

Global Marine Trends 2030

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Presentation Topics

- **Introduction**
- **Methodology**
- **Global Forces**
- **Disruptive Events**
- **Commercial Sector**
- **Concluding Remarks**

The World in 2030 – It could be very different

Top sea bilateral trade in 2010 (Western centric)



Top sea bilateral trade in 2030 (Sino centric)



Forecast vs. Scenario

Forecasting

Present



Future

- One future based on assumptions
- Linear projection
- Uncertainty is implicit

Scenario thinking

Global Commons  Status Quo  Competing Nations 

Current realities

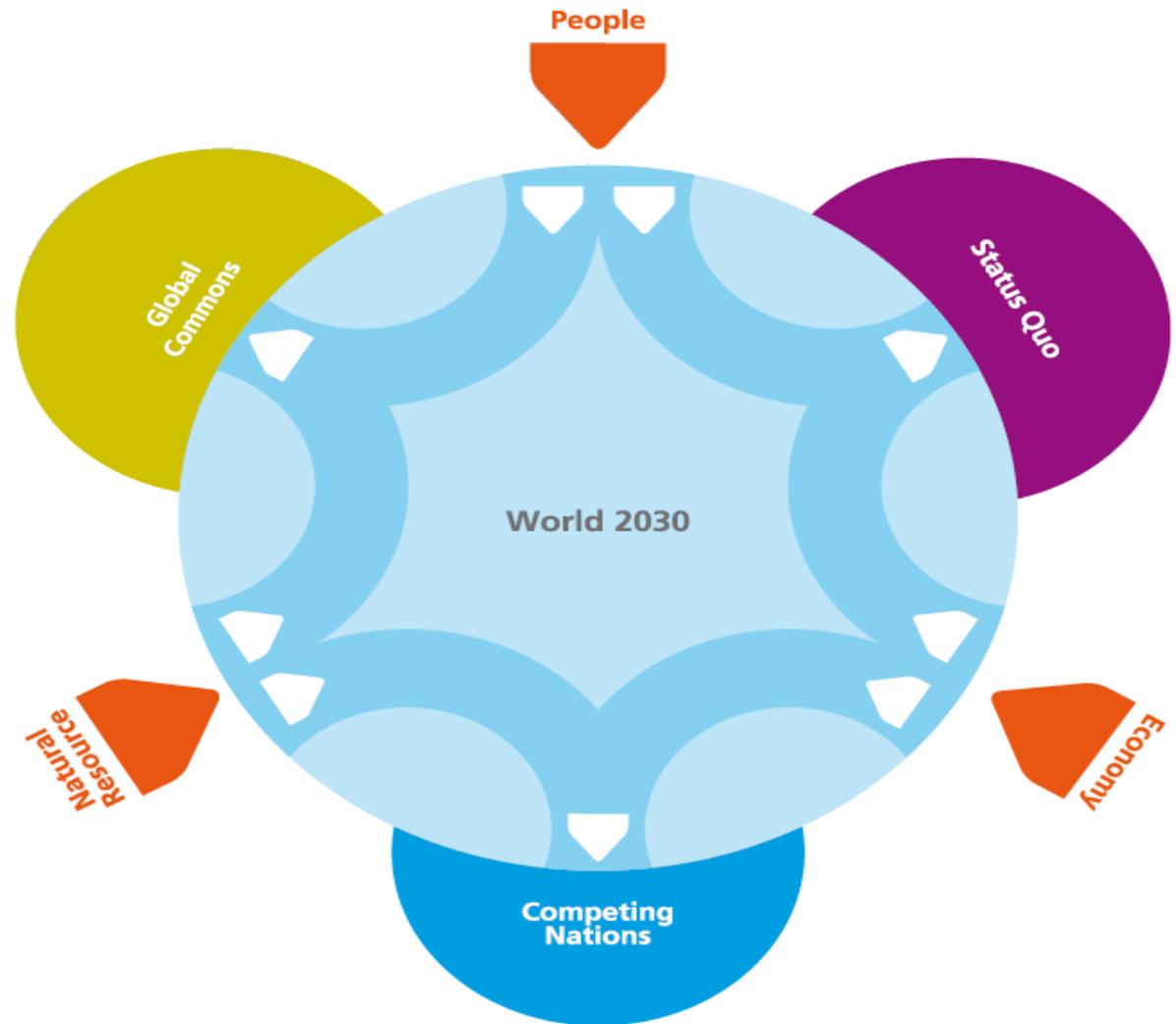


Possible futures

- Multiple futures that challenge assumptions
- Multiple developments
- Uncertainty is explicit

Global Marine Trends **2030**

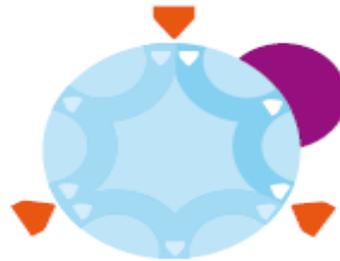
Scenarios & Drivers



Global Marine Trends **2030**

Three Core scenarios

Status Quo



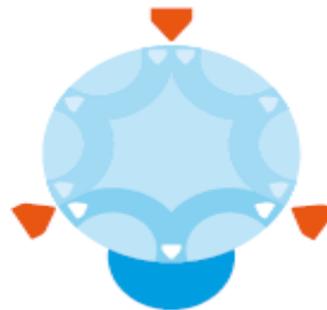
Business as usual
Reactive/short-term solution
Clear economic growth
No single trade power dominates
Increased co-operation

Global Commons



Cross-border integration
A bit more growth
Accelerated globalisation
Weaker global institutions
Fragmentation
A bit less growth
Rise in protectionism

Competing Nations

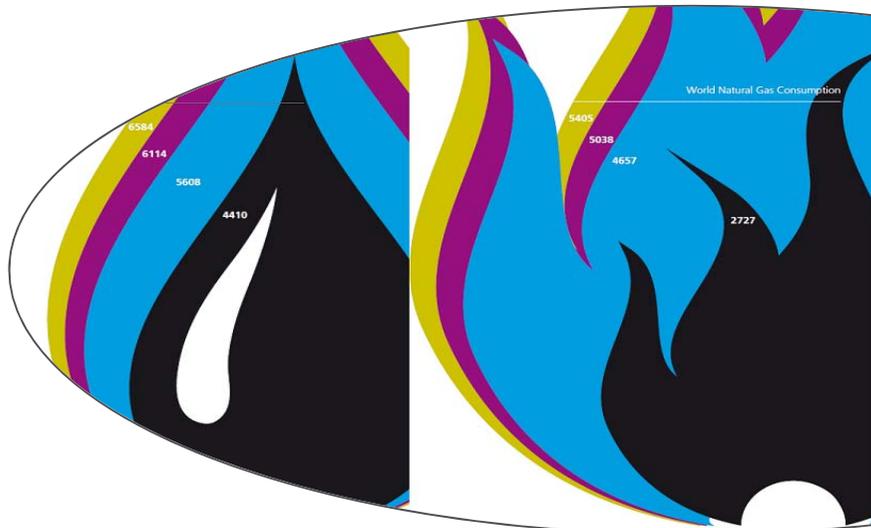
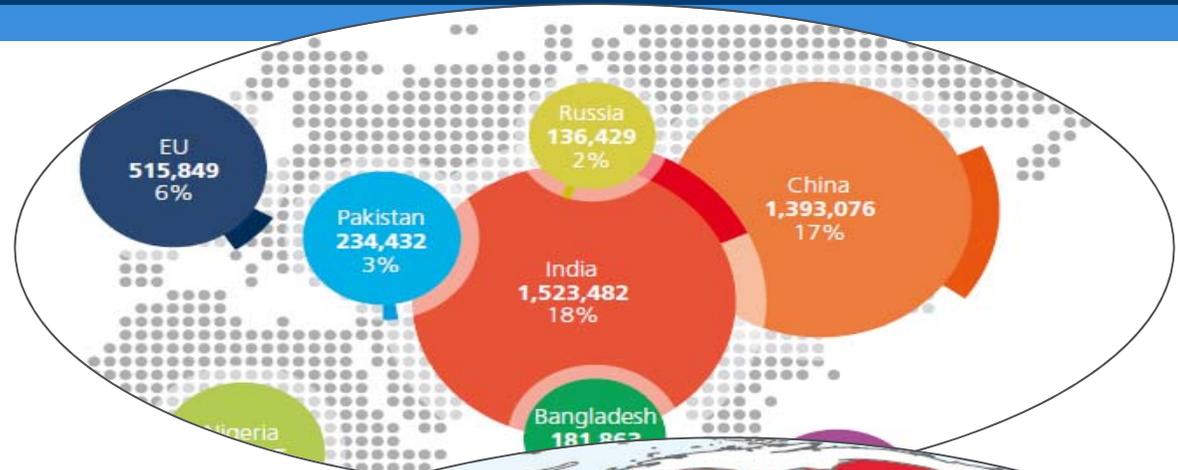


Disruptive scenarios

- Russia joins NATO
- Dollar loses its reserve currency status
- Major pollution accident in the Arctic
- Rise of the Green Crescent
- Technology
- Global collapse

