



Oil Security and Collaboration in Northeast Asia

Seoul, Korea, 16-17 March, 2004

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Content

- **Challenges for Northeast Asia Oil Security**
- **Ways towards Regional Oil Collaboration and IEA's Role**

Challenges for Northeast Asia Oil Security

1. China factor

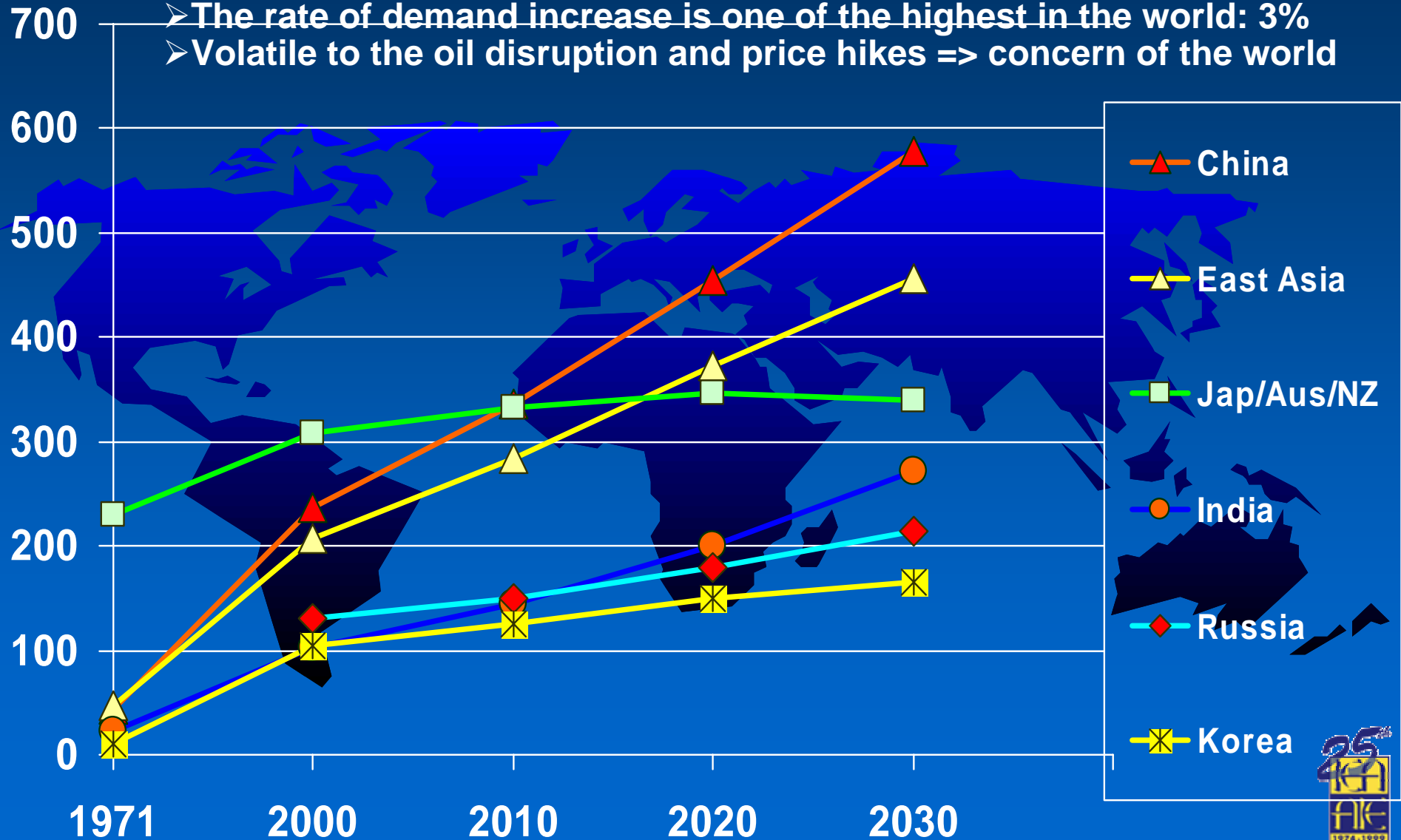
2. Supply security

3. Diversification

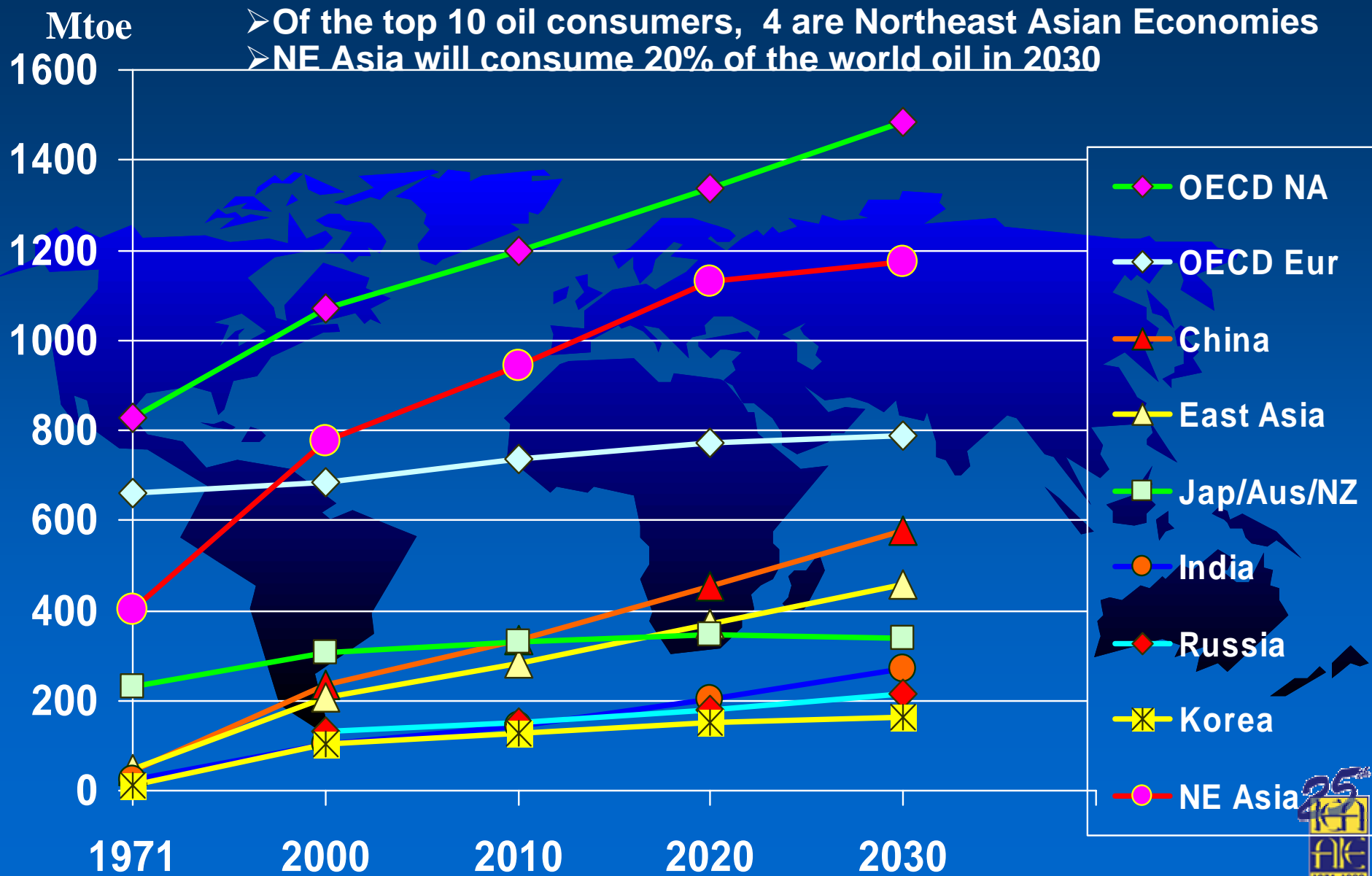
1. China Factor : Oil Demand in Asia

Mtoe

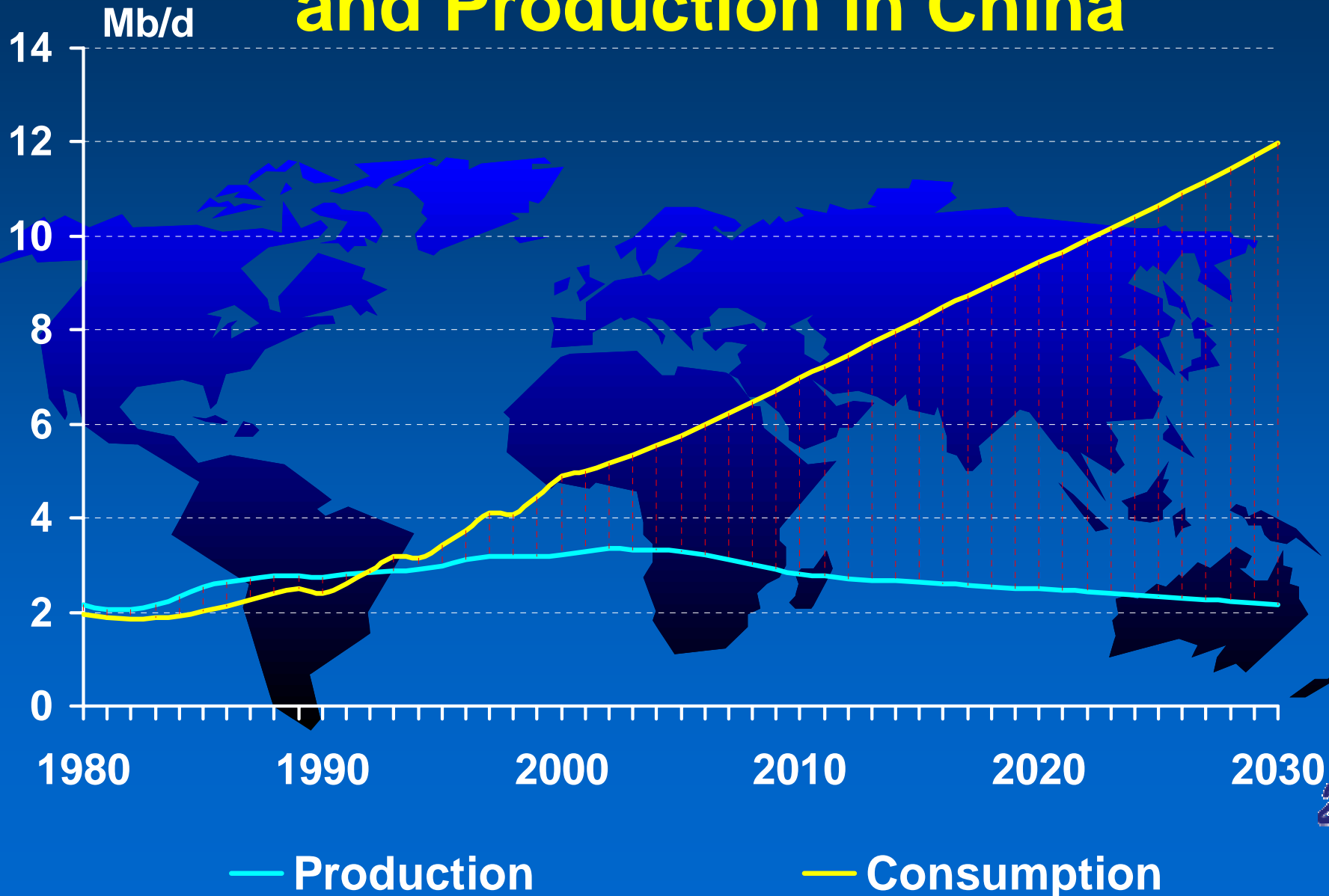
- China exceeded Japan and is the 2nd largest oil consumer in the world
- The rate of demand increase is one of the highest in the world: 3%
- Volatile to the oil disruption and price hikes => concern of the world



