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# Group I & Group II – Optimizing capabilities vs. requirements

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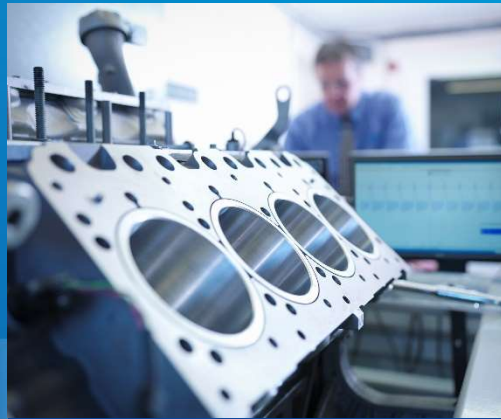
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# Macro trends driving future requirements



## Market Trends

- Increasing demand for efficiency
- Need to reduce GHG emissions



## Industry changes

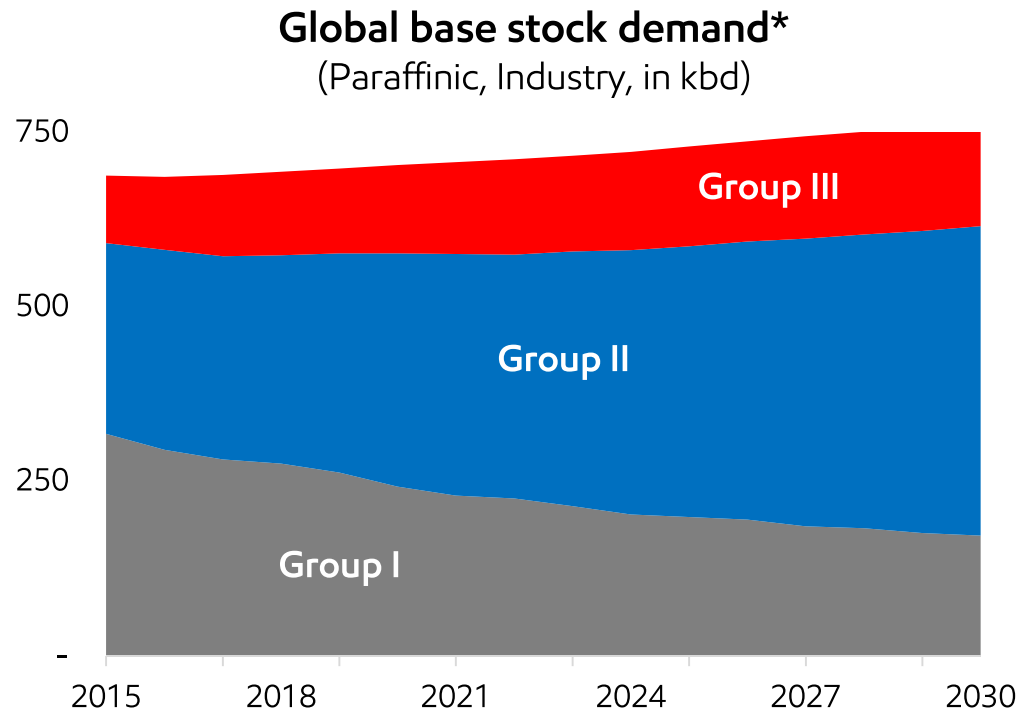
- Higher fuel economy
- Energy efficiency
- More severe operating conditions
- Longer drain intervals