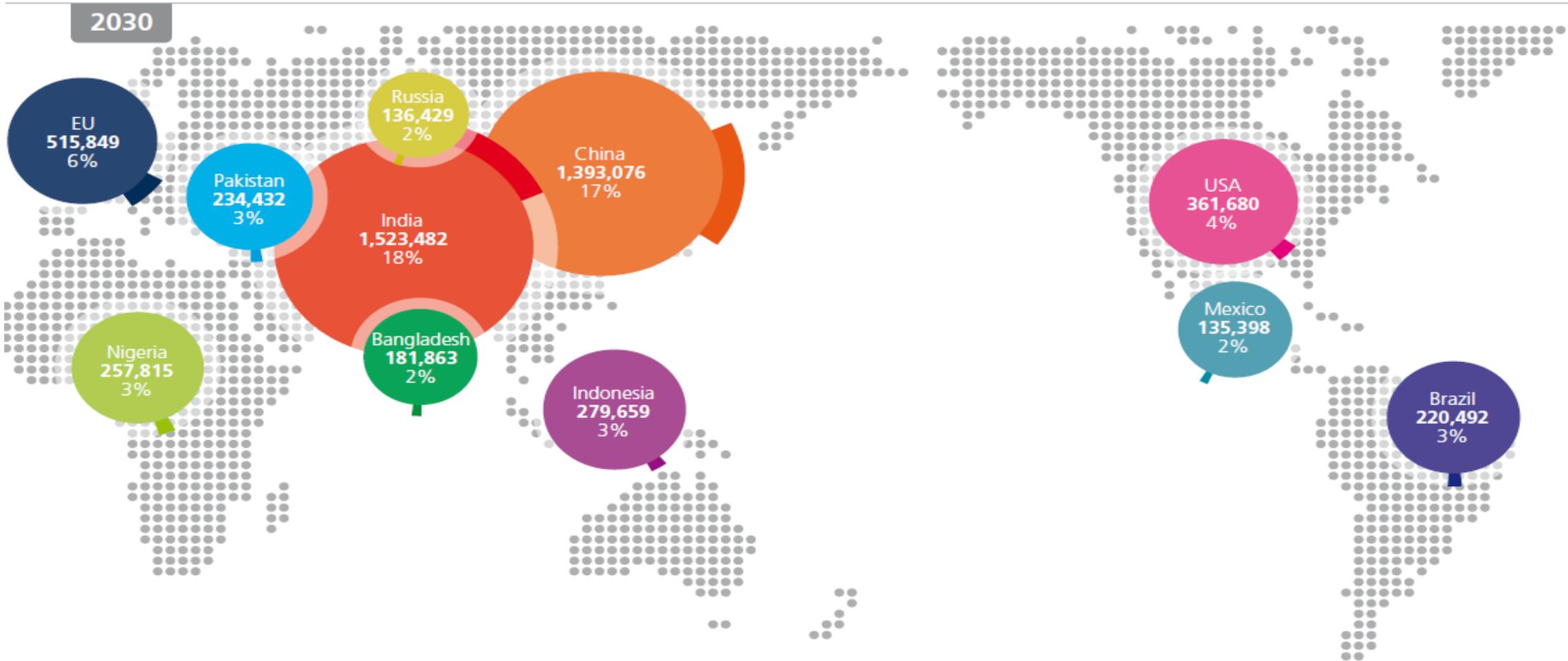
Global Drivers

- Population
- Economy
- Natural resources

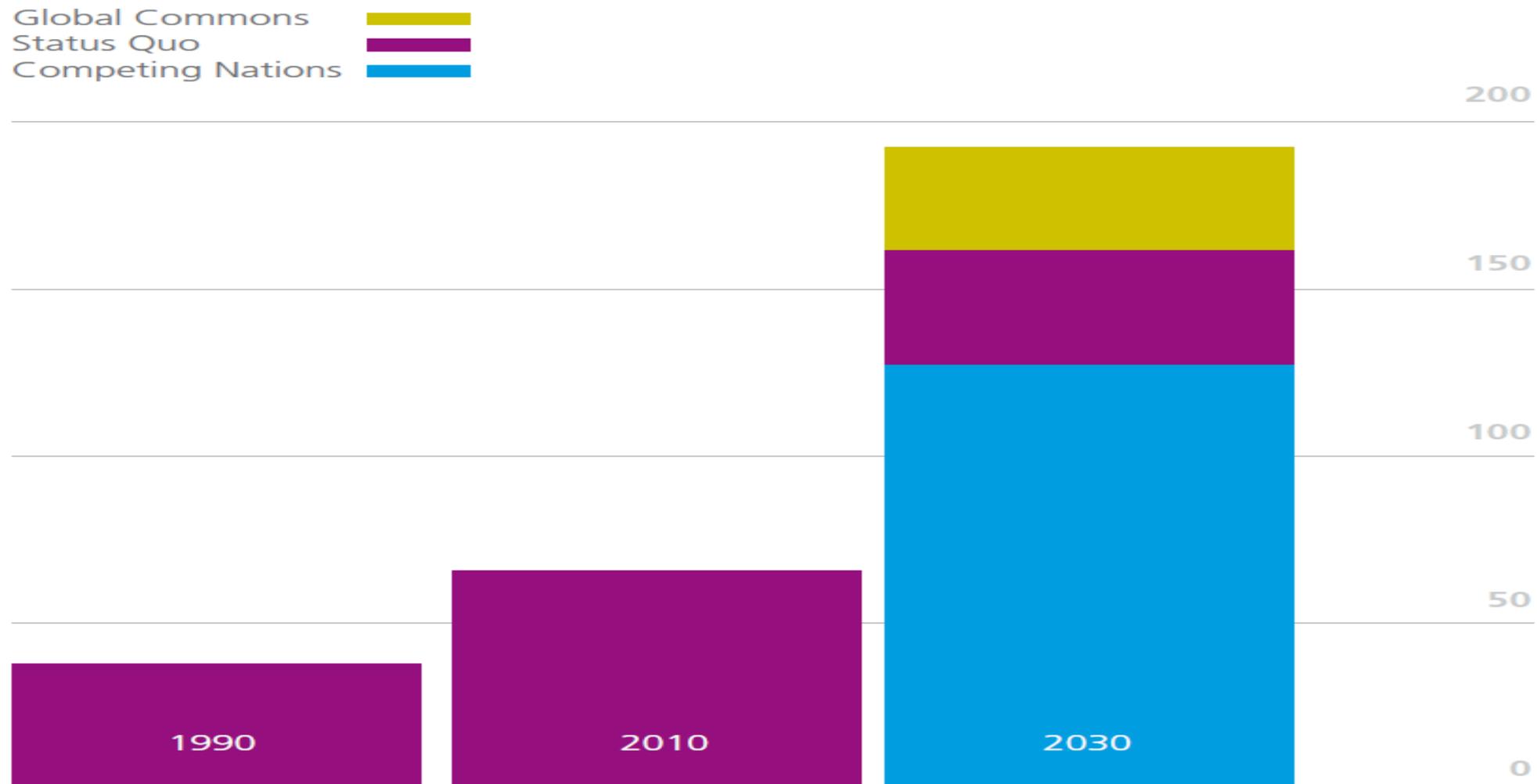


Global Marine Trends 2030

Population in 2030 – India No. 1



Global economy could expand 3 times in next 20 years



Global Marine Trends **2030**

Economic expansion – China is bigger than USA



Resource demands increase

Page 36

Global Marine Trends 2030 | Global drivers

Resources demand

As the population, economy and prosperity increase so will the demand for oil and gas. United Nations' projections suggest a total world population of 6.9 billion in 2010 to expand to 8 billion in 2030. The world's real GDP per capita is likely to rise more than 100% over the next 20 years - more people with more income indicate that demand for resources will rise.

