

# **CAUTIONARY STATEMENT**

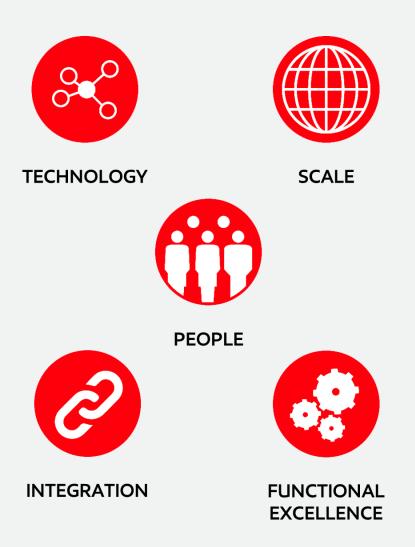
Forward-Looking Statements. Outlooks, projections, estimates, goals, discussions of potential, descriptions of business plans, objectives, market expectations and other statements of future events or conditions in this presentation are forward-looking statements. Actual future results, including future earnings, cash flows, returns, margins, asset sales and other areas of financial and operating performance; product supply and demand growth and investment requirements; the amount and mix of capital expenditures; project plans, timing, costs, and outcomes; efficiency gains; integration benefits; and the impact of technology could differ materially due to a number of factors. These include changes in oil, gas, or petrochemical prices and other market conditions affecting the oil, gas, and petrochemical industries; timely completion of new Chemical capital investments; regional differences in product concentration and demand; regional price differentials, war and other political or security disturbances; changes in law, taxes or other government regulation, including environmental regulations, taxes, trade policy and political sanctions; the outcome of commercial negotiations; the actions of competitors and customers; unexpected technological developments; general economic conditions, including the occurrence and duration of economic recessions; unforeseen technical difficulties; and other factors discussed here and under the heading "Factors Affecting Future Results" in the Investors section of our website at www.exxonmobil.com. The forward-looking statements in this presentation are based on management's good faith plans, objectives and analysis as of the February 2, 2018 date of the Outlook for Energy, and the March 6, 2019 date of our Analyst Meeting presentation. Each of these presentations is available separately on our website. All forward looking statements included in this presentation and the assumptions made in developing them speak only as of the date of their original presentation. Inclusion of such forward-looking statements in this material does not represent an update or confirmation of such statements or their underlying assumptions as of any later date. We have not independently verified third party forwardlooking statements. We assume no duty to update these statements as of any future date and neither this presentation nor the continued availability of this material in archive form on our website should be deemed to constitute an update or re-affirmation of these figures as of any future date. Any future update of these figures will be provided only through a public disclosure indicating that fact.

**Important Additional References.** See the Supplemental Information included at the end of this presentation for additional information, definitions and assumptions used to develop the forward-looking statements included herein, especially with regards to potential future earnings and return on capital employed (ROCE), as well as information required by Regulation G with respect to non-GAAP measures and definitions and additional information on other terms used including resources.

# **AGENDA**

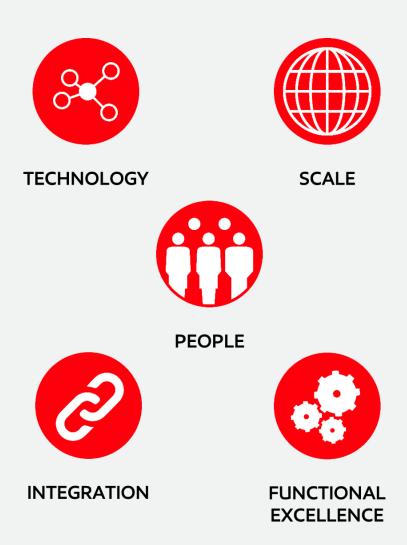
8:00	Welcome	Neil Hansen
	Reconnect	Jack Williams
	Chemicals Overview	Karen McKee
8:30	Scale and Integration	Mike Zamora Joe Blommaert
	Technology and Performance Products	Dave McConville
	Break	
9:20	Guided Tours – 6 Stations	
12:40	Lunch	
1:10	Performance Products and Key Messages	Nick Clausi Karen McKee
1:30	Panel Q&A	Leadership Team
2:00	BOP-2X Tour	
3:15	Final Remarks and Depart for Houston	Karen McKee
5:00	Reception at Four Seasons	Leadership Team

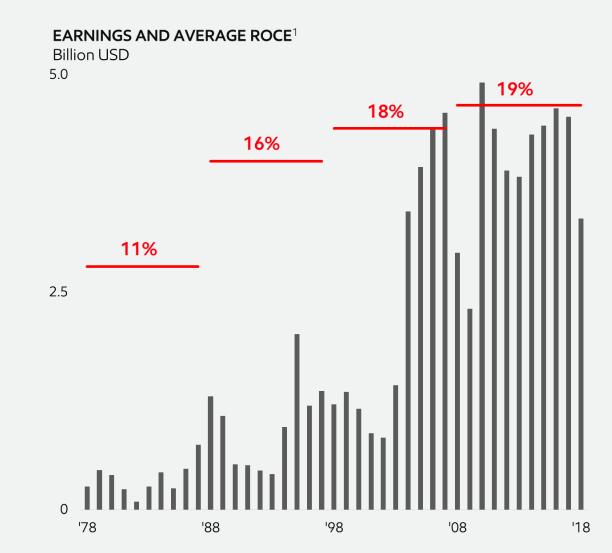
## **1Q19 EARNINGS CALL RECONNECT**



- Margins remained challenged with supply length from recent capacity additions
  - Polyethylene (PE) demand remains strong growing at 3.3% per year, 1.2 times global GDP
  - Industry PE capacity additions exceeding demand growth
  - Industry PE margins reflect cyclical nature of chemical business
- Higher volumes supported by growing demand
- Beaumont polyethylene expansion on track to start up by third quarter 2019
- Reached FIDs for Baton Rouge polypropylene, Baytown  $Vistamaxx^{TM}$  and linear alpha olefins

## CHEMICALS BUSINESS IS CYCLICAL

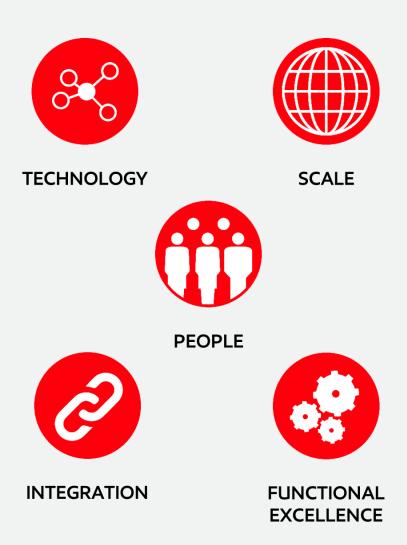




<sup>1</sup>Exxon only before 1999. 2018 March Investor Day basis (\$60/bbl Brent flat real, 2017 margins), relative to 2017 adjusted earnings, excludes impact of U.S. tax reform and impairments in 2017 and 2018

See supplemental information

## CHEMICALS KEY MESSAGES



 Leveraging global integration and scale advantages to capture synergies and reduce costs versus competition

Performance products provide societal benefits and value creation with customers

Continued innovation via technology drives performance product growth and uplift over commodity alternatives

 Increasing Chemical earnings potential<sup>1</sup> 45% by 2020, more than doubles by 2025

## **CHEMICALS LEADERSHIP TEAM**



Karen McKee President



Dr. Dominic Clausi Sr VP Performance Derivatives



Dr. Michael Zamora Sr VP Basic Chemicals Integration Growth



Joe Blommaert Sr VP Global Operations



Dr. David McConville VP Global Technology



Len Fox VP Business Services Treasurer

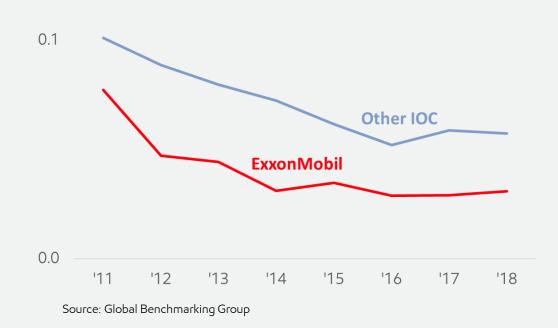


## INDUSTRY LEADING SAFETY PERFORMANCE



#### **WORKFORCE LOST-TIME INCIDENT RATE**

Employee and Contractor Incidents per 200K hours



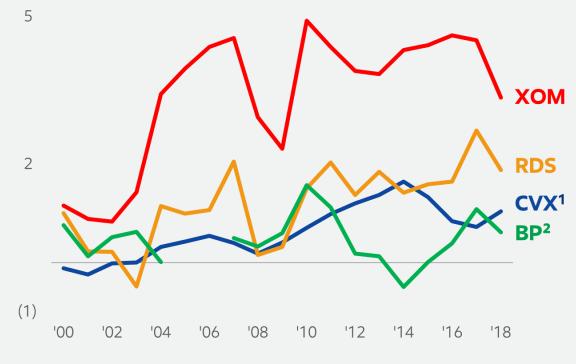
- Foundation for running the business
  - Disciplined, robust processes and systems
  - Enables improvement and growth efforts

