols, Surfactants & Fluids; Polyurethanes; and Propylene Oxide/Propylene Glycol ("PO/PG"). The segment also includes the results of Map Ta Phut Olefins Company Limited and a portion of the results of Sadara Chemical Company, both joint ventures of the Company.

The segment included Dow Haltermann until it was fully divested at December 31, 2011.

Performance Materials	2013	2012	2011	
In millions				
Sales	\$13,415	\$13,608	\$14,647	
Price change from comparative period	—	% (6	)% 12	%
Volume change from comparative period	(2	)% (1	)% (7	)%
Volume change, excluding divestitures	(2	)% —	% 1	%
Equity losses	\$(64	) \$(92	) \$(31	)
EBITDA	\$1,436	\$1,036	\$1,748	
Certain items impacting EBITDA	\$(23	) \$(590	) \$(119	)

## 2013 Versus 2012

Performance Materials sales were \$13,415 million in 2013, down 2 percent from \$13,608 million in 2012. Compared with 2012, price was flat as increases across most businesses in North America and Europe were offset by decreases in Latin America and Asia Pacific. Improved economic conditions drove price gains in Oxygenated Solvents in all geographic areas except Asia Pacific, where price declined due to the unfavorable impact of currency. Price increases

were also reported by Dow Automotive Systems, Dow Formulated Systems and Polyglycols, Surfactants & Fluids due to higher propylene and energy costs. These increases were offset by price declines in Amines, Dow Plastics Additives and most notably in Chlorinated Organics, where aggressive competitors, coupled with global industry oversupply, lowered prices. Volume for 2013 was down 2 percent compared with 2012 as modest growth in Latin America was more than offset by declines in all other geographic areas. Epoxy reported lower volume across all geographic areas, except Latin America, due to poor supply and demand fundamentals. Volume declined in Amines and Oxygenated Solvents due to the expiration of a low margin marketing agreement. Lower volume was reported by Chlorinated Organics and Dow Plastics Additives which were impacted by soft demand conditions. Dow Automotive Systems reported volume gains due to stronger demand in the North American transportation sector. Stronger consumer and industrial demand, as well as increased demand in the wind energy sector, drove volume growth in Dow Formulated Systems. Volume gains were reported in PO/PG, especially in Asia Pacific where additional

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propylene glycol capacity in Thailand was brought online in late 2012. Dow Oil, Gas & Mining volume was higher in all geographic areas due to strong demand fundamentals in the exploration and production and refining and processing industries. Volume increased modestly in Polyurethanes in all geographic areas except EMEA, driven primarily by increased demand for energy efficient applications.

EBITDA for 2013 was \$1,436 million, compared with \$1,036 million in 2012. EBITDA in 2013 included \$38 million of asset impairment charges and costs related primarily to the shutdown of certain assets in the Dow Plastics Additives and Epoxy businesses and a \$15 million gain for the adjustment of contract cancellation fees related to the 1Q12 restructuring program. EBITDA in 2012 was negatively impacted by a goodwill impairment loss of \$220 million in Dow Formulated Systems; \$186 million of 1Q12 Restructuring charges related to the cancellation of a project and the shutdown/consolidation of assets in the Polyurethanes and Epoxy businesses in Brazil, Texas and Germany; and \$192 million of 4Q12 Restructuring charges related primarily to the shutdown/consolidation of certain assets in the Dow Automotive Systems and Oxygenated Solvents businesses in Michigan and Texas. EBITDA in 2012 was also impacted by an \$8 million gain related to post-closing adjustments on the sale of a contract manufacturing business. See Notes 3, 5, 9 and 11 to the Consolidated Financial Statements for additional information on these charges. Excluding these certain items, EBITDA decreased in 2013 as higher propylene and energy costs, decreased sales volume and increased SG&A costs more than offset lower equity losses from Map Ta Phut Olefins Company Limited, decreased spending on planned maintenance turnarounds and improved operating rates.

On March 14, 2013, the Company announced the Dow Plastics Additives business was being marketed for divestment, as part of the Company's ongoing commitment to portfolio management. During the third quarter of 2013, the Company determined this valuable business was being undervalued by potential buyers in the market. As a result, the Dow Plastics Additives business is no longer being marketed for divestment and will continue to be operated by the Company to obtain maximum value.

