

A large industrial facility, likely a refinery or chemical plant, is shown at night. The structure is a complex of steel frameworks, pipes, and towers, illuminated by numerous bright lights that create a starburst effect. The sky is a deep blue with some light clouds. In the foreground, there are some industrial vehicles and equipment on a paved area.

lyondellbasell

# Data Book 2010

[lyondellbasell.com](http://lyondellbasell.com)

# Letter from CEO Jim Gallogly



Today, we are a new LyondellBasell, focused on becoming the top-performing company in our industry. Key highlights of our new organization include:

- Global scale and diversity, as the world's third-largest independent chemical company
- New balanced capital structure
- Refocused cost savings culture
- A new, proven management team
- Market leadership with a strong asset base
- A publicly traded company listed on the NYSE

The pages that follow provide a view of our corporate strategy, which we call Everyday Excellence, as well as our five business segments. We hope you'll see how LyondellBasell's industry-defining technology, global reach and commitment to operational excellence are creating value for our customers and investors.

Thank you for your interest in LyondellBasell.

Regards,

A handwritten signature in black ink that reads "James J. Gallogly". The signature is written in a cursive, flowing style.

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## Cautionary Disclaimer:

Certain of the statements contained in the Data Book are “forward-looking statements” within the meaning of the U.S. federal securities laws. Some of the forward-looking statements may be identified by words such as “estimate,” “believe,” “expect,” “anticipate,” “plan,” “may,” “should” or other words that convey the uncertainty of future events or outcomes. These forward-looking statements are based on expectations and assumptions of management about future events which are believed to be reasonable at the time made, but are inherently subject to significant business, economic, competitive, regulatory and other risks, contingencies and uncertainties, most of which are difficult to predict and many of which are beyond LyondellBasell’s control. As a result, actual results could differ materially. Factors that could cause results to differ materially from those described in the forward-looking statements can be found in our financial reports, which are available at [www.lyondellbasell.com](http://www.lyondellbasell.com).

# Our Corporate Strategy: Everyday Excellence

Everyday | Excellence

Through Everyday Excellence, LyondellBasell will become the top performer in our industry. To accomplish this, six strategic elements have been identified:

**Operational Excellence.** Operational excellence, which includes a commitment to safety, environmental stewardship and improved reliability, is key to our success. We believe optimal operations can be achieved through a systematic application of standards and improved maintenance procedures, which we expect to also result in improved personnel and process safety and environmental performance. We continue to set new, stricter operational excellence targets for each of our facilities based on industry benchmarks.

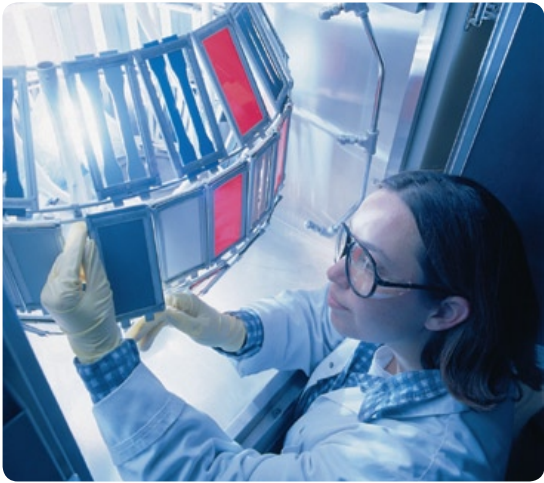
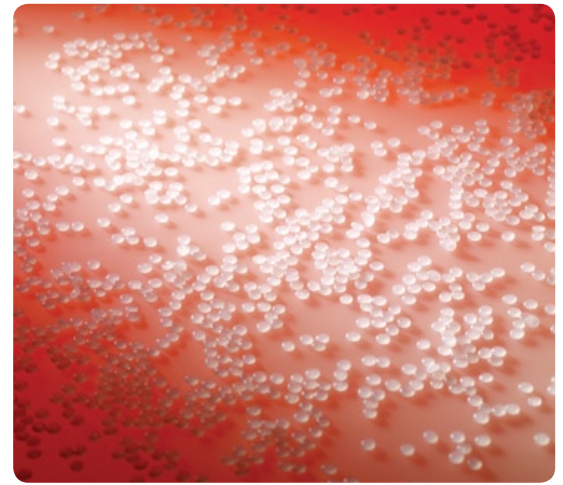
**Cost Reduction / Revenue Enhancement.** We are pursuing cost reductions across our system with specific goals, based in large part on benchmarks of industry-leading performance. We believe that our worldwide manufacturing scale provides the opportunity to minimize costs per unit, a critical operational measure for petrochemical and refining companies. We will continue to focus on upgrading our customer and product mix to realize premium pricing for premium products. By leveraging our leading technological platform, worldwide presence, strong customer relationships, reliability and quality, we also intend to increase our sales of value-added, differentiated products.

**Capital Discipline.** We remain focused on disciplined capital allocation. We intend to optimize our capital spending to address projects required to enhance reliability and maintain the overall asset portfolio. This includes key turnarounds in each segment, necessary regulatory and maintenance spending as well as a limited number of high-return debottlenecking and energy-reduction projects.

**Portfolio Management.** We will continue to carefully manage our portfolio, as demonstrated by the recent closures of certain strategically disadvantaged assets. We continue to evaluate our asset portfolio and may initiate further rationalization, depending on market conditions.

**Performance-Driven Culture.** The benchmarking, goal setting and results measurement previously described as part of the cost-reduction and revenue-enhancement efforts are central to the new performance-driven, accountability culture that we are instilling. We believe we have outstanding people and assets and, with the right performance expectations, can rapidly increase our competitiveness. We have reshaped our management team to initiate a refocused effort around these basic strategic elements.

**Technology-Driven Growth.** Our strong, industry-leading technologies provide us with a platform for future growth. We intend to continue to improve our operations in the mature, highly sophisticated markets in Europe and North America, and, as our financial condition improves, plan to grow in quickly developing markets such as Asia and regions with access to low-cost feedstocks.



# Our Business Segments

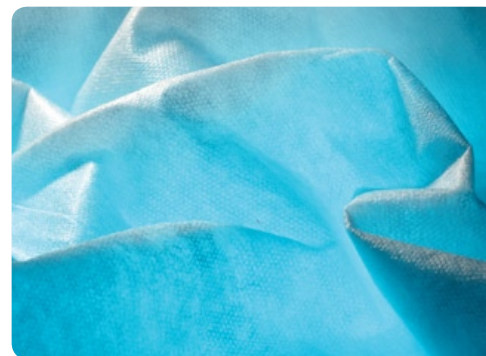
## LyondellBasell Portfolio

LyondellBasell has assembled a balanced, integrated product portfolio comprising five major business segments. Each plays a strategic role in creating stakeholder value.



### Olefins and Polyolefins Americas (O&P–Americas)

Our O&P–Americas segment produces and markets ethylene, propylene, polyethylene, polypropylene and various co-products. We are the largest producer of light olefins (ethylene and propylene), the largest polypropylene producer and the third-largest producer of polyethylene in North America. In addition, we produce significant quantities of high-value specialty products such as *Catalloy* process resins. For the year ended Dec. 31, 2009, our O&P–Americas segment generated \$6,728 million of revenue (excluding inter-segment revenue).



### Olefins and Polyolefins Europe, Asia & International (O&P–EAI)

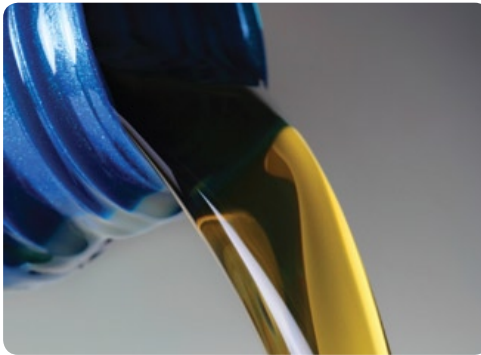
Our O&P–EAI segment produces and markets olefins (ethylene, propylene and other ethylene co-products) and polyolefins. We are the largest producer of polypropylene and polyethylene in Europe. We are also the largest worldwide producer of PP compounds, a high-value specialty product (global marketing of which is managed in our O&P–EAI segment). We also produce significant quantities of other high-value specialty products such as *Catalloy* process resins and Polybutene-1. For the year ended Dec. 31, 2009, our O&P–EAI segment generated \$9,047 million of revenue (excluding inter-segment revenue).



## Intermediates and Derivatives (I&D)

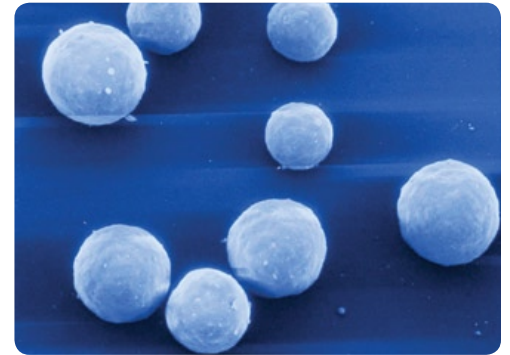
Our I&D segment produces and markets propylene oxide; PO co-products, including styrene monomer and the TBA intermediates, tertiary butyl alcohol; isobutylene and tertiary butyl hydroperoxide; PO derivatives, including propylene glycol, propylene glycol ethers and butanediol; ethylene derivatives, including ethylene glycol, ethylene oxide and other EO derivatives; acetyls, including vinyl acetate monomer, acetic acid and methanol; and flavors and fragrances.

We believe that our proprietary PO and acetyls production process technologies provide us with a cost advantaged position for these products and their derivatives. For the year ended Dec. 31, 2009, our I&D segment generated \$3,777 million of revenue (excluding inter-segment revenue).



## Refining and Oxyfuels

Our Refining and Oxyfuels segment refines heavy, high-sulfur crude oil in the U.S. Gulf Coast, refines light and medium weight crude oil in southern France and produces oxyfuels at several of our olefin and propylene oxide units. Our Houston refinery is among North America's largest full conversion refineries capable of processing significant quantities of heavy, high-sulfur crude oil. Our refinery in Berre, France, processes light to medium weight crude oils and provides raw material and site integration benefits to our olefin and polyolefin business in Europe. We also are a significant manufacturer of oxygenated fuels at several facilities within the United States and Europe. For the year ended Dec. 31, 2009, our Refining and Oxyfuels segment generated \$10,831 million of revenue (excluding inter-segment revenue).



## Technology

Our Technology segment develops and licenses industry-leading polyolefin process technologies, a portfolio of selected chemical technologies and provides associated engineering and other services. Our Technology segment develops, manufactures and sells polyolefin catalysts and provides associated technical support services. We market our process technologies and our polyolefin catalysts to external customers and also use them for our own manufacturing operations. For the year ended Dec. 31, 2009, our Technology segment generated \$436 million of revenue (excluding inter-segment revenue).