- Moral obligation to ensure safe work environment
  - Life saving best practices in place
  - Process safety events and severity focus

## **CREATING VALUE THROUGH THE CYCLES**

#### **CHEMICAL COMPANY EARNINGS**

Billion USD



- 1'00-'05 from CPChem 10-K; '06-'18 from CVX 10-K/annual report
- <sup>2</sup> BP reported EBIT. '05-'06 earnings not available

See supplemental information

Long term commitment through the business cycles

Inorganic growth required by competitors due to prior divestments in Chemicals

 ExxonMobil uniquely positioned to capture growth through our competitive advantages

Strong business fundamentals support investments

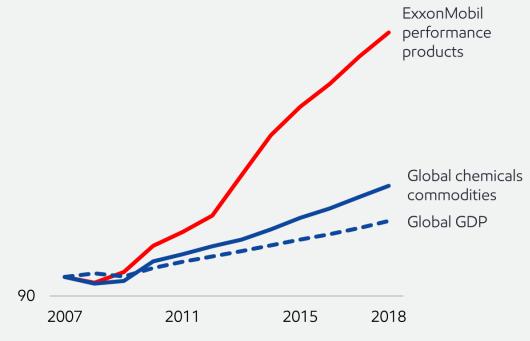
# **DEMONSTRATED PERFORMANCE PRODUCT GROWTH**



#### PERFORMANCE PRODUCT SALES GROWTH

Volume, indexed

250



Source: 2018 ExxonMobil Outlook for Energy: A View to 2040, IHS, ExxonMobil estimates

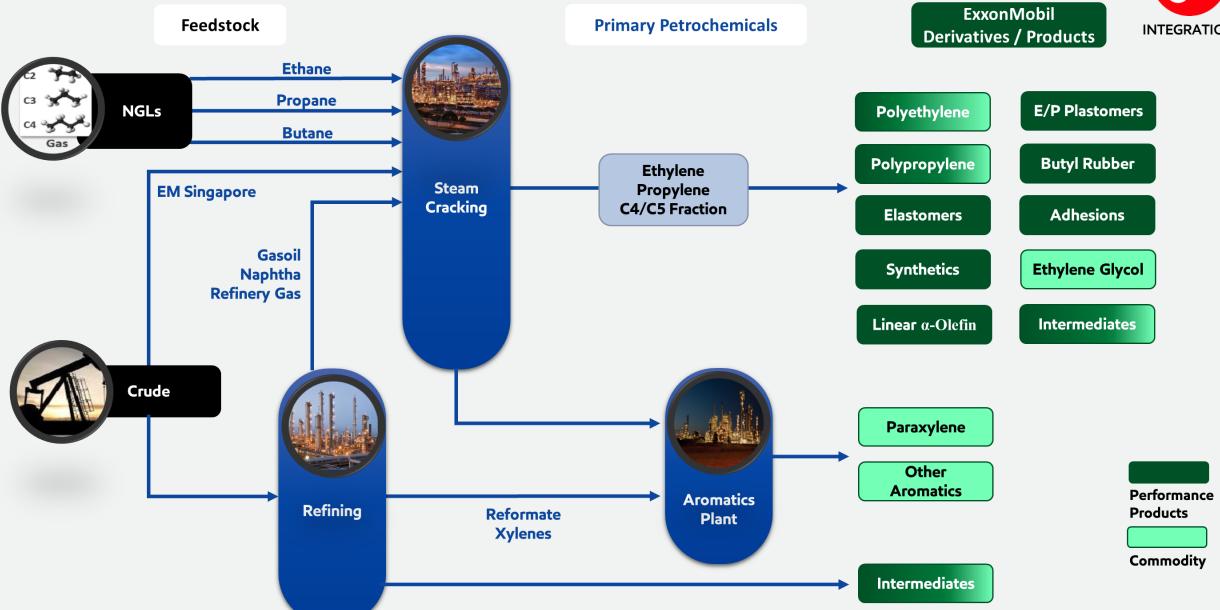
 Performance products growth achieved by creating value and providing solutions to our customers

 Positioned to serve growth in emerging economies driven by the growing middle class

 Investment portfolio combined with performance product growth generates future earnings growth

## CHEMICALS BUSINESS VALUE CHAIN





# **PRODUCT APPLICATIONS**









## PERFORMANCE PRODUCTS ADVANCE SUSTAINABLE BENEFITS

Vistamaxx™ performance polymers

Increase ability to use recycled materials

#### Exceed ™ XP

- Agricultural films increase yield by up to 60%
- Extend shelf life and decrease food waste by 20%

Exxon<sup>™</sup> butyl rubber

Improve fuel efficiency by up to 2%

• Up to 7% range increase for Electric Vehicles

#### Exxal<sup>™</sup> branched alcohols

Meet biodegradability criteria

### Santoprene<sup>™</sup> TPV

- Up to 45% weight reduction vs reference
- Improved recyclability

Mobil 1<sup>™</sup>

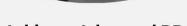
### Mobil SHC<sup>™</sup> Lubricant Oil

- Delivers up to 2% fuel economy
- Longer lubrication intervals at wind farms

#### Achieve<sup>™</sup> Advanced PP

- Contributes to vehicle light weighting, improves fuel economy
- 14% lighter appliance parts vs alternative

Mobil



# **COMPETITIVE ADVANTAGES**



**TECHNOLOGY** 

- Proprietary technologies drive portfolio of >200 performance products
- World's only commercial crude cracker in Singapore
- Proprietary resid upgrade further improves to lowest AP liquids cracker cost



**SCALE** 

- World's largest producer of polyethylene, synthetics, and butyl
- Products delivered to >130 countries
- Developing world's largest grassroots ethane cracker with SABIC in San Patricio County, TX



**INTEGRATION** 

- Refining synergies enable lower costs
- New Singapore Banyan facility improves integrated complex feed and product logistics



FUNCTIONAL EXCELLENCE

- Rigorous management systems ensure consistent global standards
- Gulf Coast Cracker project team drives cost 25% below industry with innovative approaches



**PEOPLE** 

- Unique value with local, market-facing personnel in 33 countries
- Global technical expertise with ~800 scientists and engineers
- Global organization enables supply chain optimization and flexibility



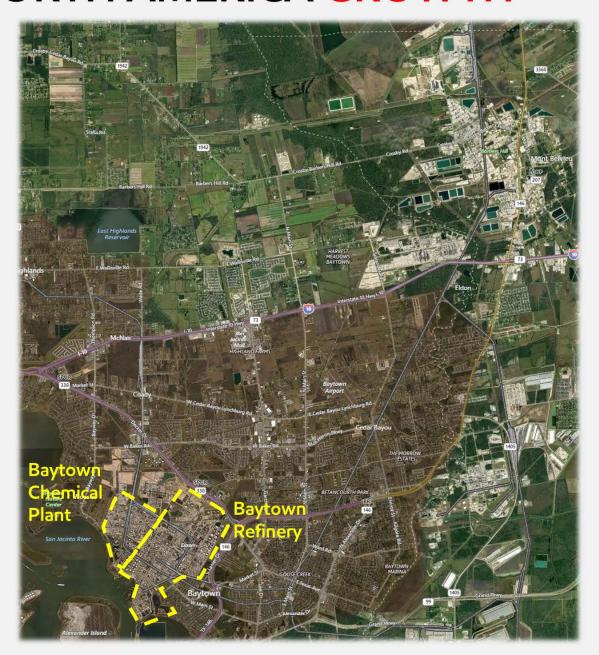






Baytown Refinery: 561,000 bbls/day



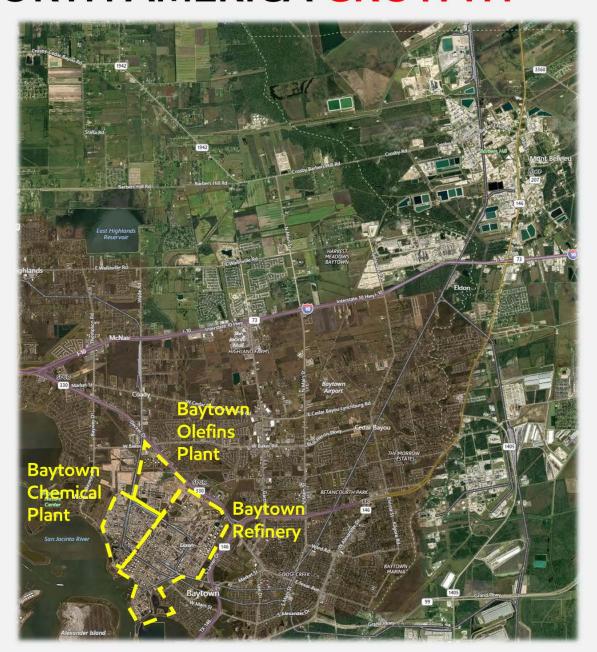


Baytown Refinery: 561,000 bbls/day

## **Baytown Chemical Plant**

- 700Kta Polypropylene
- 600Kta Paraxylene
- 125Kta Butyl, 50Kta Synthetics
- Other performance products