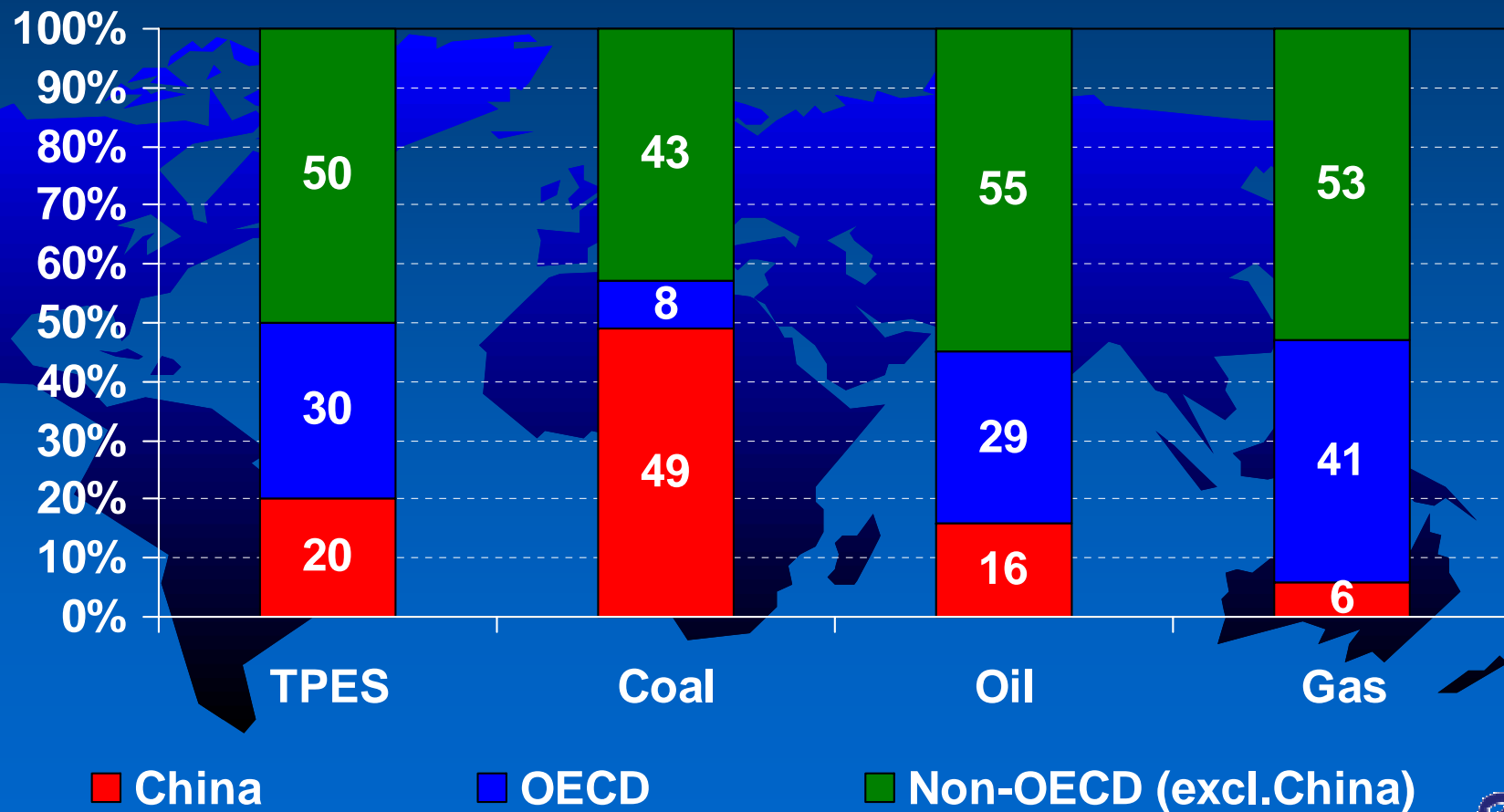
China Factor: Impact in NE Asia



Growing gap between Oil demand and Production in China

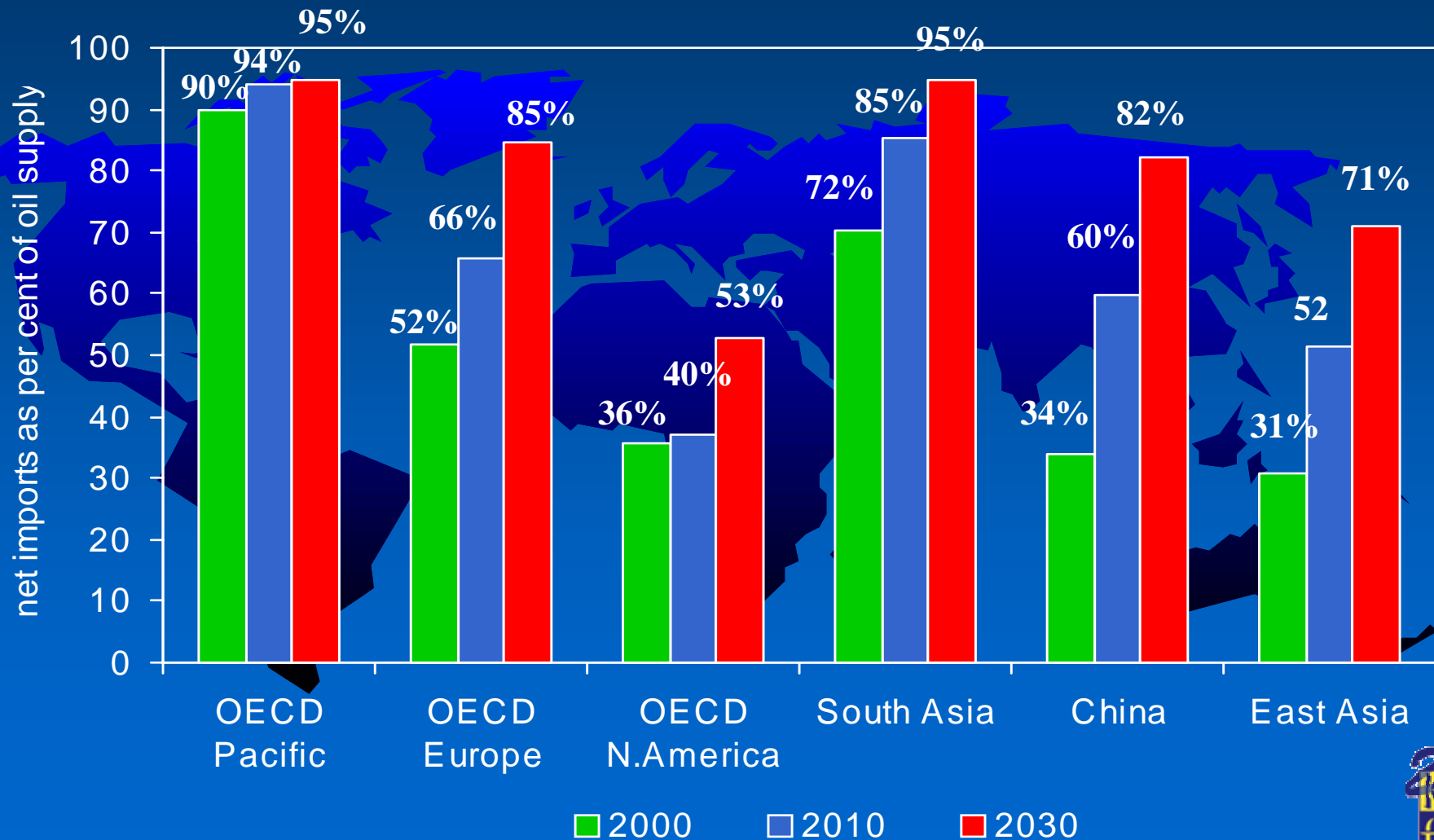


China's Impact on Global Primary Energy Demand, 2000-2030



2. Supply Security

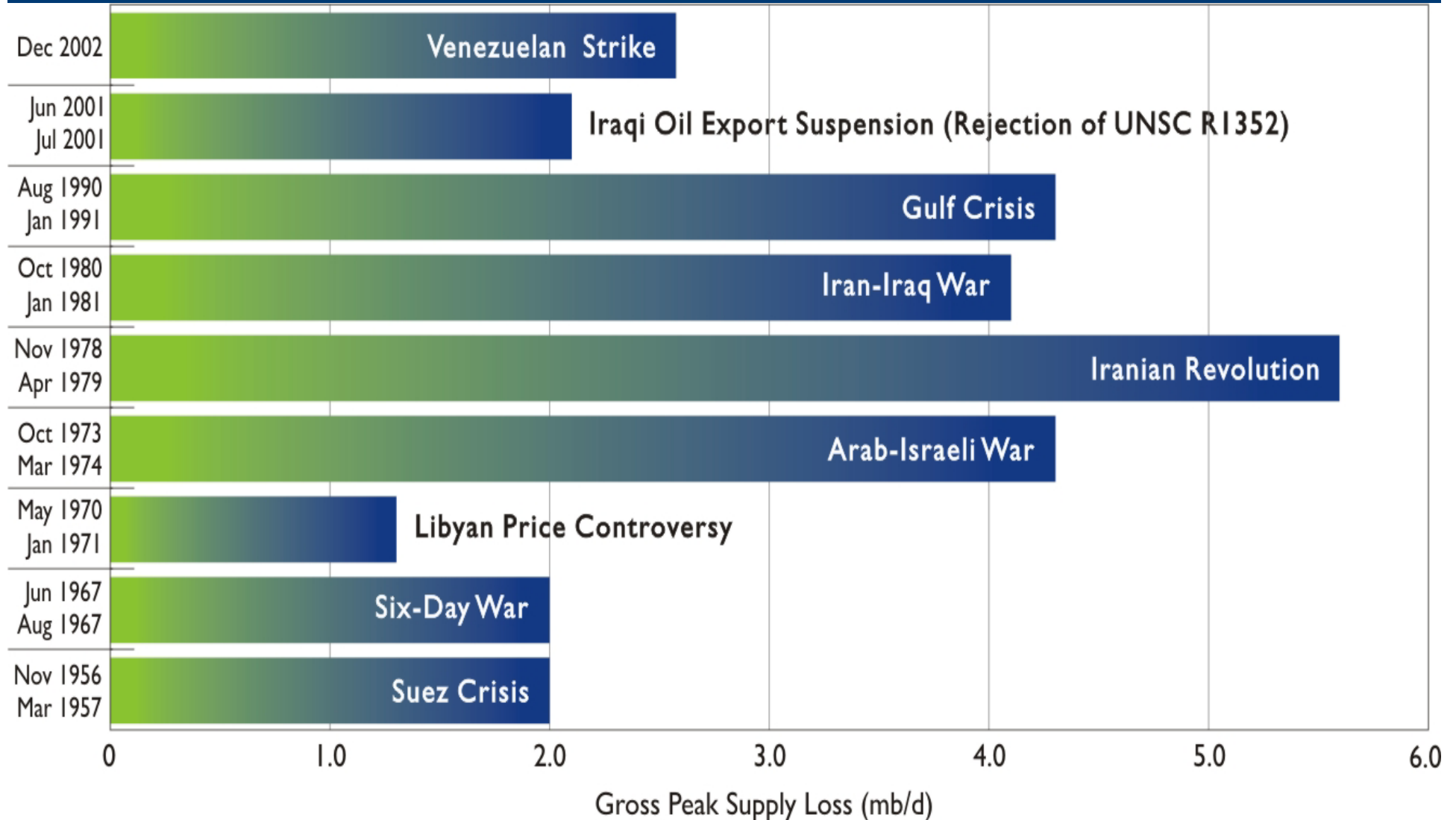