# LyondellBasell At A Glance

## LyondellBasell Overview

LyondellBasell is one of the world's largest plastics, chemical and refining companies. We have annual revenues of approximately \$30.8 billion (2009) and more than 14,000 employees worldwide. The company manufactures products at 59 sites in 18 countries. LyondellBasell products and technologies are used to make items that improve the quality of life for people around the world including packaging, electronics, automotive components, home furnishings, construction materials and biofuels. More information about LyondellBasell can be found at [www.lyondellbasell.com](http://www.lyondellbasell.com).

### Global capacity positions

Polypropylene	1st
Polypropylene Compounds	1st
Polyolefin Licensing	1st
Polypropylene Catalysts	1st
Oxygenated Fuels	1st
Propylene Oxide	2nd
Polyethylene	3rd
Ethylene	4th
Propylene	4th

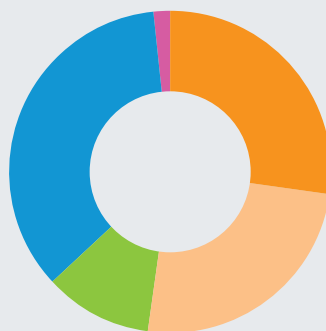
Refining Capacity  
373,000 barrels per day

Sources: CMAI, Chemical Market Resources, DeWitt and LyondellBasell NV internal data.

Note: Capacities and worldwide capacity positions are as of December 31, 2009, except for Technology worldwide capacity position, which is as of December 31, 2008, and include our pro rata share of joint ventures.

### 2009 Sales

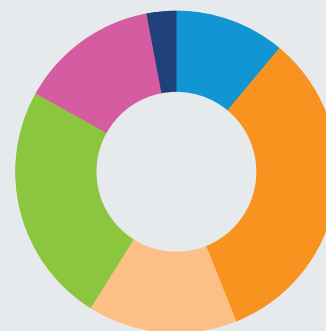
\$30,828 million



● Refining & Oxyfuels ● O&P EAI  
● O&P Americas ● I&D

### 2009 EBITDAR<sup>1</sup>

LIFO/FIFO: \$2,266 million  
Supplemental Current Cost: \$2,236 million<sup>2</sup>



● Technology ● Other

1 EBITDAR represents earnings before interest, taxes, depreciation, amortization and restructuring charges. Includes JV dividends and insurance proceeds. See page 41 for reconciliation to Net Income which is the most comparable financial measure calculated in accordance with U.S. generally accepted accounting principles.

2 Consolidated operating results are determined using the FIFO method of accounting to determine inventory cost except for certain U.S. inventories which are determined on the LIFO method. For purposes of evaluating segment results, management reviews operating results determined using current cost.



## Olefins & Polyolefins

- Americas
- Europe, Asia & International



### Key Products

Ethylene  
Propylene  
Polyethylene  
Polypropylene  
Catalloy Process Resins  
Polypropylene Compounds  
Polybutene-1

### End Uses

- Food Packaging
- Textiles
- Automotive
- Appliances
- Films
- Flexible Piping

## Intermediates & Derivatives



### Key Products

Propylene Oxide  
Styrene Monomer  
PG and PGE  
Acetyls  
TBA Intermediates  
Ethylene Oxide  
EG and EOD

### End Uses

- Insulation
- Home Furnishings
- Adhesives
- Consumer Products
- Coatings

## Refining & Oxyfuels



### Key Products

Gasoline  
Diesel  
Olefins Feed  
Oxyfuels

### End Uses

- Automotive Fuels
- Aviation Fuels
- Heating Oil
- Industrial Engine Lube Oils

## Technology



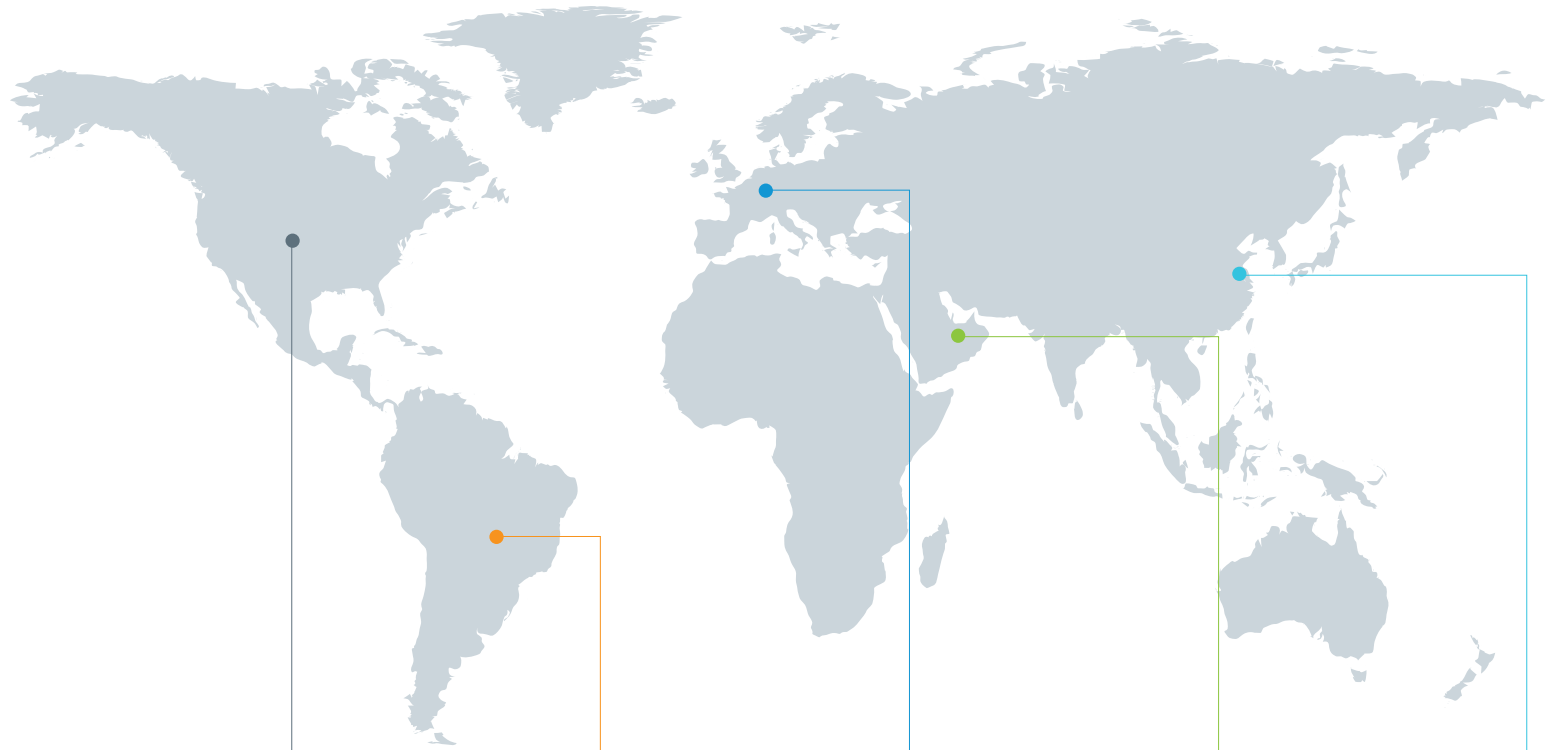
### Key Products

Process Licensing  
Catalyst Sales  
Technology Services

### End Uses

- Polyolefin and Chemical Manufacturing Processes

# LyondellBasell Locations



## North America

- USA
  - Florida ■ ●
  - Georgia ■
  - Illinois ■
  - Iowa ■
  - Louisiana ■
  - Michigan ●
  - New Jersey ■
  - Ohio ■ ●
  - Pennsylvania ●
  - Tennessee ■
  - Texas ■
- Mexico ■

## South America

- Argentina ■
- Brazil ■

## Europe

- France ■
- Germany ■ ●
- Italy ■ ●
- Netherlands ■
- Poland ■
- Spain ■
- UK ■

## AFME

- Saudi Arabia ■

## Asia Pacific

- Australia ■ ●
- China ■
- Japan ■
- Korea ■
- Malaysia ■
- Thailand ■

■ Manufacturing ● Technology Centers

Owned or operated by LyondellBasell, its subsidiaries and/or joint ventures

# Presence Outside of United States and Europe



100% ownership, unless otherwise stated

## Central America

### Mexico

Tampico  
Indelpro JV 49%

## South America

### Brazil

Pindamonhangaba

### Argentina

Ensenada

## AFME

### Saudi Arabia

SPC JV 25%  
SEPC JV 25%  
Al Waha JV 21%<sup>1</sup>

## Asia Pacific

### Japan

SunAllomer JV 50%  
Nihon Oxirane JV 40%

### South Korea

PolyMirae JV 43%<sup>2</sup>

### China

Guangzhou/Nansha  
Suzhou  
Ningbo ZRCC JV 27%

### Thailand

Rayong  
HMC Polymers JV 29%

### Malaysia

PolyPacific JV 50%

### Australia

Geelong  
Clyde  
PolyPacific JV 50%

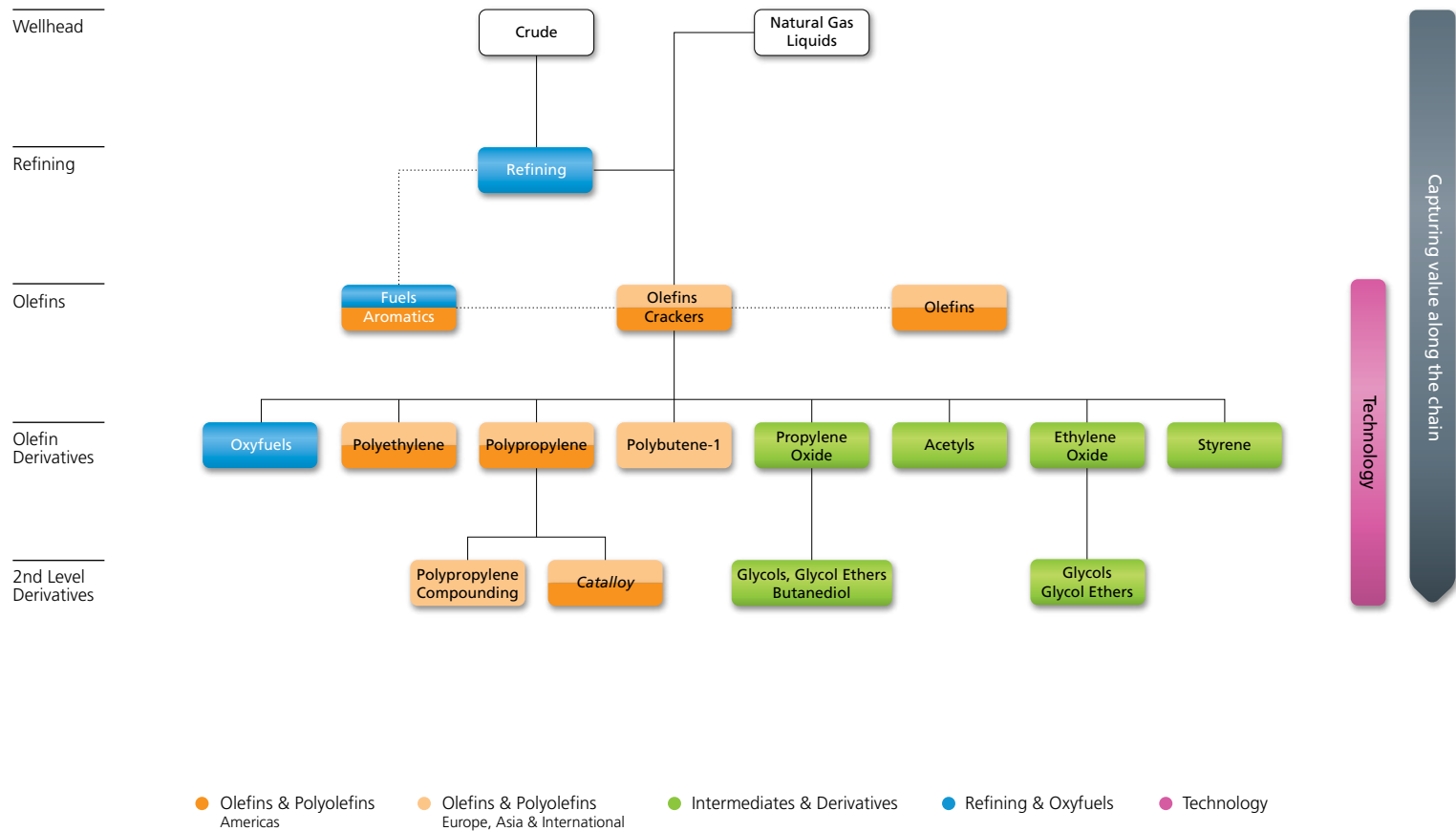
- Chemical Monomers
- Polymers
- Chemical Intermediates

