



IHS CHEMICAL

OVERVIEW OF THE GLOBAL METHANOL INDUSTRY:

THE TIMES THEY ARE A-CHANGIN'

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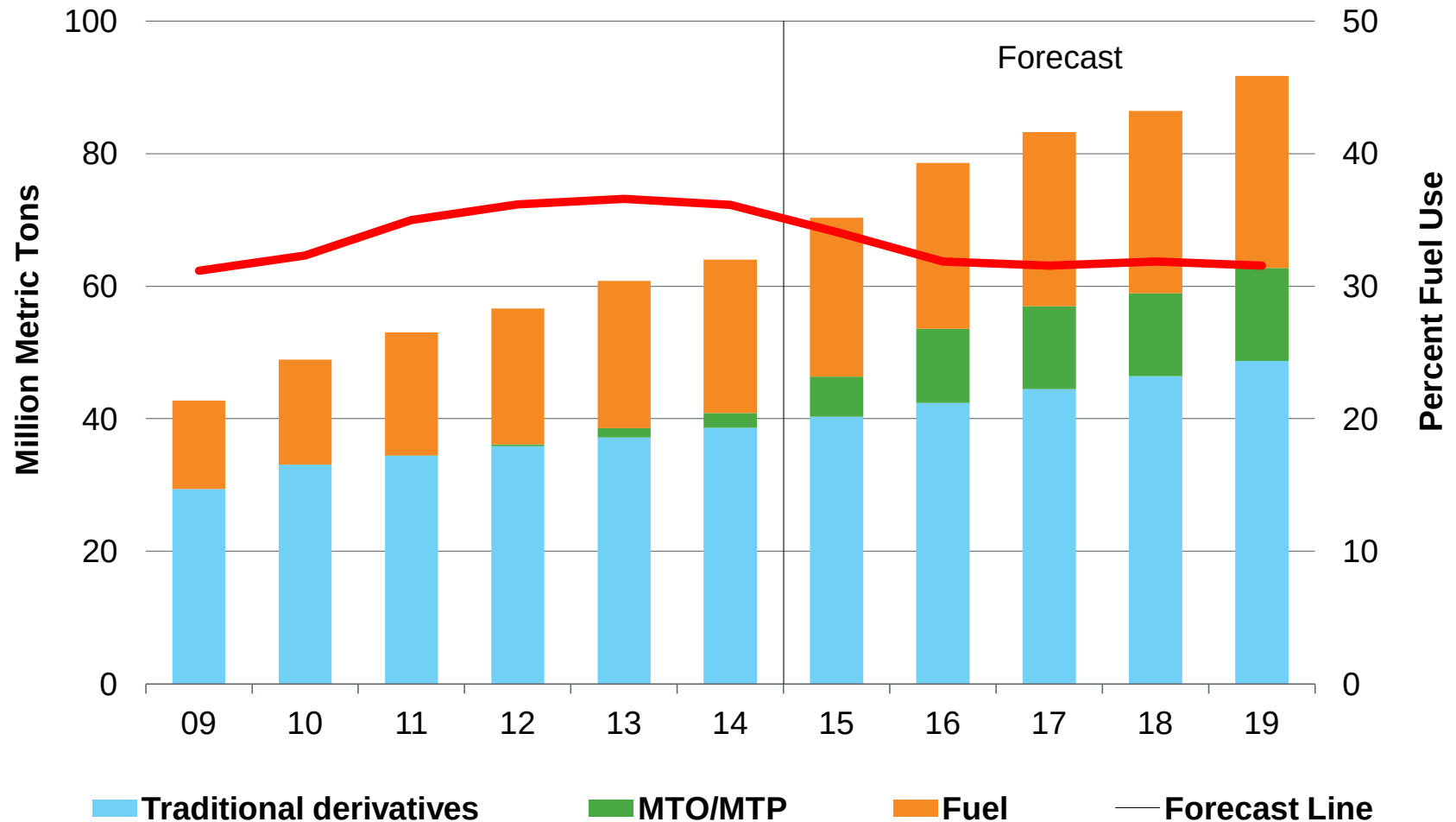
EUROPE