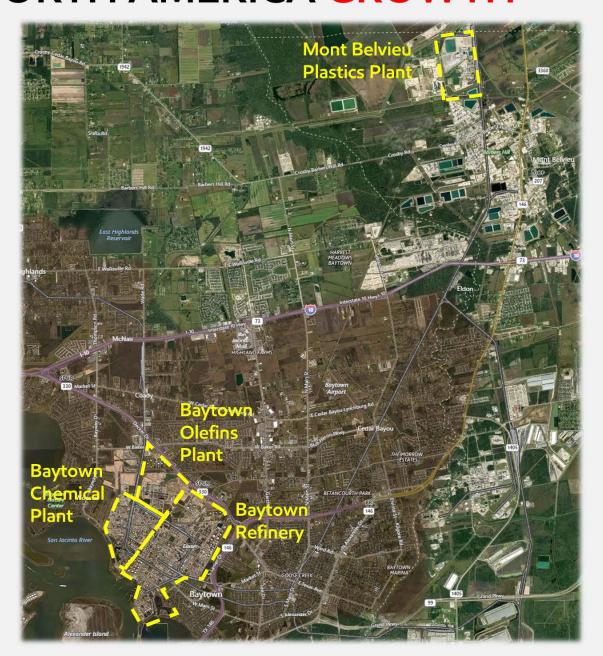
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Baytown Refinery: 561,000 bbls/day

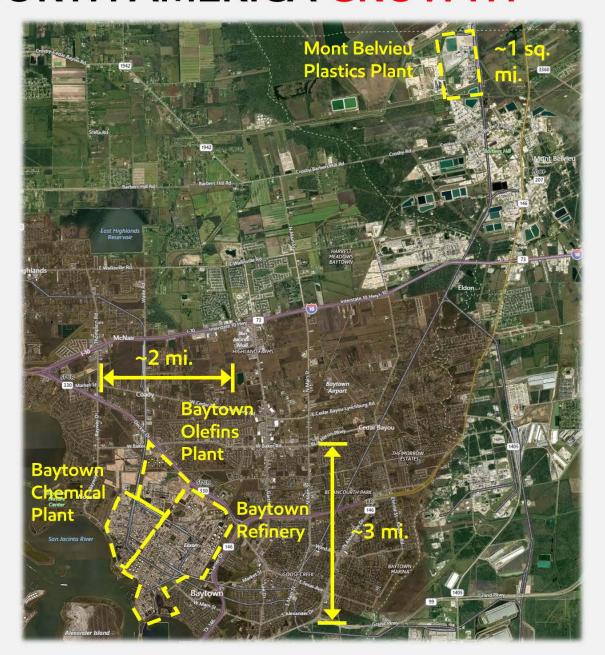
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Mont Belvieu Plastics Plant: 2.3Mta polyethylene





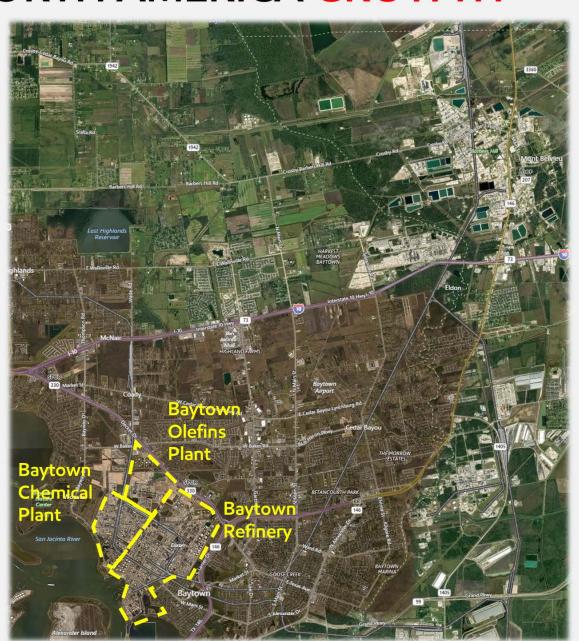
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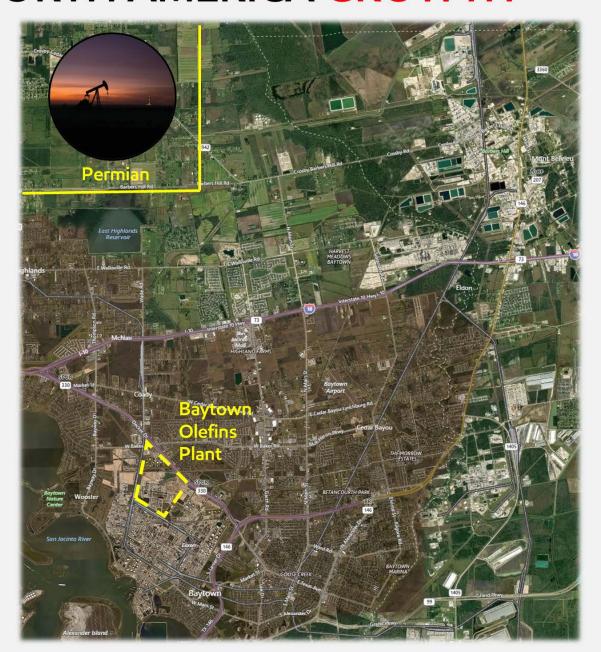
Mont Belvieu Plastics Plant: 2.3Mta polyethylene





### **Integrated Capabilities**

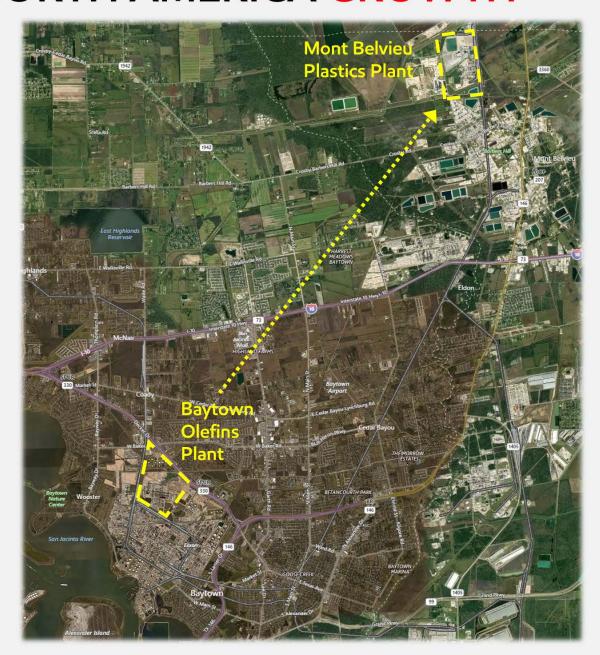
• >70 streams optimized daily across sites





### **Integrated Capabilities**

- >70 streams optimized daily across sites
- Utilize NGLs from Permian





### **Integrated Capabilities**

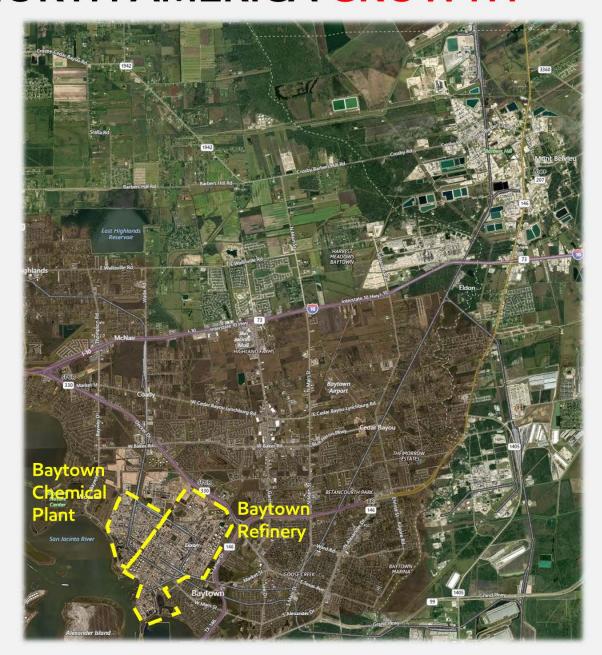
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- Utilize NGLs from Permian
- Feed performance polyethylene