Note: Each dot represents the presence of a business at a site, irrespective of the number of plants/lines the business has at that site

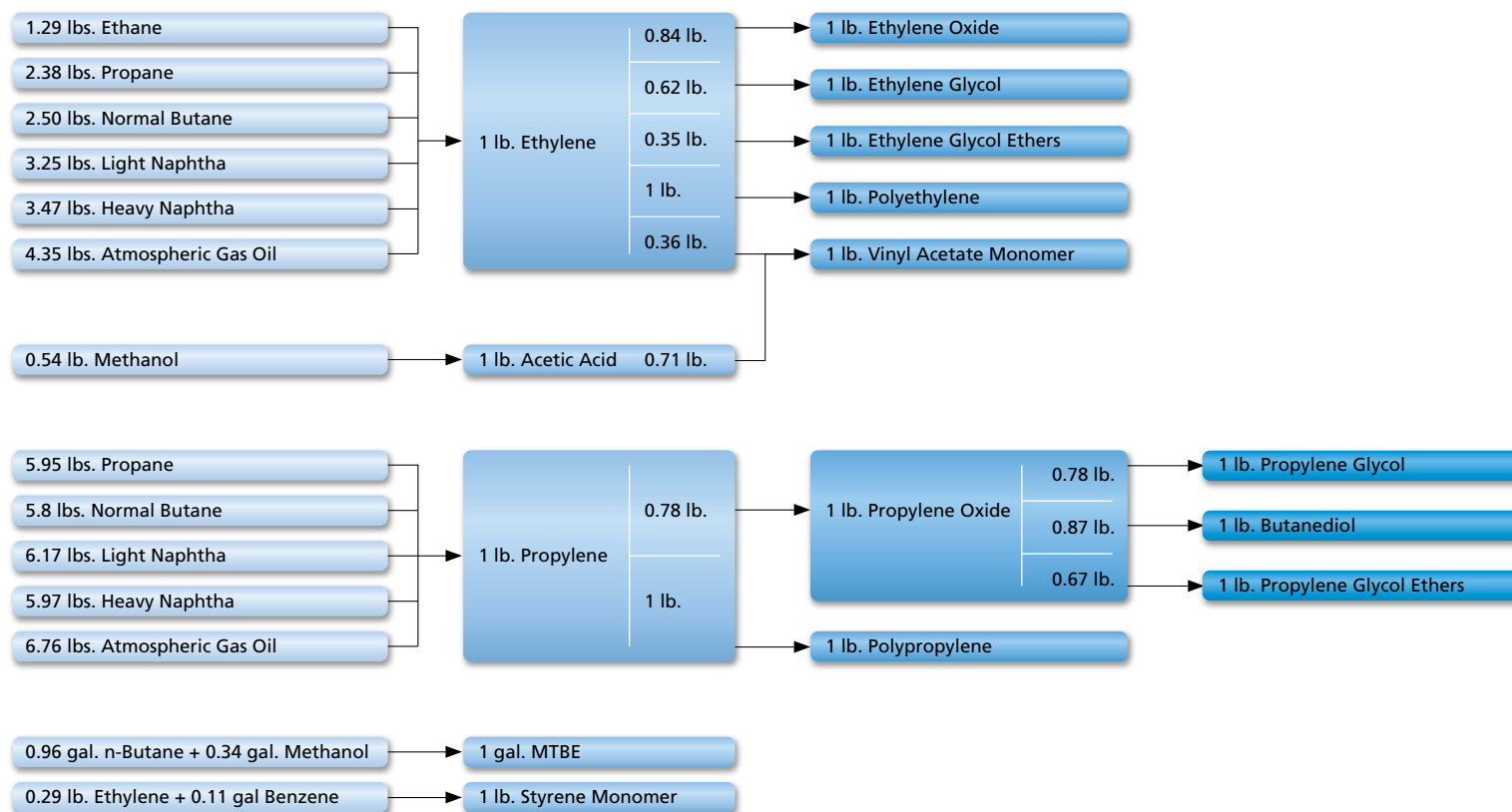
<sup>1</sup> Reflects our current ownership percentage. Assuming the joint venture pays dividends over time, we anticipate our ownership will increase to a maximum of 25%.

<sup>2</sup> Reflects our direct (35%) and indirect ownership through SunAllomer.

# Vertically Integrated Portfolio Structure



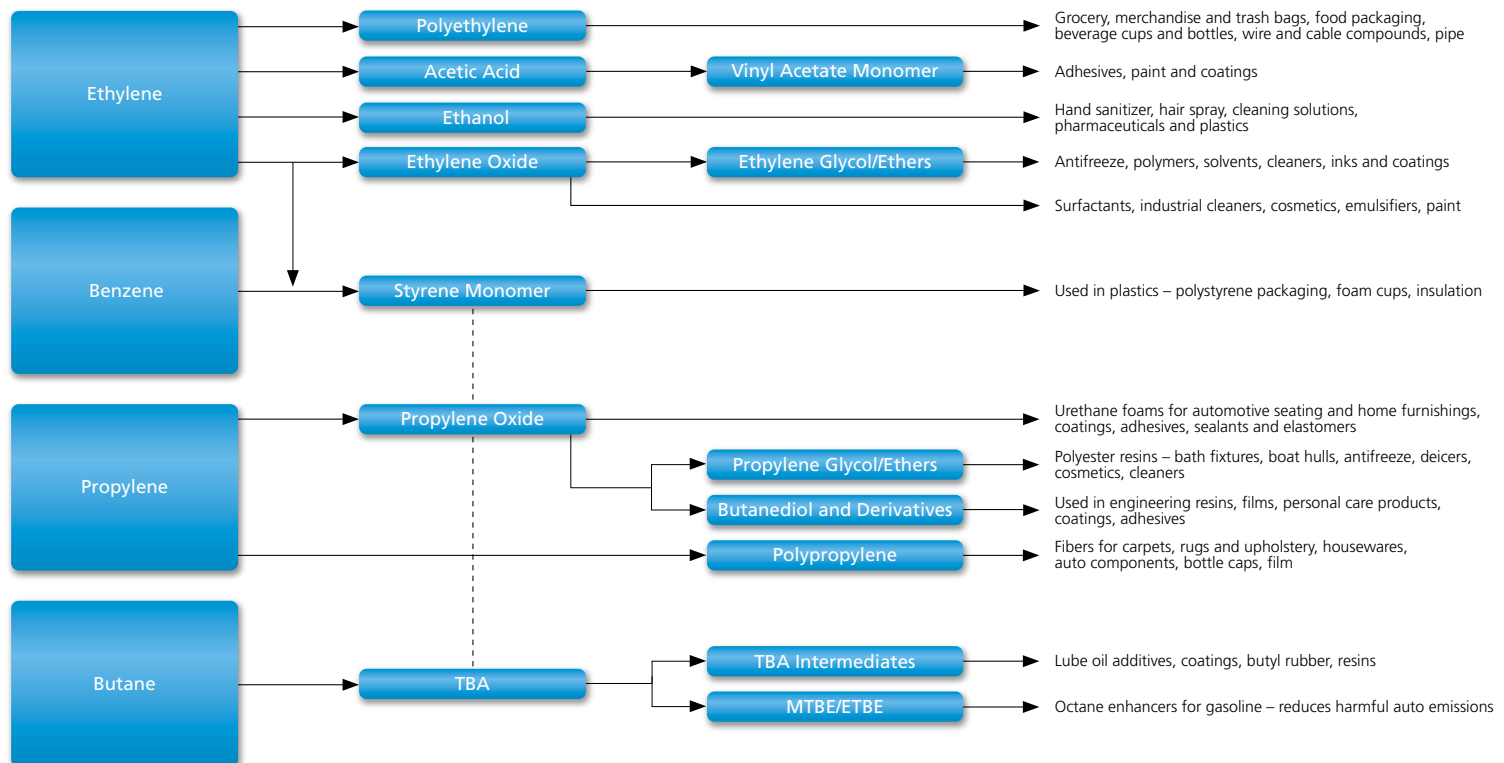
# Major Product Yield Factors



Source: NPRA, CMAI, DeWitt & ChemSystems trade data  
 Note: 2,205 pounds = 1 metric ton

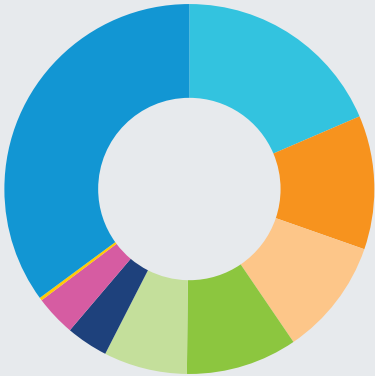
# LyondellBasell's Businesses Serve Diverse End Uses

LyondellBasell's products are the building blocks for countless goods and products that people use every day, such as clothing, food packaging, household furnishings, detergents, cosmetics, automotive components, construction and home-building materials, paints and coatings, gasoline and many other applications.