Increasing Oil Import Dependency



Growing Oil Import Dependence on ME

Vulnerability to price volatility and supply disruption

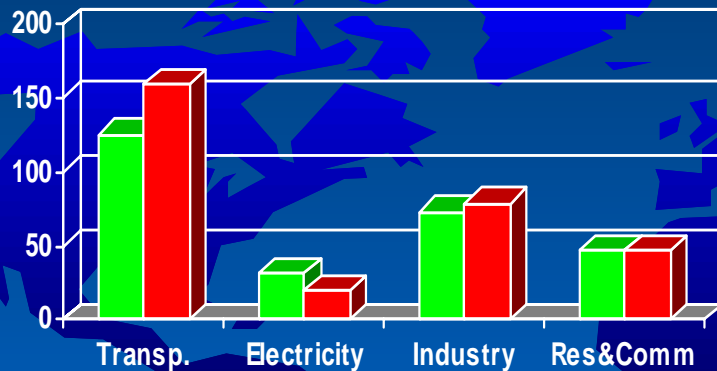
Disruptions of Major Crisis



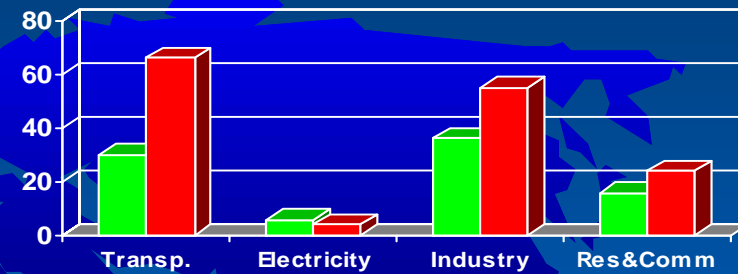
Oil demand growth will come from transport sector