IHS CHEMICAL METHANOL SERVICE

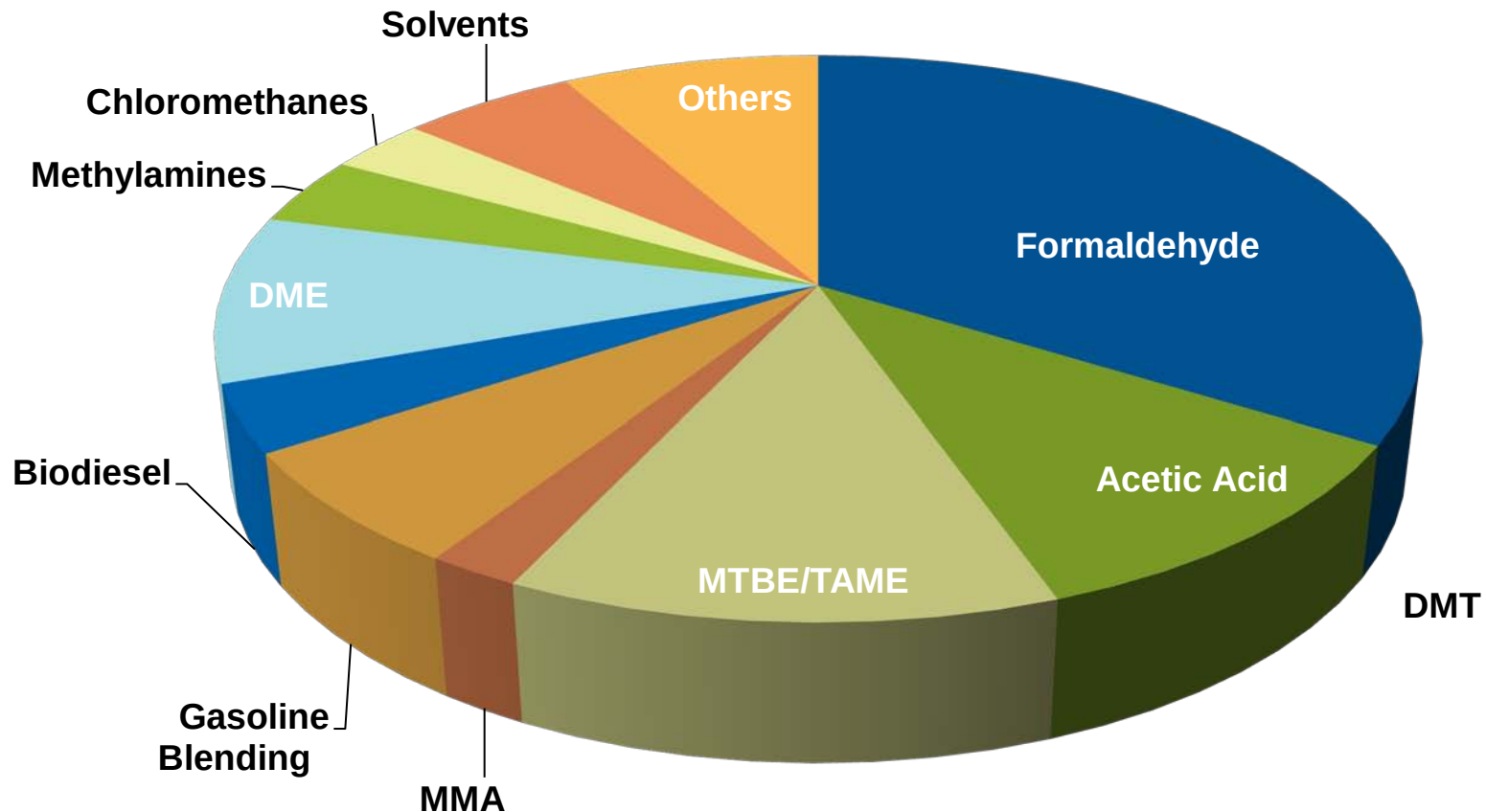
CONCLUSIONS

Demand