### **Integrated Capabilities**

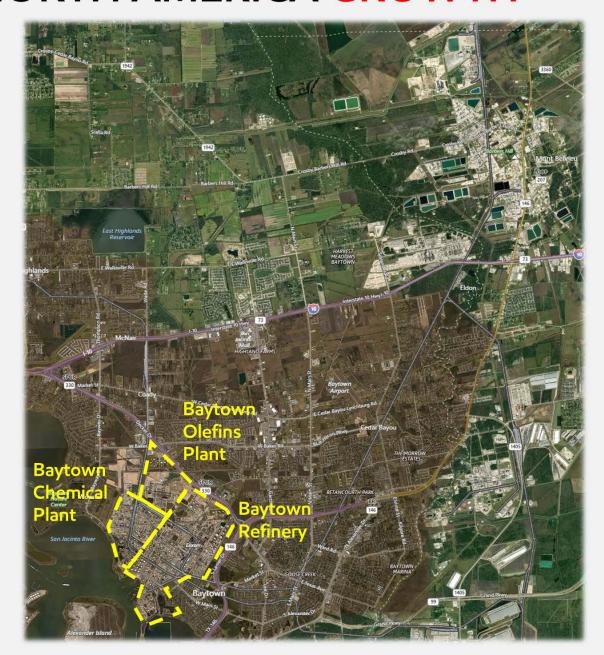
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- Utilize NGLs from Permian
- Feed performance polyethylene
- Upgrade refinery gas





### **Integrated Capabilities**

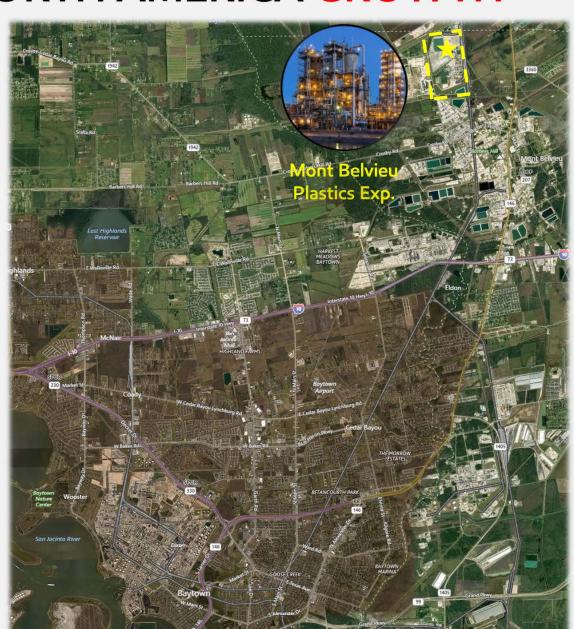
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- Feed performance polyethylene
- Upgrade refinery gas
- Optimize liquids to maximize value





### **Integrated Capabilities**

- >70 streams optimized daily across sites
- Utilize NGLs from Permian
- Feed performance polyethylene
- Upgrade refinery gas
- Optimize liquids to maximize value
- Leverage on-site utilities for expansions





### Mont Belvieu Plastics Plant Expansion

- 2 x 650Kta high performance PE lines
- Started up in 2017
- Operating ~10% above design rates



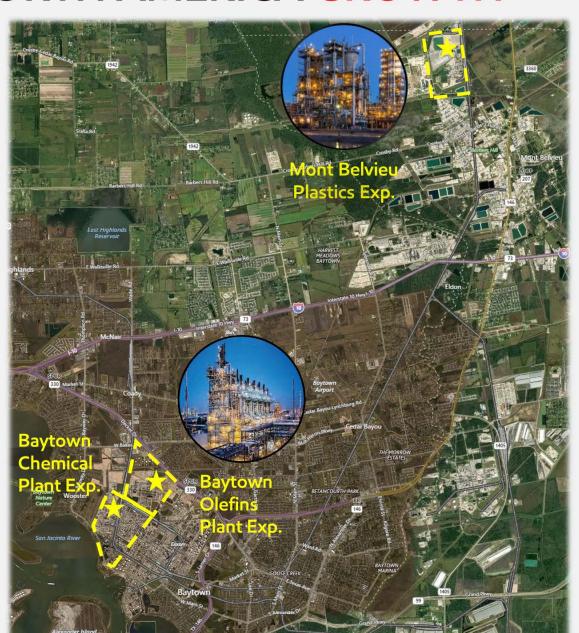


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### **Baytown Chemical Plant Expansion**

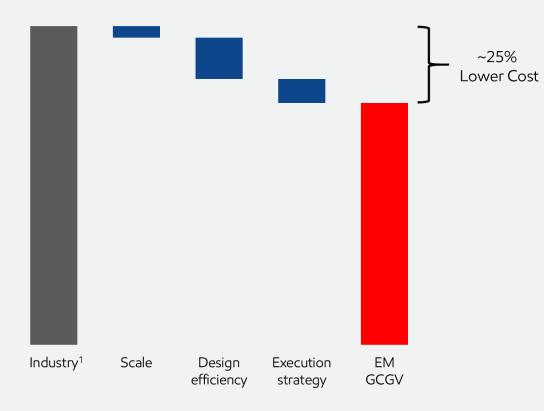
- 400Kta Vistamaxx unit / 350Kta LAO plant
- Expected start-up in 2022

## **GULF COAST GROWTH VENTURE**



#### LEVERAGING WORLD-CLASS PROJECT EXPERTISE

Project unit cost (thousand USD/ton)



World's largest grassroots cracker (1.8Mta); JV with SABIC<sup>2</sup>

1.3Mta polyethylene

~25%

- 1.1Mta ethylene glycol
- 25% lower cost than industry
  - Build world-scale units to maximize efficiency
  - Optimize design to reduce footprint
  - Leverage corporate project execution expertise
- Start-up by 2022; delivers ~\$500 million/year in earnings<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Based on public announcements and ExxonMobil estimates

<sup>&</sup>lt;sup>2</sup> All volumes gross

<sup>&</sup>lt;sup>3</sup> At 2018 Investor Day Basis (\$60/bbl Brent 2017 flat real, 2017 margins) See supplemental information

## STRENGTHENING PRODUCT LEADERSHIP



Product leadership position <sup>1</sup>	Leader (# yrs.)	
Polyethylene	1	>20
Differentiated polyethylene	1	>20
Fluids / plasticizer	1	>20
Propylene-based plastomer <sup>2</sup>	1	>5
Adhesions	1	>20
Synthetics	1	>20
TPV <sup>3</sup>	1	>20
Butyl rubber	1	>20
Lube & fuel additives	2	>15
EPDM	2	>20
Aromatics	2	>20

Source: IHS

### **World Class Facilities**



Baytown 3.8Mta Ethylene



Mont Belvieu 2.3Mta Polyethylene



Singapore 930Kta Polypropylene 140Kta Butyl 90Kta Adhesion



Gulf Coast Growth Venture 1.8Mta Ethylene 1.3Mta Polyethylene 1.1Mta Ethylene Glycol

