

# Downstream & Chemicals

Mike Wirth  
Executive Vice President



Human Energy®





# Strategy Focused on Competitive Returns



**Deliver competitive returns**  
and grow earnings across value chain

- ✓ Improving Operational Excellence
- ✓ Growing higher return segments
  - Petrochemicals
  - Lubricants and Additives
- ✓ Focused Refining and Marketing
- ✓ Integration with Upstream
- ✓ Increasing near-term cash





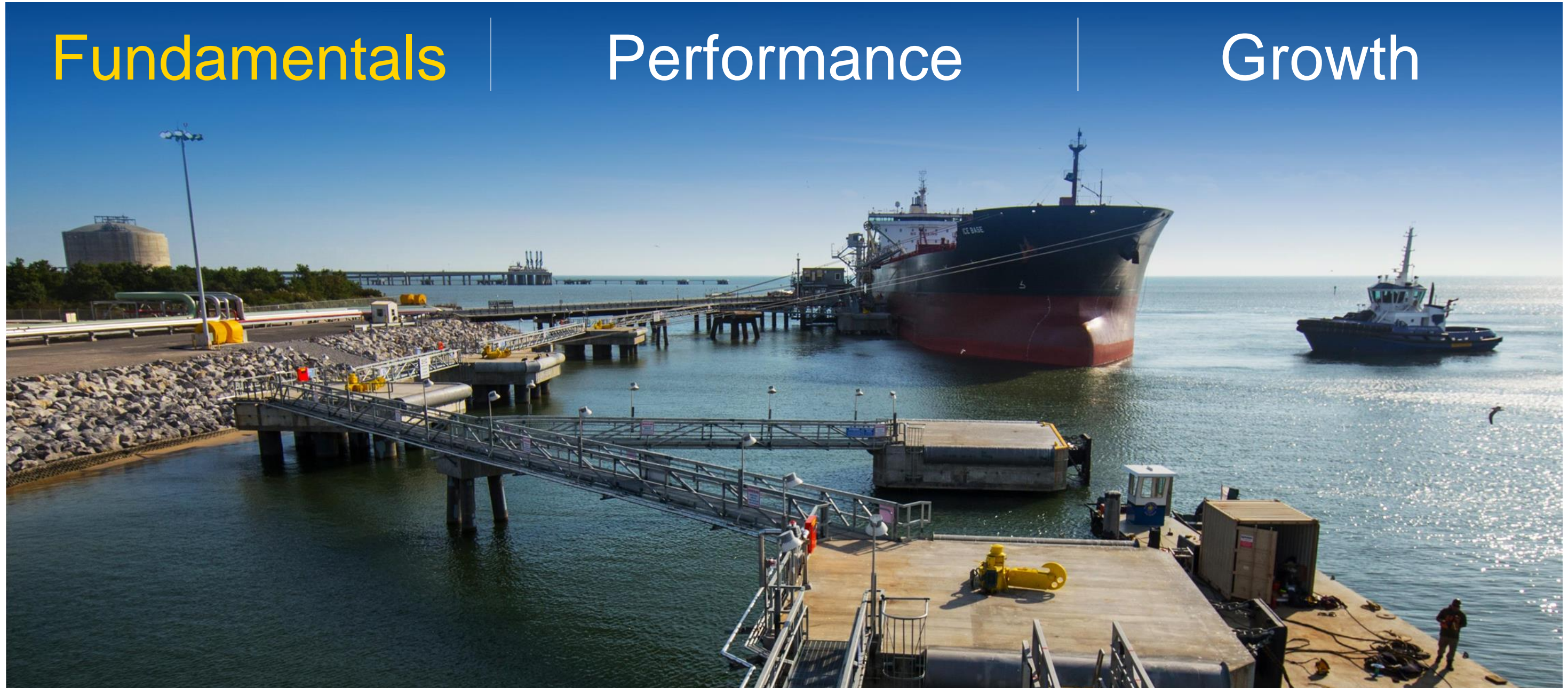
# Themes



Fundamentals

Performance

Growth



# Demand Growth Points to Attractive Segments



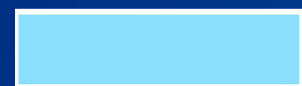
## 2013 – 2025 Outlook

### Petrochemicals

59% growth



Americas



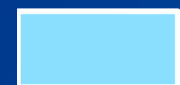