40% Higher energy forecast demand in 2030

The number of times China could increase its oil consumption by 2030

x3



Arctic challenges and opportunities

Resources

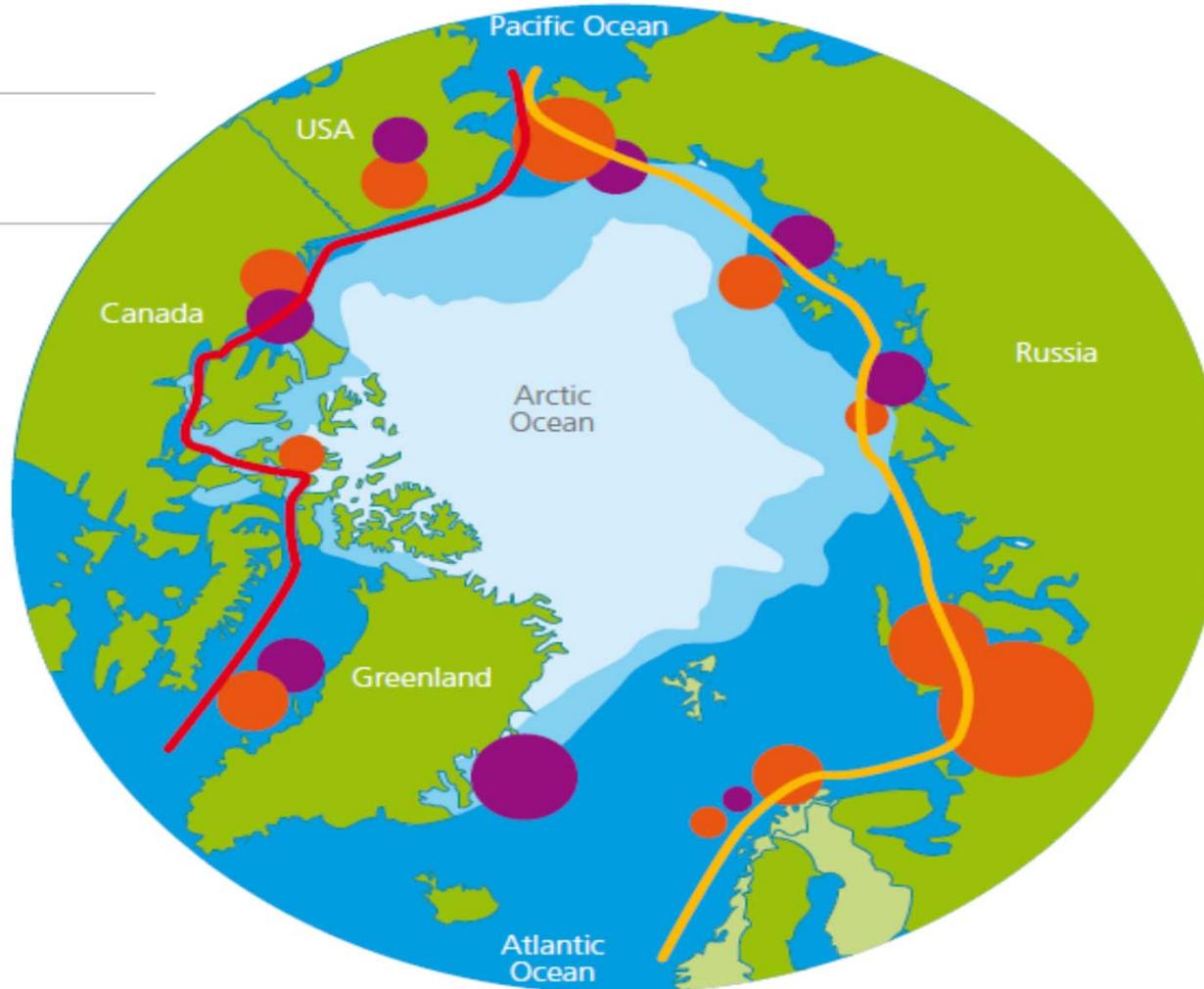
- Gas
- Oil

Summer ice extent

- Average 1979 - 2000
- Summer 2011

Possible shipping routes

- North-west passage
- North-east passage

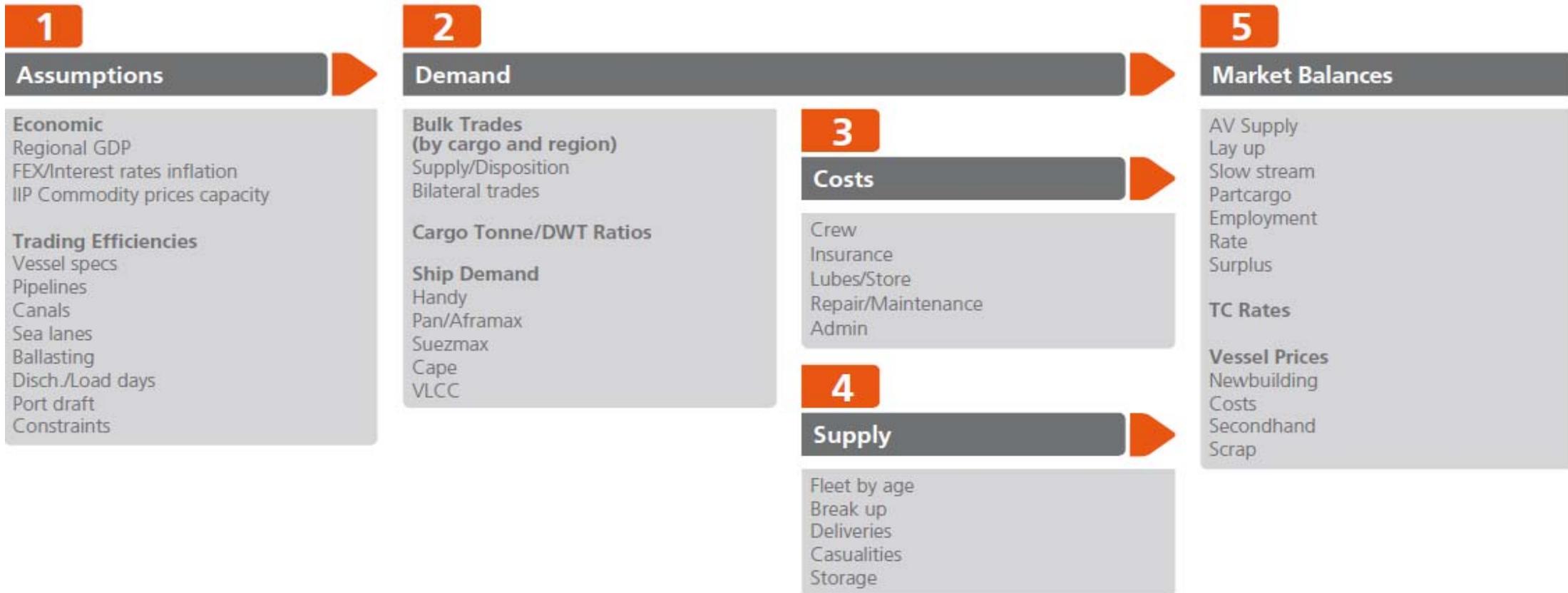


Commercial Shipping

- Shipping Model
- Impact of drivers
- Trade
 - Crude Oil trade
 - Coal trade
 - Iron Ore trade
 - Container trade
- Fleet
- Ownership
- Shipbuilding market



Shipping Model



Impact of Drivers



Global Marine Trends **2030**

Expansion of intra-regional trade—nearly doubles by 2030

Trade expansion

Intra-regional trade nearly doubles by 2030

Today, intra-regional merchandise trade is greater than trade between different regions. For instance, intra-Europe trade accounted for 71% of total European trade in 2011. Intra-Asia trade contributes 53% of the total Asia trade. 49% of North America's exports remain in the region. Such a phenomenon is less evident in Latin America, Commonwealth of Independent States (CIS) and the Middle East.

The rise of trade blocks within more regions may continue to promote intra-regional trade for the next 20 years. Global seaborne trade will be dominated by Intra-Far East, between Oceania and Far East, Far East and Latin America, and Far East and the Middle East. We will also see the strongest growth within these trade routes with Asia taking centre stage in the global seaborne trade.

Fig. 17 Major seaborne trade routes in 2010 and 2030 Status Quo (million tonnes)
Source: MSI / LR



Crude Oil import and export in 3 scenarios

Fig. 36 Crude Oil export (million tonnes)

Source: MSI / LR

- 2011
- 2030 Competing Nations
- 2030 Status Quo
- 2030 Global Commons

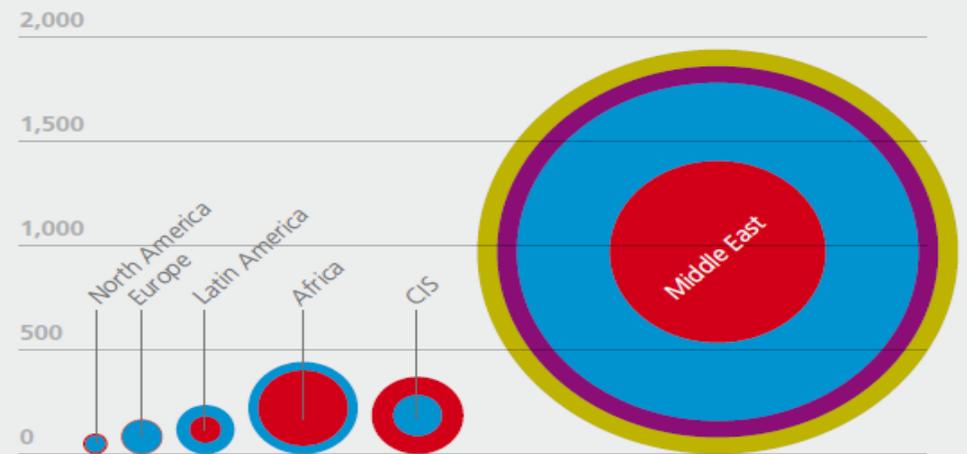
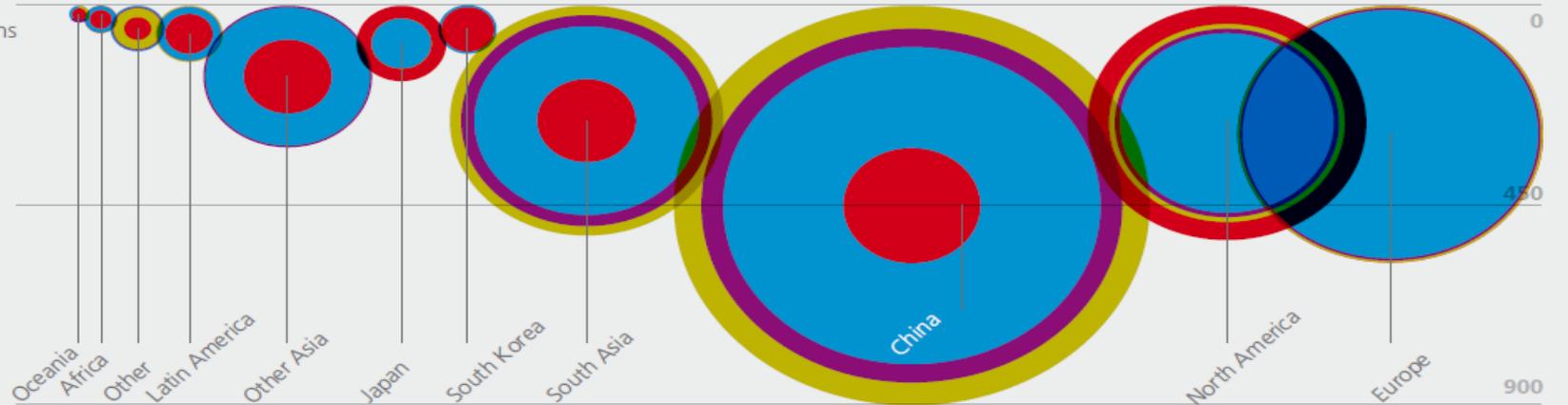


Fig. 37 Crude Oil import (million tonnes)