## Driving base stock requirements

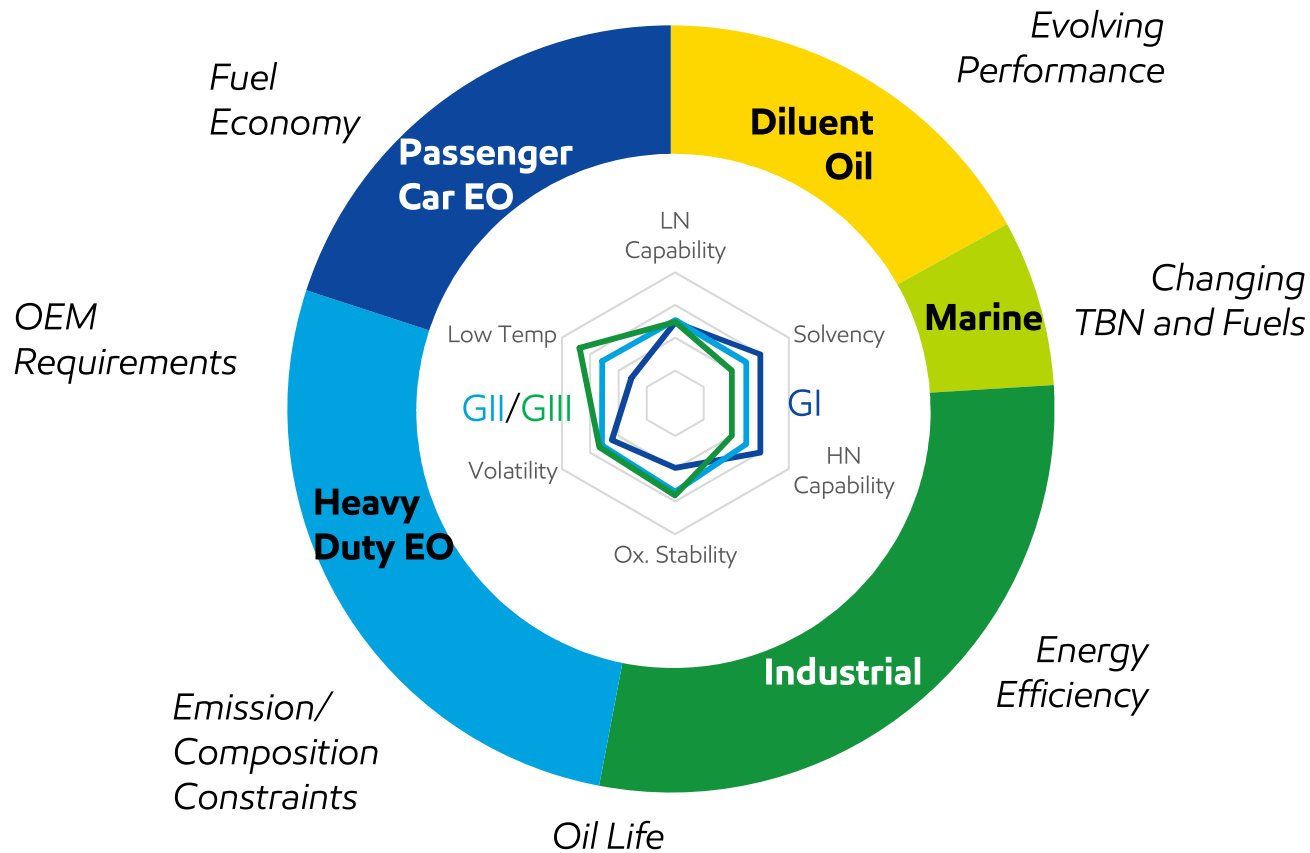
- Higher performing base stocks

## Growing use of Group II



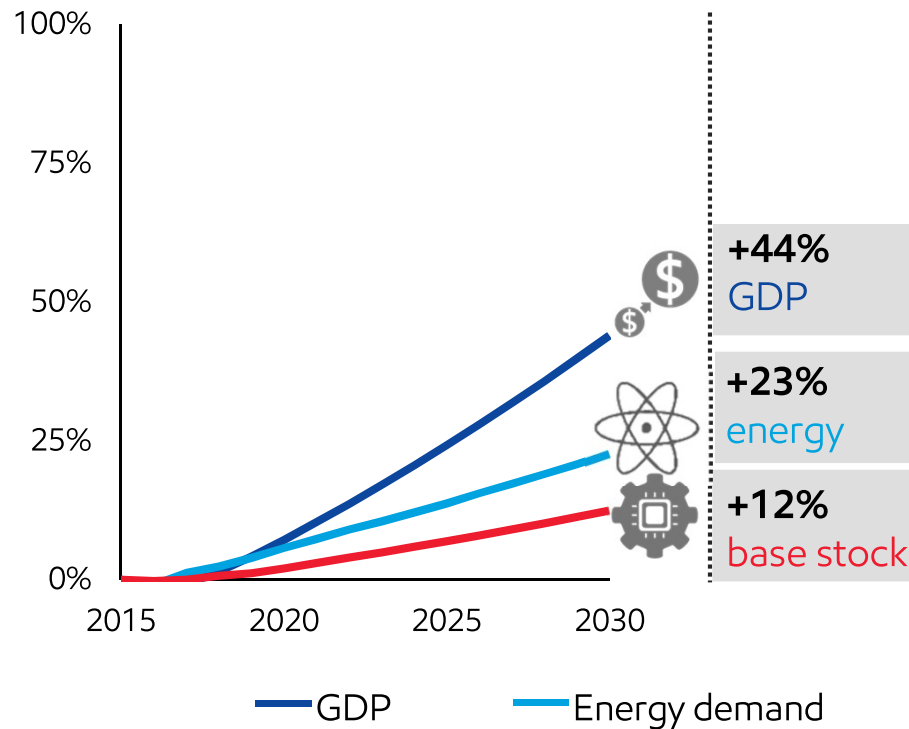
- Group I will remain relevant despite projected decline
- Group II becoming “heart of the market” in mainline applications
- Group III will continue to grow steadily driven by specific performance needs