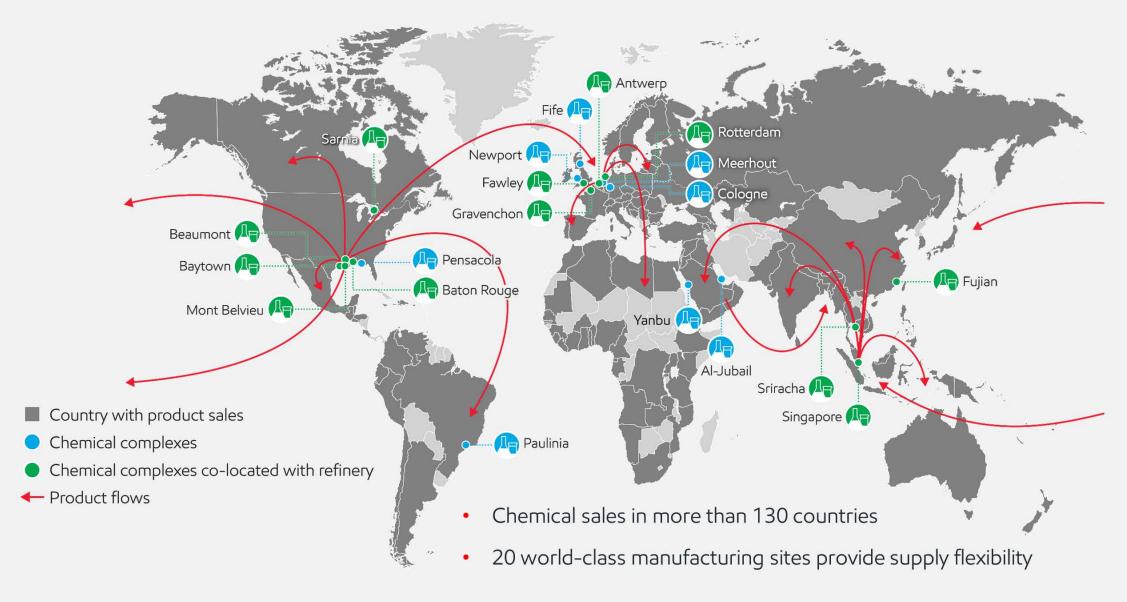
<sup>&</sup>lt;sup>1</sup>>80% of ExxonMobil Chemical products represented

<sup>&</sup>lt;sup>2</sup> ExxonMobil estimates based on available data

<sup>&</sup>lt;sup>3</sup> Advanced Elastomer Systems JV w/ Monsanto. ExxonMobil Chemical became sole owner of AES in 2002.

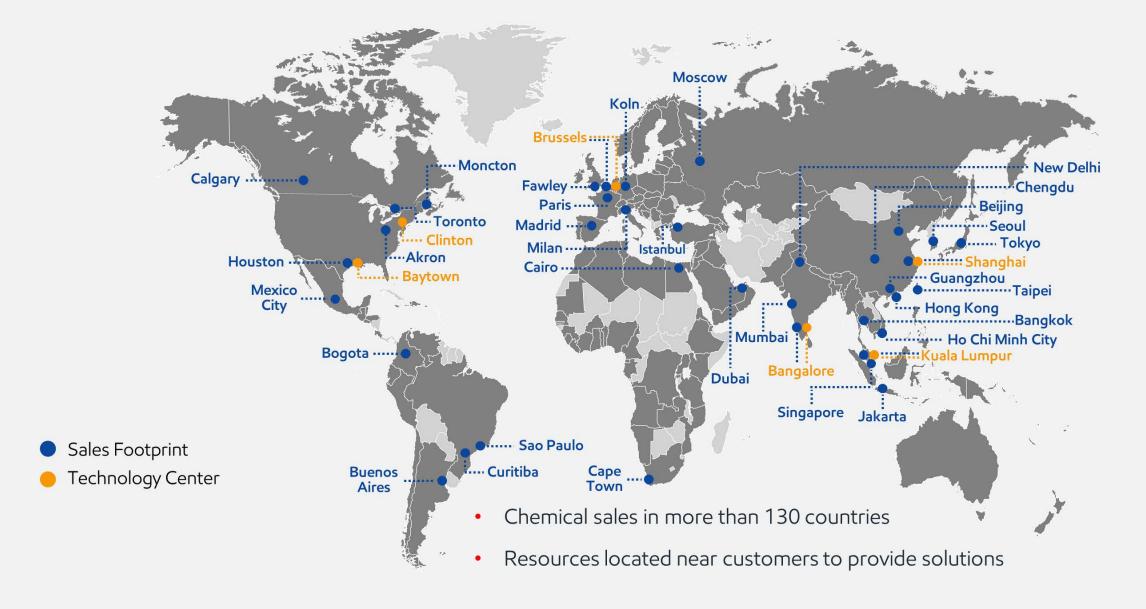
## **SCALE AND MARKET ACCESS CAPTURE GROWTH**





## **TECHNOLOGY & MARKET FACING RESOURCES**









High Performance Synthetic Base Stocks





Achieve<sup>TM</sup> Advanced Polypropylene





Escaid<sup>™</sup> High Performance Base Fluids



Exceed<sup>TM</sup> XP Polyethylene



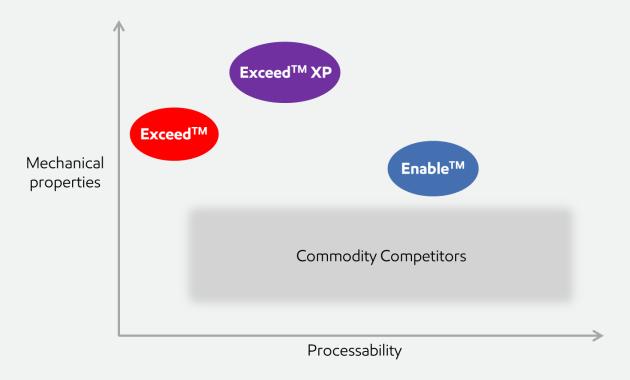


# WHEN EXTREME PERFORMANCE MATTERS



### PERFORMANCE POLYETHYLENE TECHNOLOGY DEVELOPMENT

Relative performance



# PACKAGE INTEGRITY – FILM TOUGHNESS q/micron



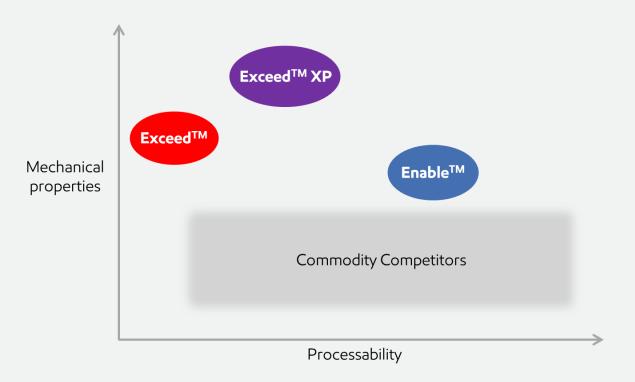
up to **4.8x** tougher

Notes: Tested on Exceed  $^{\text{TM}}$  XP based packaging solution vs. competitor reference Drop dart testing conducted to determine impact strength

# WHEN EXTREME PERFORMANCE MATTERS



# **PERFORMANCE POLYETHYLENE TECHNOLOGY DEVELOPMENT**Relative performance



## PACKAGE FRESHNESS – FILM SEALING N/30mm



up to **1.7** x improvement

Notes: Tested on Exceed  $^{\text{TM}}$  XP based packaging solution vs. competitor reference Hot tack testing conducted to determine hot seal strength

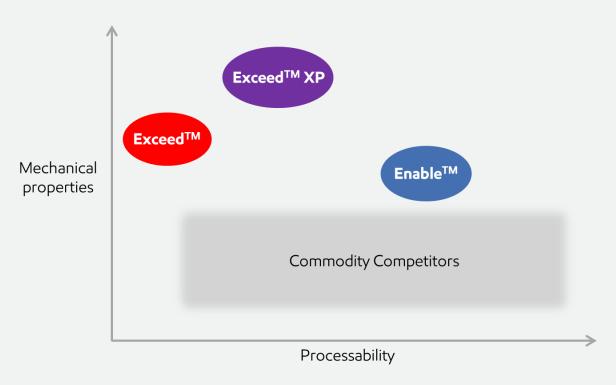
**Customer Testimonials** 

# WHEN EXTREME PERFORMANCE MATTERS

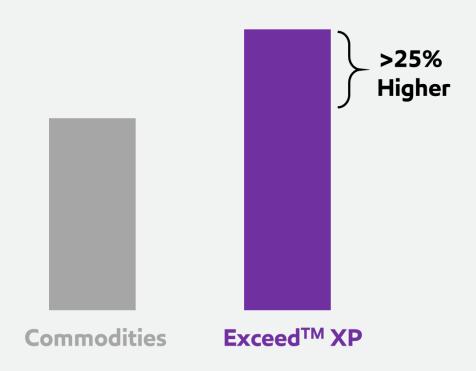


### PERFORMANCE POLYETHYLENE TECHNOLOGY DEVELOPMENT

Relative performance



#### EXCEED™XP VALUE CREATION¹

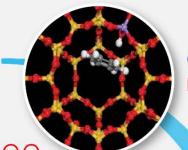


 $^1$ Value Creation is an ExxonMobil estimate based on "value in use" across applications for which Exceed XP provides solutions to customers