2000 2030

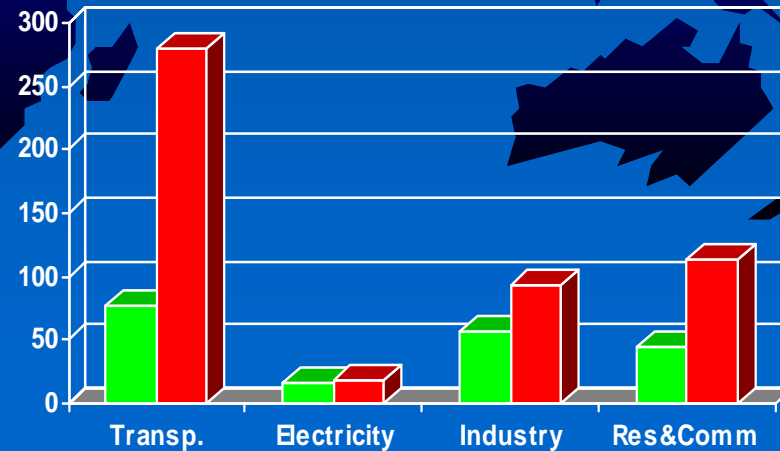
Japan/Aus/NZ



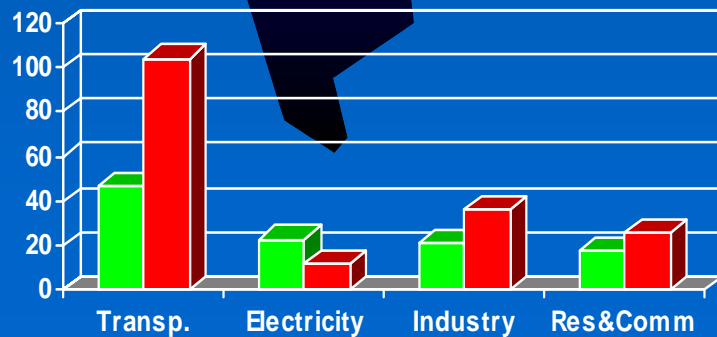
Republic of Korea



China



Russia



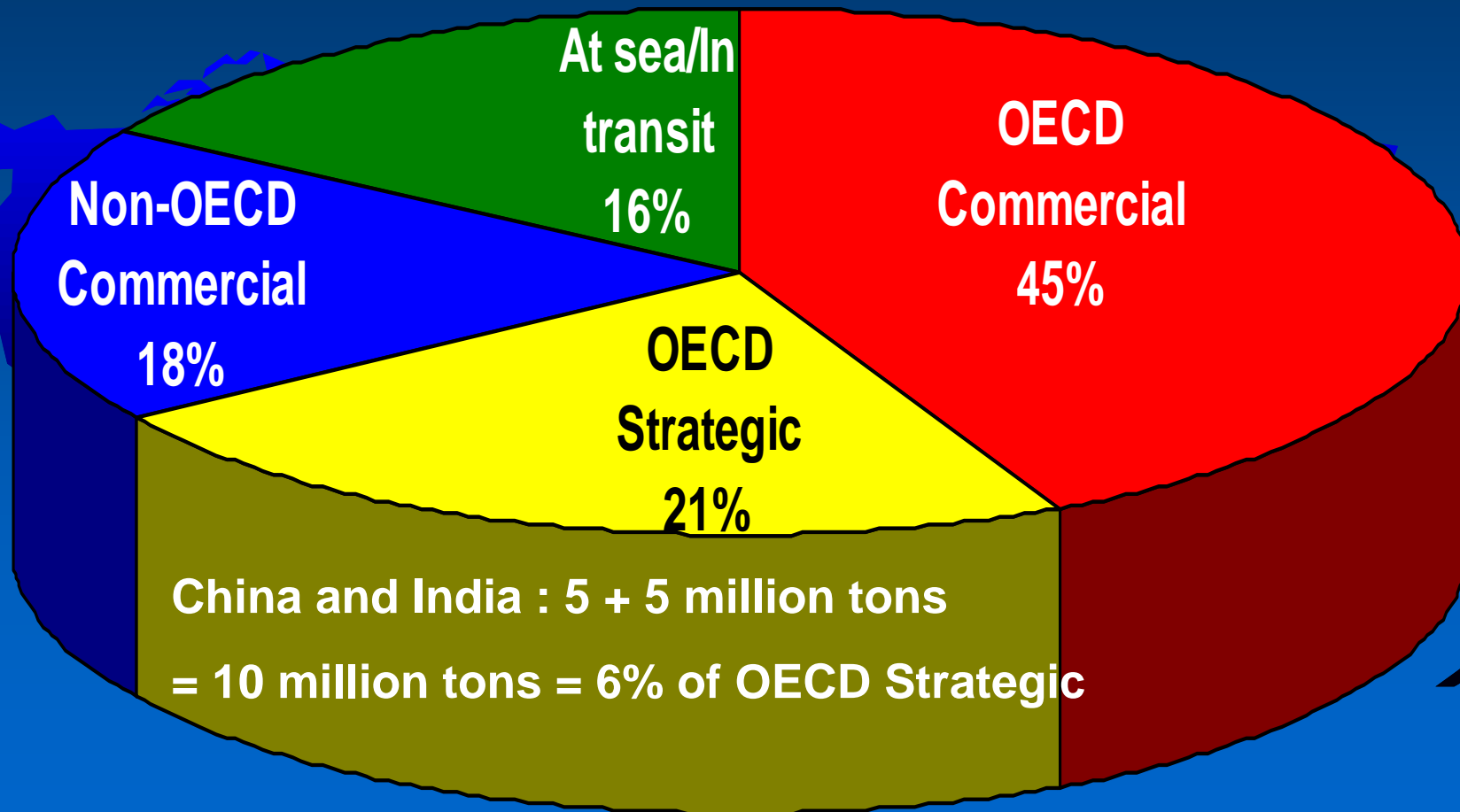
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Strong Concern on Oil Security in China and India