Rest of World



Asia

### Premium Base Oils

78% growth



Americas



Rest of World



Asia

Asia is the primary growth engine

Lubricants and petchem growth faster than fuels

Distillate growth continues globally

## 2013 – 2025 Outlook

### Fuel (by Region)

17% growth



Americas



Rest of World



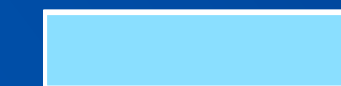
Asia

### Fuel (by Product)

17% growth



LPG/Naphtha



Gasoline



Distillate



# Refining Portfolio – In More Profitable Regions

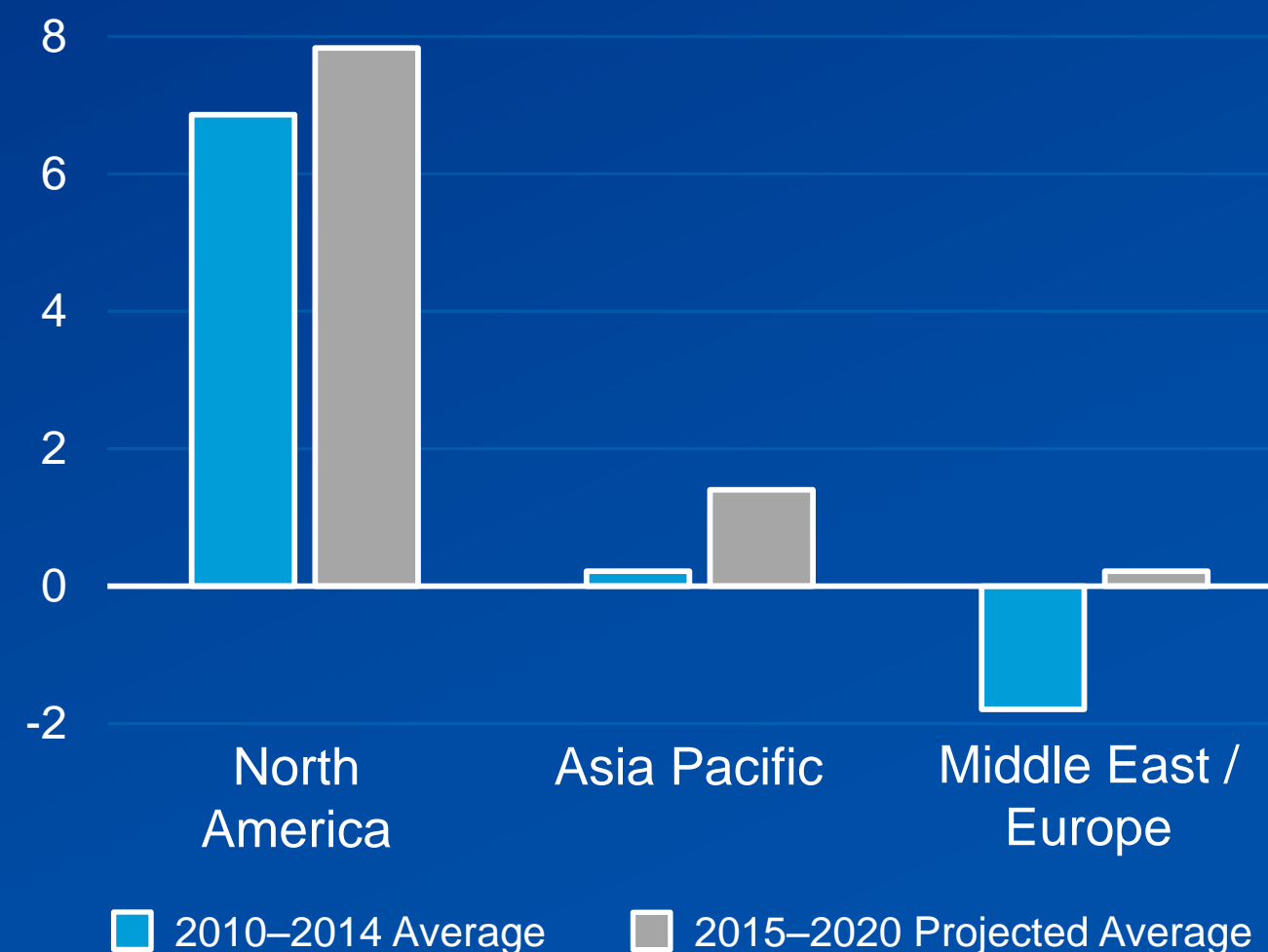


## Evolving Refining Landscape

North America	Resurgence continues
Asia Pacific	Growing demand
Middle East	New capacities will improve average margins
Europe	High cost, mature market

