



STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

Petrochemicals : worldwide trend





A world turned upside down

Changing scenarios

▪ **China: the new Europe**

- High energy prices
- Overcapacity
- Reduced Exports

▪ **USA: the new Middle East**

- Low energy prices
- New investments

▪ **Sub-Saharan Africa: the other new Middle East**

- New gas countries (Mozambique, Angola, Ghana, Gabon)
- Projects to use surplus/flared gas

▪ **Middle East: the new USA**

- Increase in energy prices

▪ **Russia**

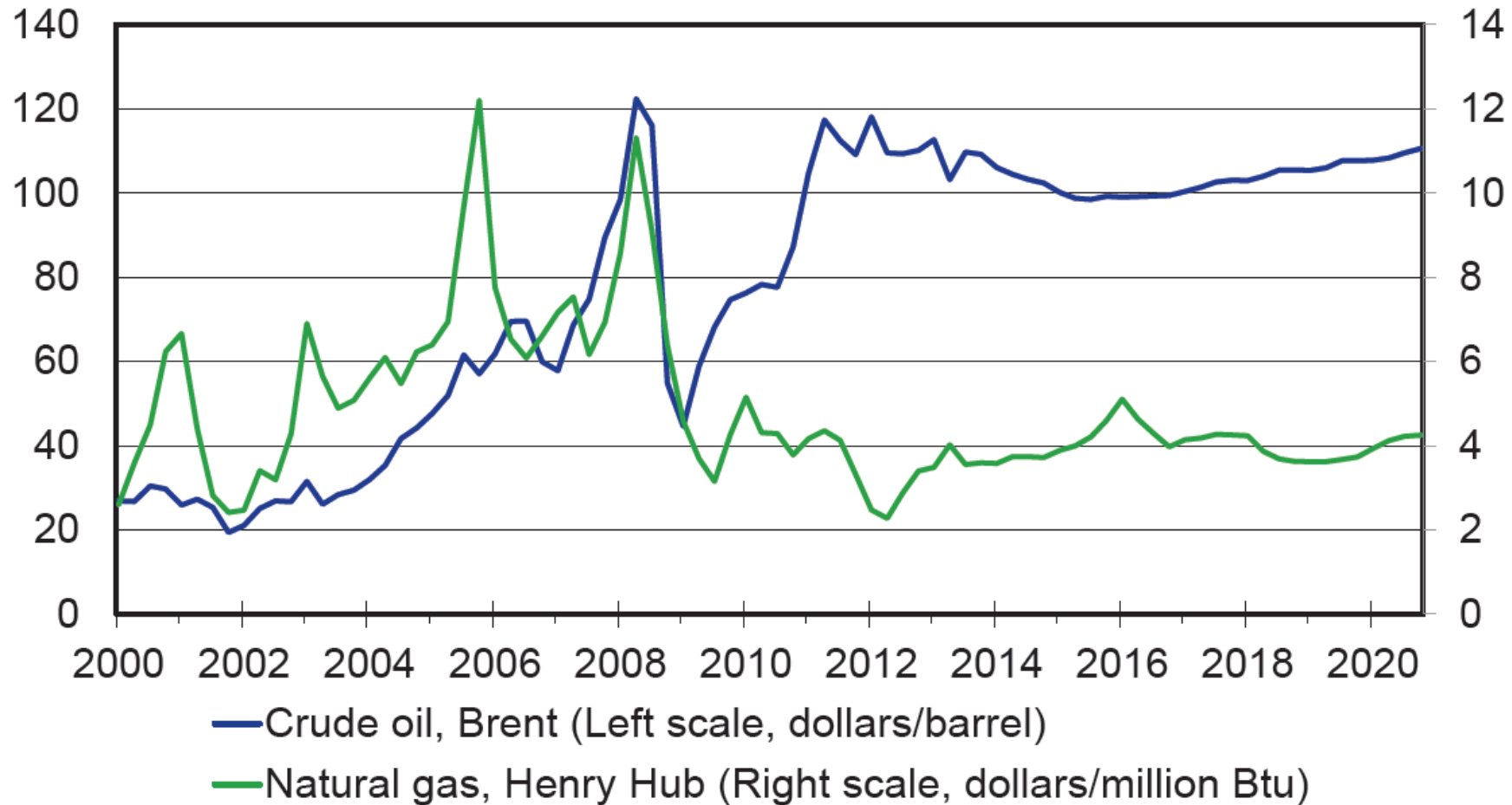
- Higher gas prices on the horizon
(now higher than USA)