Diverse end markets



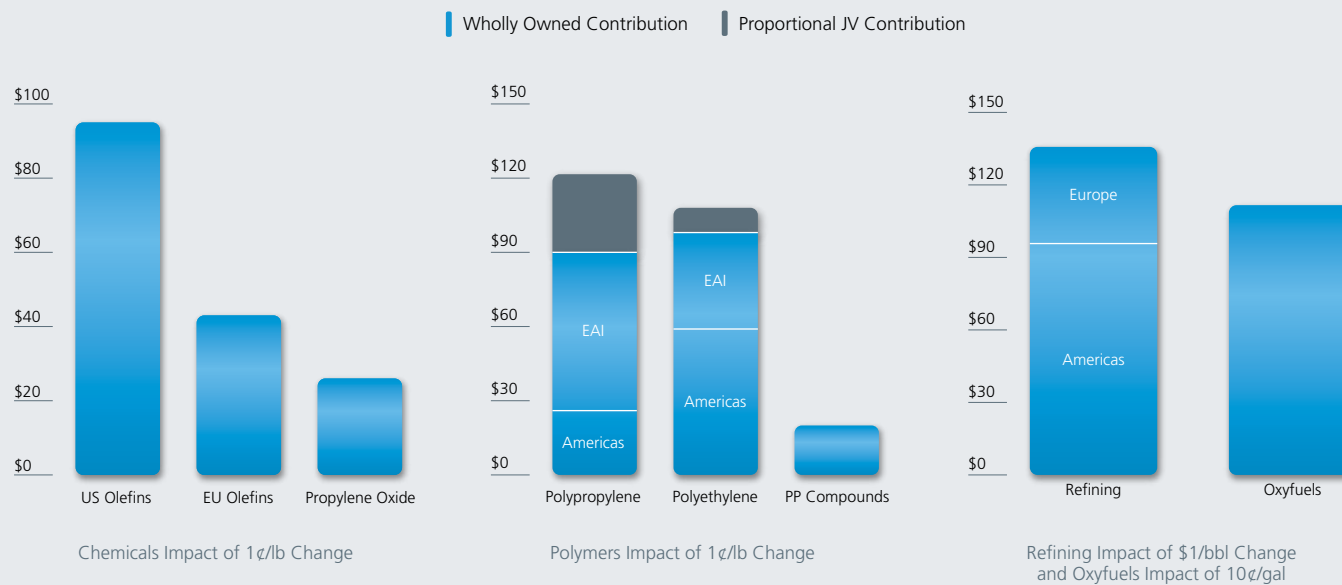
- Refining & Fuels
- Packaging
- Consumer
- Building & Construction
- Transportation
- Coatings
- Textiles & Furnishings
- Electronics
- Other

estimate based on revenues



# Pre-Tax Earnings Leverage

Pre-Tax Earnings Impact from Change in Margin, \$ millions/yr



See page 41 for reconciliation to Net Income, which is the most comparable financial measure calculated in accordance with U.S. generally accepted accounting principles.



# LyondellBasell Management Team



**Jim Gallogly**  
Chief Executive Officer



**Kent Potter**  
Executive Vice  
President and Chief  
Financial Officer



**Craig Glidden**  
Executive Vice  
President and  
Chief Legal Officer



**Kevin Brown**  
Senior Vice President,  
Refining



**Massimo Covezzi**  
Senior Vice President,  
Research and  
Development



**Bob Patel**  
Senior Vice President,  
Olefins & Polyolefins  
– Europe, Asia &  
International



**Pat Quarles**  
Senior Vice President,  
Intermediates  
and Derivatives



**Par Singh**  
Senior Vice President,  
Manufacturing – Europe,  
Asia & International



**Karen Swindler**  
Senior Vice President,  
Manufacturing –  
Americas



**Sergey Vasnetsov**  
Senior Vice President,  
Strategic Planning  
and Transactions



**Paul Davies**  
Vice President,  
and Chief Human  
Resources Officer



**Sam Smolik**  
Vice President,  
Health, Safety  
and Environment

# Olefins and Polyolefins Segment



## Key Advantages

Global market leader in polypropylene compounded products tailor-made to meet the demanding requirements of durable end-use market applications, primarily servicing the automotive, appliance and industrial markets

Operate several major integrated olefin and olefin derivative sites, which provide cost efficiencies through economies of scale and optimization

Continue to build on our strong specialty portfolio with focused R&D and capital expenditure using the latest in-house production and catalyst technology

Global manufacturing, sales and marketing network enables us to serve the needs of both local and global customers

Products used in a broad range of applications and in products that people use every day with ever increasing demand in developing markets

# Olefins and Polyolefins Overview

LyondellBasell is a key producer of polymer resins for use in extrusion, blow molding and injection molding processes in a wide variety of end markets including food and beverage packaging, construction, wire and cable and automotive markets. We are a top worldwide producer of ethylene, propylene and polyethylene and the world's largest producer of polypropylene and polypropylene compounds. We manage our olefin and polyolefin business in two reportable segments, O&P–Americas and O&P–Europe, Asia & International (EAI).

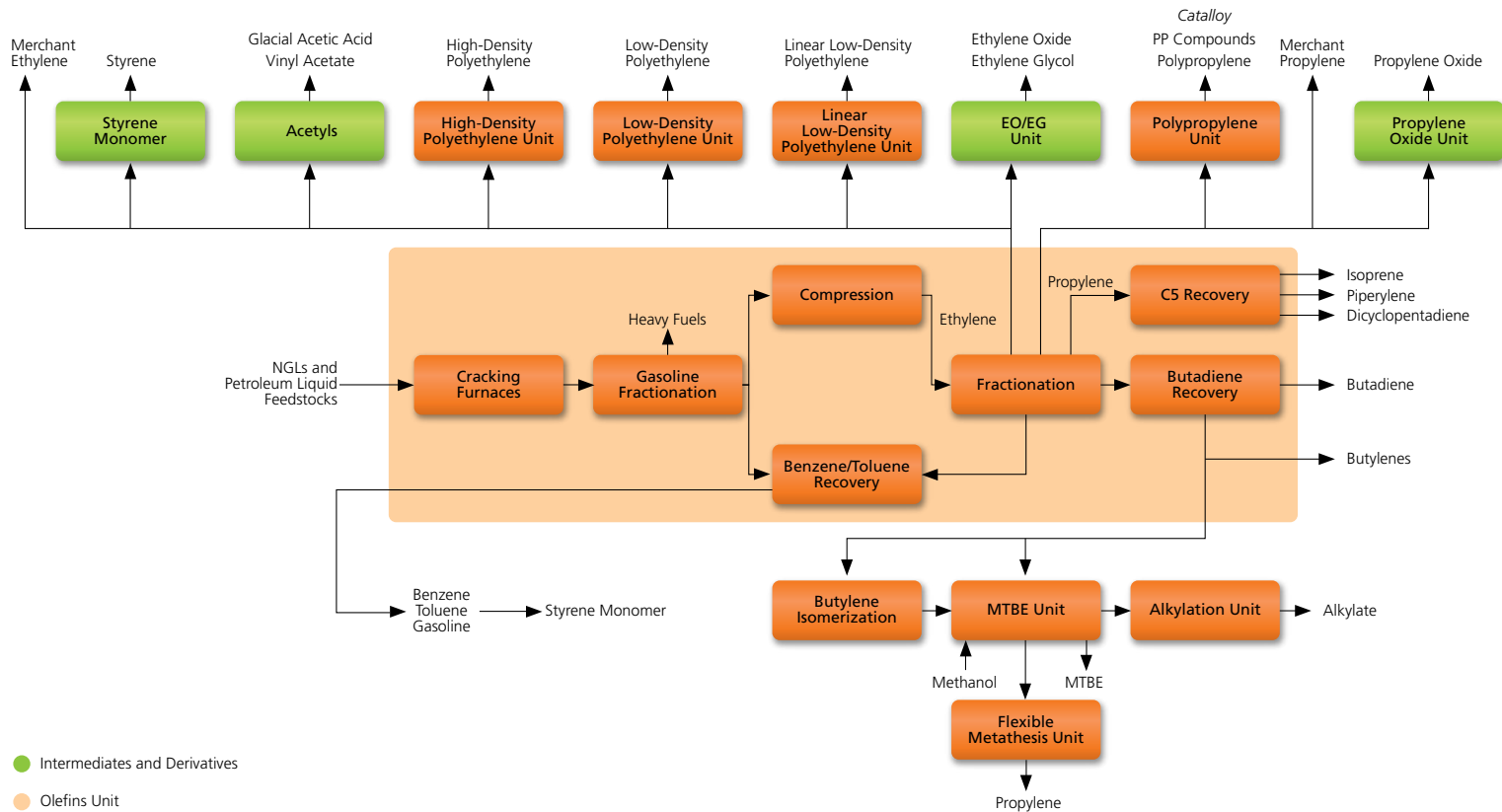
**O&P–Americas.** Our O&P–Americas segment produces and markets ethylene, propylene, polyethylene, polypropylene and various co-products. We are the largest producer of light olefins (ethylene and propylene), the largest polypropylene producer and the third-largest producer of polyethylene in North America. In addition, we produce significant quantities of high-value specialty products such as *Catalloy* process resins. For the year ended Dec. 31, 2009, our O&P–Americas segment generated \$6,728 million of revenue (excluding inter-segment revenue).

**O&P–EAI.** Our O&P–EAI segment produces and markets olefins (ethylene, propylene and other ethylene co-products) and polyolefins. We are the largest producer of polypropylene and polyethylene in Europe. We are also the largest worldwide producer of PP compounds, a high-value specialty product (global marketing of which is managed in our O&P–EAI segment). We also produce significant quantities of other high-value specialty products such as *Catalloy* process resins and PB-1. Our O&P–EAI segment manages our worldwide PP compounds business, including our facilities in North and South America, manages our worldwide PB-1 business and manages our *Catalloy* process resins produced in Europe and Asia. For the year ended Dec. 31, 2009, our O&P–EAI segment generated \$9,047 million of revenue (excluding inter-segment revenue).

## Key Products

- **Olefins**
  - Ethylene
  - Propylene
  - Butadiene
- **Aromatics**
  - Benzene
  - Toluene
- **Polyolefins**
  - Polypropylene (PP)
  - High-density polyethylene (HDPE)
  - Low-density polyethylene (LDPE)
  - Linear low-density polyethylene (LLDPE)
- **Specialty polyolefins**
  - Propylene-based compounds, materials and alloys (polypropylene compounds)
  - *Catalloy* process resins
  - Polybutene-1 (PB-1)

# Olefins and Polyolefins Production Process



# Olefins and Polyolefins—Americas

## Product Capacities

2009 Annual Capacities, as of year end

OLEFINS		
Ethylene <sup>(1)</sup>	9.6 billion pounds	4.4 million metric tons
Propylene <sup>(1)(2)</sup>	4.5 billion pounds	2.0 million metric tons
Propylene from Flex <sup>(2)</sup>	1.0 billion pounds	0.5 million metric tons
Butadiene <sup>(1)</sup>	1.1 billion pounds	0.5 million metric tons
AROMATICS		
Benzene <sup>(1)</sup>	195 million gallons	
Toluene <sup>(1)</sup>	40 million gallons	
POLYOLEFINS		
Polypropylene <sup>(3)</sup>	4.4 billion pounds	2.0 million metric tons
High-Density Polyethylene (HDPE)	3.3 billion pounds	1.5 million metric tons
Low-Density Polyethylene (LDPE)	1.3 billion pounds	0.6 million metric tons
Linear Low-Density Polyethylene (LLDPE)	1.3 billion pounds	0.6 million metric tons
SPECIALTY POLYOLEFINS		
Catalloy process resins	600 million pounds	272 thousand metric tons

2,205 pounds = 1 metric ton

(1) Excludes capacities from our Chocolate Bayou, Texas facility which was permanently shut down in early 2009, including 1.12 billion pounds of ethylene, 700 million pounds of propylene, 150 million pounds of butadiene, 105 million gallons of benzene and 26 million gallons of toluene.