## 2012 Versus 2011

Performance Materials sales were \$13,608 million in 2012, down 7 percent from \$14,647 million in 2011. Compared with 2011, price declined 6 percent with approximately 40 percent of the decline due to the unfavorable impact of currency. Lower feedstock and energy and other raw material costs drove price decreases across all geographic areas and most businesses. Amines, Epoxy and PO/PG experienced double-digit price decreases due to lower feedstock and energy and other raw material costs as well as excess industry inventories. Polyglycols, Surfactants & Fluids reported slight price increases led by favorable pricing in North America. Volume for 2012 was down 1 percent compared with 2011, reflecting the sale of Dow Haltermann in 2011. Excluding the impact of this divestiture, volume was flat as a decline in Latin America, due to the shutdown of the toluene diisocyanate manufacturing facility in Brazil, offset modest volume increases in other geographic areas. Amines reported volume growth of 8 percent due to increased sales of herbicides in the agricultural industry, as well as increased industry demand in laundry detergents, fabric softeners and industrial applications for the oil and gas industry. Strong volume growth was reported by PO/PG, driven primarily by the addition of new propylene oxide capacity in Asia Pacific in 2011. Dow Oil, Gas & Mining volume was higher in all geographic areas, except Asia Pacific, due to strong demand fundamentals in the exploration and production and refining and processing industries. These volume gains were offset by volume declines in Dow Automotive Systems, where demand softened in Latin America and Europe, as well as Polyurethanes where volume was down across all geographic areas except North America. Epoxy also reported lower volume across all geographic areas, except Latin America, due to soft demand and extended planned maintenance turnarounds in 2012.

EBITDA for 2012 was \$1,036 million, compared with \$1,748 million in 2011. EBITDA decreased in 2012 as lower selling prices, increased spending for planned maintenance turnarounds, lower equity earnings from Map Ta Phut Olefins Company Limited and equity losses from Sadara more than offset lower feedstock and energy and other raw material costs, improved operating rates, the positive impact of currency on costs and lower R&D and SG&A costs. EBITDA in 2012 was negatively impacted by \$590 million of certain items, as previously discussed. EBITDA in 2011

included \$77 million of asset impairment charges and related costs in the Polyurethanes business and a \$42 million loss on the sale of a contract manufacturing business. See Notes 5 and 11 to the Consolidated Financial Statements for additional information on these charges.

#### Performance Materials Outlook for 2014

Performance Materials volume is expected to grow modestly, at or slightly above GDP for most businesses. Volume is expected to improve in Polyurethanes as the economic recovery continues in North America and is expected across all other geographic areas. Continued sales growth is expected for Dow Oil, Gas & Mining driven by market fundamentals in exploration and production as well as market penetration in emerging geographies. Increased demand is expected to drive modest volume increases in Epoxy. Dow Plastics Additives expects lower volume due to the announced closure of the Grangemouth, United Kingdom manufacturing facility. Chlorinated Organics expects slight volume declines due to a depressed global market. A modest sales increase is expected in Dow Automotive Systems, driven by a projected increase in global production in the transportation sector. Amines, Oxygentated Solvents and Polyglycols, Surfactants & Fluids all expect sales growth, despite the

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expiration of a low margin marketing agreement in late 2013. Equity earnings are expected to be down due to increased start-up costs for the Sadara joint venture.

On December 2, 2013, the Company announced the planned carve-out of a portion of its chlorine chain, including the Company's global Chlorinated Organics and Epoxy businesses, in preparation for transactions involving select chlorine and derivative businesses over the next 12-24 months.

**PERFORMANCE PLASTICS**

The Performance Plastics segment is a solutions-oriented portfolio comprised of Dow Elastomers; Dow Electrical and Telecommunications; and Dow Packaging and Specialty Plastics. The Performance Plastics segment also includes the results of Equipolymers (through the July 1, 2011 merger with MEGlobal; see Note 8 to the Consolidated Financial Statements) and Univation Technologies, LLC, as well as a portion of the results of EQUATE Petrochemical Company K.S.C., The Kuwait Olefins Company K.S.C., The SCG-Dow Group and Sadara Chemical Company, all joint ventures of the Company.

On December 2, 2013, the Company sold its global Polypropylene Licensing and Catalysts business to W. R. Grace & Co. On September 30, 2011, the Company sold its global Polypropylene business to Braskem SA. These businesses were reported in the Performance Plastics segment through the date of divestiture. See Note 5 to the Consolidated Financial Statements for additional information on these divestitures.