Source: MSI / LR

- 2011
- 2030 Competing Nations
- 2030 Status Quo
- 2030 Global Commons

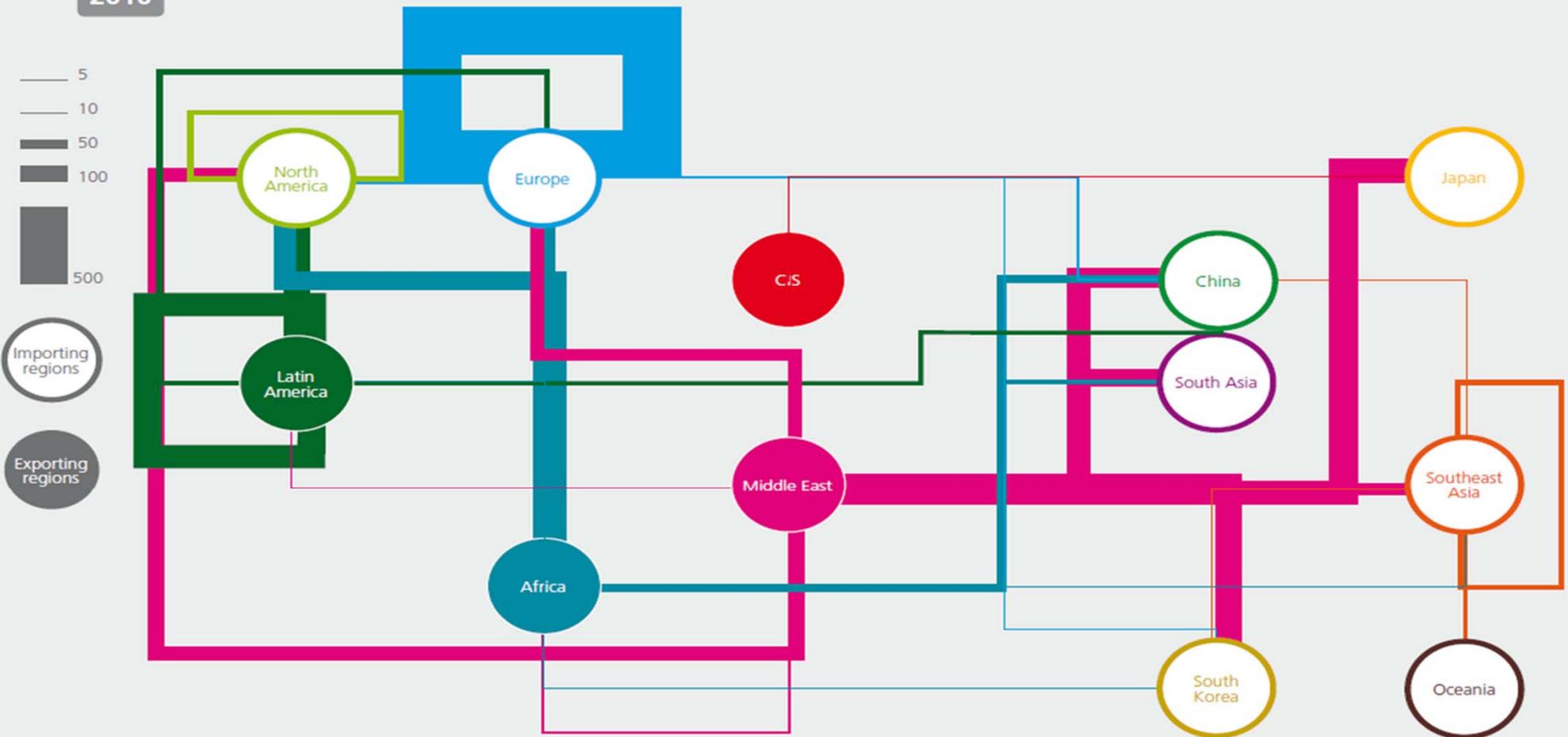


Crude Oil seaborne trade flows

Fig. 39 Crude Oil seaborne trade 2010 (million tonnes)

Source: MSI / LR

2010

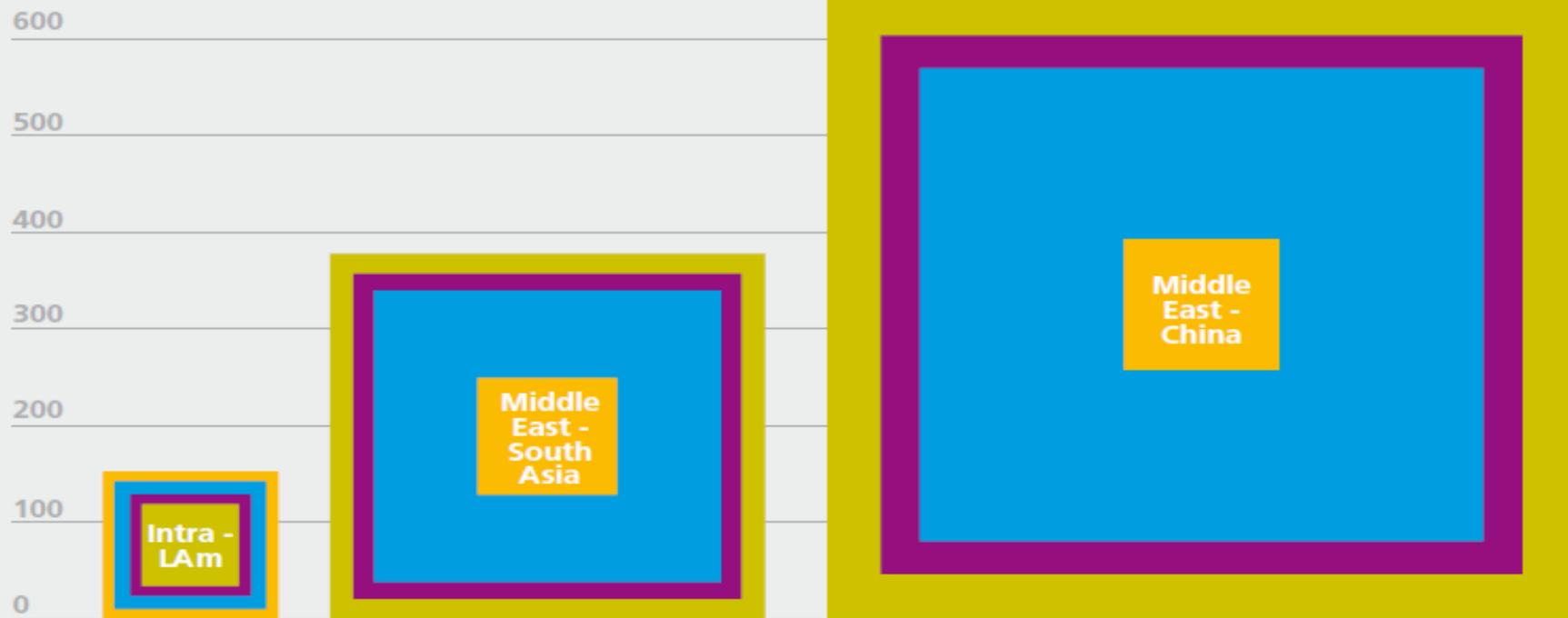


Crude Oil seaborne trade volumes in 3 scenarios

Fig. 38 Crude Oil seaborne trade (million tonnes)

Source: MSI / LR

2010 2030 Competing Nations 2030 Status Quo 2030 Global Commons

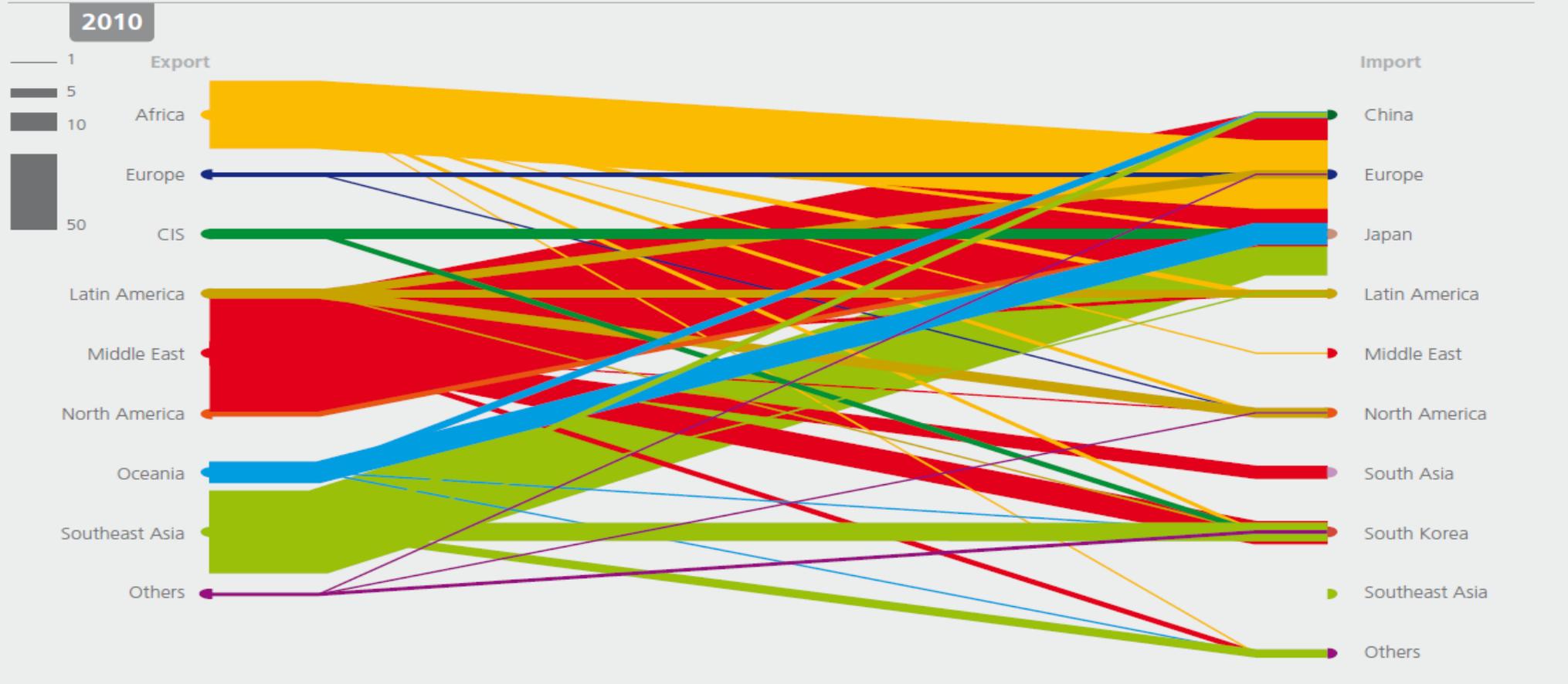


Global Marine Trends 2030

LNG seaborne trade flows

Fig. 48 Seaborne LNG trade in 2010 (million tonnes)

Source: MSI/LR



Coal import and export volumes in 3 Scenarios

Fig. 50 Coal import (million tonnes of oil equivalent)