(2) Includes (1) refinery-grade material from our Houston refinery and (2) reflects 1 billion pounds per year of capacity from the product flex unit at our Channelview facility, which can convert ethylene and other light petrochemicals into propylene.

(3) Includes 100% of the 1.31 billion pounds of capacity of Indelpro A.A. de C.V.. Excludes 800 million pounds of an off-take agreement with ConocoPhillips, which expired on December 31, 2009.

# Olefins and Polyolefins–Americas

## Joint Ventures

Name	Location	Other Parties	Ownership	Product	2009 Capacity	
Indelpro	Mexico	Alfa	49%	Polypropylene	1.3 billion pounds <sup>(1)</sup>	0.6 million metric tons <sup>(1)</sup>

2,205 pounds = 1 metric ton

(1) Represents the joint venture's total capacity and not our proportional share



Indelpro Plant – Altamira, Mexico

# Olefins and Polyolefins—Europe, Asia & International Product Capacities

2009 Annual Capacities, as of year end

OLEFINS		
Ethylene <sup>(1)</sup>	6.4 billion pounds	2.9 million metric tons
Propylene <sup>(1)(2)</sup>	5.4 billion pounds	2.4 million metric tons
Butadiene <sup>(1)</sup>	550 million pounds	249 thousand metric tons
POLYOLEFINS		
Polypropylene <sup>(3)(4)</sup>	12.8 billion pounds	5.8 million metric tons
High-Density Polyethylene (HDPE) <sup>(4)(5)</sup>	4.0 billion pounds	1.8 million metric tons
Low-Density Polyethylene (LDPE) <sup>(4)(6)</sup>	2.8 billion pounds	1.3 million metric tons
SPECIALTY POLYOLEFINS		
Polypropylene Compounds <sup>(7)</sup>	2.4 billion pounds	1.1 million metric tons
Cataloy process resins	600 million pounds	272 thousand metric tons
PB-1 resins	110 million pounds	50 thousand metric tons

2,205 pounds = 1 metric ton

(1) Includes 100% of olefin capacity of SEPC (described below) in Saudi Arabia, which includes 2.2 billion pounds of ethylene and 630 million pounds of propylene. The facility, of which we own 25%, began initial production in the third quarter of 2008.

(2) Includes (1) refinery-grade material from our Berre refinery and (2) 100% of the 1.015 billion pounds of capacity of the propane dehydrogenation ("PDH") plant owned by SPC, a polymers joint venture of which we own 25% and (3)

1.015 billion pounds of capacity from Al-Waha joint venture, of which we currently own 21%.

(3) Includes (1) 100% of the 1.59 billion pounds of capacity at SPC; (2) 100% of the 800 million pounds of capacity of SunAllomer Ltd.; (3) 100% of the 880 million pounds of capacity of Basell Orlen Polyolefins Sp. Z.o.o.; (4) 100% of the 990 million pounds of capacity of HMC Polymers Company Ltd.; (5) 100% of the 1.545 billion pounds of capacity of PolyMirae Co. Ltd.; (6) 100% of the 990 million pounds of capacity at Al

Waha, which began operations during late 2009; and (7) 550 million pounds of capacity at our Terni, Italy location, we intend to shut down. Excludes one 240 million pound line located at our Wesseling, Germany site, which was shut down during 2009.

(4) Includes (1) 100% of 880 million pounds of capacity of LDPE manufacturing complex which commenced operations in the second quarter of 2009. Owned by SEPC, a joint venture of which we own 25% and (2) 880 million pounds of HDPE capacity

from SEPC, which began operations in late 2008. Excludes 410 million pounds of LDPE capacity at a site located in Carrington, UK, which was shut down during 2009.

(5) Includes 100% of the 705 million pounds of capacity of Orlen. Excludes 705 million pounds of capacity at a site in Münchsmünster, Germany that is currently being rebuilt following a fire in 2005.

(6) Includes 100% of the 240 million pounds of capacity of Orlen. Excludes 240 million pounds of capacity at a site located in Fos-sur-Mer, France, which was shut down during 2009.

(7) Includes 100% of the 165 million pounds of capacity of PolyPacific Pty Ltd, a joint venture of which we own 50%, and 110 million pounds of capacity of SunAllomer, a joint venture of which we own 50%.

# Olefins and Polyolefins—Europe, Asia & International Joint Ventures

Name	Location	Other Parties	LyondellBasell Ownership	Product	2009 Capacity <sup>(1)</sup>	
SPC	Al-Jubail Industrial City, Saudi Arabia	Tasnee	25%	Polypropylene	1,590 million pounds	721 thousand metric tons
				Propylene	1,015 million pounds	460 thousand metric tons
SEPC	Al-Jubail Industrial City, Saudi Arabia	Tasnee, Sahara Petrochemical Company	25%	Ethylene	2,200 million pounds	998 thousand metric tons
				Propylene	630 million pounds	286 thousand metric tons
				HDPE	880 million pounds	399 thousand metric tons
				LDPE	880 million pounds	399 thousand metric tons
Al-Waha	Al-Jubail Industrial City, Saudi Arabia	Sahara Petrochemical Company and others	21% <sup>(2)</sup>	Polypropylene	990 million pounds	449 thousand metric tons
				Propylene	1,015 million pounds	460 thousand metric tons
HMC Polymers	Thailand	PTT	29%	Polypropylene	990 million pounds	449 thousand metric tons
Basell Orlen Polyolefins	Poland	Orlen	50%	Polypropylene	880 million pounds	399 thousand metric tons
				HDPE	705 million pounds	320 thousand metric tons
				LDPE	240 million pounds	109 thousand metric tons
PolyPacific	Australia, Malaysia	Mirlex Pty. Ltd.	50%	PP Compounding	165 million pounds	75 thousand metric tons
SunAllomer	Japan	Showa Denko, Nippon Oil	50%	Polypropylene	800 million pounds	363 thousand metric tons
				PP Compounding	110 million pounds	50 thousand metric tons
PolyMirae	South Korea	Daelim, SunAllomer	42% <sup>(3)</sup>	Polypropylene	1,540 million pounds	698 thousand metric tons

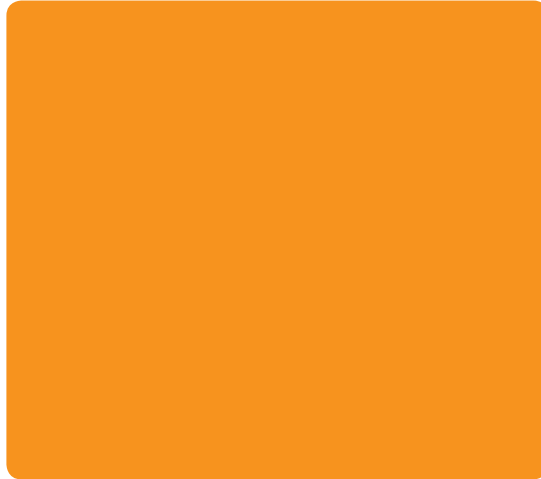
2,205 pounds = 1 metric ton

(1) Represents the joint venture's total capacity and not our proportionate capacity

(2) Reflects our current ownership percentage. Assuming the joint venture pays dividends over time, we anticipate our ownership will increase to a maximum of 25%.

(3) Reflects our direct (35%) and indirect ownership through SunAllomer.





# Intermediates and Derivatives Segment

## Key Advantages

Technological leader in the manufacture of propylene oxide, using our proprietary propylene oxide/styrene monomer and propylene oxide/tertiary butyl alcohol processes

Second-largest global producer of propylene oxide and one of the largest producers of styrene monomer, acetic acid and vinyl acetate monomer worldwide

Vertically integrated facilities benefitting from optimization opportunities along the entire value chain

Historically, supply and demand patterns of the Intermediates and Derivatives segment help reduce the impact of olefin and polyolefin cyclicalities on our company operating results

# Intermediates and Derivatives Overview

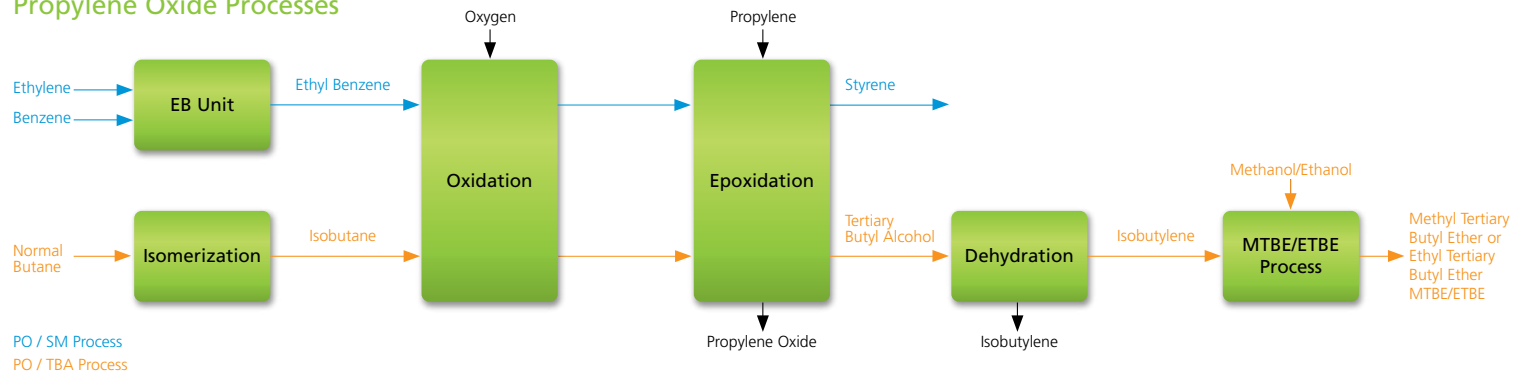
From personal care products and medical applications to construction materials and automotive components, the uses for our materials are almost unlimited. We believe that our proprietary propylene oxide and acetyls production process technologies provide us with a cost-advantaged position for these products and their derivatives as well as growth opportunities across the globe. Our Intermediates and Derivatives segment generated \$3,777 million of revenue (excluding inter-segment revenue) for the year ended Dec. 31, 2009.