# HOW WE DEVELOP PERFORMANCE PRODUCTS



50% SALES GROWTH BY 2025



Catalyst Technology High throughput labs

customers

application development teams



Process Technology Pilot units for scale-up

performance products

Customer Solution Technology Application development and customer trials



**Product Technology** New products tested and developed globally

# **TOUR STOP ORDER**

Group 1	Group 2	Group 3	Group 4
New product platforms	Optimization & integration	Catalyst lab	Exec. Q&A
Optimization & integration	Catalyst lab	Pilot plant	New product platforms
Catalyst lab	Pilot plant	Film line	Optimization & integration
Pilot plant	Film line	Exec. Q&A	Catalyst lab
Film line	Exec. Q&A	New product platforms	Pilot plant
Exec. Q&A	New product platforms	Optimization & integration	Film line

# **COLLABORATIVE INNOVATION PIPELINE**



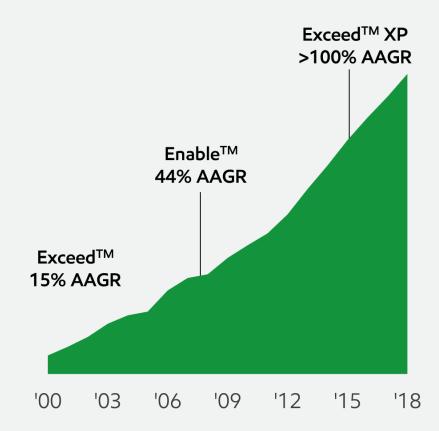


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# **INNOVATION DRIVES GROWTH**

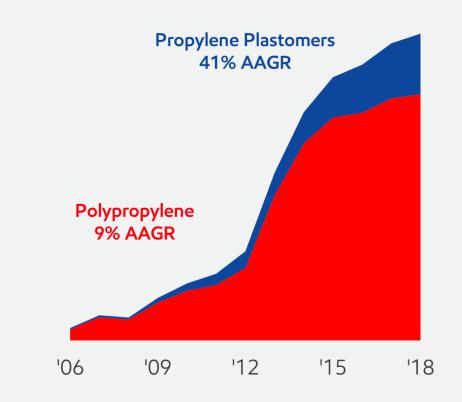


#### PERFORMANCE POLYETHYLENE VOLUME GROWTH<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> AAGR = Average Annual Growth Rate

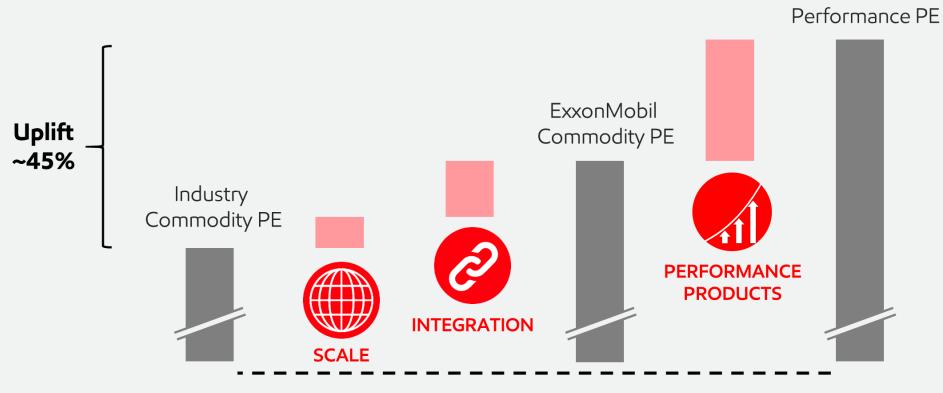
#### PERFORMANCE PROPYLENE DERIVATIVE VOLUME GROWTH<sup>1</sup>



# **UPGRADE VALUE VIA PERFORMANCE PRODUCTS**



EXXONMOBIL USGC MARGIN ADVANTAGE<sup>1</sup>



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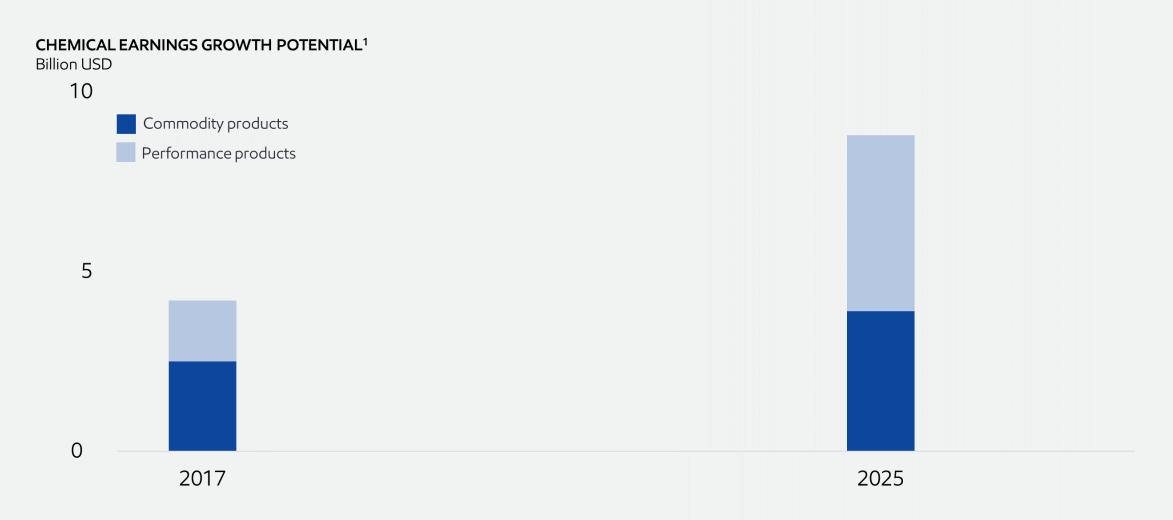