Source: MSI / LR

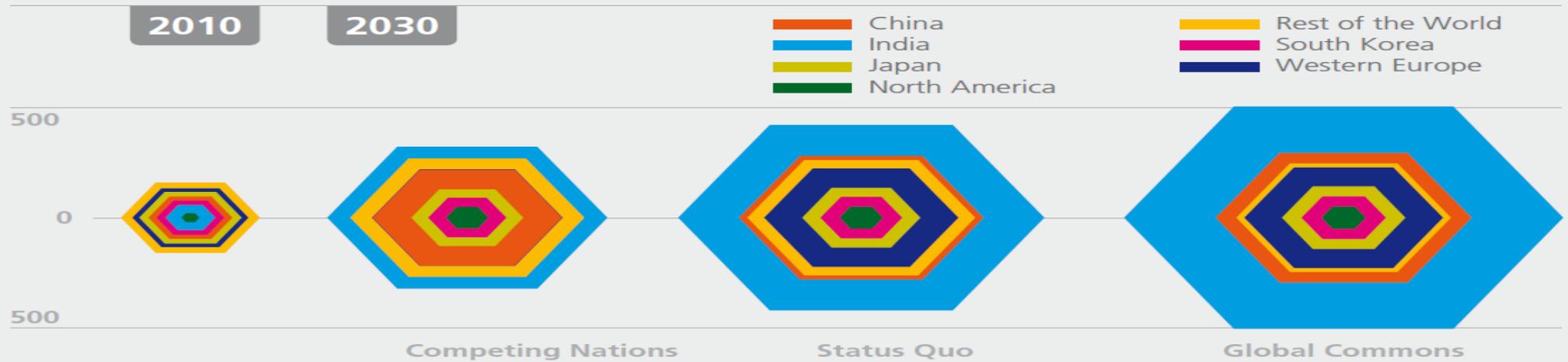
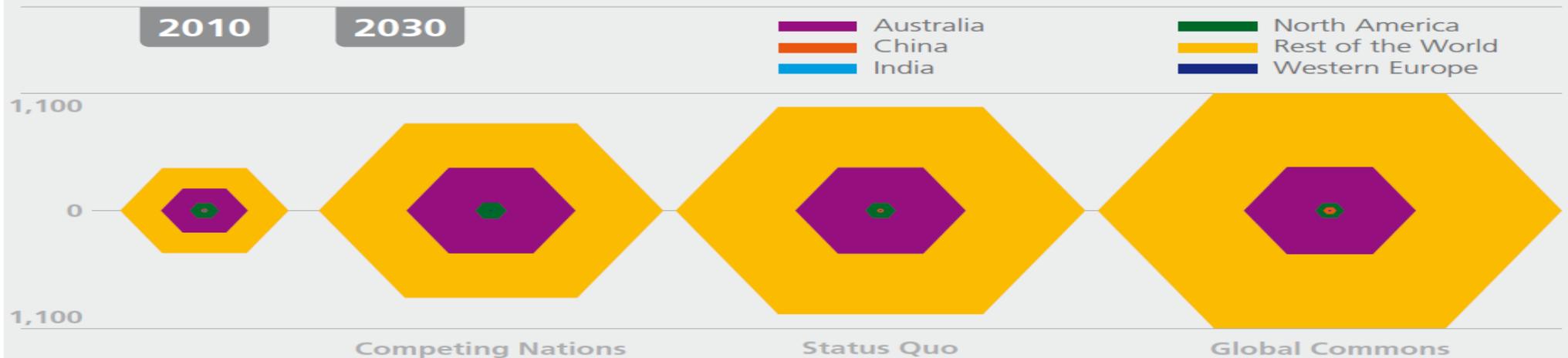


Fig. 51 Coal export (million tonnes of oil equivalent)

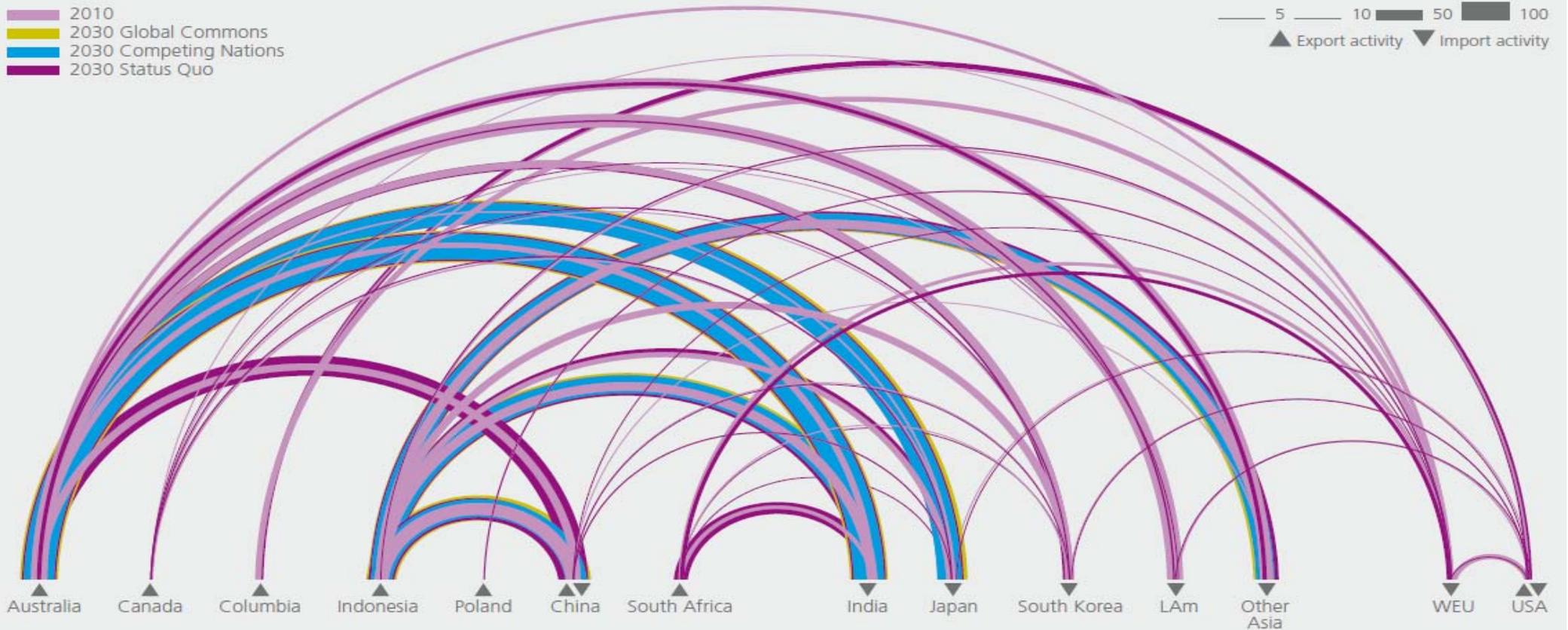
Source: MSI / LR



Coal seaborne trade flows in 3 scenarios

Fig. 52 Seaborne Coal trade (million tonnes)

Source: MSI / LR



Iron ore import and export volumes in 3 scenarios

Fig. 53 Iron Ore import (million tonnes)

Source: MSI / LR

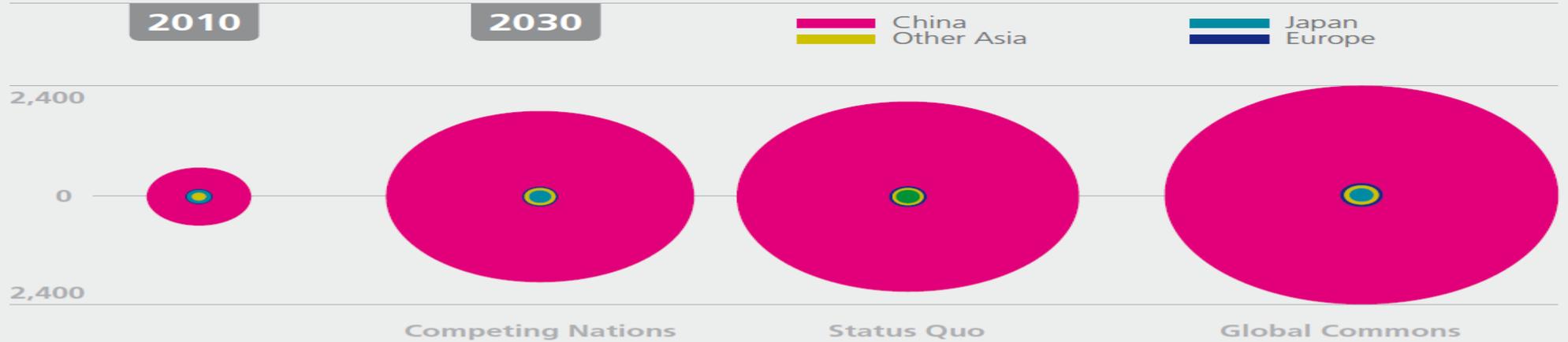
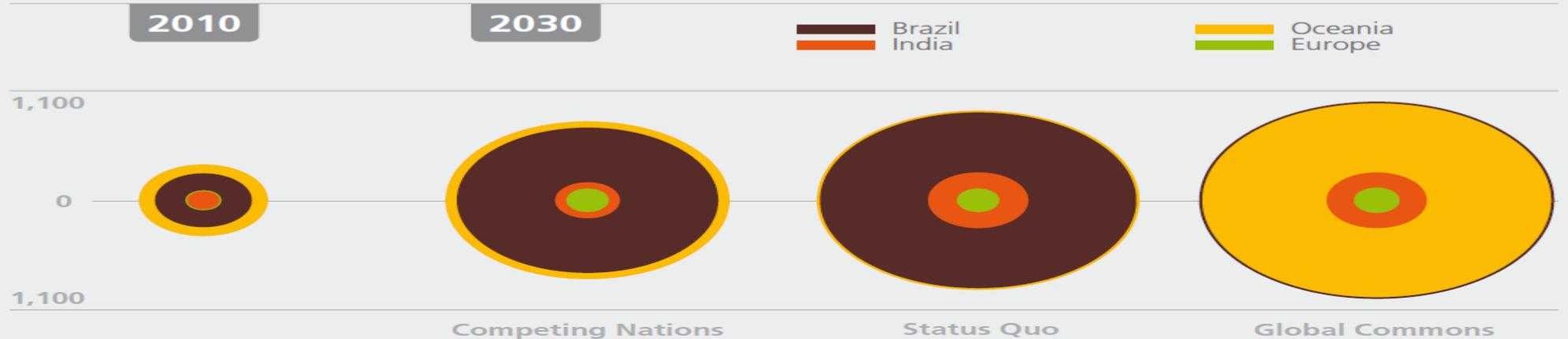


Fig. 54 Iron Ore export (million tonnes)