## Net Cash Margins

\$ per barrel



# Chemicals Portfolio – Advantaged Feedstock

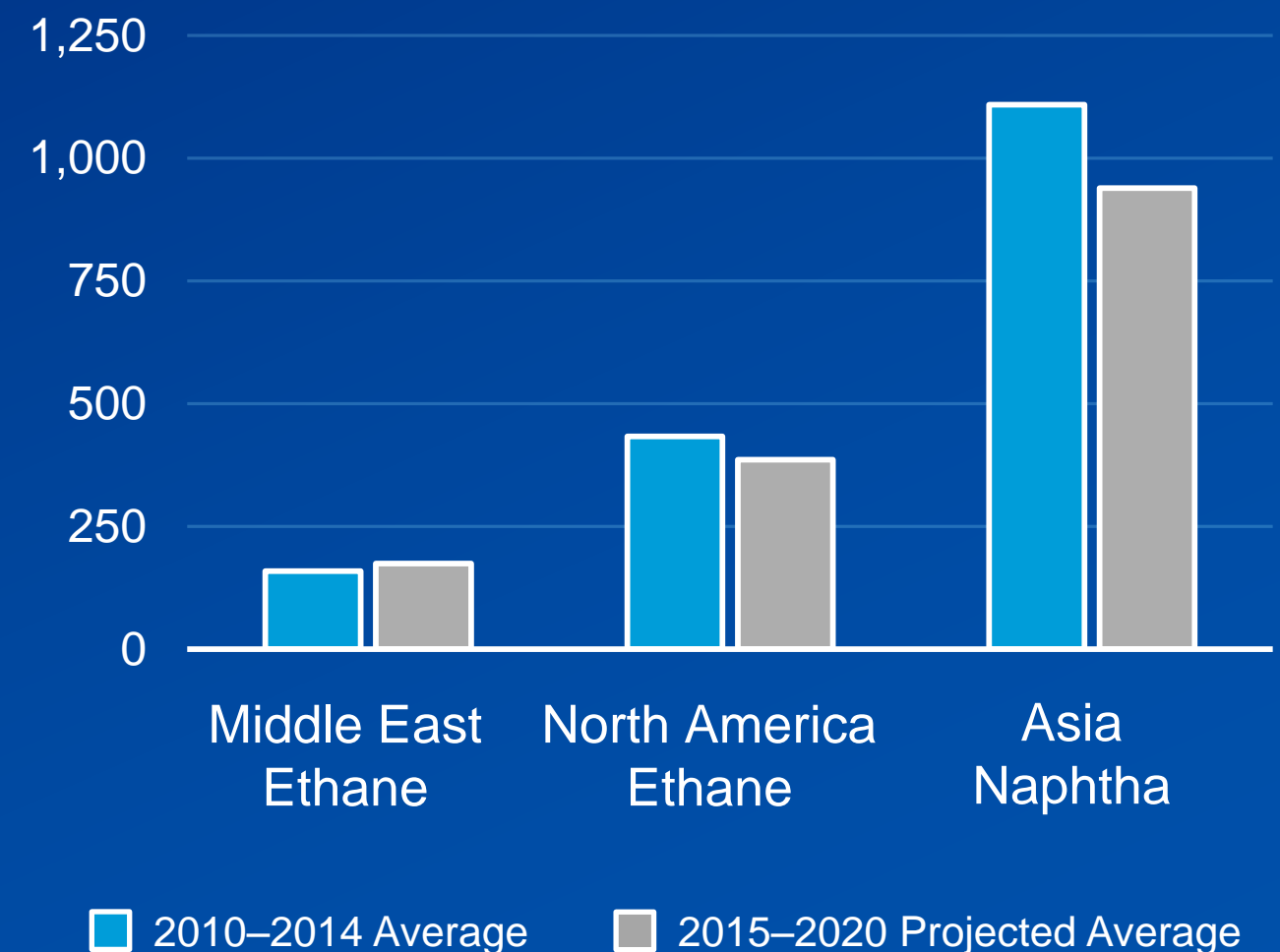


## Chemicals Profitability

- High oil / gas price ratio continues to benefit lighter feedstocks
- North America ethane feed remains advantaged
- Lower crude price lessens Asia naphtha disadvantage