Major change behind the scenes

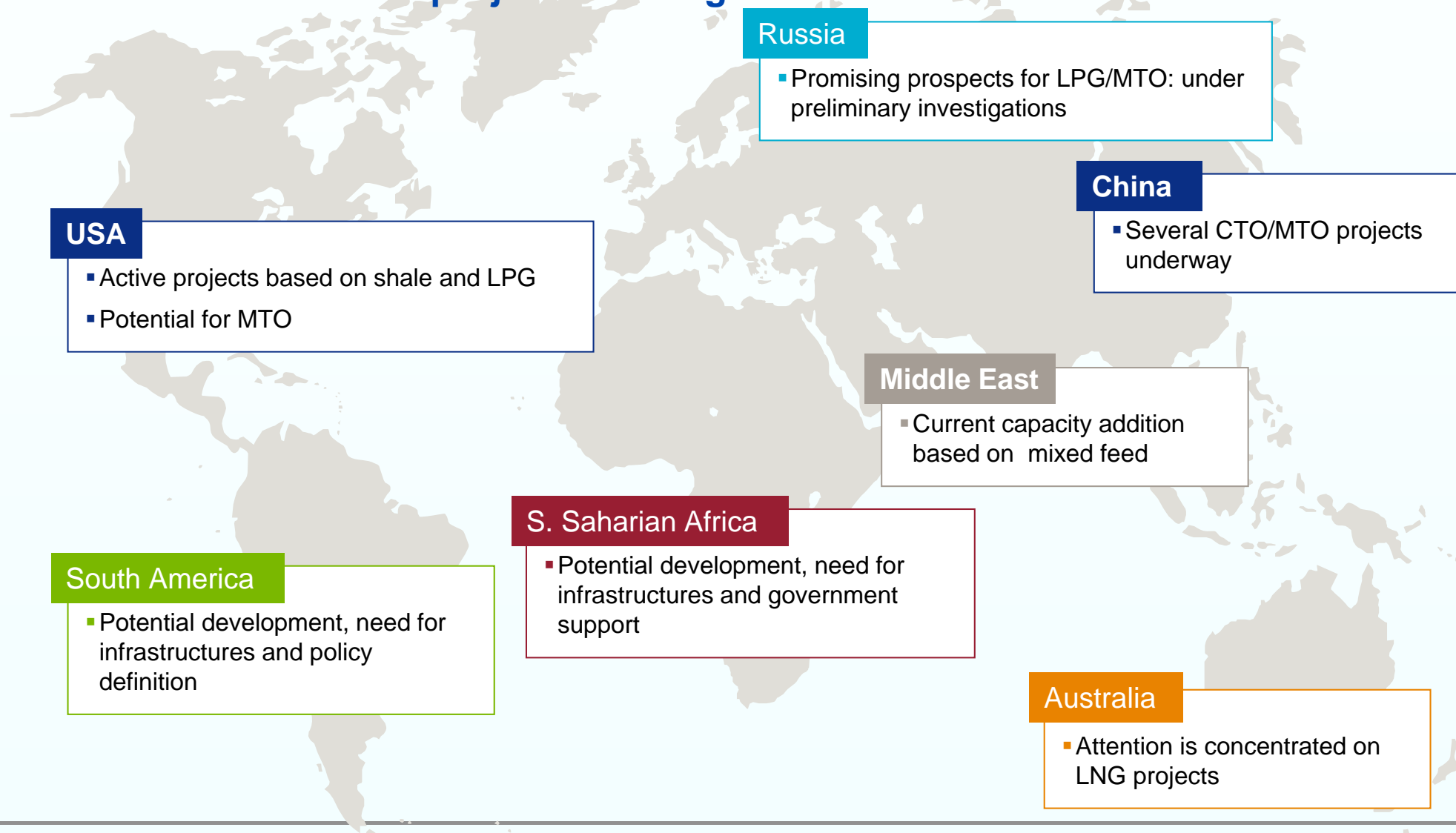
- **Crude oil and natural gas prices take different paths**





STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

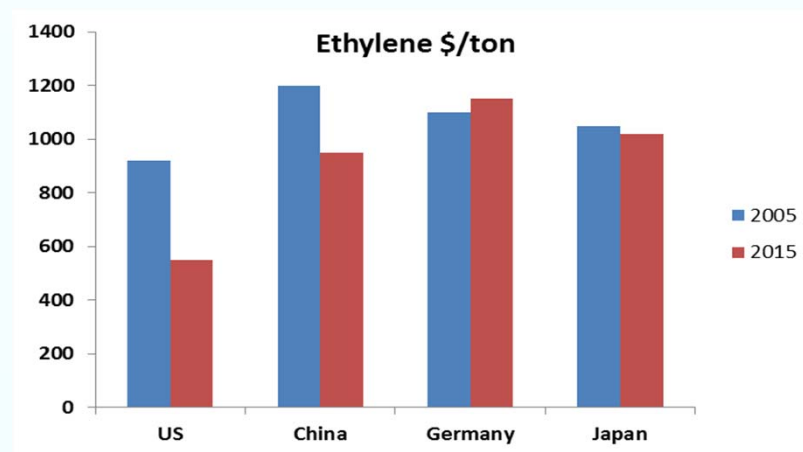
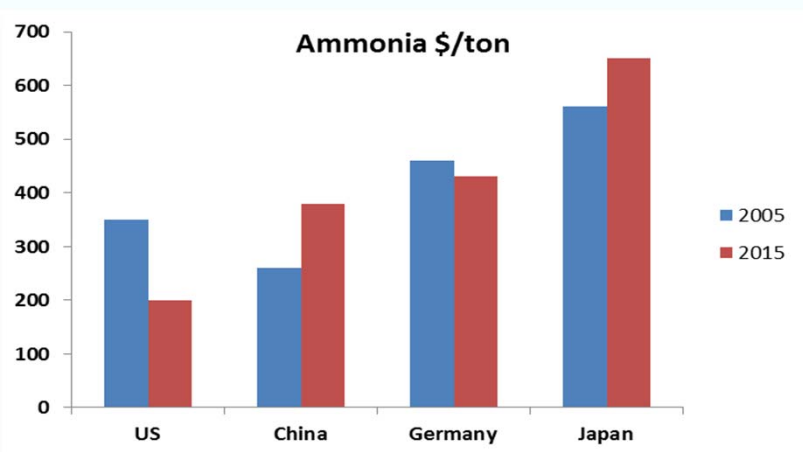
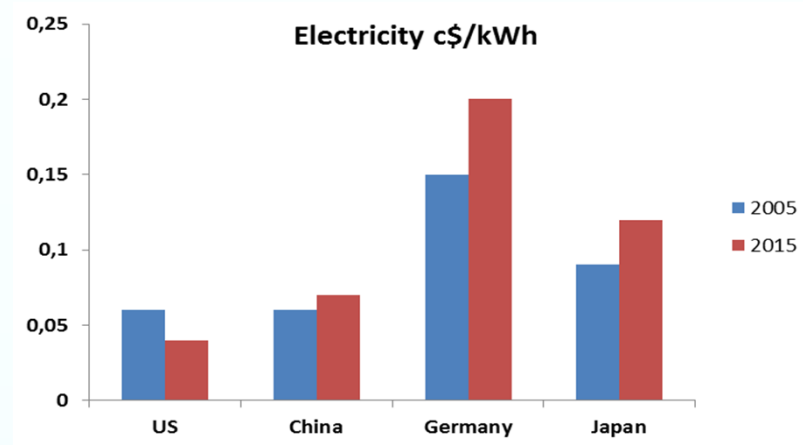
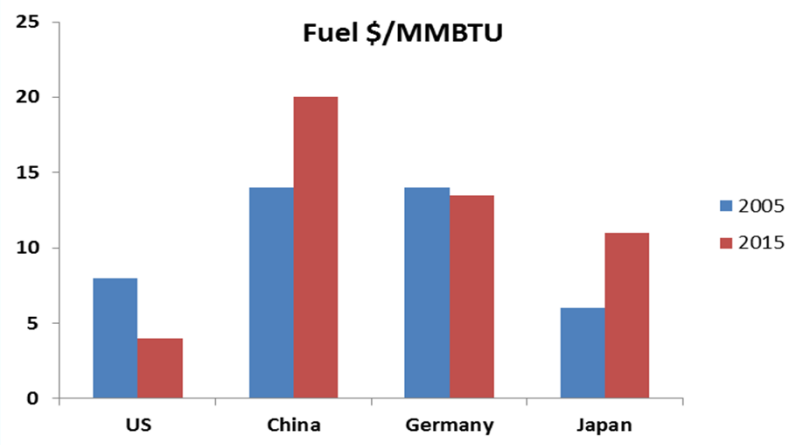
New projects: leverage on local natural resources





STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

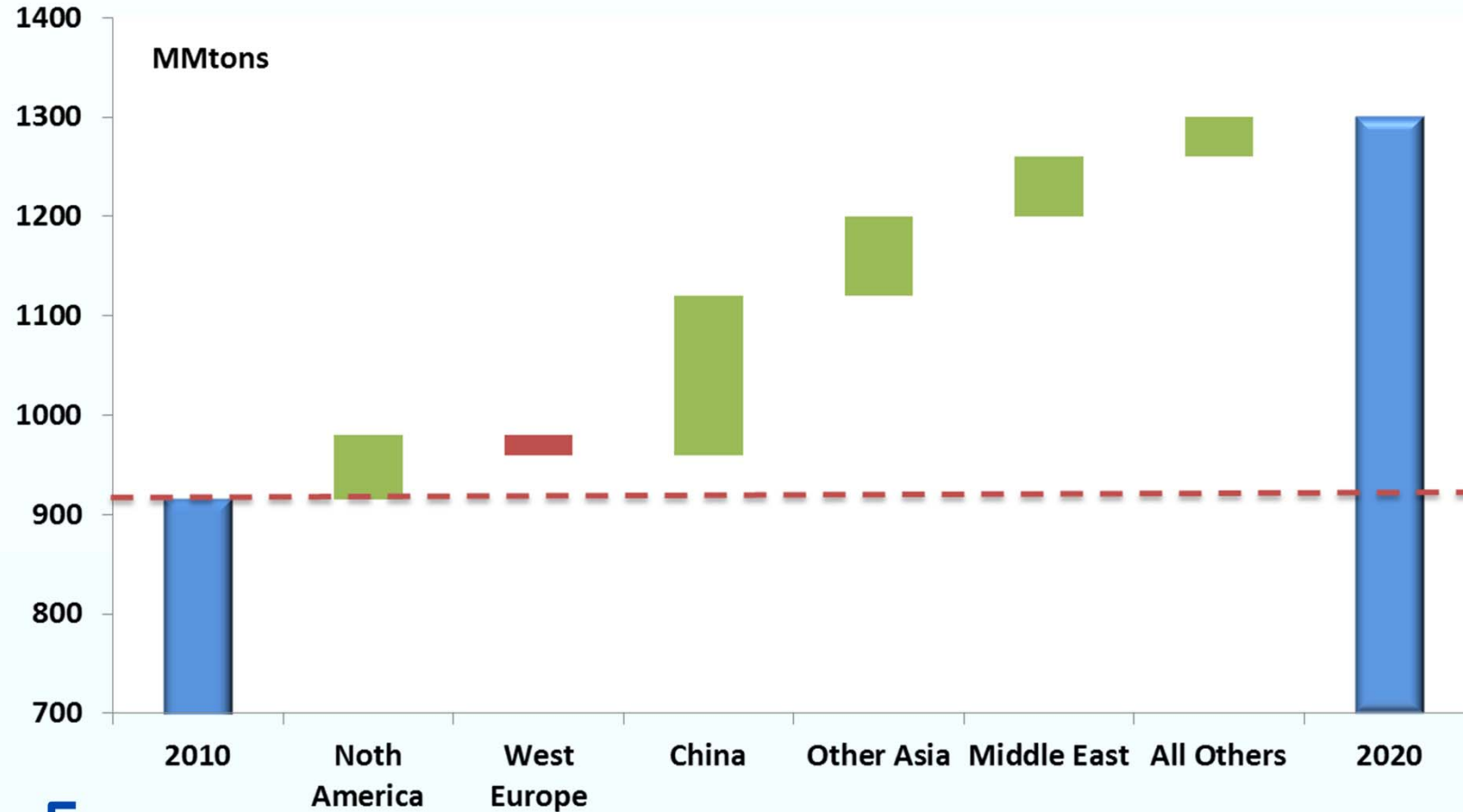
Effects of new energy scenarios on global competitiveness





STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

Distribution of new petrochemical capacity 2010-2020

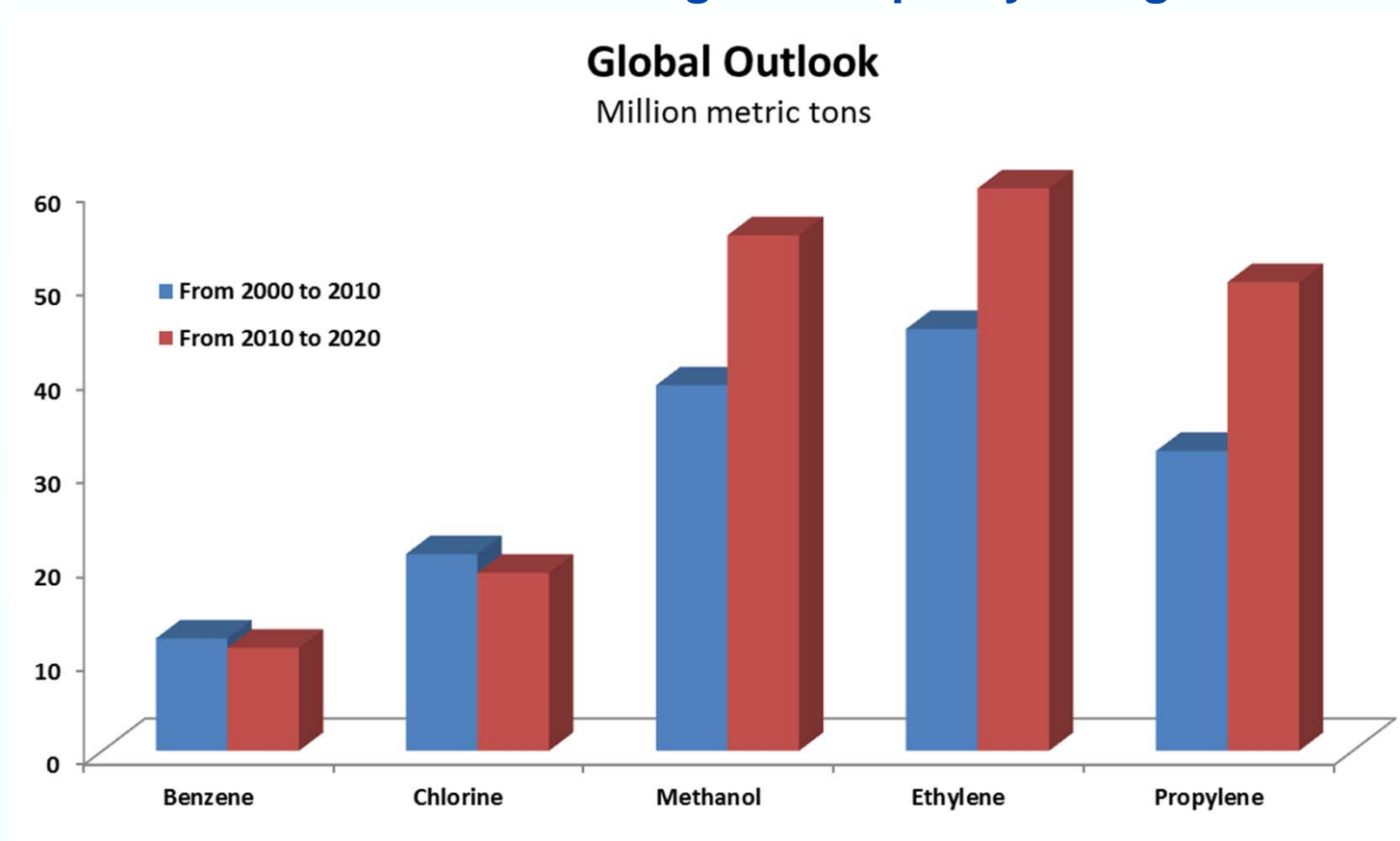


Proximity to demand centers and low cost feed stocks



STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

Basic Chemicals: global capacity and growth



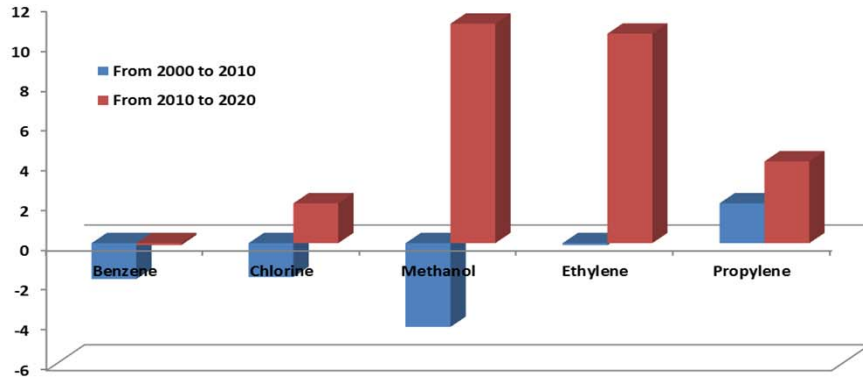
**Global capacity increase: from 290 MMtons in 2000 to 650 MMtons in 2020.
Products slate is changing**