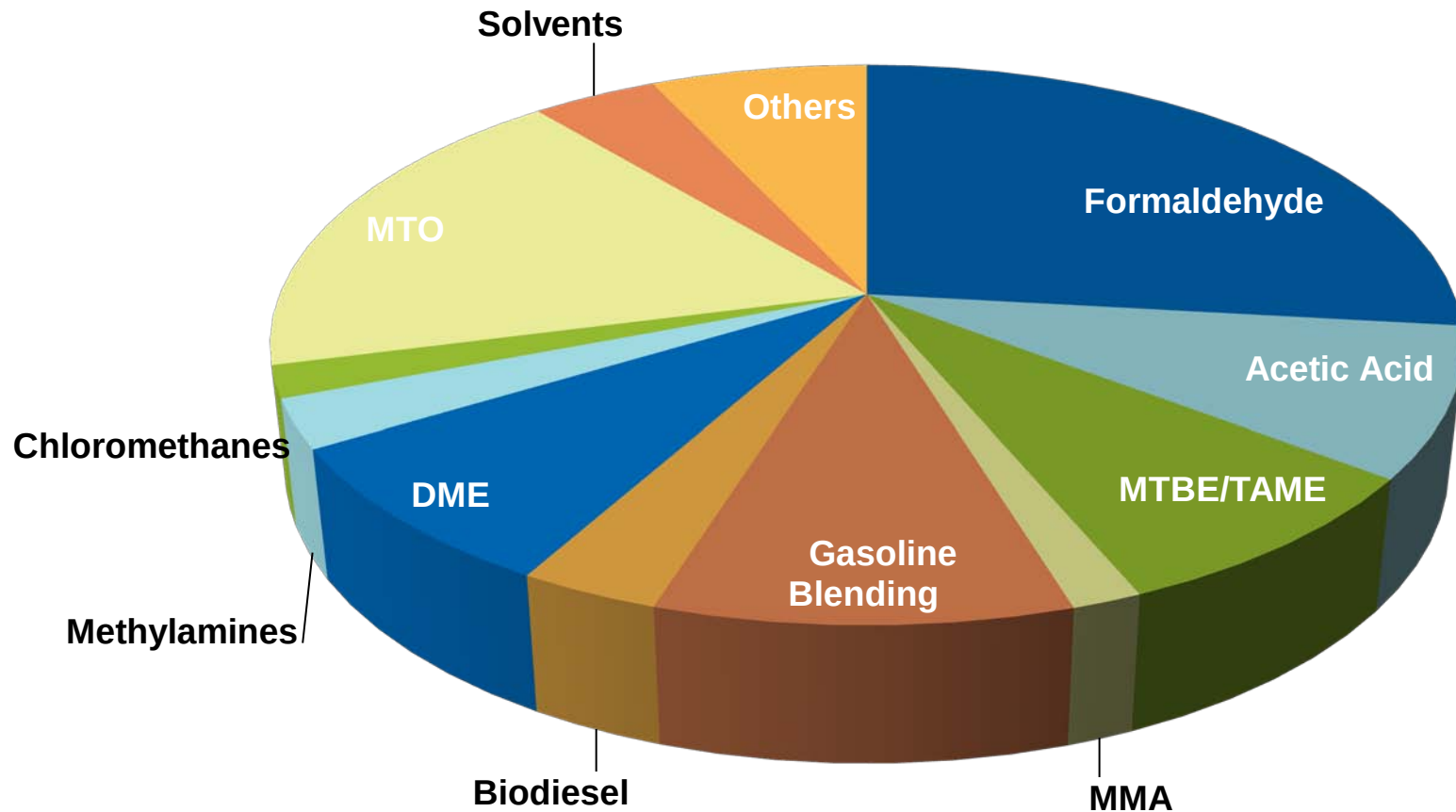
Global Methanol Demand growth largely driven by MTO