## Ethylene Cash Costs

\$ per metric ton





# Themes



Fundamentals

Performance

Growth





# Strong Financial Performance

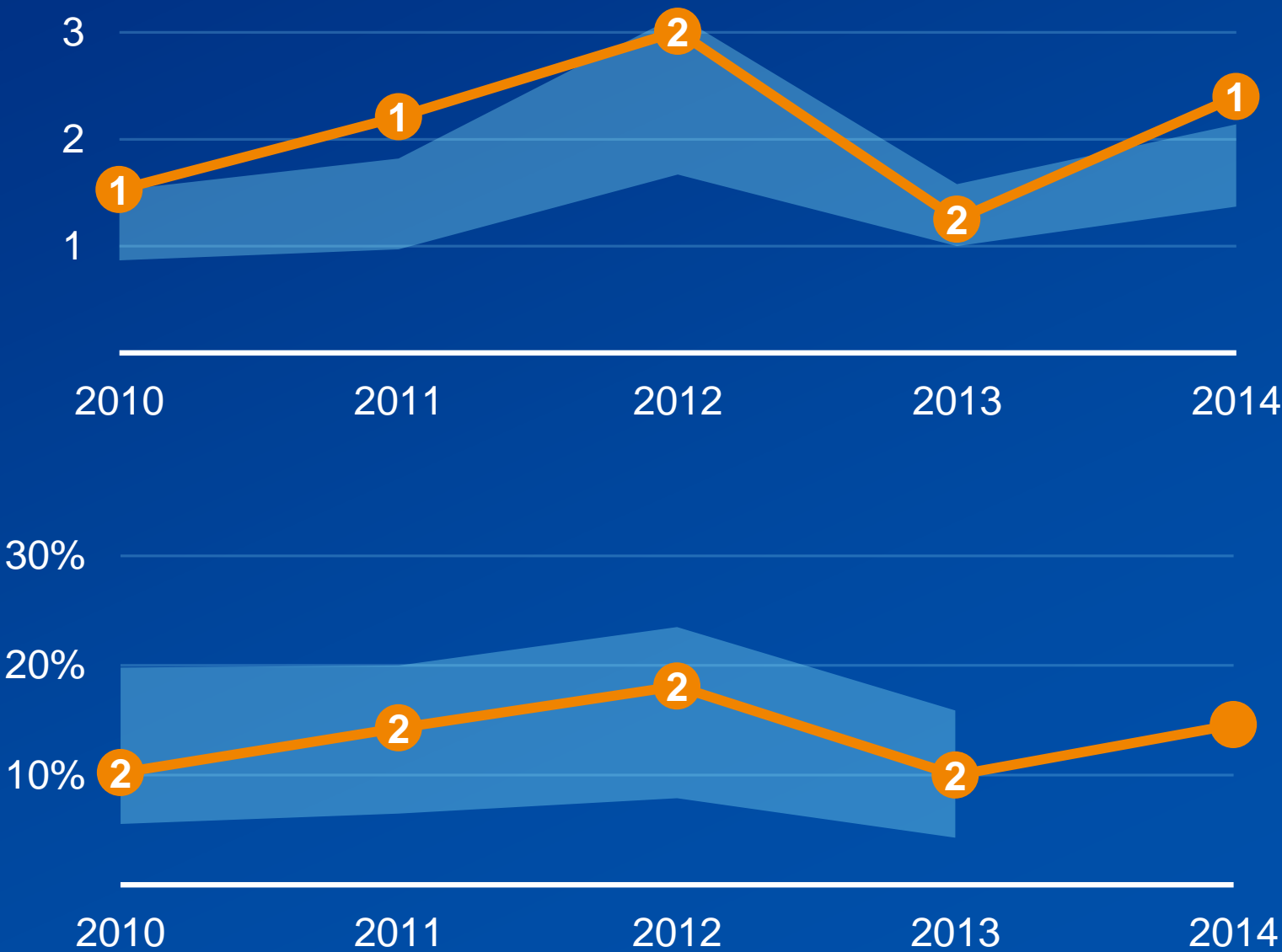


**\$2.40** per barrel  
2014 Adjusted Earnings\*

**14.6%**  
2014 Adjusted ROCE

- CVX Ranking Relative to Competitors, 1 being the best
- Competitor Range: BP, RDS, TOT, XOM