## Key Products

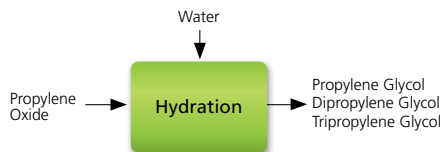
- **Propylene oxide (PO)**
- **PO co-products**
  - Styrene monomer (SM)
  - TBA derivative isobutylene
- **PO derivatives**
  - Propylene glycol (PG)
  - Propylene glycol ethers (PGE)
  - Butanediol (BDO)
- **Acetyls**
  - Vinyl acetate monomer (VAM)
  - Acetic acid
  - Methanol
- **Ethylene derivatives**
  - Ethylene oxide (EO)
  - Ethylene glycol (EG)
  - EO derivatives
- **Flavor and fragrance chemicals**

# Intermediates and Derivatives Production Processes

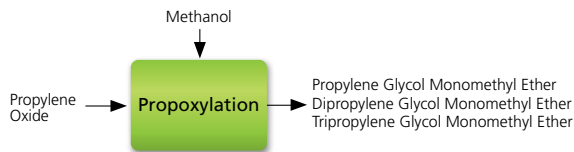
## Propylene Oxide Processes



## Propylene Glycol Production

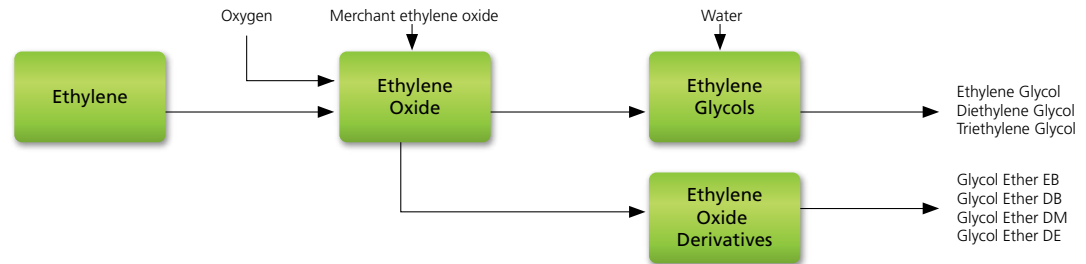


## Propylene Glycol Ethers Production

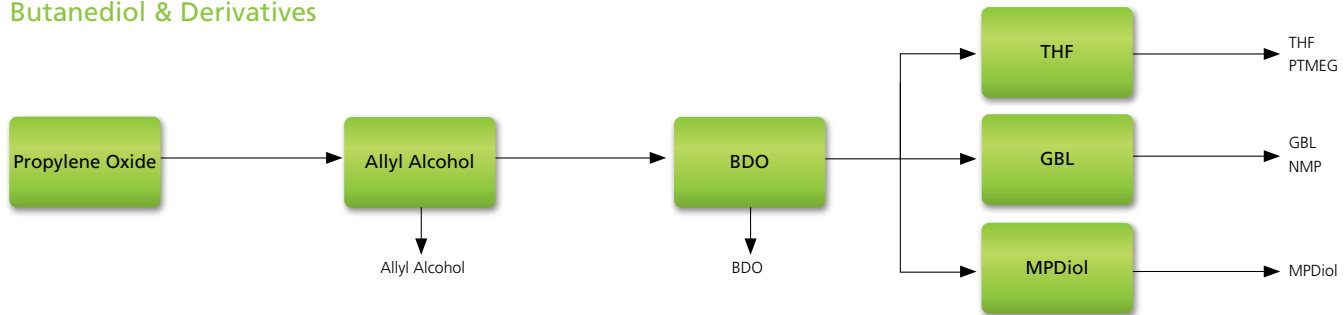


Other alcohols can be used to generate different ether products

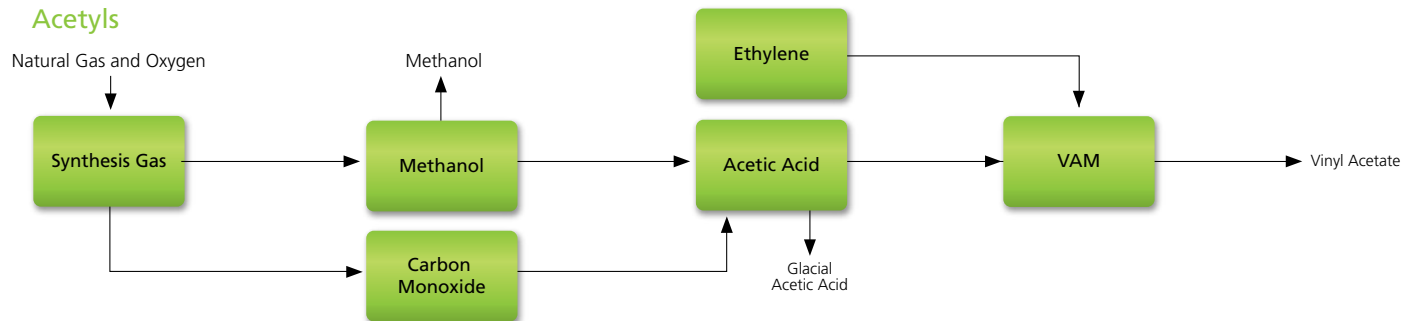
## Ethylene Oxide/ Ethylene Glycol



## Butanediol & Derivatives



## Acetyls



# Intermediates and Derivatives Product Capacities

## 2009 Annual Capacity, as of year end

PROPYLENE OXIDE <sup>(1)</sup>		
Propylene Oxide	4.6 billion pounds	2.1 million metric tons
PO CO-PRODUCTS		
Styrene Monomer (SM) <sup>(2)</sup>	5.1 billion pounds	2.3 million metric tons
TBA Derivative	1.4 billion pounds	0.6 million metric tons
Isobutylene <sup>(3)</sup>		
PO DERIVATIVES		
Propylene Glycol (PG) <sup>(4)</sup>	1.2 billion pounds	0.5 million metric tons
Propylene Glycol Ethers (PGE) <sup>(5)</sup>	395 million pounds	179 thousand metric tons
Butanediol (BDO)	545 million pounds	247 thousand metric tons
ACETYL		
Vinyl Acetate Monomer (VAM)	700 million pounds	317 thousand metric tons
Acetic Acid	1.2 billion pounds	0.5 million metric tons
Methanol <sup>(6)</sup>	190 million gallons	86 thousand metric tons
ETHYLENE DERIVATIVES		
Ethylene Oxide (EO) <sup>(7)</sup>	0.8 billion pounds	0.4 million metric tons
Ethylene Glycol (EG) <sup>(7)</sup>	0.7 billion pounds	0.3 million metric tons
Other Ethylene Oxide Derivatives – Ethers, Amines	225 million pounds	102 thousand metric tons
OTHER		
Flavor and Fragrance Chemicals <sup>(8)</sup>		

2,205 pounds = 1 metric ton

(1) Includes (1) 100% of the 385 million pounds of capacity of Nihon Oxirane Co. Ltd., a joint venture of which we own 40%; (2) 1.5 billion pounds of capacity that represents Bayer Corporation's share of PO production from the Channelview PO/SM I plant and the Bayport, Texas PO/TBA plants under the U.S. PO manufacturing joint venture between Lyondell Chemical and Bayer; and (3) 100% of the 590 million pounds of capacity of the Maasvlakte PO/SM plant, which is owned by the European PO manufacturing joint venture with Bayer, as to which Bayer has the right to 50% of the production. Our net proportionate interest in PO capacity is approximately 2.5 billion pounds.

(2) Includes (1) approximately 700 million pounds of SM production from the Channelview PO/SM II plant that is committed to unrelated equity investors under processing agreements; (2) 100% of the 830 million pounds of capacity of Nihon Oxirane; and (3) 100% of the 1.5 billion pounds of capacity of the Maasvlakte PO/SM plant. Our net proportionate interest in SM capacity, which includes the European PO Joint Venture with Bayer, is approximately 3.2 billion pounds.

(3) Represents total high-purity isobutylene capacity and purified isobutylene capacity.

(4) PG capacity includes 100% of the approximately 220 million pounds of capacity of Nihon Oxirane. Our net proportionate interest in PG capacity is approximately 1 billion pounds. The capacity stated is MPG capacity. Smaller quantities of DPG and TPG are co-produced with MPG. At our facilities in the U.S. and Europe, these DPG and TPG products are purified and marketed.

(5) Includes 100% of the 110 million pounds associated with a marketing agreement with Shiny.

(6) Represents 100% of the methanol capacity at the La Porte, Texas facility, which is owned by La Porte Methanol Company, a partnership owned 85% by us and 15% by Linde AG.

(7) Year 2009 excludes the Beaumont, Texas facility owned by PD Glycol, a 50/50 partnership between Equistar Chemicals LP and E.I. du Pont de Nemours and Company. The PD Glycol facility has not operated since it was damaged by Hurricane Ike in 2008 and will not operate in the future.

(8) With respect to flavor and fragrance chemicals, we frequently work closely with customers in developing products to satisfy the specific requirements of those customers, and capacity varies accordingly.

# Intermediates and Derivatives

## Joint Ventures

Name	Location	Other Parties	LyondellBasell Ownership	Product	2009 Capacity <sup>(1)</sup>	
U.S. PO Joint Venture	Channelview, TX Bayport, TX	Bayer	-	Propylene Oxide	1,500 million pounds <sup>(3)</sup>	680 thousand metric tons
European PO Joint Venture	Rotterdam, The Netherlands	Bayer	50%	Propylene Oxide	690 million pounds	313 thousand metric tons
				Styrene Monomer	1,480 million pounds	671 thousand metric tons
PO/SM II LP	Channelview, TX	IPIC & BASF	-	Styrene Monomer	700 million pounds <sup>(3)</sup>	318 thousand metric tons
Nihon Oxirane	Chiba, Japan	Sumitomo	40%	Propylene Oxide	385 million pounds	175 thousand metric tons
				Styrene Monomer	830 million pounds	376 thousand metric tons
				Propylene Glycol	220 million pounds	100 thousand metric tons
Ningbo ZRCC LCC Ltd. <sup>(2)</sup>	Ningbo, China	ZRCC	27%	Propylene Oxide	600 million pounds	272 thousand metric tons
				Styrene Monomer	1,300 million pounds	590 thousand metric tons
La Porte Methanol	La Porte, TX	Linde	85%	Methanol	190 million gallons	

(1) Unless otherwise noted, represents the joint venture's total capacity and not our proportional capacity (2) Anticipated startup in mid-2010 (3) Amount of off-take by other parties in the joint venture



## Refining and Oxyfuels Segment

### Key Advantages

Our Houston refinery has the operational flexibility to process a wide array of feedstock grades, including lower-cost, heavy, high-sulfur crude oil

Ranked #1 in global capacity, our oxygenated fuel products that are produced from chemical assets offer further integration benefits within the Refining and Oxyfuels business

Our Houston refinery, among North America's largest full conversion refineries, is strategically located on the U.S. Gulf Coast with access to interstate pipelines and the Port of Houston, providing access to multiple product markets and lower-cost feedstocks

Our Berre refinery enhances raw material integration for our operations in Europe and provides significant logistics assets including pipeline access, storage terminals and harbor access to the Mediterranean Sea