Performance Plastics In millions	2013	2012	2011
Sales	\$14,645	\$14,479	\$16,257
Price change from comparative period	4	% (4	)% 12
Volume change from comparative period	(3	)% (7	)% (5
Volume change, excluding divestitures	(1	)% 1	% 4
Equity earnings	\$359	\$134	\$303
EBITDA	\$4,549	\$3,018	\$3,440
Certain items impacting EBITDA	\$457	\$(26	) \$86

**2013 Versus 2012**

Performance Plastics sales for 2013 were \$14,645 million, up 1 percent from \$14,479 million in 2012 with price up 4 percent and volume down 3 percent. Dow Packaging and Specialty Plastics prices were significantly higher in all geographic areas due to low industry inventories and the Company's focus on higher margin products and customers. Dow Elastomers prices were lower in all geographic areas due to increased competitive pressure from additional industry capacity. Dow Electrical and Telecommunications price increases in North America were more than offset by price declines in all other geographic areas, most notably Asia Pacific which included the unfavorable impact of currency. Volume declined by 3 percent, primarily due to the divestiture of the Company's 50 percent interest in Nippon Unicar Company Limited. Excluding the impact of this divestiture, volume was down 1 percent. Increased demand drove Dow Packaging and Specialty Plastics volume growth in all geographic areas, except EMEA, which was impacted by the Company's shutdown of a high-density polyethylene production facility at Tessenderlo, Belgium. Dow Elastomers volume was higher in all geographic areas, except Latin America, due to increased demand in the transportation, adhesive and infrastructure industries. Dow Electrical and Telecommunications volume declined in all geographic areas except Latin America, reflecting weaker demand in the telecommunications and power industries. Volume was also significantly lower in Asia Pacific, reflecting reduced supply related to the Company's divestiture of its ownership interest in Nippon Unicar Company Limited.

EBITDA for 2013 was \$4,549 million, up significantly from \$3,018 million in 2012. EBITDA improved as the impact of higher selling prices, lower feedstock costs, lower other raw material cost and improved equity earnings more than offset the decline in sales volume. Equity earnings were \$359 million in 2013, up from \$134 million in 2012, as a result of significantly improved earnings from EQUATE, The Kuwait Styrene Company K.S.C. and Univation Technologies, LLC and lower equity losses from The SCG-Dow Group. EBITDA in 2013 was also positively impacted by a pretax gain of \$451 million on the sale of the global Polypropylene Licensing and Catalysts business and a \$6 million gain for adjustments to contract cancellation fees related to the 4Q12 Restructuring plan. EBITDA in 2012 was negatively impacted by \$26 million of restructuring charges consisting of asset write-offs of \$10 million and costs associated with exit or disposal activities of \$7 million related to the shutdown of the Company's polyethylene manufacturing facility in Tessenderlo, Belgium, and a \$9 million charge related to the impairment of the Company's investment in Nippon Unicar Company Limited. See Notes 3 and 5 to the Consolidated Financial Statements for additional information on these charges.

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### 2012 Versus 2011

Performance Plastics sales for 2012 were \$14,479 million, down 11 percent from \$16,257 million in 2011 with price down 4 percent (with more than half of the decrease due to currency) and volume down 7 percent. Feedstock and energy costs fell during 2012 resulting in lower selling prices across all geographic areas and businesses. Prices declined in EMEA where modest local price increases were more than offset by the unfavorable impact of currency. The decline in volume reflects the divestiture of the Polypropylene business; excluding the impact of this divestiture, volume was up 1 percent. Volume was higher in all geographic areas except EMEA, where recessionary conditions continued to negatively impact demand. Dow Elastomers reported double-digit volume growth in all geographic areas, except EMEA, due to strong demand in the transportation and adhesive industries. Volume in EMEA was lower as weak economic conditions negatively impacted the transportation and infrastructure industries. Dow Electrical and Telecommunications reported strong volume growth in Asia Pacific, notably in China, due to continued strong demand for fiber optic cable. This was partially offset by volume declines in North America, Latin America and EMEA due to lower demand in the power industry. Dow Packaging and Specialty Plastics reported volume growth due to higher demand in all geographic areas, except EMEA. Volume was higher in North America despite limited ethylene availability during the first half of the year due to a planned maintenance turnaround at the Company's St. Charles, Louisiana ethylene facility and limited ethylene supply at the Prentiss, Alberta, Canada manufacturing facility.