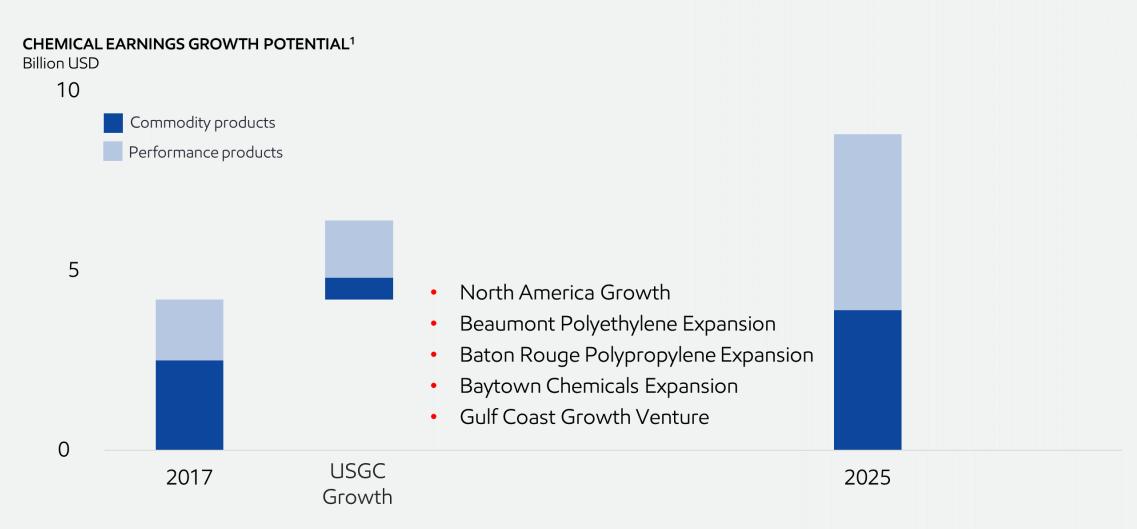


ExxonMobil

 $<sup>^{\</sup>rm 1}\,{\rm Margin}$  axis truncated for illustrative purposes



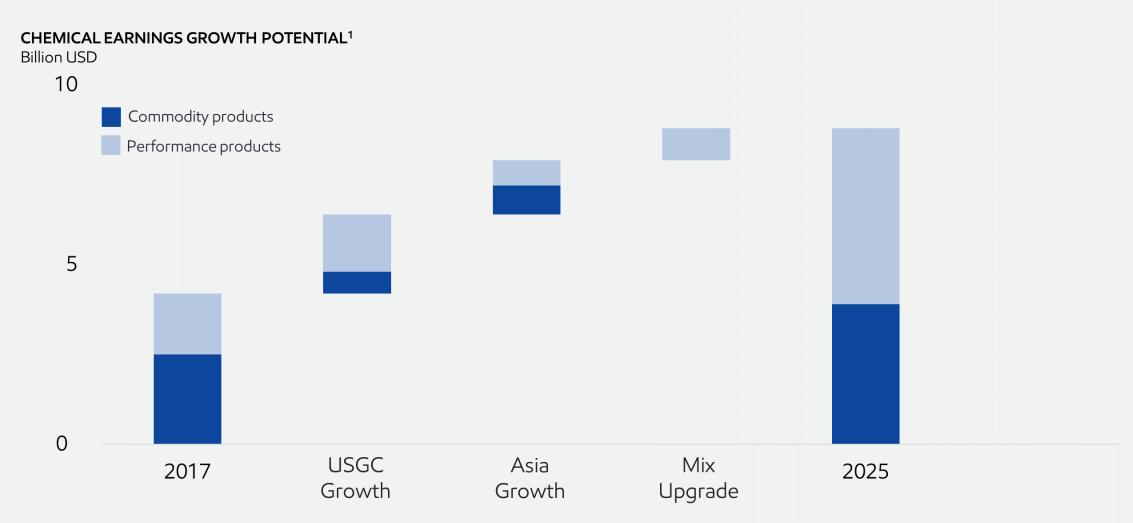
<sup>&</sup>lt;sup>1</sup>2018 March Investor Day basis (\$60/bbl Brent flat real, 2017 margins), relative to 2017 adjusted earnings, excludes impact of U.S. tax reform and impairments in 2017 See supplemental information



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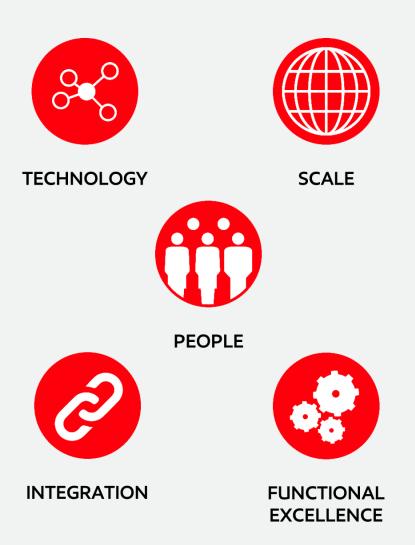


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# CHEMICALS CREATE VALUE



Meet evolving needs of society through technology

Unique combination of competitive advantages

Leverage Corporate synergies and integration benefits

Upgrade molecules to higher value performance products

Diversification & flexibility drives value capture



Important information and assumptions regarding certain forward-looking statements. Forward-looking statements contained in this presentation regarding the potential for future earnings, and return on average capital employed (ROCE) are not forecasts of actual future results. These figures are provided to help quantify the targeted future results and goals of currently-contemplated management plans and objectives including new project investments, plans to increase sales in our Chemical segments and to shift our Chemical product mix toward higher-value products, initiatives to improve efficiencies and reduce costs, and other efforts within management's control to impact future results as discussed in this presentation. These figures are intended to quantify for illustrative purposes management's view of the potentials for these efforts over the time periods shown, calculated on a basis consistent with our internal modelling assumptions for factors such as working capital and capital structure, as well as factors management does not control, such as interest, differentials, and exchange rates.

For all price point comparisons, unless otherwise indicated, crude prices and product margins are on a 2017 Brent flat real basis. Unless otherwise specified, crude prices are Brent prices. Where price is not stated, we assume a \$60/bbl Brent 2017 flat real for future periods. These prices are not intended to reflect management's forecast for future prices or the prices we use for internal planning purposes. For natural gas, except as otherwise explicitly noted in this presentation, we have used management's internal planning prices for the relevant natural gas markets. We have assumed that Downstream product margins remain at 2017 levels. We have assumed Chemical margins reflect gas and market conditions. At \$60/bbl Brent 2017 flat real, we have assumed Chemical margins reflect 2017 margins. We have also assumed that other factors such as laws and regulations, including tax and environmental laws, and fiscal regimes remain consistent with current conditions for the relevant periods. Unless otherwise indicated, asset sales and proceeds are consistent with our internal planning.

See the Cautionary Statement at the front of this presentation for additional information regarding forward-looking statements.

Non-GAAP and other measures. In this presentation, earnings excluding effects of U.S. tax reform enactment and impairments and return on average capital employed (ROCE) are non-GAAP measures. With respect to historical periods, reconciliation information is included with the relevant definition below or as noted below in the Frequently Used Terms available on the Investors page of our website at www.exxonmobil.com. For future periods, we are unable to provide a reconciliation of forward-looking non-GAAP measures to the most comparable GAAP financial measures because the information needed to reconcile these measures is dependent on future events, many of which are outside management's control as described above. Additionally, estimating such GAAP measures and providing a meaningful reconciliation consistent with our accounting policies for future periods is extremely difficult and requires a level of precision that is unavailable for these future periods and cannot be accomplished without unreasonable effort. Forward-looking non-GAAP measures are estimated in a manner consistent with the relevant definitions and assumptions noted above.

#### Definitions and non-GAAP financial measure reconciliations

**Earnings excluding effects of U.S. tax reform and impairments (Adjusted Earnings/Actuals).** The tables below reconcile 2017 and 2018 earnings excluding effects of U.S. tax reform enactment and impairments used in this presentation to 2017 and 2018 U.S. GAAP earnings:

(millions of dollars)	Upstream	Downstream	Chemical	Corporate and Financing	Corporate Total
2017 Earnings (U.S. GAAP)	13,355	5,597	4,518	(3,760)	19,710
U.S. tax reform	7,122	618	335	(2,133)	5,942
Impairments	(1,504)	(17)	-	-	(1,521)
2017 Earnings excluding U.S. tax reform and impairments	7,737	4,996	4,183	(1,627)	15,289

(millions of dollars)	Upstream	Downstream	Chemical	Corporate and Financing	Corporate Total
2018 Earnings (U.S. GAAP)	14,079	6,010	3,351	(2,600)	20,840
U.S. tax reform	271	-	-	20	291
Impairments	(439)	(43)	(7)	-	(489)
2018 Earnings excluding U.S. tax reform and impairments	14,247	6,053	3,358	(2,620)	21,038

**Return on average capital employed (ROCE).** For information concerning the calculation of average capital employed and ROCE for historical periods, which we also refer to as Return Profile in this presentation, see the Frequently Used Terms on the Investors page of our website at www.exxonmobil.com.

**Performance product.** Refer to high performance Chemical products, including plastics, synthetic rubber, chemical derivatives, fluids, and solvents that provide differentiated performance for multiple applications.

**Project.** The term "project" as used in this presentation can refer to a variety of different activities and does not necessarily have the same meaning as in any government payment transparency reports.

**Returns, investment returns, project returns.** Unless referring specifically to ROCE, references to returns, investment returns, project returns, and similar terms mean discounted cash flow returns based on current company estimates. Future investment returns exclude prior exploration and acquisition costs.

### Other information

ExxonMobil has business relationships with thousands of customers, suppliers, governments, and others. For convenience and simplicity, words such as venture, joint venture, partnership, co-venturer, and partner are used to indicate business and other relationships involving common activities and interests, and those words may not indicate precise legal relationships.

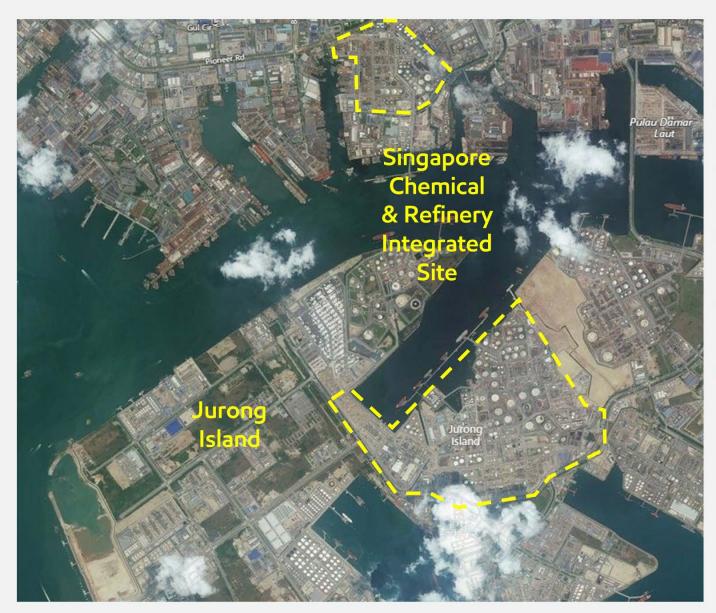
Competitor data is based on publicly available information and, where estimated or derived (e.g., ROCE), done so on a consistent basis with ExxonMobil data. Future competitor data, unless otherwise noted, is taken from publicly available statements or disclosures by that competitor and has not been independently verified by ExxonMobil or any third party. We note that certain competitors report financial information under accounting standards other than U.S. GAAP (i.e., IFRS).