Source: MSI / LR

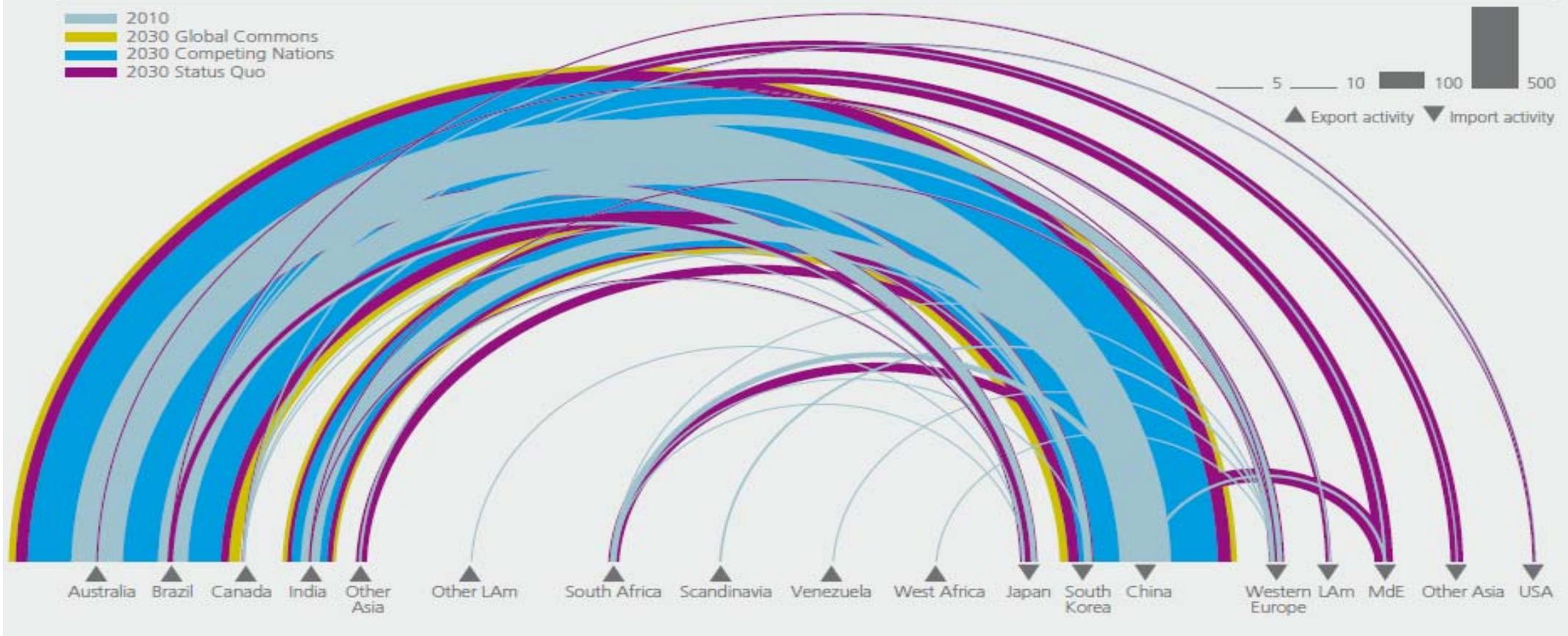


Iron Ore seaborne trade flows in 3 scenarios

Fig. 55 Seaborne Iron Ore trade (million tonnes)

Source: MSI/LR

- 2010
- 2030 Global Commons
- 2030 Competing Nations
- 2030 Status Quo



Container trade in 3 Scenarios

Fig. 59 Container primary loaded lift (thousand TEU)

Source: MSI / LR

- █ Africa
- █ Europe
- █ China
- █ Latin America
- █ Middle East
- █ North America
- █ Oceania
- █ South Asia
- █ Southeast Asia

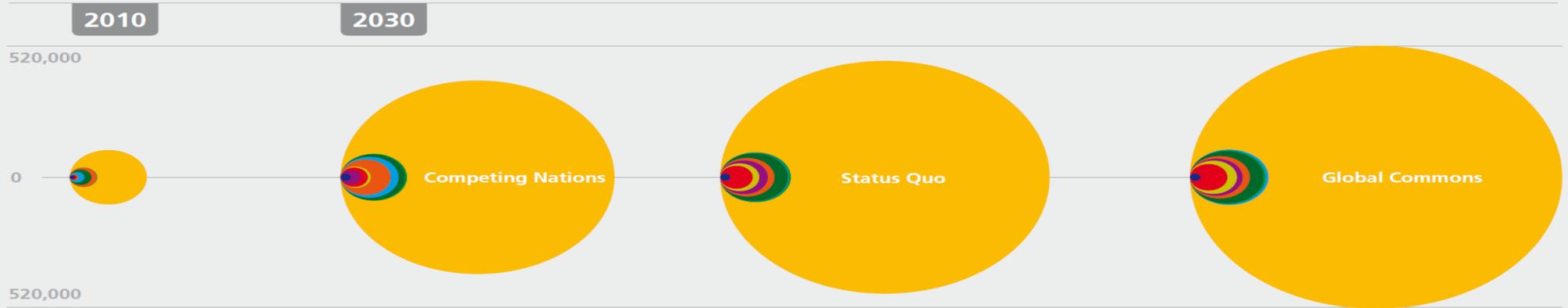
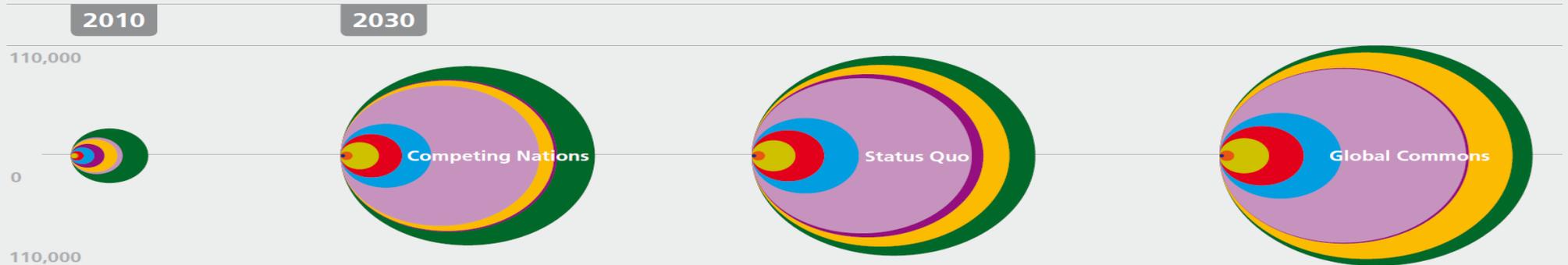


Fig. 60 Container tranship loaded lifts (thousand TEU)

Source: MSI / LR

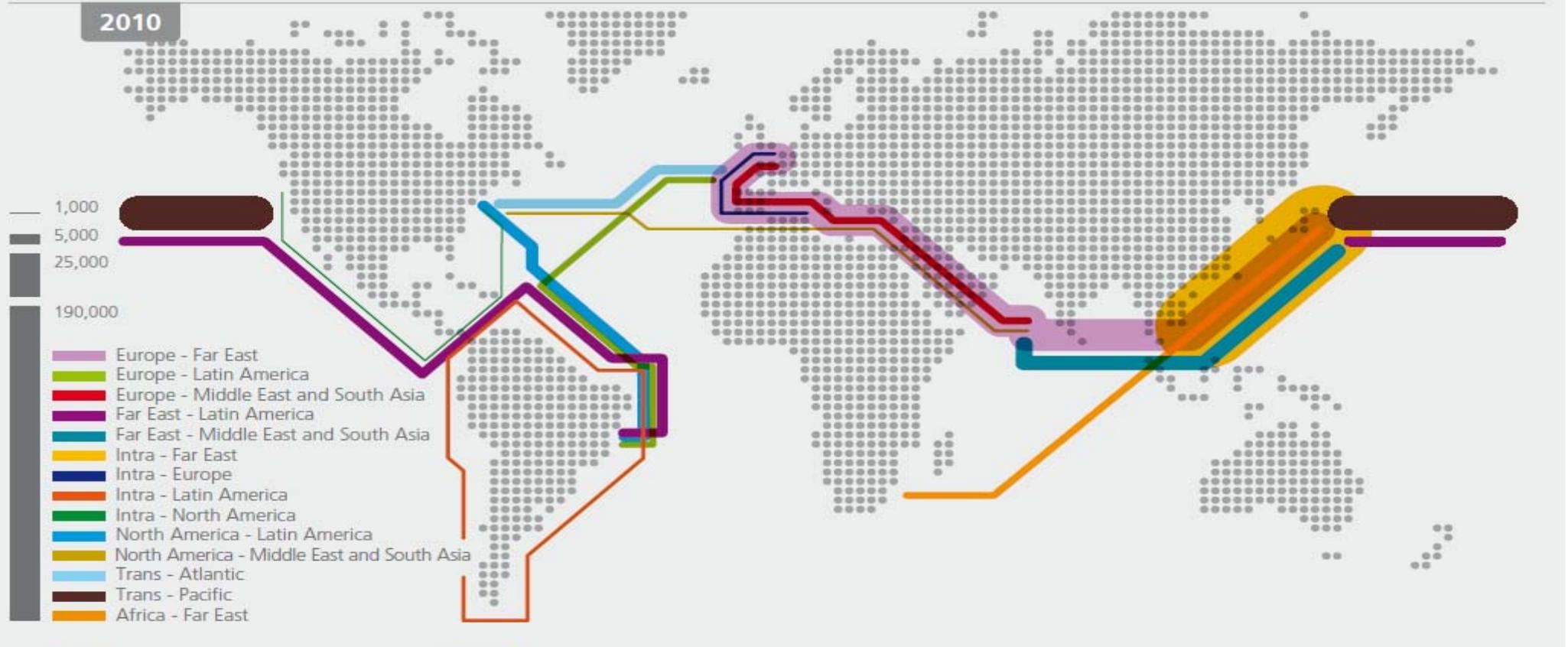
- █ Africa
- █ Europe
- █ China
- █ Latin America
- █ Middle East
- █ North America
- █ Oceania
- █ South Asia
- █ Southeast Asia



Container trade routes

Fig. 61 Seaborne Container trade 2010 (thousand TEU)

Source: MSI / LR



Grain import and export

Fig. 56 Grain import (million tonnes)