\* Downstream excluding chemicals; TOT 2012-2014 data includes base chemicals





# Chevron Phillips Delivers Results



Superior performance

Peer leading cash returns

Competitive portfolio

Cost, technology and scale

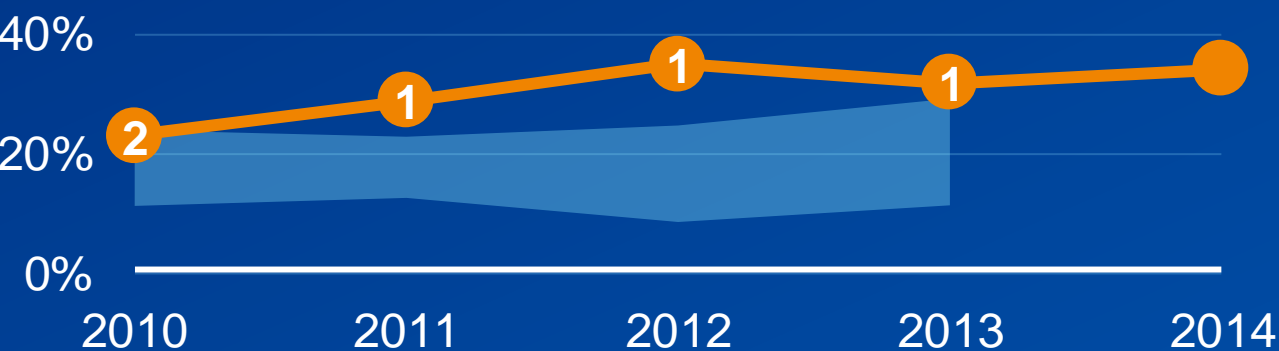
Reliable operations

High operating rates



## Returns

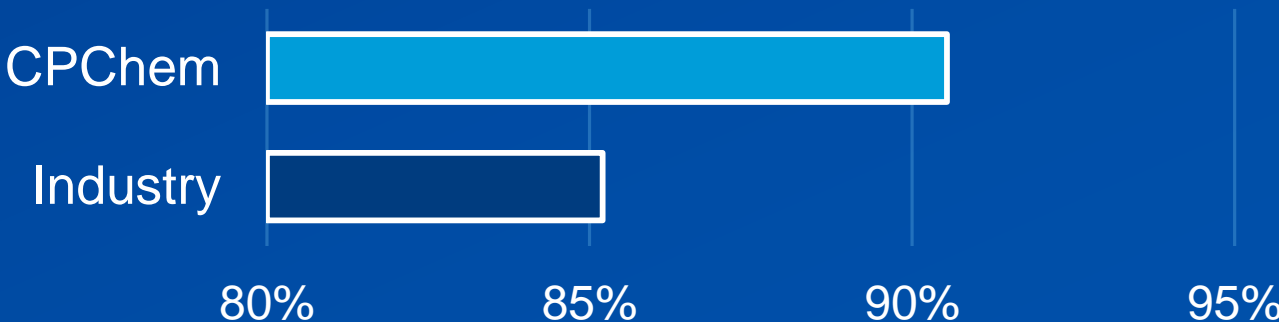
EBITDA/Average Assets\*



● CPChem Ranking    ■ Competitor Range: XOM, LYO, DOW, WLK, BAK, Nova, Borealis  
\* Adjusted for non-operational earnings

## Utilization

2012 – 2014 Average\*\*



\*\* Ethylene, Polyethylene & Polypropylene



# Improving Base Business Reliability



## Salt Lake

- New crude column/exchangers with better performance
- Safer, more reliable operation
- Increased flexibility for discounted crudes



## El Segundo

- Replaced six, 40 year-old coke drums
- Ensures capacity to reliably meet demand
- Difficult engineering and construction executed safely



## Thailand

- New, state-of-the-art, cat cracker technology
- Increases availability to satisfy demand growth