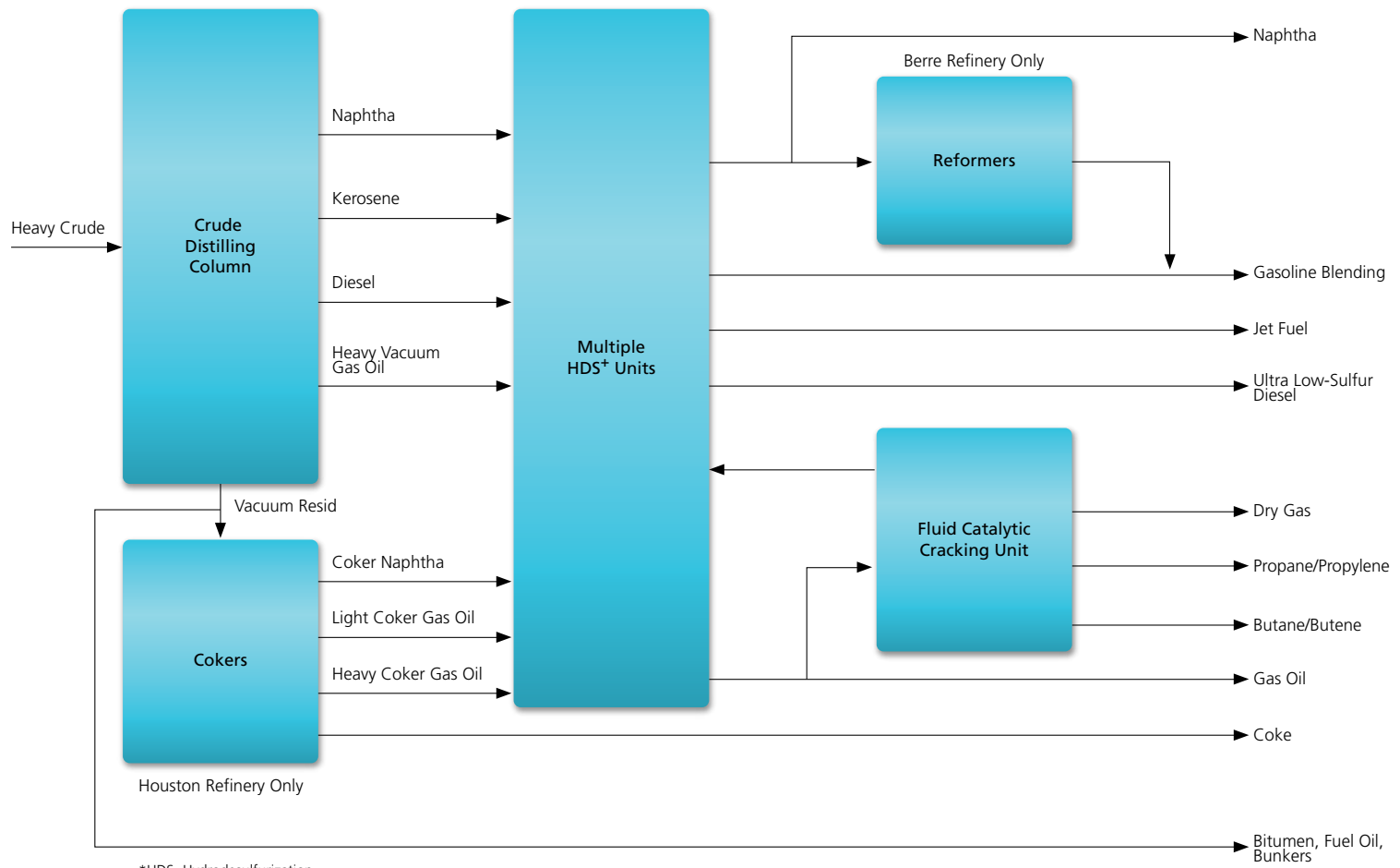
# Refining and Oxyfuels

Our Refining and Oxyfuels segment refines heavy, high-sulfur crude oil on the U.S. Gulf Coast, refines light and medium weight crude oil in southern France and produces oxyfuels at several of our olefin and propylene oxide units. Our Houston refinery is among North America's largest full conversion refineries capable of processing significant quantities of heavy, high-sulfur crude oil. Our refinery in Berre, France, processes light to medium weight crude oils, and provides raw material and site integration benefits to our olefin and polyolefin business in Europe. We are also a significant manufacturer of oxygenated fuels at several facilities within the United States and Europe. For the year ended Dec. 31, 2009, our Refining and Oxyfuels segment generated \$10,831 million of revenue (excluding inter-segment revenue).

## Key Products

- Gasoline
- Ultra low-sulfur diesel
- Jet fuel
- Lube oils
- Gasoline blending components
  - Methyl tertiary butyl ether (MTBE)
  - Ethyl tertiary butyl ether (ETBE)
  - Alkylate
- Vacuum gas oil (VGO)

# Refinery Process Flow



# Refining and Oxyfuels Product Capacities

2009 Annual Capacities, as of year end<sup>(1)</sup>

	Bbl/day
<b>HOUSTON REFINERY</b>	
Crude Distillation	268,000
Gasoline and Components	120,000
Ultra Low-Sulfur Diesel	95,000
Jet Fuel	25,000
Lube Oils	4,000
<b>BERRE REFINERY</b>	
Crude Distillation	105,000
Diesel	42,000
Cracker Feedstock	27,000
Fuel Oil	12,000
Gasoline	8,000
Bitumen	7,000
<b>OXYFUELS</b>	
MTBE / ETBE <sup>(2)</sup>	75,000

(1) Only certain key products for the Houston and Berre refineries are identified. Thus, the sum of the capacities in this table will not equal either facility's total capacity.

(2) Represents total combined MTBE and ETBE capacity.



# Technology Segment

## Key Advantages

Leading global provider of technology licenses and supplier of catalysts for polyolefin production

---

Technology licensing platform has enabled us to invest in high-growth regions to broaden our global reach

---

Technology-driven company that invests in research and development to maintain our leadership position, which we believe provides a significant competitive advantage

---

A strategy of leveraging our leading technology positions and global marketing network to gain access to growing markets and low-cost raw materials and feedstocks

---

Technology and catalyst businesses further reduce the impact of petrochemical cycles on our operating results and provide a foundation to realize premium profit margins

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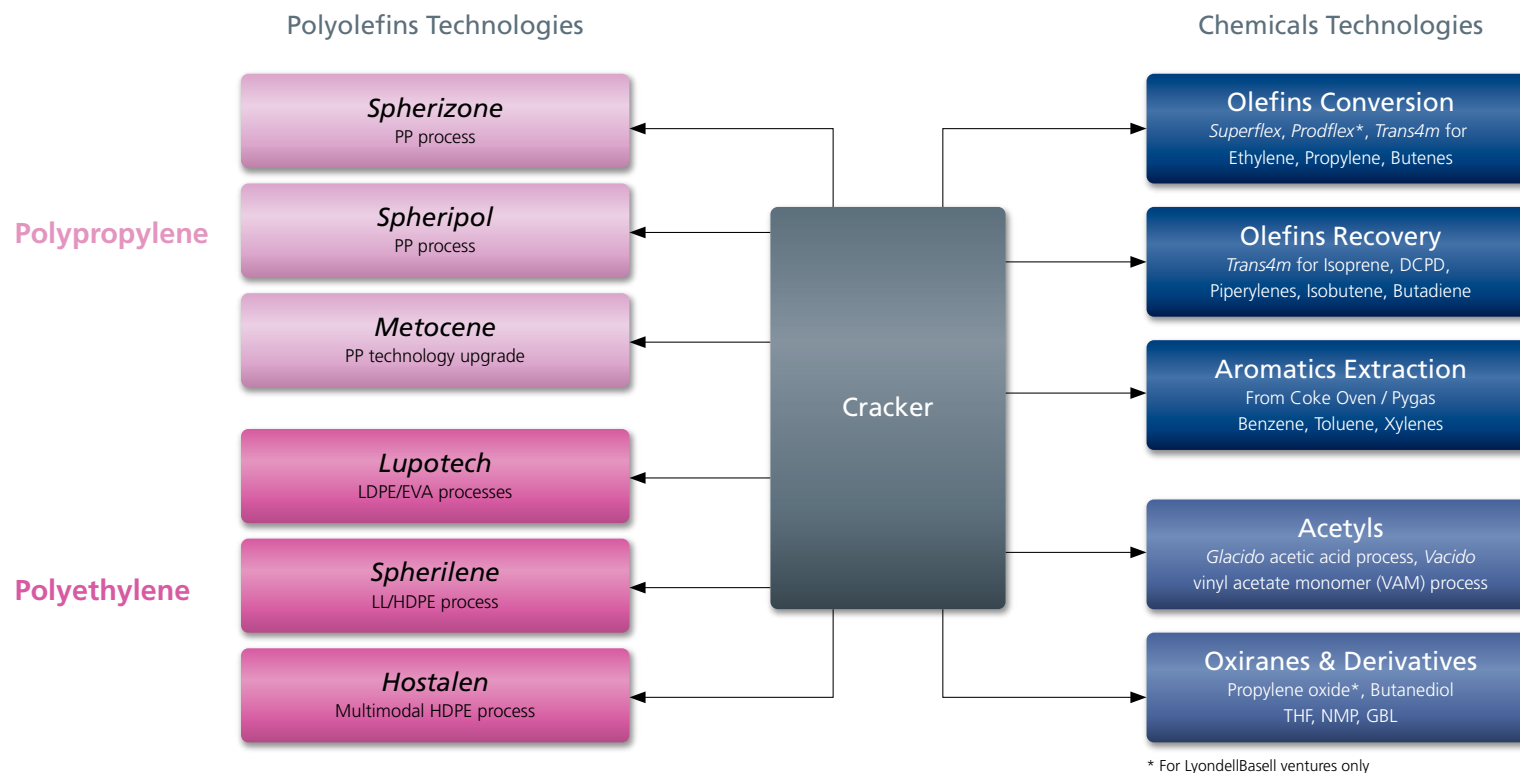
# Technology Overview

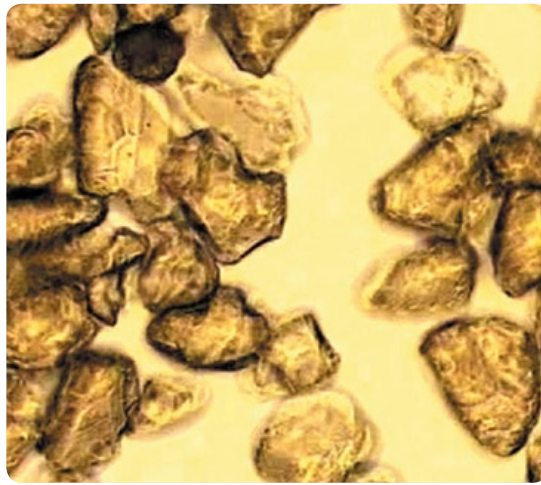
Our Technology segment develops and licenses industry-leading polyolefin process technologies and a portfolio of selected chemical technologies, and provides associated engineering and other technical support services. Our Technology segment develops, manufactures and sells polyolefin catalysts. We market our process technologies and our polyolefin catalysts to external customers and also use them for our own manufacturing operations. For the year ended Dec. 31, 2009, our Technology segment generated \$436 million of revenue (excluding inter-segment revenue).