Source: MSI / LR

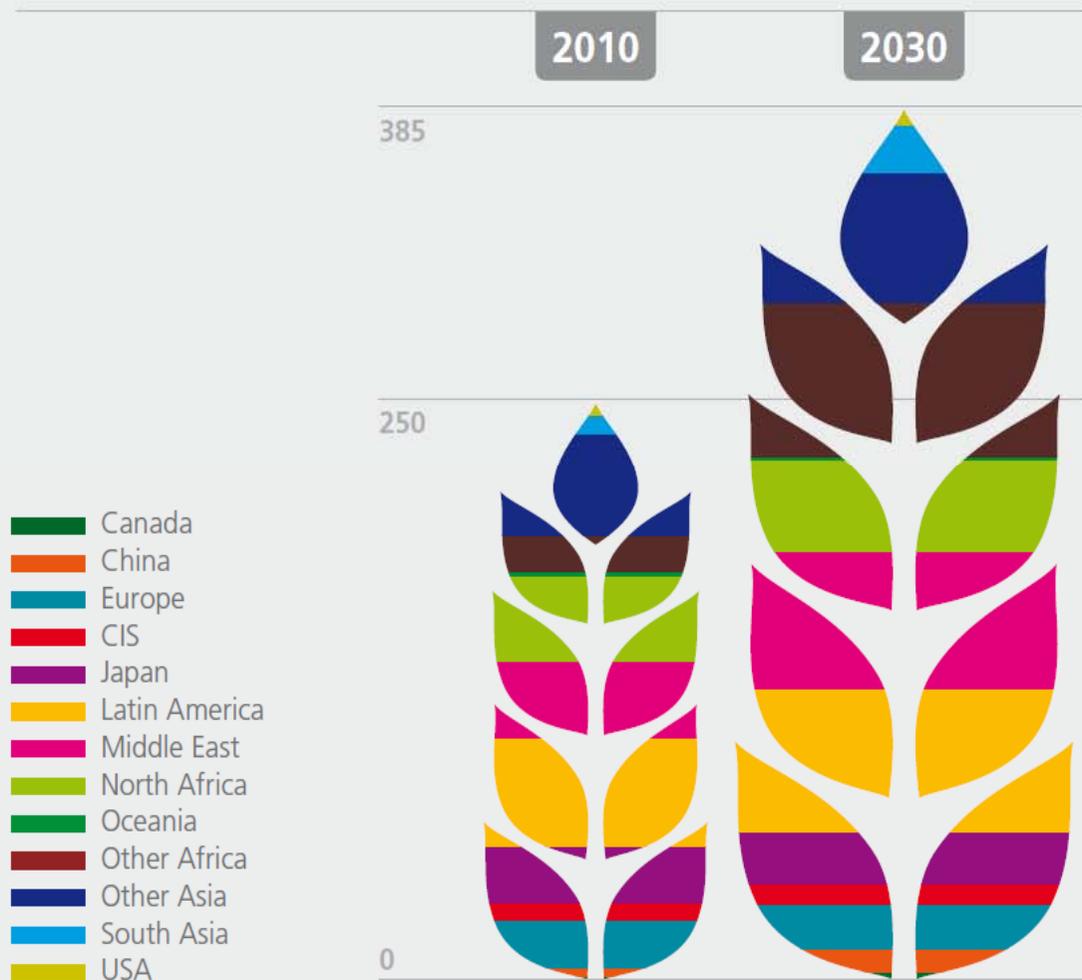
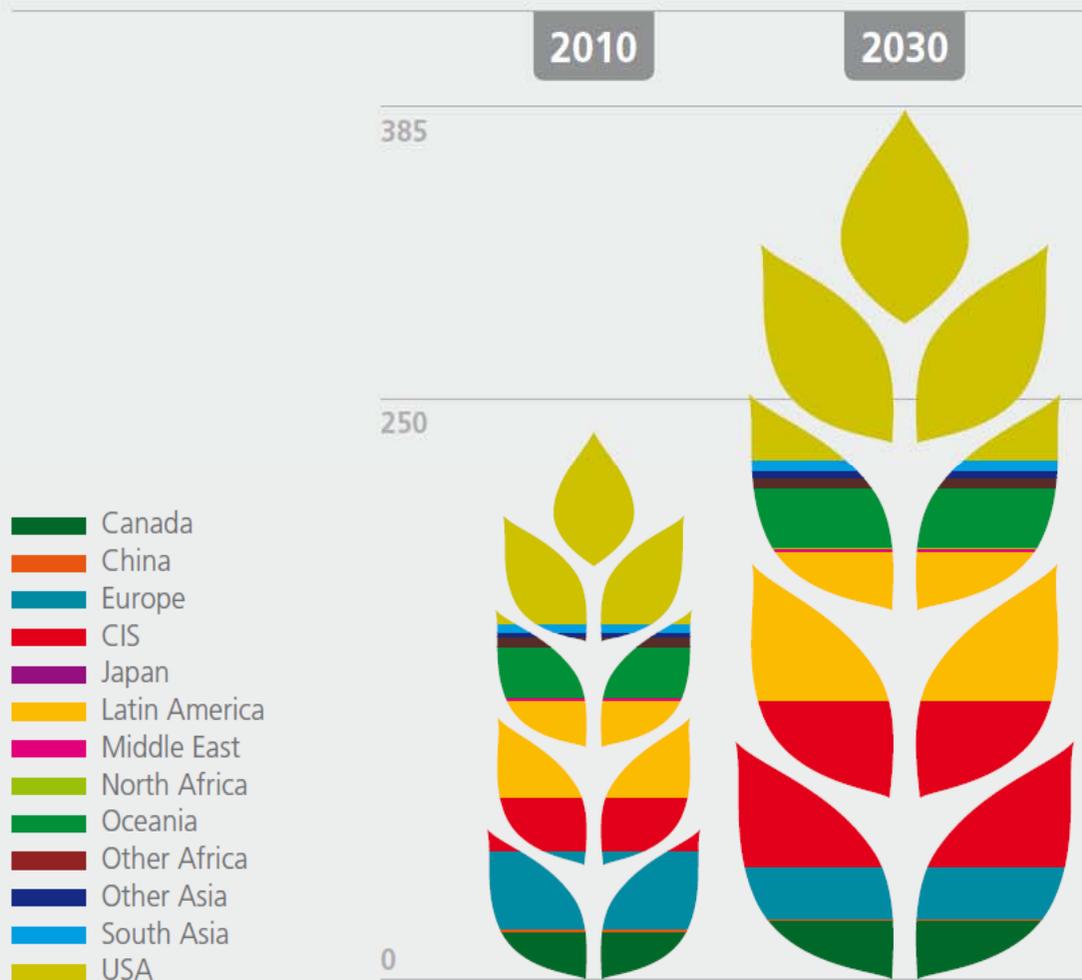


Fig. 57 Grain export (million tonnes)

Source: MSI / LR

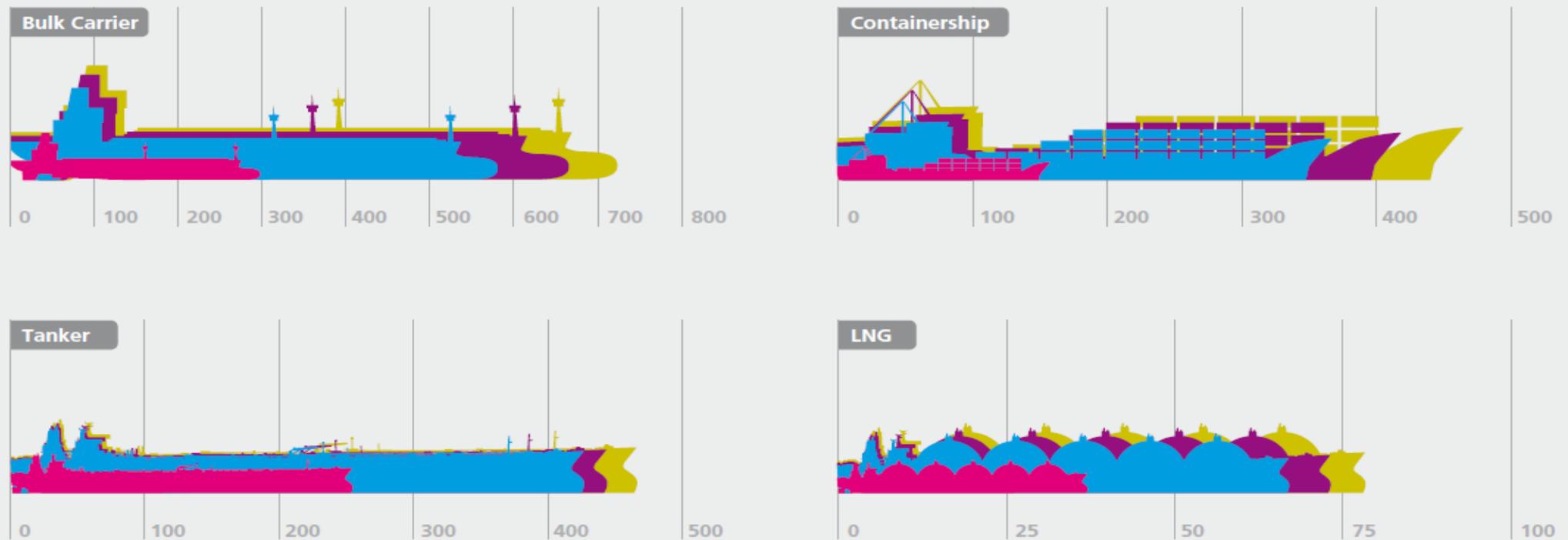


Fleet sizes in 3 scenarios

Fig. 63 Bulk Carrier/Tanker/Containership/LNG carrier fleet (million GT)

Source: MSI / LR

2010 2030 - Competing Nations Status Quo Global Commons



Fleet ownership in 3 scenarios

Fig. 67 Major fleet ownership

Source: MSI / LR

2010

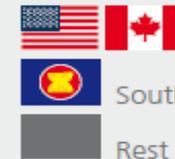


Europe (excluding Greece)