# Diversity of lubricant needs drive base stock design



# Growth in Latin America

## Latin America growth

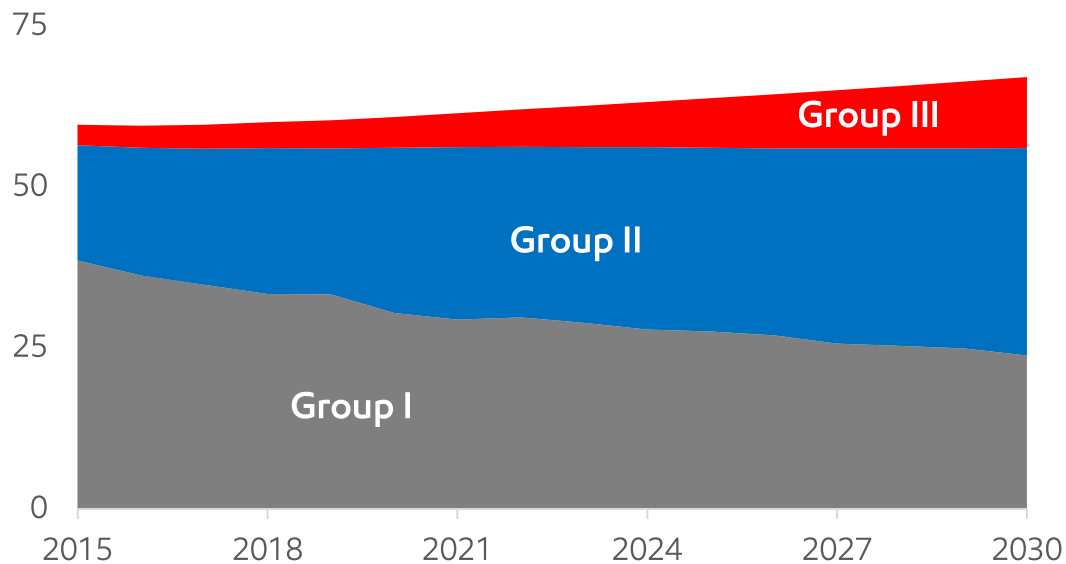


## What is driving growth?

- Economic advancement of growing population
- Better living standards
- Infrastructure development, industrialization and personal vehicle ownership

# Latin America – Market Dynamics

**Latin America base stock demand\***  
(Paraffinic, Industry, in kbd)



- Group I will continue to have the major share of the demand in the region over the next decade
- Group II growth will be primarily driven by OEM thrust and regulatory changes
- Group III growth will be supported by lighter viscosities, particularly 5Ws on the PCMO segment

# ExxonMobil Integrated Business Model in Latin America



## Upstream

- Active oil & gas presence in 6 countries in Latin America
  - Deepwater Guyana and Brazil

## Downstream

- Leading marketer of fuels, base stocks, as well as petroleum products and finished lubricants, enabled by an advantaged network of refineries in North America
  - Fuels entry in Mexico
  - Alliances and distributor partnerships in Latin America