Product growth rates used in this presentation are based on internal estimates derived based on our February 2, 2018 Outlook for Energy and represent good faith estimates as of this date.

Facility volume capacities shown in this presentation represent name plate design capacities. Actual volumes may be greater or less than these amount at any given time.

# **BACK UP**



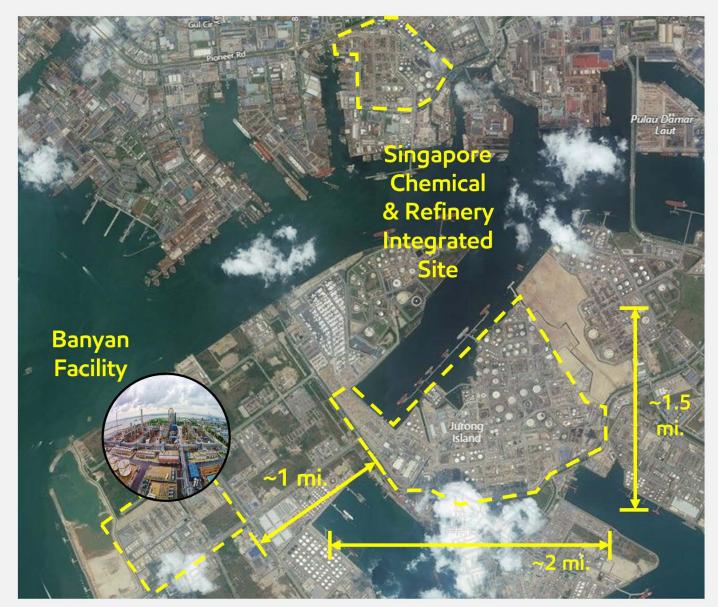


Singapore Chemical & Refinery Integrated Site

- 592 kbbls per day refinery
- 1.9Mta ethylene steam crackers
- Only commercial crude cracker
- 360 megawatt cogeneration facility
- Make broad range of product portfolio
  - 1.9Mta Polyethylene
  - 1.8Mta Paraxylene
  - 0.9Mta Polypropylene
  - 0.3Mta E/P Plastomers
  - Other performance products

Source: Bing Maps used for satellite imagery and distance measurements. Note: Property boundaries are for illustrative purposes, and not necessarily representative of actual ownership.





Banyan facility integrated into existing complex

- Acquisition in 2017, +0.8Mta Paraxylene
- Pipelines commissioned 4Q18/1Q19

Source: Bing Maps used for satellite imagery and distance measurements.

Note: Property boundaries are for illustrative purposes, and not necessarily representative of actual ownership.





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Performance product capacity growth

- Adhesion Plant, 90Kta, start-up 2017
- Butyl Plant, 140Kta, start-up 2018

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- Adhesion Plant, 90Kta, start-up 2017
- Butyl Plant, 140Kta, start-up 2018

Integrated downstream and chemical investment

- Enhances site competitiveness, earnings potential
- Construction 2H19, startup 2023

Source: Bing Maps used for satellite imagery and distance measurements. Note: Property boundaries are for illustrative purposes, and not necessarily representative of actual ownership.



## High Performance Synthetic Base Stocks





## **Differentiated Properties**

- Shear stability and low temperature fluidity
- Low viscosity and low volatility

- Performance over a wide temperature range
- Improved fuel economy and energy efficiency



## Escaid<sup>TM</sup> High Performance Base Fluids



## **Differentiated Properties**

Low viscosity

High flash point

- More consistent drilling
- Improved performance with reduced downtime
- Safety improvement in high-temperature drilling conditions



## Achieve<sup>TM</sup> Advanced Polypropylene





## **Differentiated Properties**

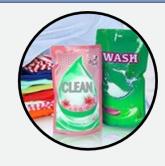
Improved toughness / stiffness

• Improved gloss / appearance

- Lightweight for auto parts and improved fuel efficiency
- Replaces higher cost material
- Aesthetics of appliances



## Exceed<sup>™</sup> XP Polyethylene





## **Differentiated Properties**

Strong mechanical properties

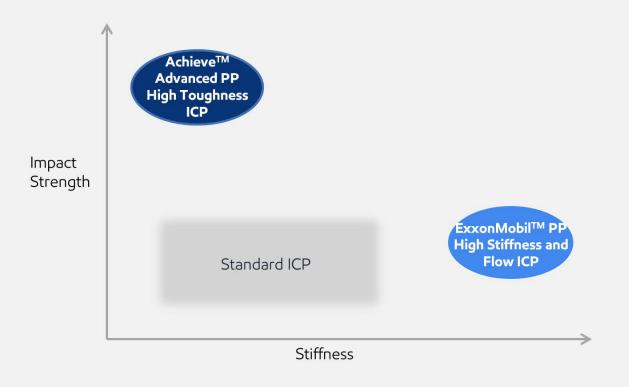
Excellent sealing performance

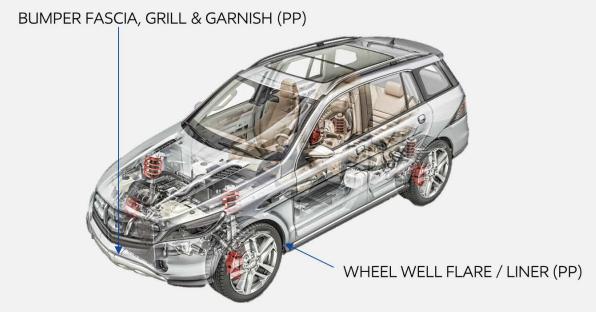
- Down-gauge opportunities, improved durability
- Package integrity, less damage in transit
- Improved machinability, reduced packaging failures
- Longer shelf life and product protection

# ACHIEVE™ ADVANCED PP CHALLENGE REALITY



Performance polypropylene technology development Relative performance



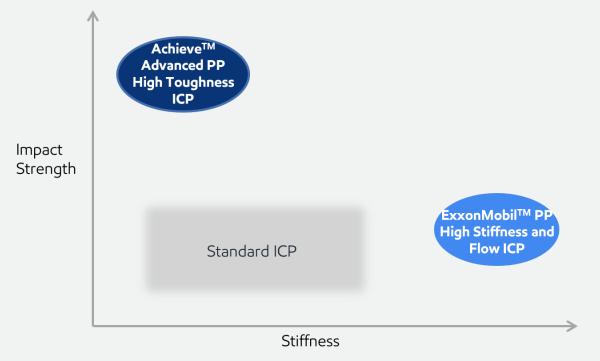


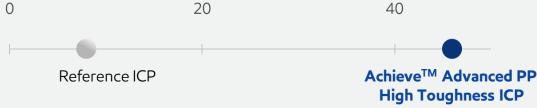
# ACHIEVE™ ADVANCED PP CHALLENGE REALITY











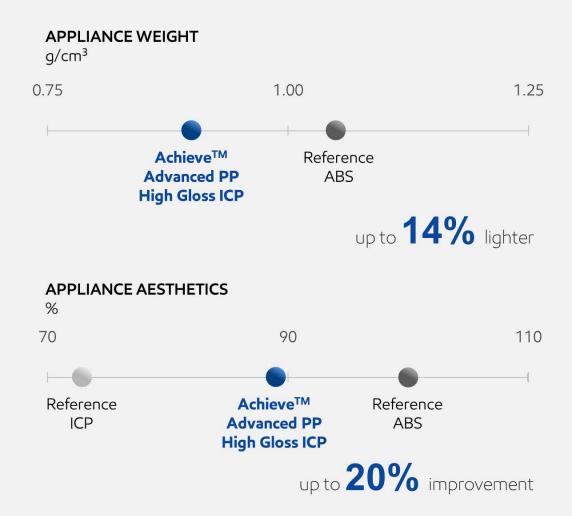
up to **4.6 X** tougher

Note: Tested on neat Achieve<sup>TM</sup> Advanced PP High Toughness ICP vs. neat reference ICP Izod impact testing conducted to determine strength

# ACHIEVE<sup>TM</sup> ADVANCED PP CHALLENGE REALITY







Note: Tested on neat Achieve<sup>TM</sup> Advanced PP High Gloss ICP vs. neat reference ABS and neat reference ICP Density testing used for weight; gloss testing used for aesthetics