Total World Oil Stocks: 6.0 billion barrels*

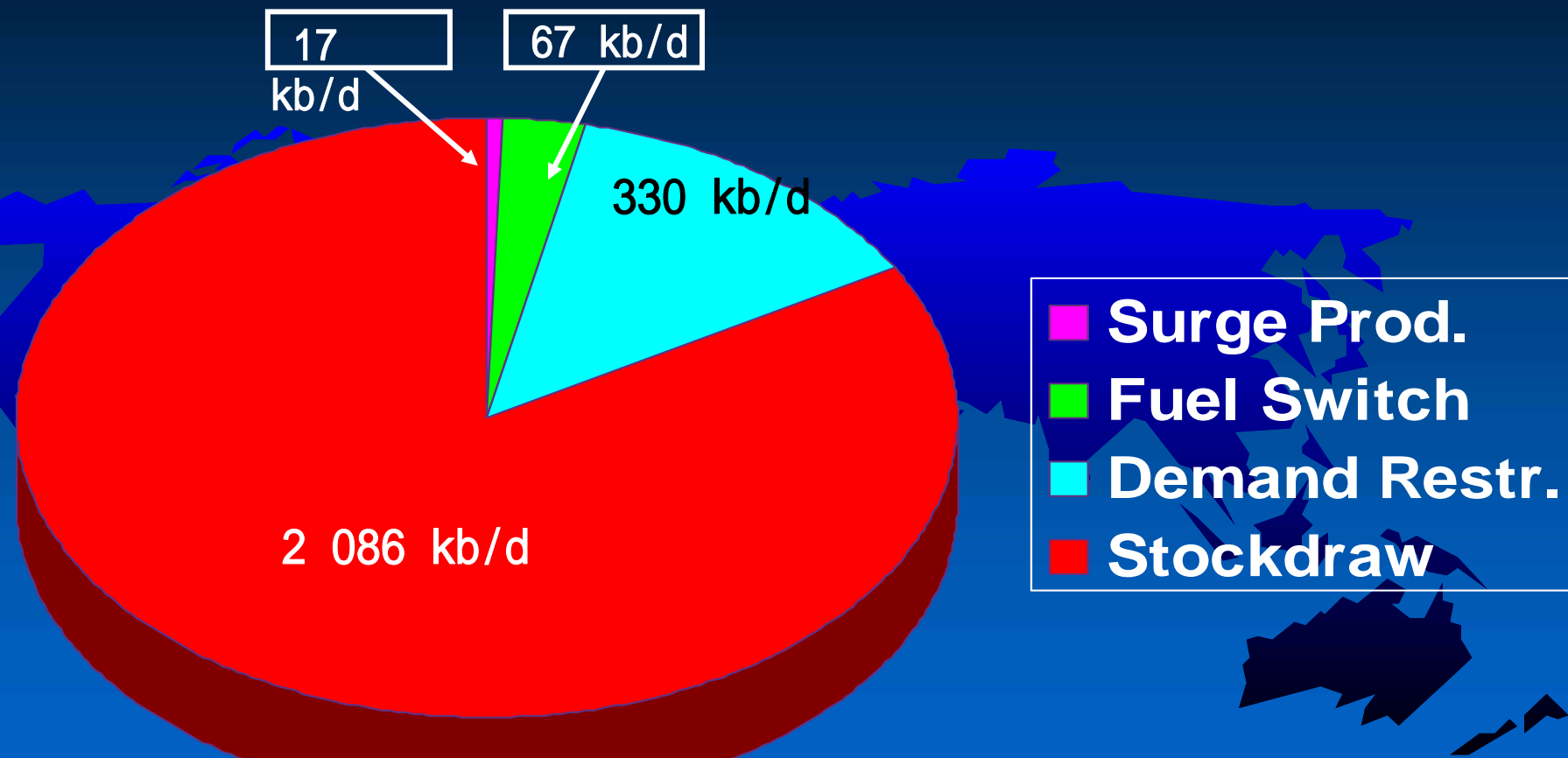
**Excludes ex-USSR, China and South African strategic stocks.*