2010 Global Methanol Demand By End-Use



2015 Global Methanol Demand By End-Use

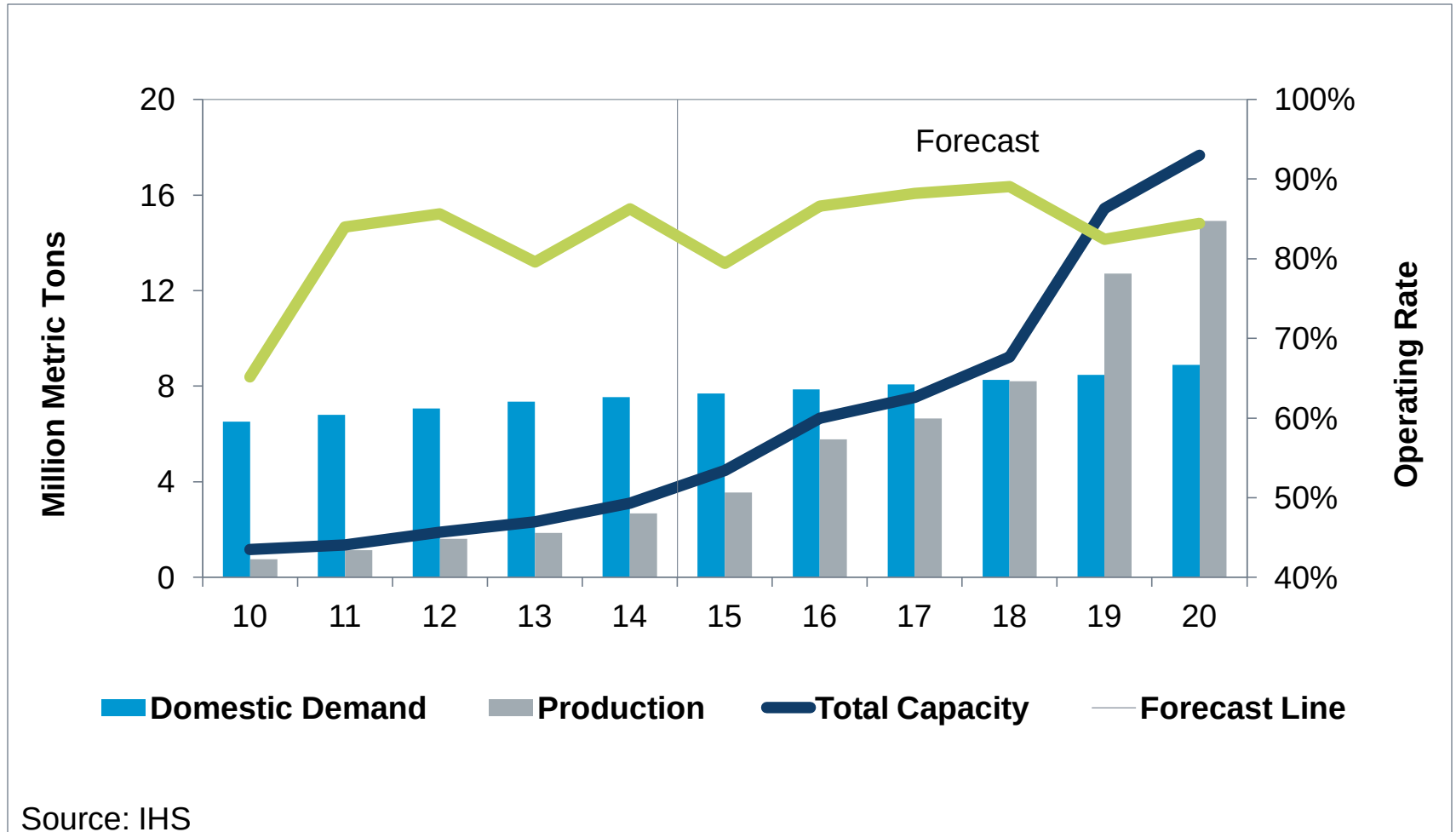


New applications for methanol

- Ship fuel
 - Driven by changes to emissions regulations
 - Stena pilot
 - Waterfront Shipping order for flex-fuel vessels
- Direct blending into gasoline
 - Israel, Denmark, Uzbekistan, Azerbaijan, Iceland
 - Driven by diversification and monetizing cheap gas
- Fuel cells
 - Direct: relatively small: can be used for forklift trucks etc
 - Indirect: larger: easier to store methanol, especially in remote locations