EBITDA for 2012 was \$3,018 million, down from \$3,440 million in 2011. EBITDA declined as lower selling prices, the absence of earnings from divested businesses, reduced equity earnings from The SCG-Dow Group and equity losses from Sadara, and the unfavorable impact of the 2012 certain items stated above more than offset the favorable impact of lower feedstock and energy costs and lower spending on planned maintenance turnarounds. In North America, favorable shale gas related feedstock dynamics allowed the Company to leverage its competitive position and expand margins. EBITDA in 2011 included an \$86 million gain related to cash collected on a previously impaired note receivable related to Equipolymers.

### Performance Plastics Outlook for 2014

In 2014, Performance Plastics growth is expected to continue at a modest pace. In North America, the availability of low-cost U.S. shale gas is expected to continue to provide a competitive advantage for the Performance Plastics businesses. These favorable dynamics will allow Dow Packaging and Specialty Plastics to improve margins and increase volume through increased exports into Asia Pacific and Latin America. Margins in EMEA are expected to remain compressed due to the high cost of naphtha-based feedstocks; however, announced industry production capacity reductions may provide some upside potential. Dow Packaging and Specialty Plastics will also begin the pre-marketing of products for the Sadara. This activity will increase as the year progresses, in anticipation of the start-up of the Sadara production facilities in the second half of 2015. In addition, Dow Packaging and Specialty Plastics will continue to benefit from the restart of an ethylene facility in Louisiana. Dow Elastomers is expected to see growth as demand increases due to continued improvement in the transportation, construction and infrastructure industries. Dow Electrical and Telecommunications expects to see improvement in 2014 due to continued growth in the U.S. housing and construction industries and government spending initiatives in Asia Pacific. Growth in EMEA will be slower due to weaker economic conditions and the startup of new industry capacity.

Construction continues on phase one of the new biopolymers manufacturing facility in Santa Vitória, Minas Gerais, Brazil. This project, which is a consolidated joint venture with Mitsui & Co. Ltd., was announced during the fourth quarter of 2011. The joint venture's ethanol mill is expected to process its first full harvest of sugarcane in 2014. The joint venture's original plans for expansion into downstream derivative products have been postponed. The joint venture is a variable interest entity and included in Dow's consolidated financial statements. See Note 19 to the Consolidated Financial Statements for additional information.

On August 27, 2013, the Company announced the location of four new Performance Plastics production units to be built on the U.S. Gulf Coast. Leveraging an advantaged feedstock position from U.S. shale gas, these production units will support expected profitable growth of the Company's high value Performance Plastics franchise. The businesses, production units and locations impacted are as follows:

• Dow Packaging and Specialty Plastics: An ELITE™ polymer production unit will be built in Freeport, Texas; and a Low Density Polyethylene (LDPE) production unit will be built in Plaquemine, Louisiana.

• Dow Elastomers: A NORDEL™ metallocene EPDM production unit will be built in Plaquemine, Louisiana; and a High Melt Index (HMI) AFFINITY™ polymer production unit will be built in Freeport, Texas.



Table of Contents**FEEDSTOCKS AND ENERGY**

The Feedstocks and Energy segment includes the following businesses: Chlor-Alkali/Chlor-Vinyl; Energy; Ethylene Oxide/Ethylene Glycol ("EO/EG"); and Hydrocarbons. Also included in the Feedstocks and Energy segment are the results of MEGlobal and a portion of the results of EQUATE Petrochemical Company K.S.C., The Kuwait Olefins Company K.S.C., and The SCG-Dow Group, all joint ventures of the Company.

Feedstocks and Energy	2013	2012	2011	
In millions				
Sales	\$9,854	\$10,695	\$11,302	
Price change from comparative period	(3	)%	(2	)% 27 %
Volume change from comparative period	(5	)%	(3	)% 7 %
Equity earnings	\$539	\$452	\$561	
EBITDA	\$858	\$718	\$940	
Certain items impacting EBITDA	\$21	\$(7	)	\$—

**2013 Versus 2012**

Feedstocks and Energy sales were \$9,854 million in 2013, down 8 percent from \$10,695 million in 2012, driven by a 5 percent decrease in volume and a 3 percent decrease in price.

Sales for the Hydrocarbons business were down 12 percent compared with 2012, due to a 7 percent decrease in volume and 5 percent decrease in price. Volume declined primarily from the expiration of propylene supply contracts related to the divestiture of Dow's Polypropylene business as well as lower co-product sales resulting from lower production and the use of lighter feedstocks in Europe. Price declined primarily due to lower butadiene prices in the United States and Europe as well as lower prices for other co-products in Europe.