China and India : 5 + 5 million tons
= 10 million tons = 6% of OECD Strategic

5mb/d Contingency Plan in 1991

Good Model for Other CERM Plan



➤ In the wake of the Y2K rollover in 1999

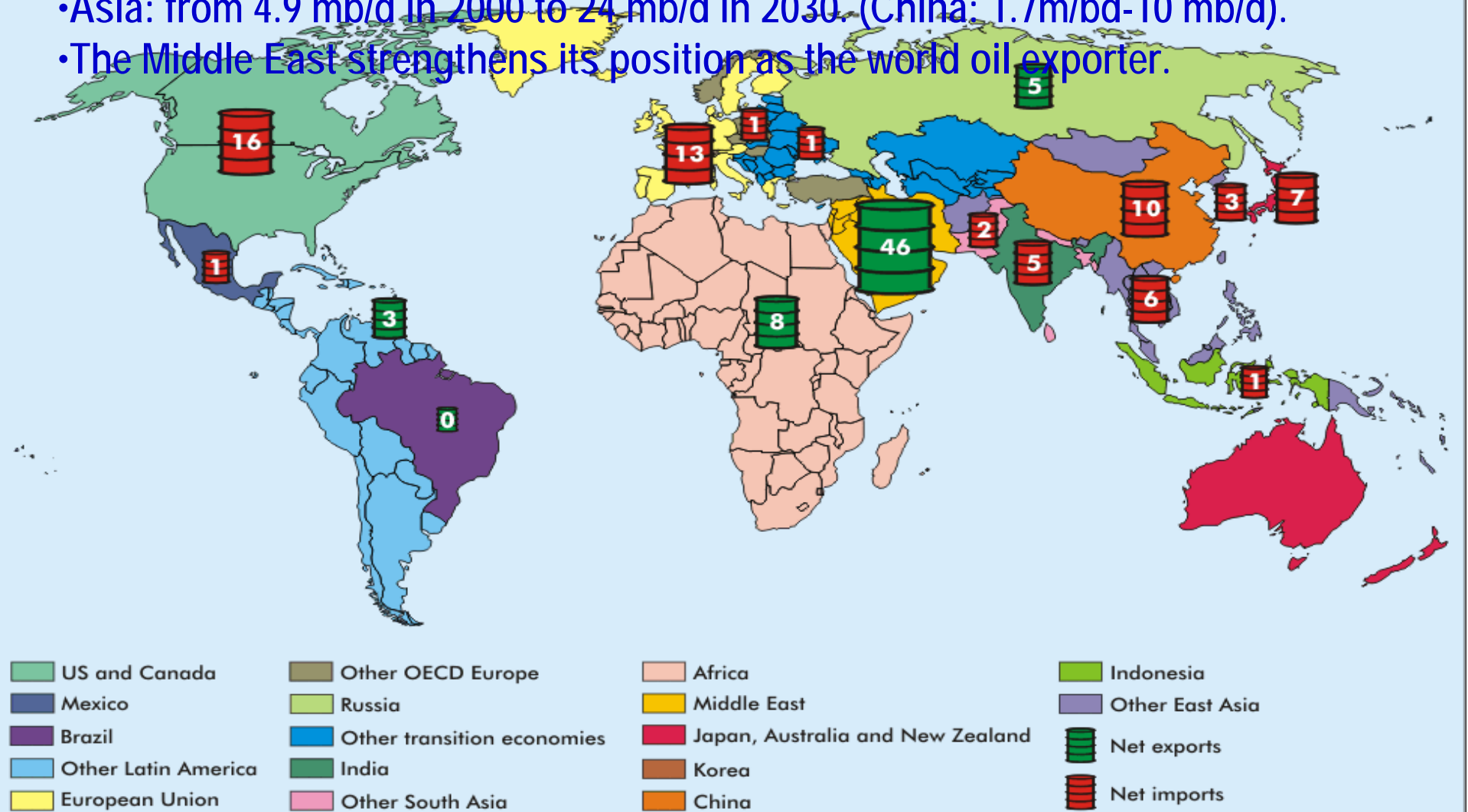
➤ Ex-post 11 September 2001

➤ Strikes in Venezuela, turmoil in Nigeria and the war in Iraq in 2002/2003

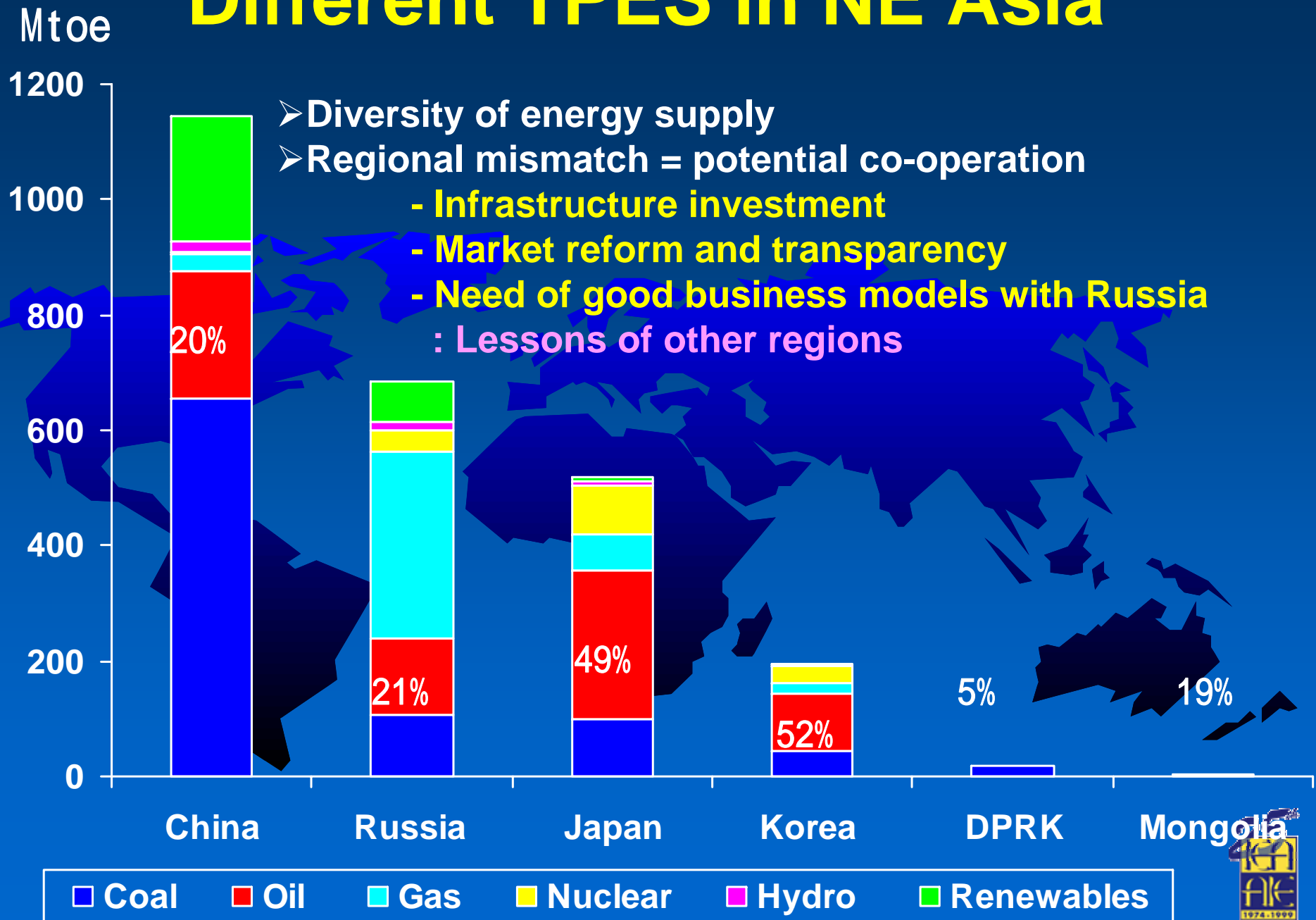
3. Diversification: Regional Mismatch

Growing international and inter-regional trade in energy

- International oil trade grows considerably as the gap widens between P&Cs
- Inter-regional trade will rise from 32m/bd (43%) in 2000 to 66 mb/d (55%) in 2030.
- Asia: from 4.9 mb/d in 2000 to 24 mb/d in 2030. (China: 1.7m/bd-10 mb/d).
- The Middle East strengthens its position as the world oil exporter.



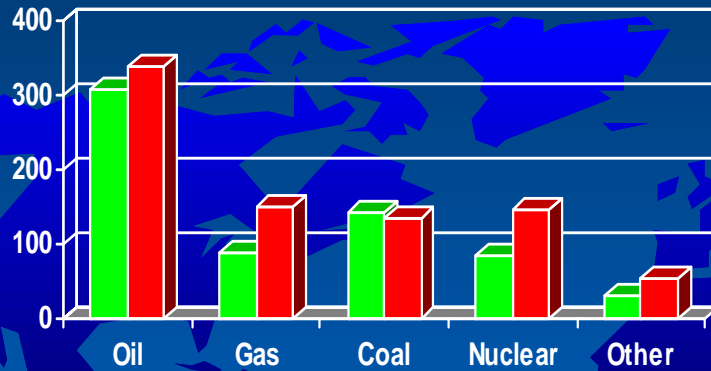
Different TPES in NE Asia



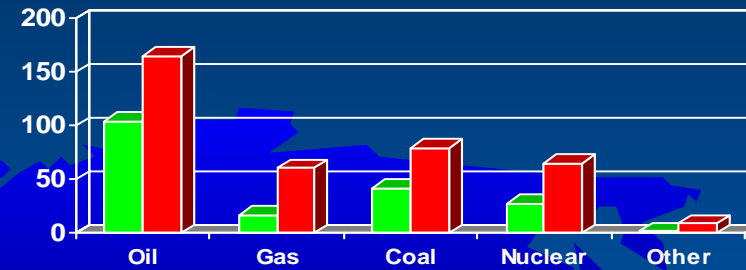
TPES Projection in NE Asia

More diversified in Japan and Korea, more rely on domestic resources in China and Russia