Supply

North America, the new powerhouse for methanol production



Iran



Iran: The Joint Accord

- Iran and the P5+1 countries reached a historic agreement on 14 July 2015 that curbs Iran's nuclear programme in return for sanctions relief
- The agreement has now effectively passed US Congress
- Even if the US decides to withdraw from its commitments under the agreement, the other countries are not bound by this decision, thereby mitigating the risks of the total collapse of the agreement
- The US and Iran are likely to adopt the nuclear agreement by the official “Adoption Day”, 18 October 2015
- “Implementation Day” is likely to be between 15 December 2015 and mid-2016, IF Iran satisfies the IAEA it has fulfilled its nuclear obligations

Iran: What happens after Implementation Day?

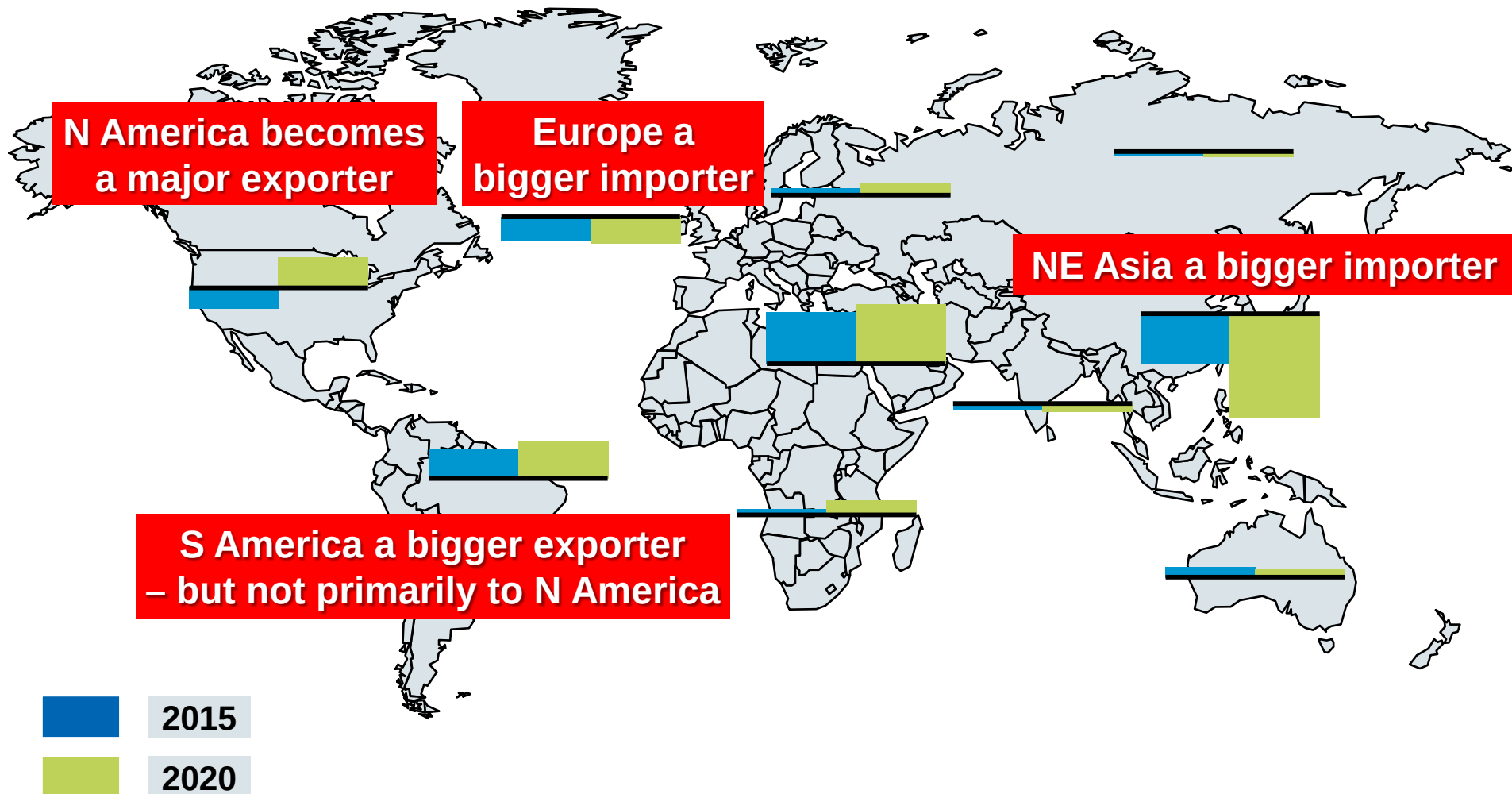
- US to suspend all its **secondary** nuclear-related sanctions restricting non-US companies' ability to do business with Iran
- However, these are only part of a network of sanctions; earlier US sanctions will remain in place, as will congressional restrictions on US companies and their subsidiaries' ability to do business in Iran