# Portfolio Actions



## Asset Divestment Proceeds (B/T)

2004–13 ~ \$12 B

2014 ~ \$ 2 B

## 2014 Divestments

- US Pipelines/Terminals
- Other Retail

## 2015–17 Divestments

- US Pipelines/Terminals
- Other Fuels Assets





# Themes



Fundamentals

Performance

Growth

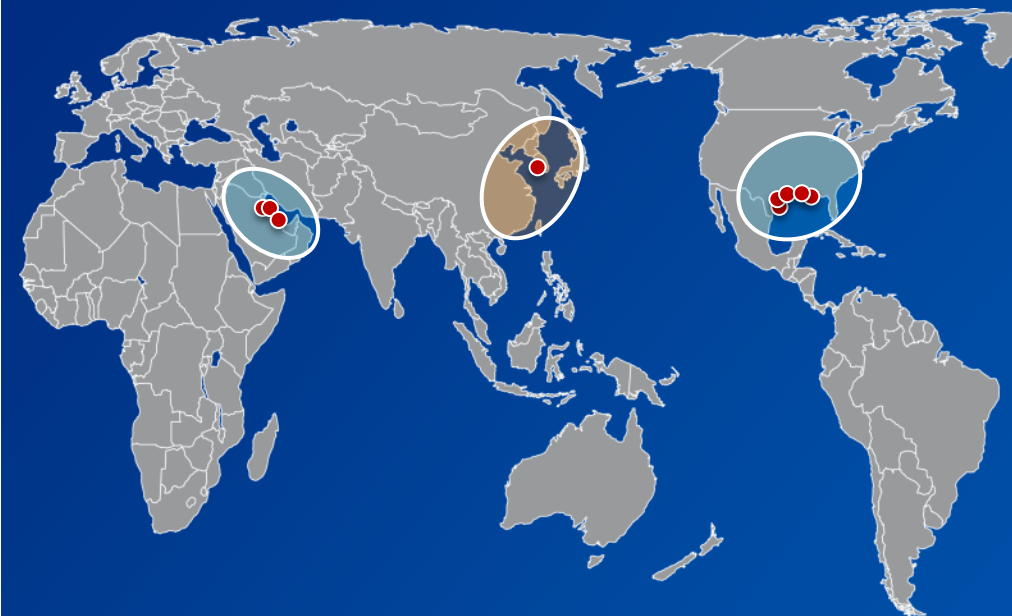




# A Strong Worldwide Portfolio



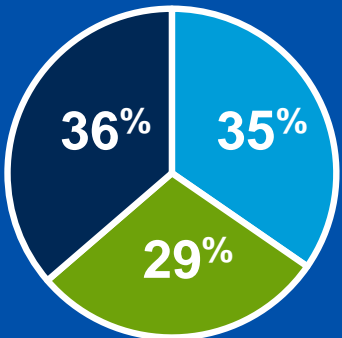
## Chemicals Feed & Market Advantages



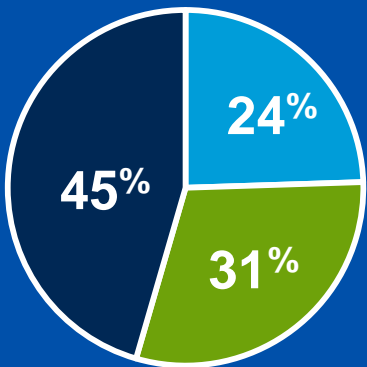
- Olefins & Aromatics Production
- Aromatics Production

## Portfolio

2014 Capital Employed



2017 Capital Employed



- △ Lubricants & Chemicals
- △ R&M Asia Pacific
- △ R&M All Other

## Fuels Refining Pacific Rim Strength



- ~ 75% of CVX Capacity
- #1 Pacific Rim Hydrocracking\*

\* Equity Basis



# Major Projects Completed in 2014



## Petrochemicals

- Cedar Bayou 1-Hexene
- World's largest on-purpose plant (250 kMTA)
- Infrastructure, feedstock advantages with strategic location for demand growth



## Lubricant Additives

- Singapore Oronite
- Increased capacity, shipping and storage
- Improved capability to capture demand growth



## Premium Base Oils

- Pascagoula Refinery
- World's largest premium base oil producer
- Leverage leadership position to capture growth