COPEC

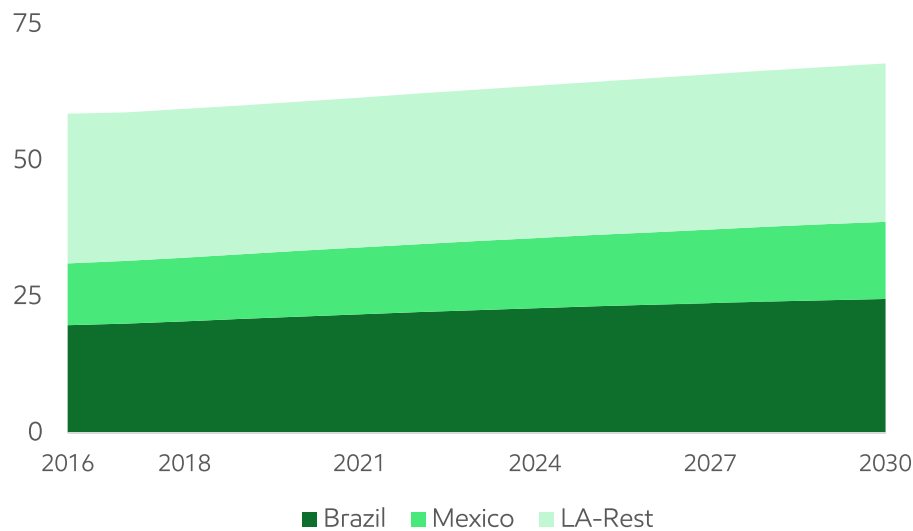
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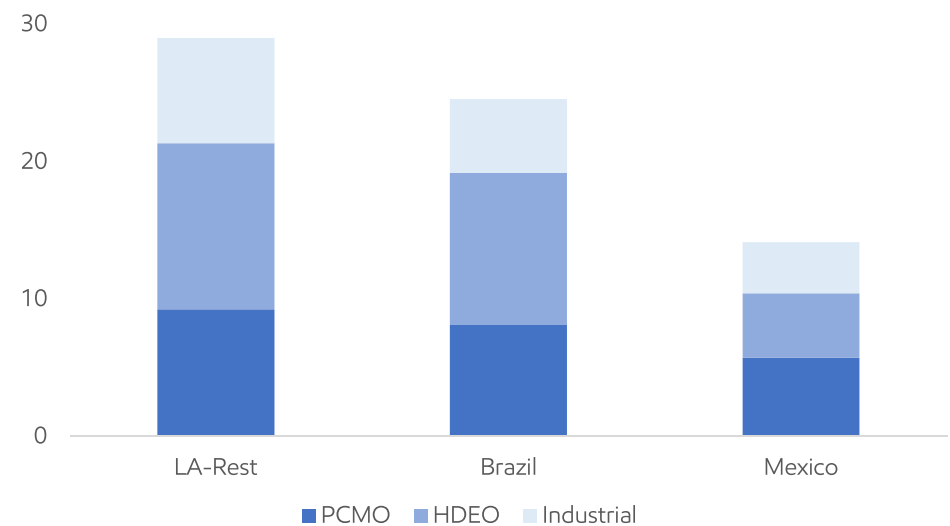
# Lubricant demand growth projected in all areas

- OEM specifications for engine oils shifting market
- Industrial will continue growing supported by key sectors such as mining