Iran: Impact on Methanol

- Short-term:
 - Rather than being mainly restricted to China and India, Iran could export to other markets, maximising its netbacks
 - This is likely to have the effect of minimising regional price differentials
 - Plant reliability could improve if Iran has better access to items such as spare parts, catalyst charges etc.
- Longer-term:
 - Iran could add to its current 5m tpa methanol capacity
 - Existing projects could be re-invigorated
 - New projects, potentially with overseas finance and know-how, could be implemented
 - By 2025-2030 Iran's methanol capacity could grow by more than 10m tpa

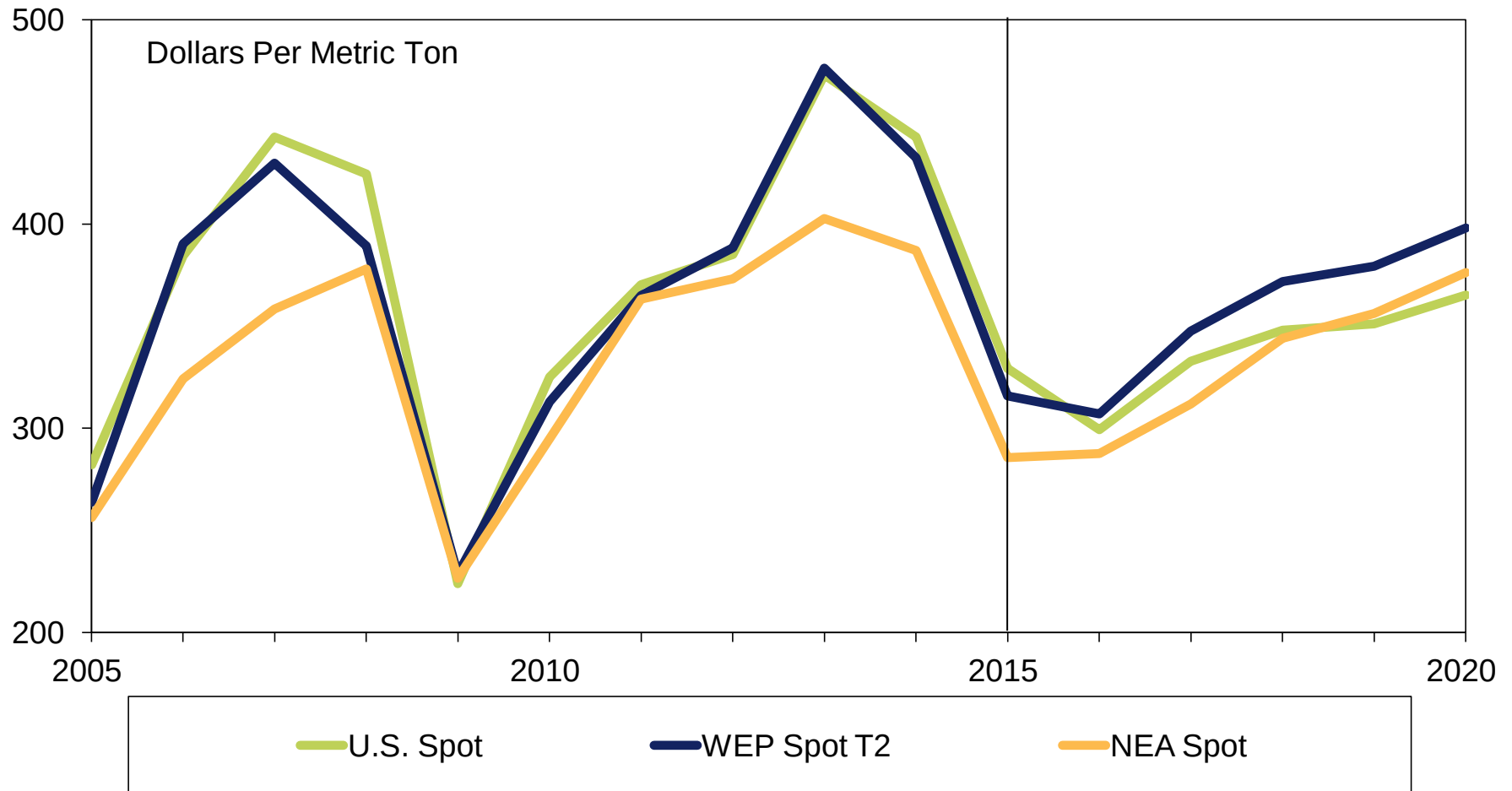
Tradeflows

Regional Methanol Net Trade, 2015 and 2020



Pricing

Regional methanol spot prices, 2005-2020



Europe

Supply

- West Europe:
 - Unusual in that several units are attached to refineries
 - OCI recently purchased Bio-MCN: a new domestic player in Europe
 - A major import market
- Eastern Europe:
 - MSK recently re-started after more than 3 years offline
 - Any significant new capacity likely to be in the East:
 - Russia: new projects
 - Azerbaijan: expansion

Demand

- West Europe:
 - Growing at a lower rate than the GDP growth rate of 1.7%
 - Mainly reliant on formaldehyde, although the formaldehyde industry faces increasing competition from Chinese producers
 - Fall in the oil price:
 - Has impacted demand for biodiesel
 - Puts MTBE and gasoline components under pressure
- Eastern Europe:
 - Higher growth rate of almost 3%

IHS Chemical Methanol Service



33rd Annual World Methanol Conference

10 – 12 November 2015
Munich, Germany

www.ihs.com/WMC2015

IHS World Methanol Analysis

- Focus on global and regional supply/demand; 5 years history, 10 years forecast
 - To be finalized November/December 2015
 - Further supply-demand update early 2016
- Products covered
 - Methanol
 - All major MTO derivatives: MTO, formaldehyde, acetic acid, biodiesel, gasoline blending, methylamines, DME, MTBE, other uses
- Includes online access to supply/demand balances and live IHS capacities database, as well as access to IHS experts

Conclusions

Conclusions

- MTO a significant driver of short-term methanol growth
- North America returning as a production centre:
 - Becomes a net exporter in 2018-2019
 - US likely to become the lowest regional price
 - A second wave of derivative units is also possible
- A permanent end to Iranian sanctions will see:
 - Product flowing to countries other than China and India
 - Regional prices converging
- Europe:
 - Low demand growth in the West, with no new production likely
 - Higher demand and potential new capacity in the East