# Additional Growth Projects – Chemicals



## Chevron Phillips Normal Alpha Olefins

- Cedar Bayou Plant
- Minimum capacity increase of 20% to support demand
- Synergy with new 1-Hexene unit
- Projected start-up 2015



## Oronite Carboxylate

- Singapore Plant
- Doubles global capacity of key component for next-generation lubricants
- Projected start-up 2017



# Chevron Phillips USGC Petrochemicals Project

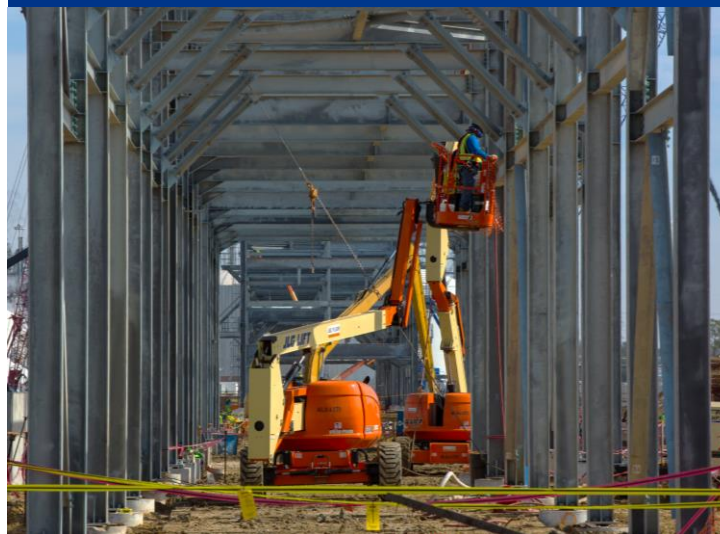


## Overview & Progress

- 1,500 kMTA ethylene – Baytown, TX  
1,000 kMTA polyethylene – Old Ocean, TX
- Projected start-up 2017
- 35% complete (>3,000 people onsite)
- Polyethylene reactors delivered; Ethylene unit major compressors en-route
- Pipelines 50% complete

## 2015 Key Milestones

- 65% complete (>5,000 people onsite)
- Polyethylene reactors set in place
- Ethylene furnace modules erected
- Major compressors set on foundations
- Pipelines complete
- Operations training & certification underway





# Well-Positioned for Today and the Future



## Fundamentals

### Sustain Returns

- Operational excellence
- Focused portfolio
- Competitive assets

## Performance

### Top-Tier Performance

- Safety
- Reliability
- Profitability

## Growth

### Targeted Growth

- Asia
- Chemicals
- Lubricants