Sales for the Energy business are primarily opportunistic merchant sales driven by market conditions and sales to customers located on Dow manufacturing sites. In 2013, Energy business sales increased 28 percent compared with 2012. Price increased 20 percent due to higher natural gas prices in North America while volume increased 8 percent.

The Company uses derivatives of crude oil and natural gas as feedstock in its ethylene facilities. In addition, the Company purchases electric power, ethylene and propylene to supplement internal production, as well as other raw materials. The Company's cost of purchased feedstock and energy increased \$319 million in 2013, a 2 percent increase from 2012, primarily due to increased propylene and natural gas costs.

Chlor-Alkali/Chlor-Vinyl sales decreased 3 percent compared with 2012, as volume declined 4 percent and price increased 1 percent. Volume decreased primarily due to lower sales of vinyl chloride monomer ("VCM"). In addition, caustic soda volume decreased due to a planned maintenance turnaround and lower demand in the chlorine chain. Price increases were driven by ethylene dichloride ("EDC") in Asia Pacific, which was partially offset by lower caustic soda prices in North America and Latin America due to improved chlorine demand and new capacity nearing startup.

EO/EG sales increased 13 percent compared with 2012, as volume increased 10 percent while price increased 3 percent. Volume was higher due to increased catalysts sales. Ethylene oxide volumes were higher due to increased demand in North America and EMEA. Price increases were driven by monoethylene glycol ("MEG"), which increased year-over-year due to continued demand growth and limited industry capacity additions.

The Hydrocarbons business transfers materials to Dow's derivative businesses and the Energy business supplies utilities to Dow's businesses at net cost, resulting in EBITDA that is at or near break-even for both businesses. For the segment, EBITDA for 2013 was \$858 million, up from \$718 million in 2012. EBITDA for 2013 benefited from higher equity earnings from EQUATE and MEGlobal and an \$87 million gain on the sale of a 7.5 percent ownership interest

in Freeport LNG Development, L.P. EBITDA for 2013 was negatively impacted by \$66 million of asset impairments, including the shutdown of manufacturing facilities in the Chlor-Alkali/Chlor-Vinyl business. EBITDA in 2012 was negatively impacted by a \$7 million restructuring charge for the write-off of certain capital projects as part of the 4Q12 Restructuring plan. See Notes 3 and 11 to the Consolidated Financial Statements for additional information on these charges.

#### 2012 Versus 2011

Feedstocks and Energy sales were \$10,695 million in 2012, down 5 percent from \$11,302 million in 2011, driven by a 3 percent decrease in volume and a 2 percent decrease in price.

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Sales for the Hydrocarbons business were down 2 percent compared with 2011, due to a 1 percent decrease in both price and volume. Price and volume were down in all geographic areas, except EMEA. Despite the unfavorable impact of currency, overall price increased in EMEA due to higher benzene prices and volume increased in EMEA due to increased sales of propylene.

In 2012, Energy business sales declined 23 percent compared with 2011. Volume was down 20 percent with declines in all geographic areas, primarily due to decreased sales of industrial gas. Price was down 3 percent driven by lower natural gas prices resulting from high inventory levels in the U.S. and one of the mildest winters on record in North America.

The Company's cost of purchased feedstock and energy decreased \$2.5 billion in 2012, an 11 percent decrease from 2011. The cost of purchased feedstocks decreased primarily due to lower feedstock and energy prices in the United States resulting from increased supply of shale gas and natural gas liquids.

Chlor-Alkali/Chlor-Vinyl sales declined 13 percent compared with 2011, as volume declined 9 percent and price declined 4 percent. Volume decreased primarily due to the shutdown of VCM capacity in North America in the first half of 2011. Pricing trends were mixed as price increases in caustic soda were more than offset by lower prices for EDC and VCM due to weak global construction-related demand.

EO/EG sales decreased 5 percent compared with 2011, as a 3 percent increase in volume was more than offset by an 8 percent decline in price. Volume gains were driven by increased merchant sales of purified ethylene oxide and ethylene glycol, as the business took advantage of favorable conditions to move material not needed for internal consumption by Dow's downstream derivative businesses. Price decreases were driven by ethylene glycol, as the combination of modest demand growth, stable inventory supply, high inventories in Asia Pacific and uncertainty in the global economy put downward pressure on prices.