## Key Products

- **Polypropylene process technologies**
  - *Spheripol*
  - *Spherizone*
  - *Metocene*
- **Polyethylene process technologies**
  - *Lupotech*
  - *Spherilene*
  - *Hostalen*
- **Polyolefin catalysts**
  - *Avant*
- **Selected chemical technologies**
  - *Trans4m*  
Olefins conversion
  - *Glacido*  
Acetic acid technology
  - *Vacido*  
Vinyl acetate monomer (VAM) technology
  - Aromatics extraction

# Comprehensive Portfolio of Licensed Technologies









# Additional Information

# Glossary of Acronyms

Acronym	Definition
Bbl	Barrels
BDO	Butanediol
DCPD	Dicyclopentadiene
EAI	Europe, Asia & International segment
EBITDAR	Earnings before interest, taxes, depreciation, amortization and restructuring costs
EG	Ethylene glycol
EO	Ethylene oxide
EOD	Ethylene oxide derivatives
ETBE	Ethyl tertiary butyl ether
EVA	Ethylene vinyl acetate
GBL	Gamma-butyrolactone
HDPE	High-density polyethylene
HDS	Hydrosulfurization
I&D	Intermediates & Derivatives segment
JV	Joint venture
LDPE	Low-density polyethylene
LLDPE	Linear low-density polyethylene

Acronym	Definition
MTBE	Methyl tertiary butyl ether
NGL	Natural gas liquids
NMP	N-methyl pyrrolidone
O&P	Olefins & Polyolefins segment
PB-1	Polybutene-1
PE	Polyethylene
PG	Propylene glycol
PGE	Propylene glycol ethers
PO	Propylene oxide
PP	Polypropylene
PTMEG	Polytetramethylene ether glycol
R&O	Refining & Oxyfuels segment
SM	Styrene monomer
TBA	Tertiary butyl alcohol
TBHP	Tertiary butyl hydroperoxide
THF	Tetrahydrofuran
VAM	Vinyl acetate monomer
VGO	Vacuum gas oil

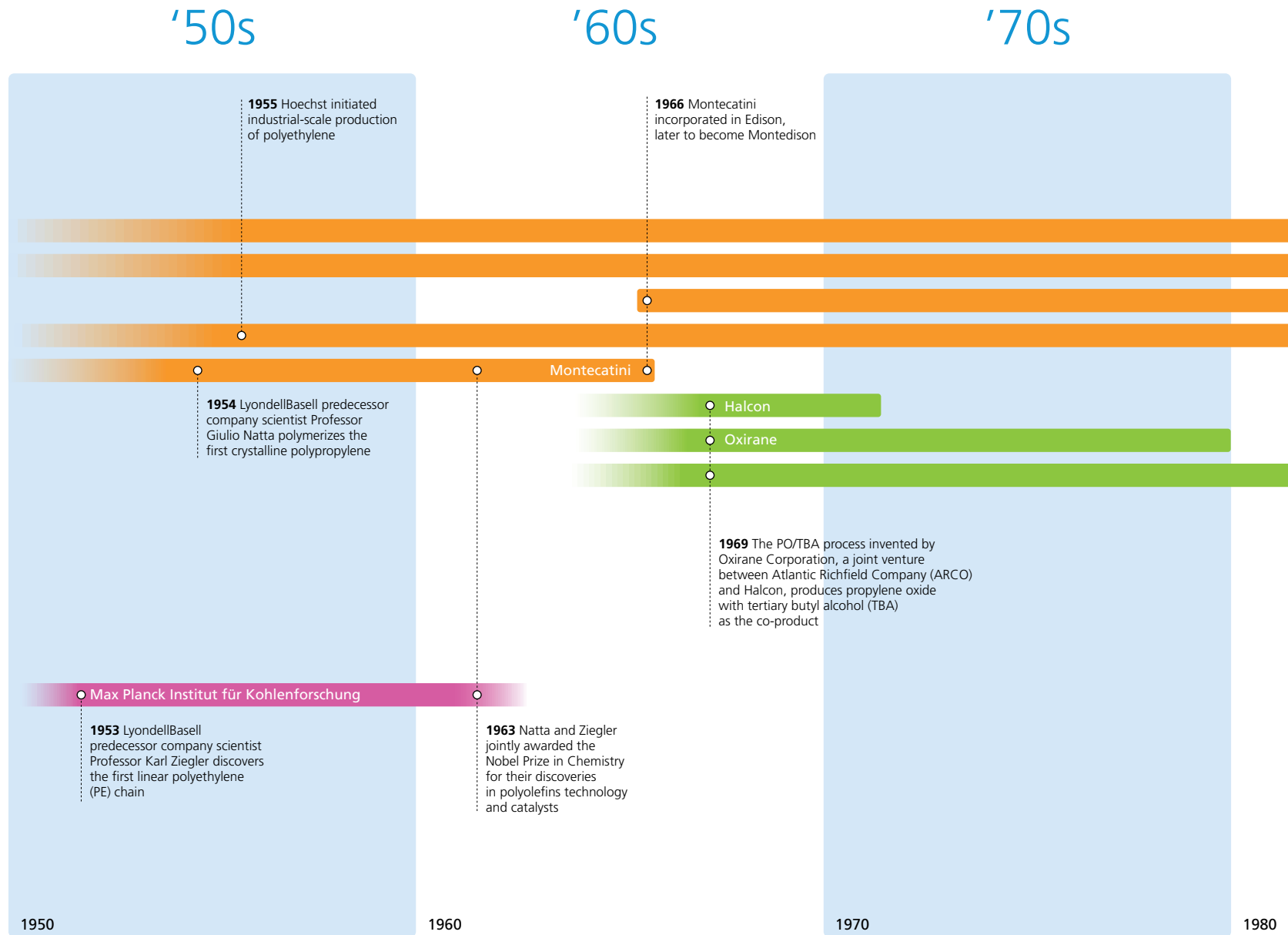
# EBITDAR Reconciliation to Net Income

LyondellBasell Industries AF S.C.A.	
Year Ended December 31, 2009	
Dollars in Millions	
Net (loss)	\$(2,871)
<b>Add:</b>	
Depreciation and amortization	-1,774
Impairment charges	-17
Accounts receivable facility fees	-
Interest expense, net	-1,777
Reorganization items	-2,961
Joint venture dividends	-26
Benefit from income taxes	1,411
Income (loss) attributable to non-controlling interest	-6
Other	1
<b>Deduct:</b>	
Unrealized foreign currency exchange gain	193
Income from discontinued operations, net of tax	1
Income (loss) from equity investments	-181
LIFO/FIFO EBITDAR	2,265
Less – Current cost adjustment to inventory	29
Supplemental Current Cost EBITDAR <sup>1</sup>	\$2,236

Note: Consolidated operating results are determined using the FIFO method of accounting to determine inventory cost except for certain U.S. inventories which are determined on the LIFO method. For purposes of evaluating segment results, management reviews operating results determined using current cost.

(1) EBITDAR represents earnings before interest, taxes, depreciation, amortization and restructuring charges. Includes JV dividends and insurance proceeds. EBITDAR is a "non-GAAP" financial measure as defined in Regulation G of the U.S. Securities Exchange Act of 1934, as amended. We report our financial results in accordance with U.S. generally accepted accounting principles, but believe that certain non-GAAP financial measures provide useful supplemental information to investors regarding the underlying business trends and performance of the company's ongoing operations and are useful for period-over-period comparisons of such operations. These non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to, the financial measures prepared in accordance with GAAP.

# A heritage of achievement



'80s

'90s

'00s

'10s

1982 Spheripol process, currently the most widely used polypropylene process technology, first introduced by predecessor company Montedison

1995 Montell is formed as a joint venture between Montedison and Shell

1997 Targor formed as a joint venture between Hoechst and BASF

1998 Hoechst sells Hostalen business to Elenac

2000 Basell is formed through the merger of Montell, Targor and Elenac; a 50/50 joint venture between by BASF and Shell

2005 Access Industries purchases Basell

1983 Himont is formed as a joint venture between Hercules and Montedison

1998 Lyondell acquires ARCO Chemical Company

ARCO

Lyondell

Rexene

1985 Lyondell Chemical Company is formed in 1985 from selected chemical and refining assets of Atlantic Richfield Company (ARCO)

1989 Lyondell is spun off from ARCO, becoming a public company listed on the New York Stock Exchange (Ticker symbol: LYO)

1990 Lyondell acquires low-density polyethylene (LDPE) and polypropylene (PP) businesses from Rexene

1990

1993 LYONDELL-CITGO Refining (LCR) is formed as the Houston refinery becomes a joint venture with CITGO Petroleum Corporation

1997 Equistar Chemicals, LP is formed as a joint venture between Lyondell and Millennium Chemicals Inc

1998 Occidental Petroleum Corp. becomes a partner in Equistar

2002 Lyondell increases interest in Equistar to 70.5% with acquisition of Occidental's share

2000

2004 Lyondell acquires Millennium Chemicals Inc. As a result, Equistar becomes a wholly owned subsidiary of Lyondell

2006 Lyondell acquires CITGO's 41.25% ownership interest in LCR. As a result of this transaction, Houston Refining LP (formerly LCR) becomes a wholly owned subsidiary of Lyondell

2008 LyondellBasell completes acquisition of Solvay Engineered Polymers, Inc.

LyondellBasell purchases the Berre refinery, located in Berre l'Etang, France from Shell

2007 Basell and Lyondell merge to become LyondellBasell Industries – one of the world's largest polymers, chemicals and fuels companies

2010 LyondellBasell emerges from Chapter 11 protection a stronger organization, with a significantly de-levered balance sheet, a radically improved cost structure, a rationalized asset footprint, a new leadership team and a clear focus on *Everyday Excellence* and *Goal Zero*.

Listed on the NYSE as a publicly traded company (Ticker symbols: LYB and LYB.B)

2010

BASF

Shell

Montedison

Hoechst

Hercules

Himont

Montell

Targor

Basell

LyondellBasell

Millennium Chemicals Inc

Equistar





# LyondellBasell

## Investor Relations

More information on LyondellBasell's business segments, earnings and news releases is available through the following information services:

Visit LyondellBasell at [www.lyondellbasell.com](http://www.lyondellbasell.com)

Call LyondellBasell Investor Relations at +1 713 309 4590

Mail your questions or request to us at:

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Investor Relations Department  
P.O. Box 3646  
Houston, Texas 77253-3646  
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LyondellBasell's financial information is available online at [www.lyondellbasell.com](http://www.lyondellbasell.com)

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## Corporate Governance

LyondellBasell's Corporate Governance information is available at [www.lyondellbasell.com](http://www.lyondellbasell.com)

## Stock Exchange

LyondellBasell's common stock is listed on the New York Stock Exchange under the symbols LYB and LYB.B

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