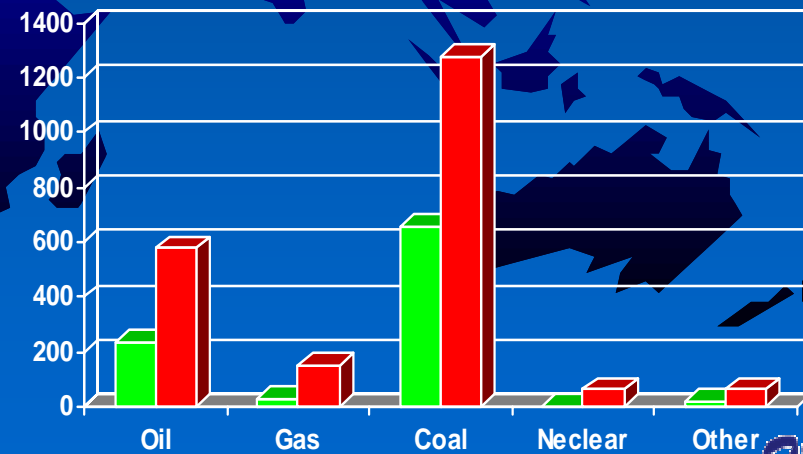
Japan/Aus/NZ



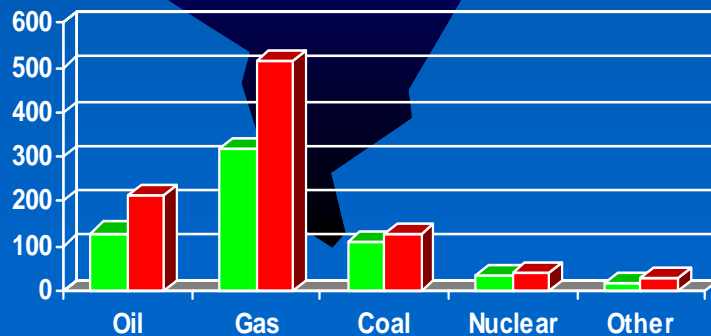
Republic of Korea



China



Russia



Mtoe



2000



2030



Energy Supply Potential from East Russia

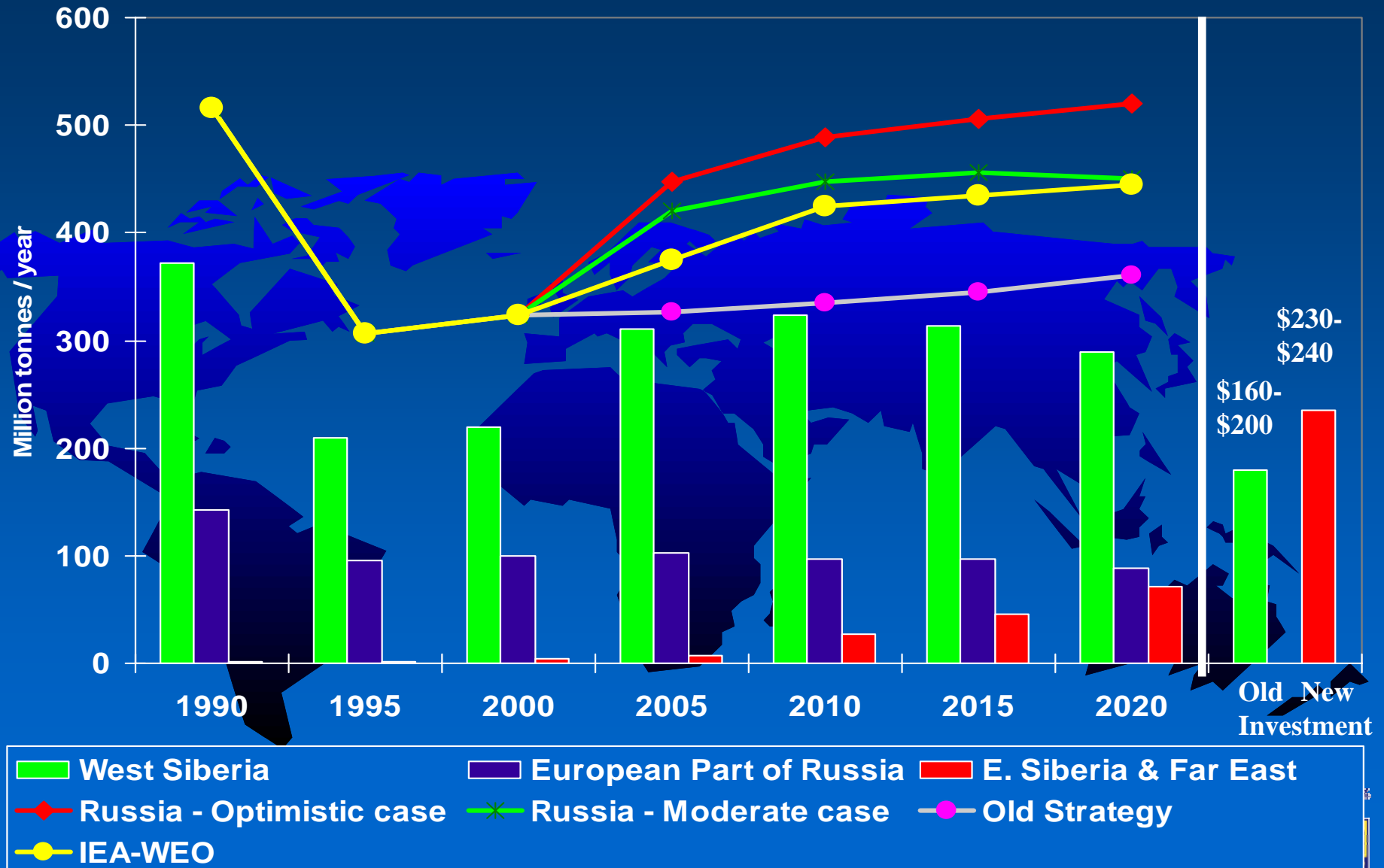
◆ Energy Production in Siberia and the Far East

		1999	2000	2010	2015	2020
Primary Energy Production (Mt)	Western Siberia	998	1019-1064	963-1033	940-1017	927-1023
	Eastern Siberia	78	87-96	105-133	124-174	154-202
	Far East	32	42-49	52-63	67-89	80-110

◆ Energy Resources in East Russia

- **Oil (Potential): 14 billion tonnes in East Siberia and the Far East**
- Hydro and Tidal generation capacity: 17.2 GW
- Natural Gas (proven): 5.4 tcm (12% of total Russian reserves)

Russian Oil Production Outlook

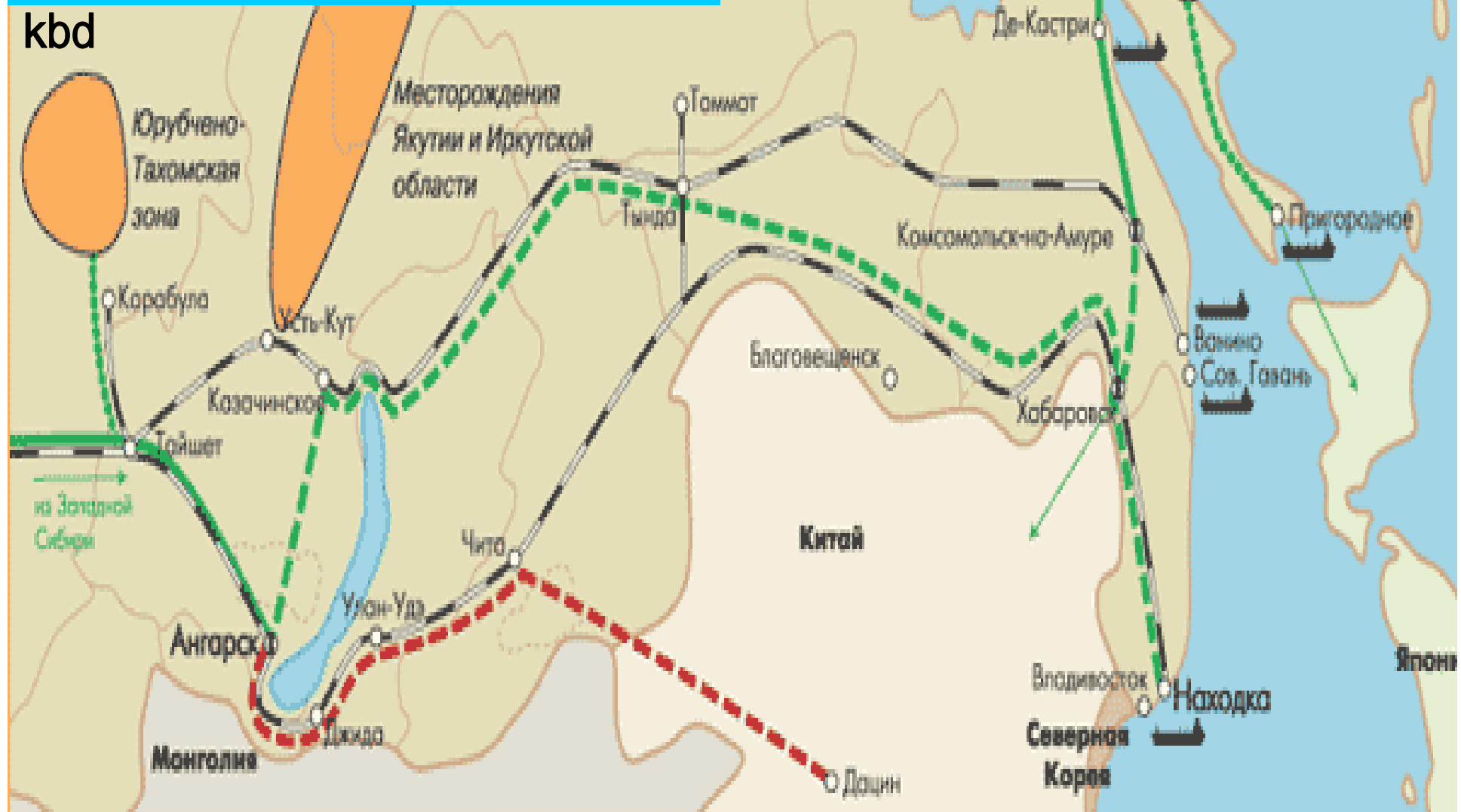


Source: Russian Energy Strategy, May 2003 / IEA projection – WEO (2002)