EBITDA for the segment in 2012 was \$718 million, down from \$940 million in 2011 as lower feedstock and energy costs were more than offset by a decrease in selling prices and lower equity earnings from MEGlobal, Compañía Mega S.A and EQUATE. EBITDA in 2012 was negatively impacted by \$7 million of certain items, as previously discussed.

### Feedstocks and Energy Outlook for 2014

The Feedstocks and Energy segment expects market conditions to show slight improvement. MEG prices are expected to remain volatile but generally move upward due to improved economic conditions, rising downstream demand and limited industry capacity additions. The path and pace of economic growth will continue to be an important determinant of MEG prices and profitability. Caustic soda prices and margins are expected to weaken as new industry capacity in the U.S. Gulf Coast outweighs demand growth and global chlorine operating rates gradually improve. EDC/VCM prices and margins are expected to improve with the continued recovery of the global construction market and North America housing activity. Crude oil and feedstock prices are expected to remain volatile and sensitive to external factors, such as economic activity and geopolitical tensions. The Company expects crude oil prices, on average, to be slightly above 2013. Ethylene margins are expected to increase from 2013, however ethylene margins could vary materially from these expectations depending on global GDP growth rates and global operating rates.

The Company announced a number of investments in the U.S. Gulf Coast to take advantage of increasing supplies of low-cost natural gas and natural gas liquids derived from shale gas. As a result of these investments, the Company's exposure to purchased ethylene and propylene is expected to decline, offset by increased exposure to ethane and propane feedstocks. The Company also announced investments in a new on-purpose propylene production unit (expected start-up in 2015) and a new ethylene production unit (expected start-up in 2017), both located in Freeport, Texas. As a result of these investments, Dow's ethylene production capabilities are expected to increase by as much as

20 percent.

In the fourth quarter of 2010, Dow and Mitsui & Co., Ltd. formed Dow-Mitsui Chlor-Alkali LLC, a 50:50 manufacturing joint venture to construct, own and operate a new membrane chlor-alkali facility located at Dow's Freeport, Texas, integrated manufacturing complex. Construction began in 2011 and operations are expected to begin in the first quarter of 2014. The new facility will have an annual capacity of approximately 800 kilotons. Under contract to the joint venture, Dow will operate and maintain the facility. The joint venture is a variable interest entity and is included in Dow's consolidated financial statements. See Note 19 to the Consolidated Financial Statements for additional information.

On December 2, 2013, the Company announced the planned carve-out of a portion of its chlorine chain, including the Company's U.S. Gulf Coast Chlor-Alkali/Chlor-Vinyl business, in preparation for transactions involving select chlorine and derivative businesses over the next 12-24 months. Assets included in this planned carve-out are the Chlor-Alkali and Chlor-Vinyl facilities in Plaquemine, Louisiana and Freeport, Texas, including the Company's interest in the Dow-Mitsui Chlor-Alkali LLC manufacturing joint venture.

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On December 18, 2013, the European Union (“EU”) initiated a state aid proceeding against the German government in relation to Germany’s current version of the Renewable Energy Act (“EEG”). Under review is the legality of the German EEG law. The outcome of the proceeding is uncertain. However, if it is determined the German EEG violated EU state aid rules, it could result in the retroactive adjustment of German EEG exemptions granted to companies since 2012. The Company operates several manufacturing sites in Germany.

**CORPORATE**

Included in the results for Corporate are:

- results of insurance company operations;
- results of Ventures (which includes new business incubation platforms focused on identifying and pursuing new commercial opportunities);
- Venture Capital;
- gains and losses on sales of financial assets;
- stock-based compensation expense and severance costs;
- asbestos-related defense and resolution costs;
- foreign exchange results;
- non-business aligned technology licensing and catalyst activities;
- environmental operations;
- enterprise level mega project activities; and
- certain corporate overhead costs and cost recovery variances not allocated to the operating segments.

Corporate In millions	2013	2012	2011
Sales	\$306	\$243	\$325
Equity losses	\$(39)	\$(103)	\$(39)
EBITDA	\$861	\$(1,939)	\$(1,507)
Certain items impacting EBITDA	\$1,788	\$(1,032)	\$(513)

**2013 Versus 2012**

Sales for Corporate, which primarily relate to the Company's insurance operations, were \$306 million in 2013 up from \$243 million in 2012.