Greece

Japan

China



North America

Southeast Asia

Rest of the World

2030

Competing Nations

Status Quo

Global Commons

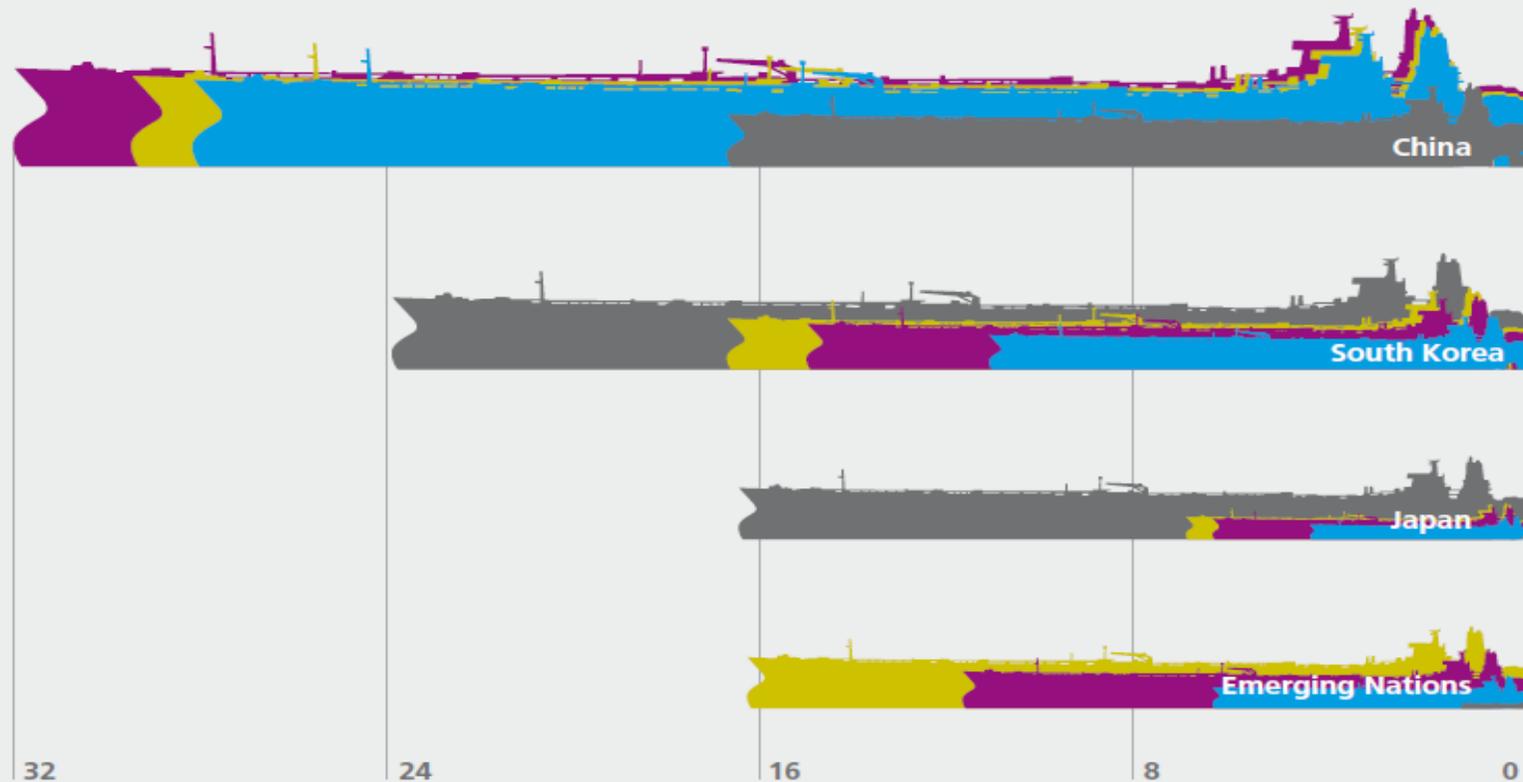


Shipbuilding in 3 scenarios

Fig. 72 Bulk Carrier, Tanker, LNG, Containership (million GT)

Source: MSI / LR

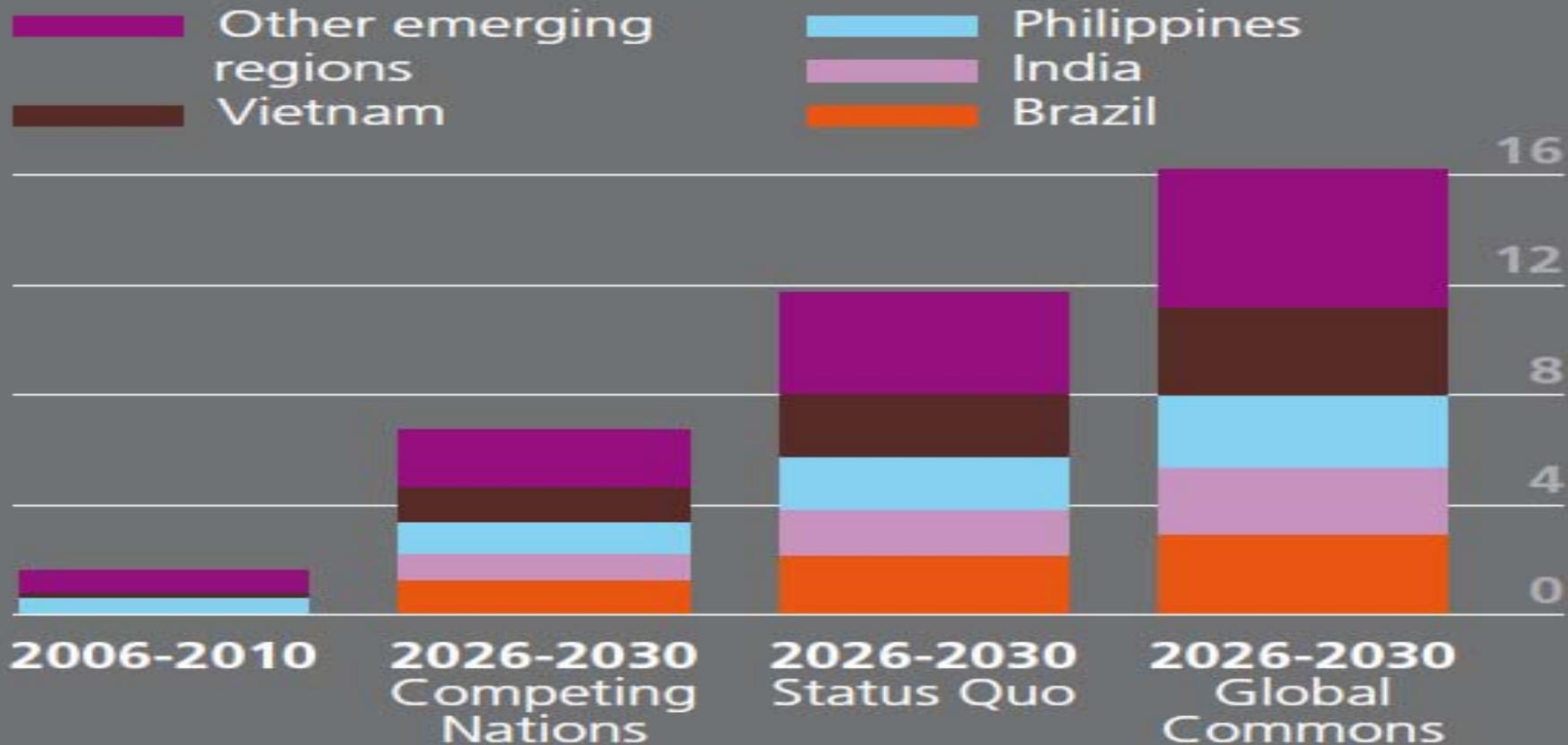
- 2006 - 2010
- 2026 - 2030 Competing Nations
- 2026 - 2030 Status Quo
- 2026 - 2030 Global Commons



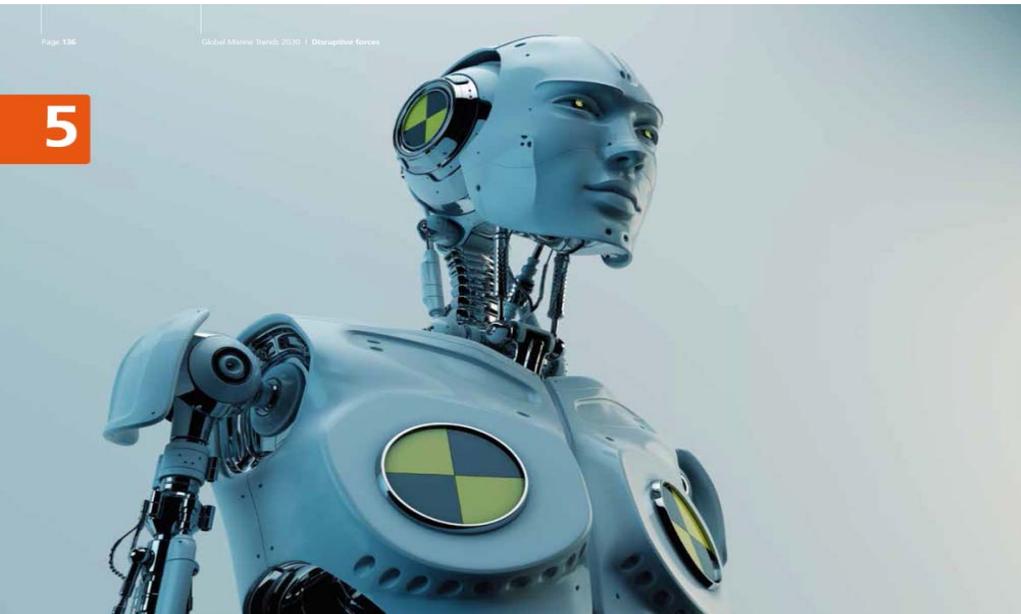
Rises of emerging countries in 3 scenarios

Fig. 73 Emerging countries newbuilding delivery (million GT)

Source: MSI / LR



Disruptive events could change everything



Global Marine Trends **2030**

A Positive Marine World in 2030

In 2030, we could be living in a world where:

- China owns a quarter of the merchant fleet
- The size of the tanker fleet is expanding though slower than all other major ship types
- The number of containerships with capacities that exceed 7,600 TEU is growing three times faster than those below that threshold.

Despite the volatile nature of commercial shipping, 2030 could well usher in an era during which the prevailing trends and themes are opportunity and growth.

A Positive Marine World in 2030

Our industries may still be prone to commercial and political cycles where unexpected shocks can destroy profits, disrupt supply chains and upend business models.

But the Report offers a positive vision of 2030 for the marine industries, with real opportunities for business, investors, employees and stakeholders.

Global Marine Trends 2030

Thank You!
Any Questions?

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