Lubricant Demand, kbd



2030 Latin America Regional Lubricants Mix, kbd



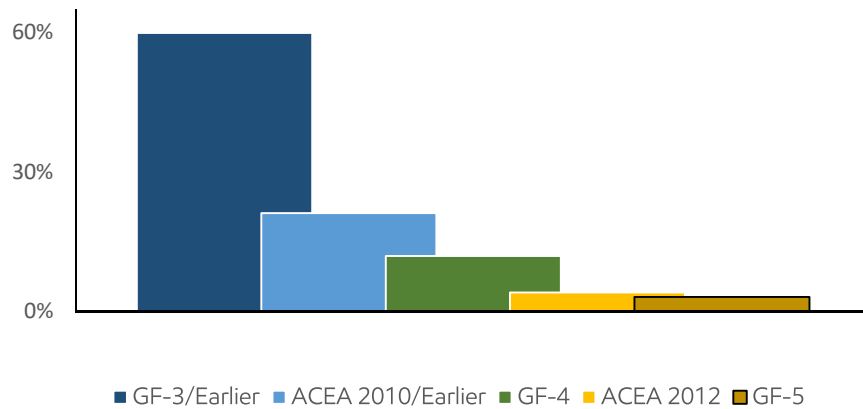


# Extensive range of lubricant performance requirements

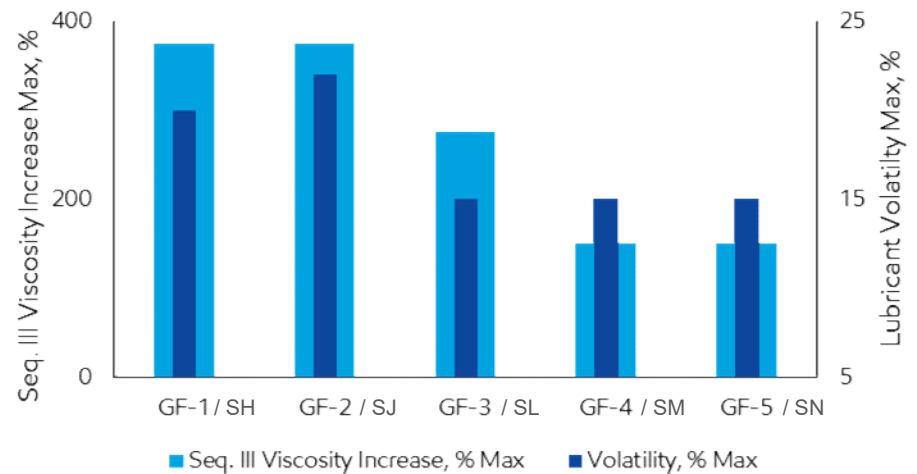
- LATAM engine lubricants requirements a mix of API / ILSAC and ACEA specifications
- Older performance categories predominate, with transition towards newer specifications
- Diverse requirements call for a mix of base stock supply to region