✓Gazprom and Rosneft:
Angarsk-Nahodka: \$5B - 1mbd

✓YUKOS, TNK-BP, Sibneft:
Angarsk-Daikin: \$2B – 400

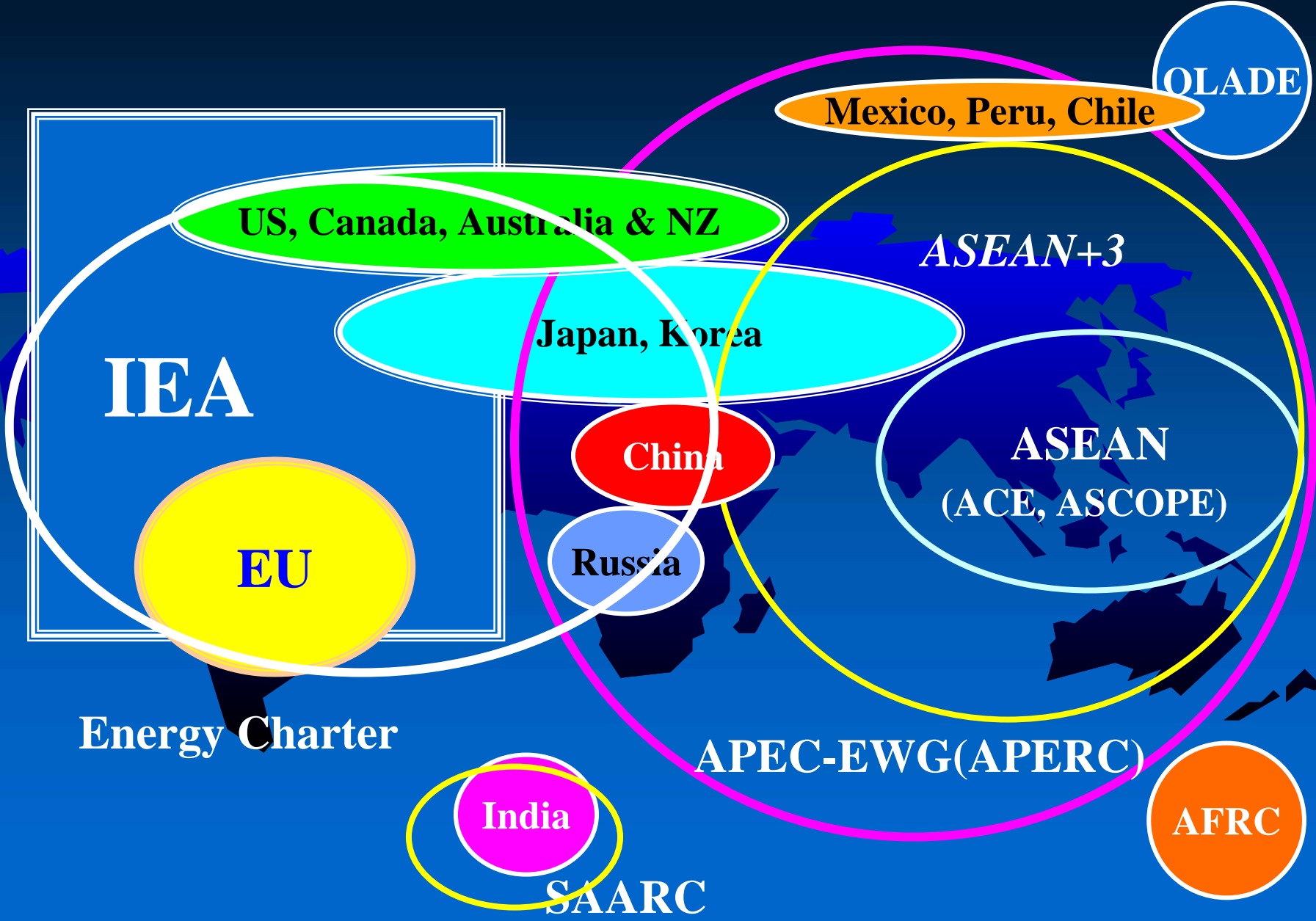
kbd





Ways toward Regional Oil Co-operation and the IEA's Role in NE Asia

IEA Collaboration in the Global energy security systems



Basis for the NE Asia and IEA Collaboration

- **IEA Ministerial Communiqué in April 2003**
 - Emerging need to collaborate with key NMCs
 - Lessons from the past and share the policy goals
- **Japan&Korea + China, Russia as strategic partners with MOUs**
- **Same challenges and objectives :**
 - Oil supply security
 - Investment
 - Market volatility and economic damage

Co-operation between NE Asia and IEA

● Current and future co-operation

- Stock Workshops with China (2001&2002), ASEAN+3 (2002), ASEAN (2003&2004) and India (2004) => **Hotlines**
- IEA/KEEI Conference on energy security in March & IEA/KERI Conference on electricity in May 2004
- Cross-border study on oil and gas in 2005/2006

Suggestions for Joint Work in the Future

● Energy security co-operation with NE Asia and IEA's Emergency Response Measures

- Experience sharing for energy policy and market reform to foster investment
- Harmonization of the regional framework with world energy security in real emergency situation
=> simulation exercise in 2004, joint workshop in the future, etc

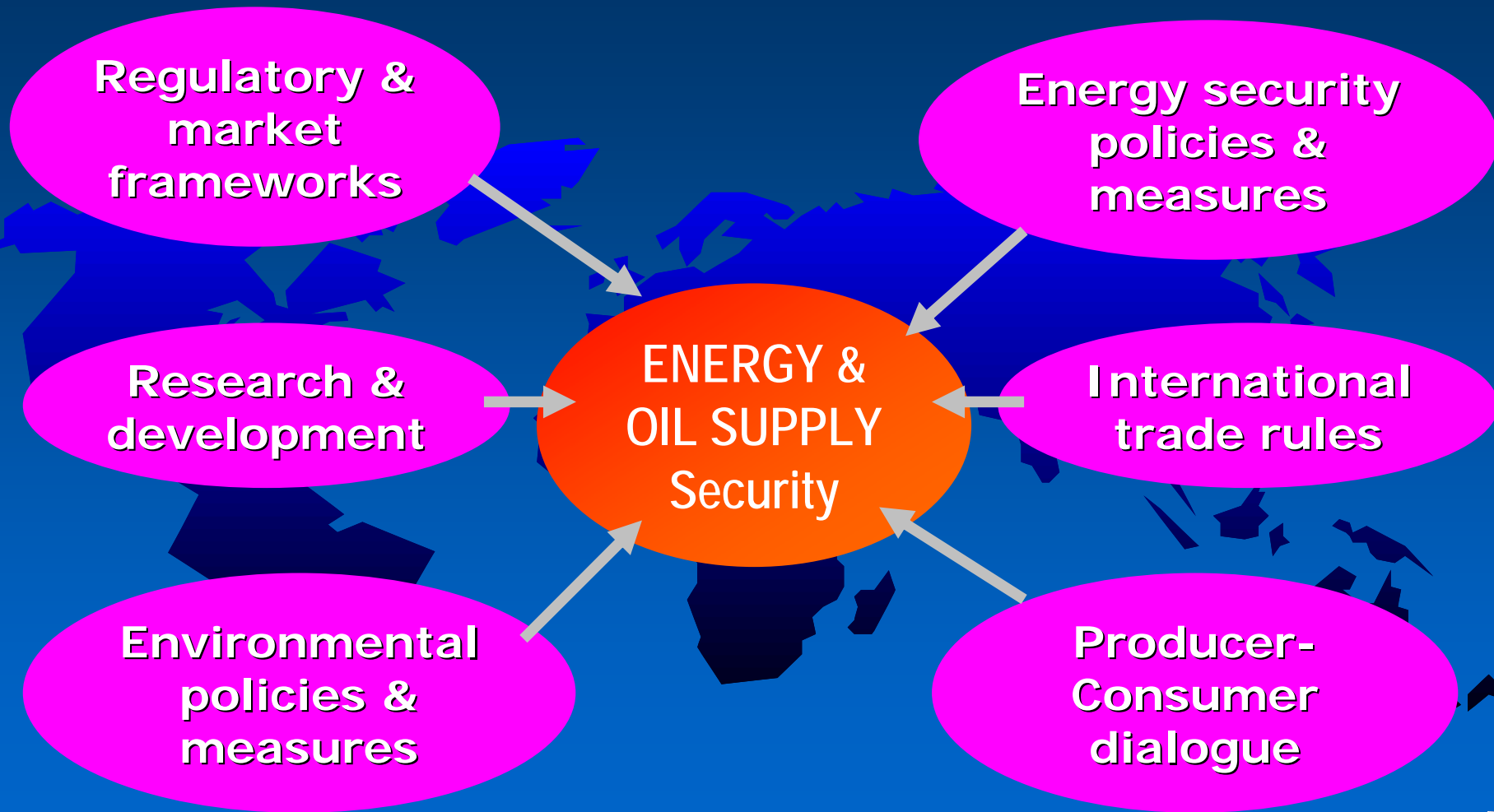
● Oil data system and market monitoring

- NE Asia specific data
- Information exchange for energy market transparency
- Producer-consumer dialogue: IEF in 2004 in Amsterdam & EEM in 2005 Paris

● The IEA's contribution to capacity building

- Training of experts and statisticians
- Co-operation with bodies and countries in NE Asia

Government Role for Regional Co-operation



Government policies will shape the energy-supply landscape