Basic Chemicals: Regional Capacity and Growth

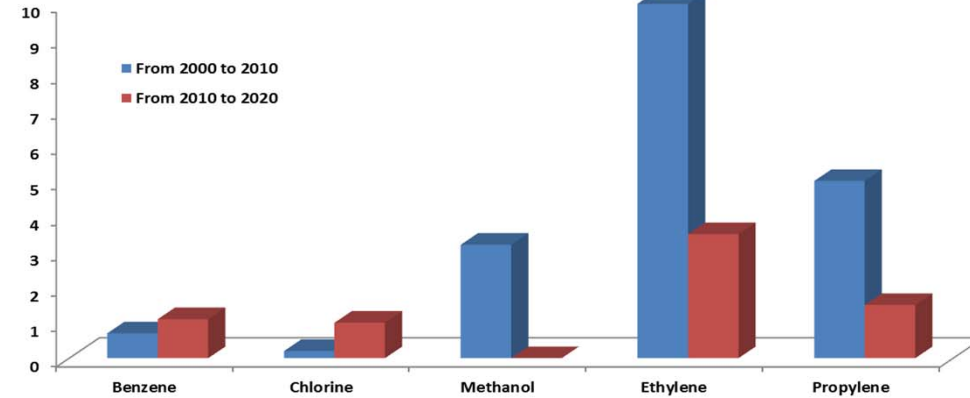
Regional Outlook: USA

Million metric tons



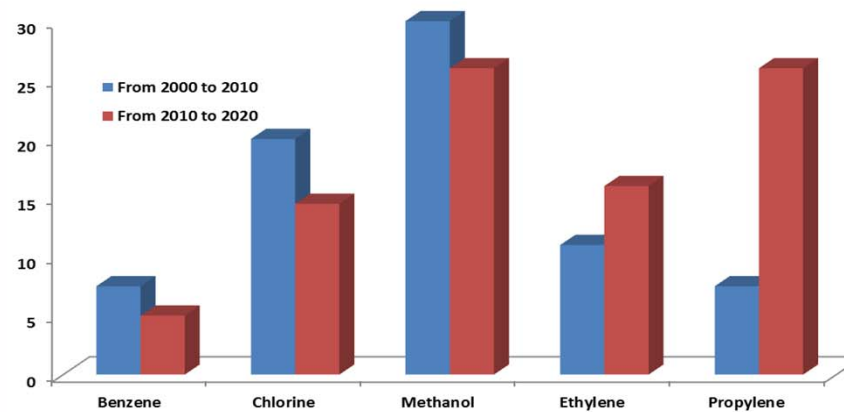
Regional Outlook: KSA

Million metric tons



Regional Outlook: China

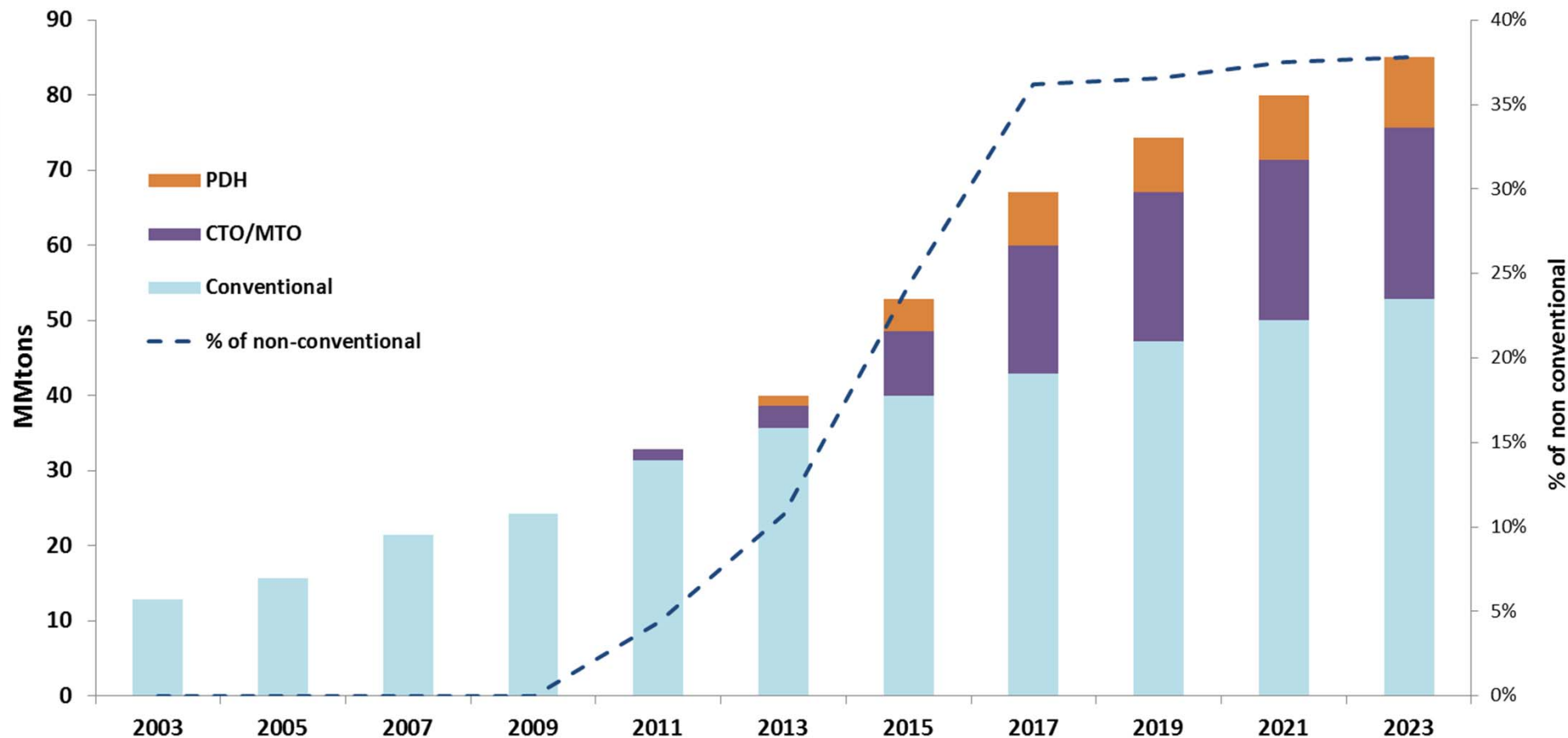
Million metric tons





STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

Unconventionals Drive Olefins Growth

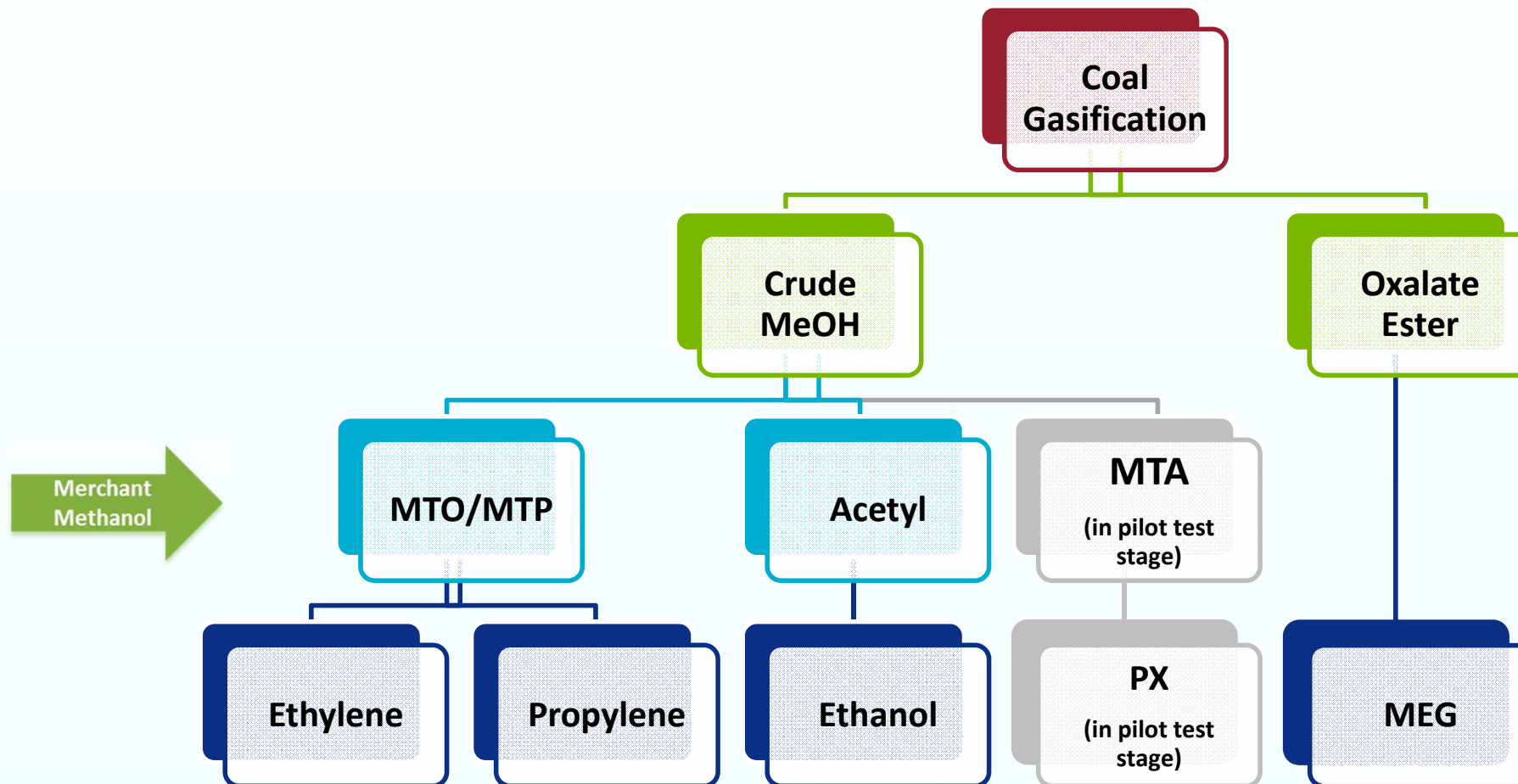


PDH and CTO/MTO becoming significant olefins contributors



STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

China coal development





Regional Investment Drivers

■ Europe

- Defensive assessment of assets and of future position
- Seek competitive feed stocks. Idle high cost capacity

■ Brazil

- Pause in domestic investments (COMPERJ on hold)
- Assessment of opportunities in the Americas (US, Peru)

■ India

- Focus on domestic market (Jamnagar). Need of key products (e.g. PVC)
- High energy cost is a major hurdle

■ North America

- Low cost energy and feed stocks shale oil & gas drive a big wave of new investments
- Shift to export in response to the stagnant domestic demand

■ Middle East

- Moderate investment pace but still the main supplier of the Asian market
- Diversification (e.g. Ma'aden) and development of downstream added-value productions

■ China

- Slower growth rate but still high domestic demand
- Large investments to reduce import dependency



STRATEGIE E PREVISIONI DI MERCATO PER LA FILIERA DELL'IMPIANTISTICA INDUSTRIALE

Thank you