**PCMO Specifications**

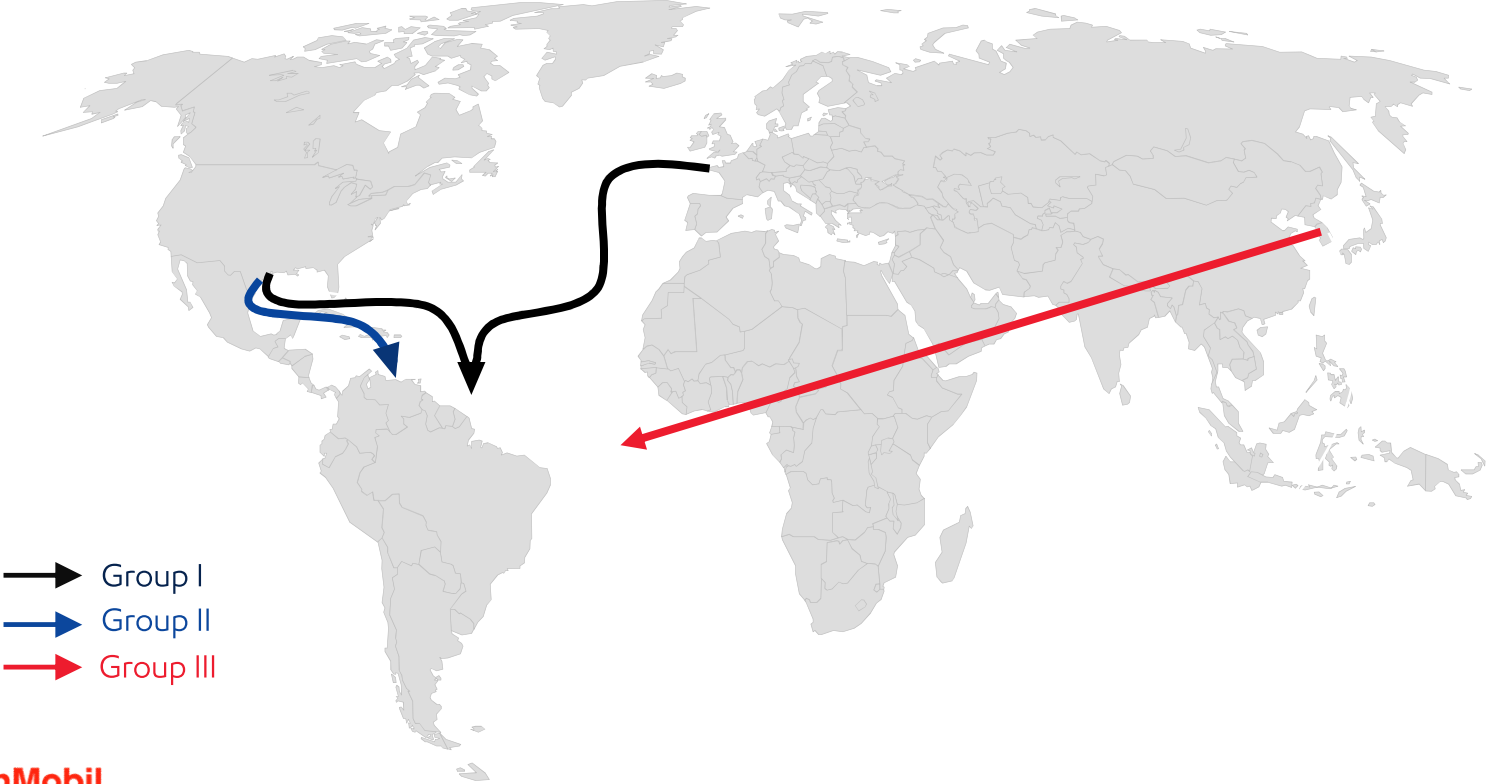
LatAm, 2014



**Base stock quality drivers**



Global Trade flows - supply chain is complex  
Managing Gp I availability vs Gp II momentum



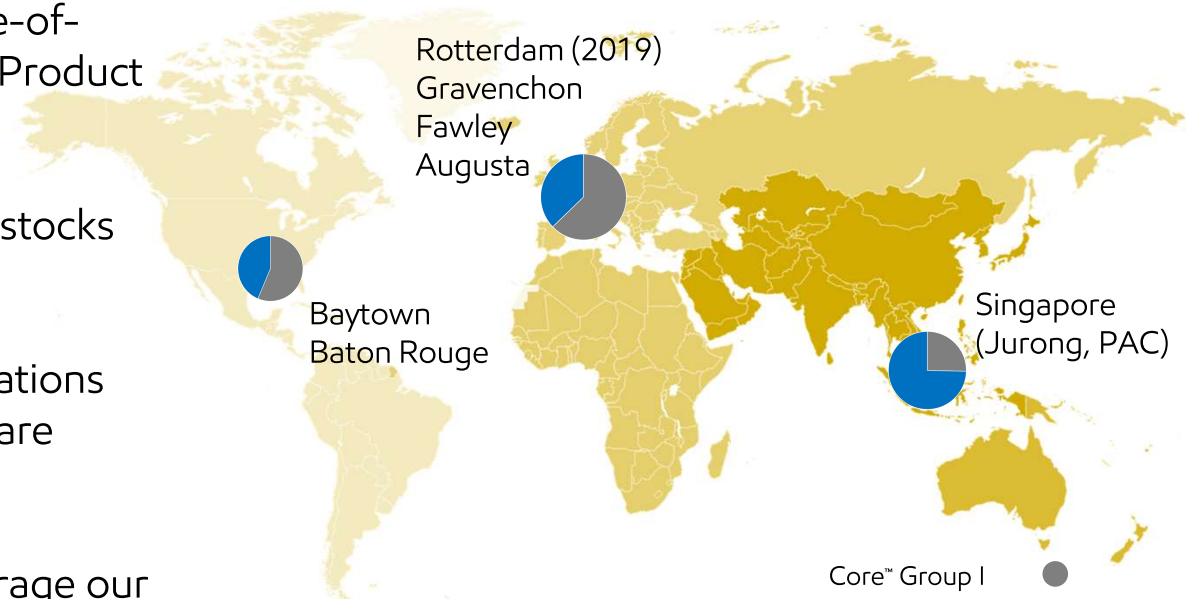
## Key implications for the industry and customers

- Respond to scale of growth in Latin America
- Address diversity and value chain complexity
- Enable cost effective blending through superior base oil design and performance
- Ensure availability of affordable, reliable supply



# ExxonMobil Basestocks strategic vision

- Secure and reliable supply, state-of-the-art technology focusing on Product Integrity
- Range of API Group I to V base stocks to meet your evolving needs
- Support global lubricant formulations with a suite of base stocks that are available globally
- Solutions and services that leverage our expertise across the lubes value chain



## Investing for the future

- Baytown Group II expansion (2015)
- Singapore Group II expansion (2015)
- Rotterdam Group II project (2019)
- Singapore Group II projects (2019, 2023)

Core™ Group I ●  
EHC™ Group II ●

# Group I or Group II?

Optimizing capabilities vs. requirements

## ExxonMobil is committed to:

- Meet the evolving needs of our customers
- Enhance flexibility to enable efficient blending with Group I & II
- Long term, reliable Group I supply



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