EBITDA for 2013 was a gain of \$861 million, compared with a loss of \$1,939 million in 2012. Compared with the same period last year, EBITDA for 2013 was favorably impacted by a \$2.161 billion gain from the K-Dow arbitration and a gain of \$26 million on the sale of the Company's ownership interest in Dow Kokam LLC. EBITDA for 2013 was negatively impacted by \$326 million of losses related to the early extinguishment of debt; \$44 million of implementation costs related to the Company's restructuring programs; and \$29 million of asset impairments and related costs, including a \$10 million loss related to asset impairment charges at a formulated electrolytes manufacturing joint venture. EBITDA in 2013 was also negatively impacted by an increase in performance-based compensation costs. See Notes 5, 11, 14 and 16 to the Consolidated Financial Statements for additional information on these matters.

EBITDA for 2012 was negatively impacted by \$113 million of severance costs related to the workforce reduction component of the Company's 1Q12 Restructuring plan and \$701 million in restructuring charges as part of the 4Q12 Restructuring plan, including impairments of long-lived and other assets of \$313 million, severance costs of \$375 million and costs associated with exit or disposal activities of \$13 million. EBITDA was also impacted by \$22 million of implementation costs related to the Company's restructuring programs, \$123 million of losses related to the early

extinguishment of debt and a \$73 million loss included in equity earnings related to project development and other costs associated with Sadara. See Notes 3, 8, 11 and 16 to the Consolidated Financial Statements for additional information on these charges.

#### 2012 Versus 2011

Sales were \$243 million in 2012 down from \$325 million in 2011.

EBITDA for 2012 was a loss of \$1,939 million, compared with a loss of \$1,507 million in 2011. Compared with 2011, EBITDA for 2012 was favorably impacted by a decrease in performance-based compensation costs (including stock-based compensation and decreased participation in the Employee Stock Purchase Plan), lower foreign currency losses and lower Corporate expenses. EBITDA in 2012 was negatively impacted by \$1,032 million of certain items, as previously discussed.

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EBITDA for 2011 was negatively impacted by a \$482 million loss related to the early extinguishment of debt, \$31 million of integration costs related to the April 1, 2009 acquisition of Rohm and Haas and foreign currency losses. See Notes 4 and 16 to the Consolidated Financial Statement for additional information on these matters.

## SALES VOLUME AND PRICE BY OPERATING SEGMENT AND GEOGRAPHIC AREA

## Sales Volume and Price by Operating Segment and Geographic Area

	2013			2012			2011			
Percent change from prior year	Volume	Price	Total	Volume	Price	Total	Volume	Price	Total	
Operating Segments:										
Electronic and Functional Materials	4	% (2)	)% 2	% (1)	)% (2)	)% (3)	)% 3	% 6	% 9	%
Coatings and Infrastructure Solutions	4	(1)	) 3	2	(6)	) (4)	) (4)	) 13	9	
Agricultural Sciences	11	1	12	10	3	13	11	5	16	
Performance Materials	(2)	) —	(2)	) (1)	) (6)	) (7)	) (7)	) 12	5	
Performance Plastics	(3)	) 4	1	(7)	) (4)	) (11)	) (5)	) 12	7	
Feedstocks and Energy	(5)	) (3)	) (8)	) (3)	) (2)	) (5)	) 7	27	34	
Total	—	% 1	% 1	% (2)	)% (3)	)% (5)	)% (1)	)% 13	% 12	%
Geographic Areas:										
United States	—	% 2	% 2	% (2)	)% (3)	)% (5)	)% (2)	)% 13	% 11	%
Europe, Middle East and Africa	(5)	) —	(5)	) (4)	) (4)	) (8)	) (4)	) 17	13	
Rest of World	5	—	5	—	(3)	) (3)	2	10	12	
Total	—	% 1	% 1	% (2)	)% (3)	)% (5)	)% (1)	)% 13	% 12	%

## Sales Volume and Price by Operating Segment and Geographic Area

## Excluding Divestitures (1)

	2013			2012			2011			
Percent change from prior year	Volume	Price	Total	Volume	Price	Total	Volume	Price	Total	
Operating Segments:										
Electronic and Functional Materials	4	% (2)	)% 2	% (1	)% (2	)% (3	)% 3	% 6	% 9	%
Coatings and Infrastructure Solutions	4	(1	) 3	2	(6	) (4	) (1	) 13	12	
Agricultural Sciences	11	1	12							