

2006
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**CONNECTIONS ARE
CRUCIAL**



Bert Panman

**Chairman Coordination Committee
International Gas Union**

Third International Conference

"RUSSIAN GAS 2005"

Moscow, 29 November 2005





INTERNATIONAL GAS UNION

Covers >95 % of World Gas Sales
'Spokesman' of the Gas Industry



www.IGU.org



Non Members



Membership from 67 countries and 22 Associated Members

05/12/2005

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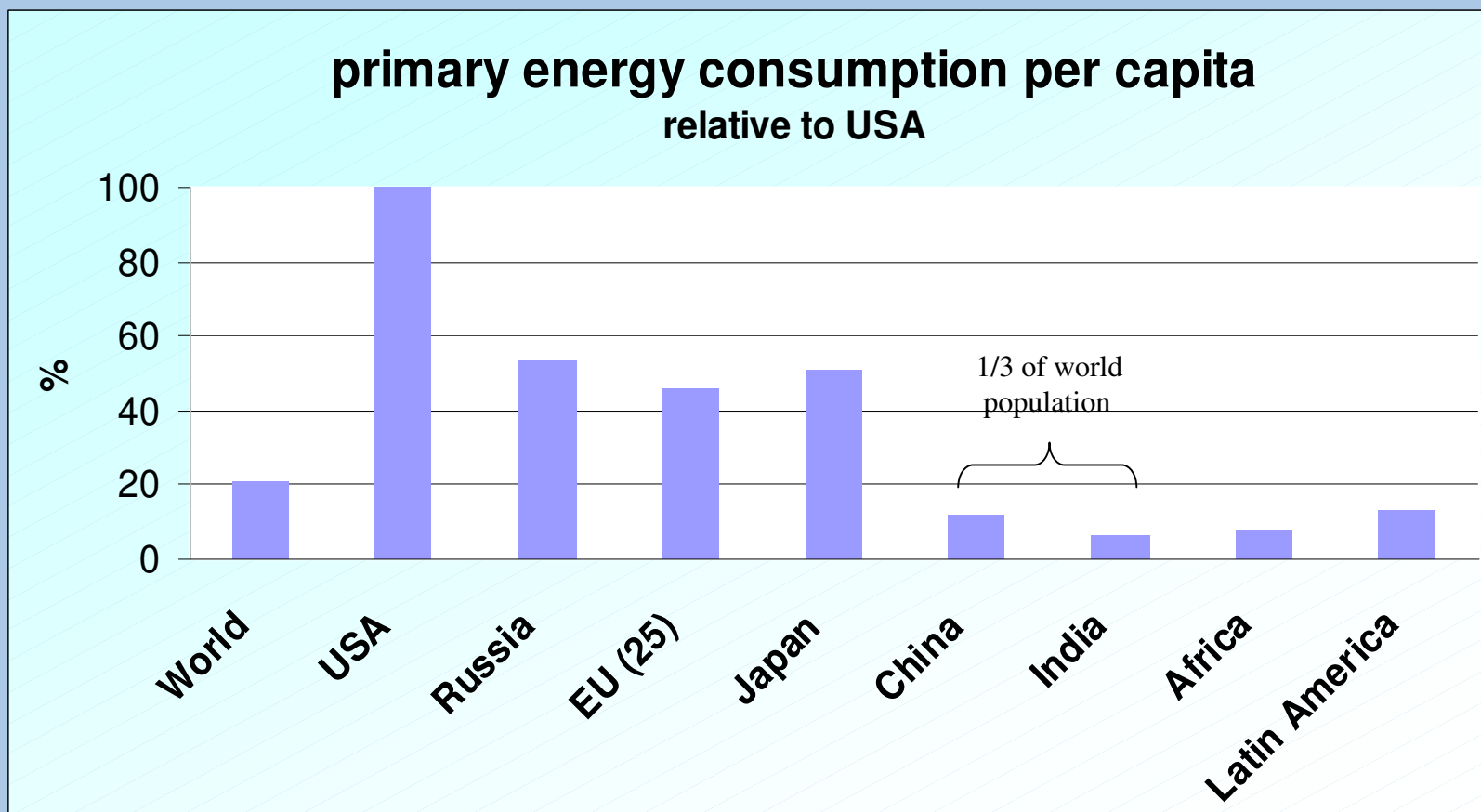
IGU mission:



- **actively promote the technical and economic progress of the gas industry**
- **improving the competitiveness of gas in the world energy markets, thereby emphasising sound environmental performance, safety and reliability**
- **promote transfer of technology and know-how, serving as information clearing house**
- **maximise value to its members and to gas customers**



Energy Consumption in Perspective

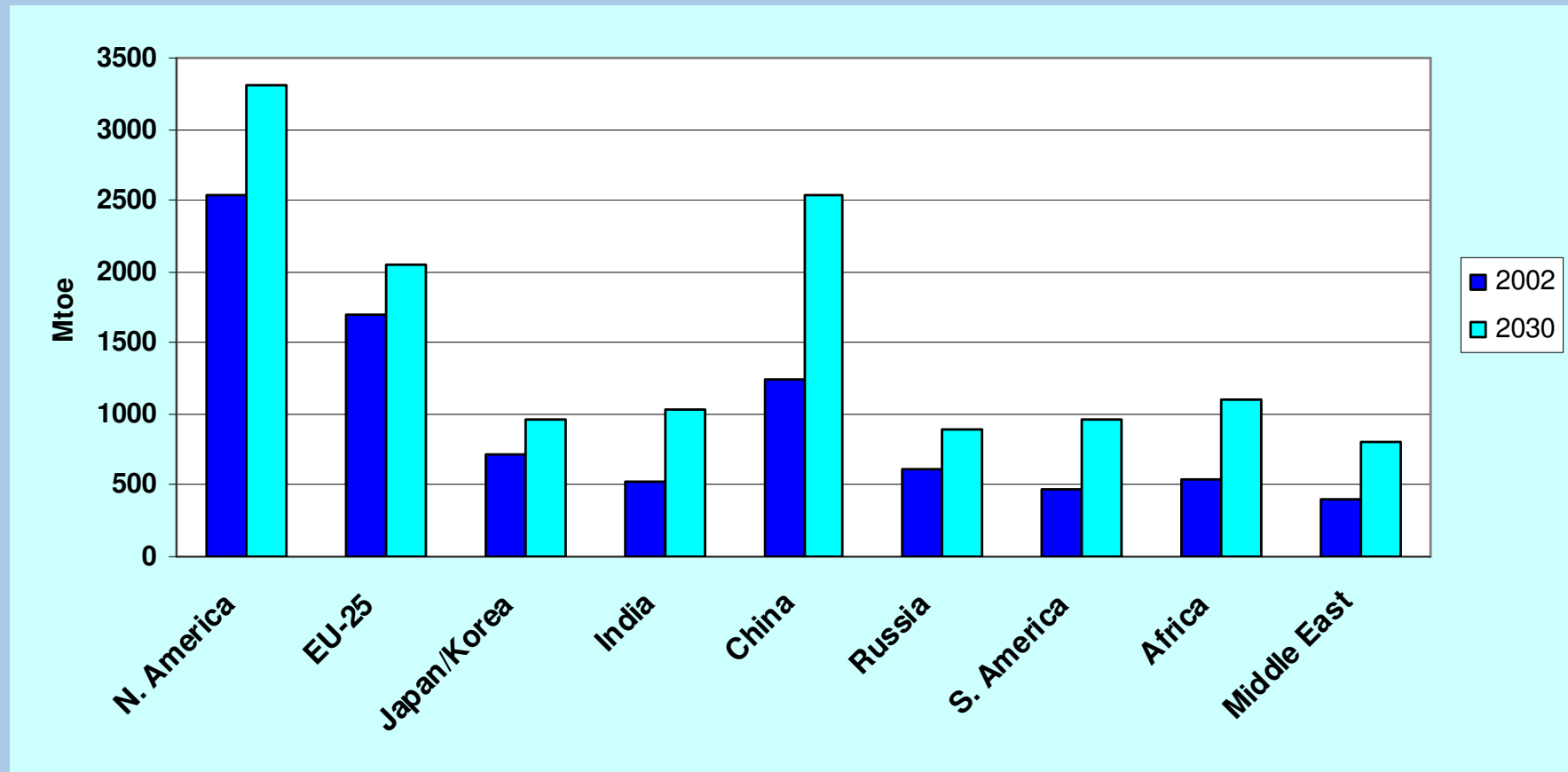


IEA data year 2002

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Total Energy Demand by Region 2002 and 2030



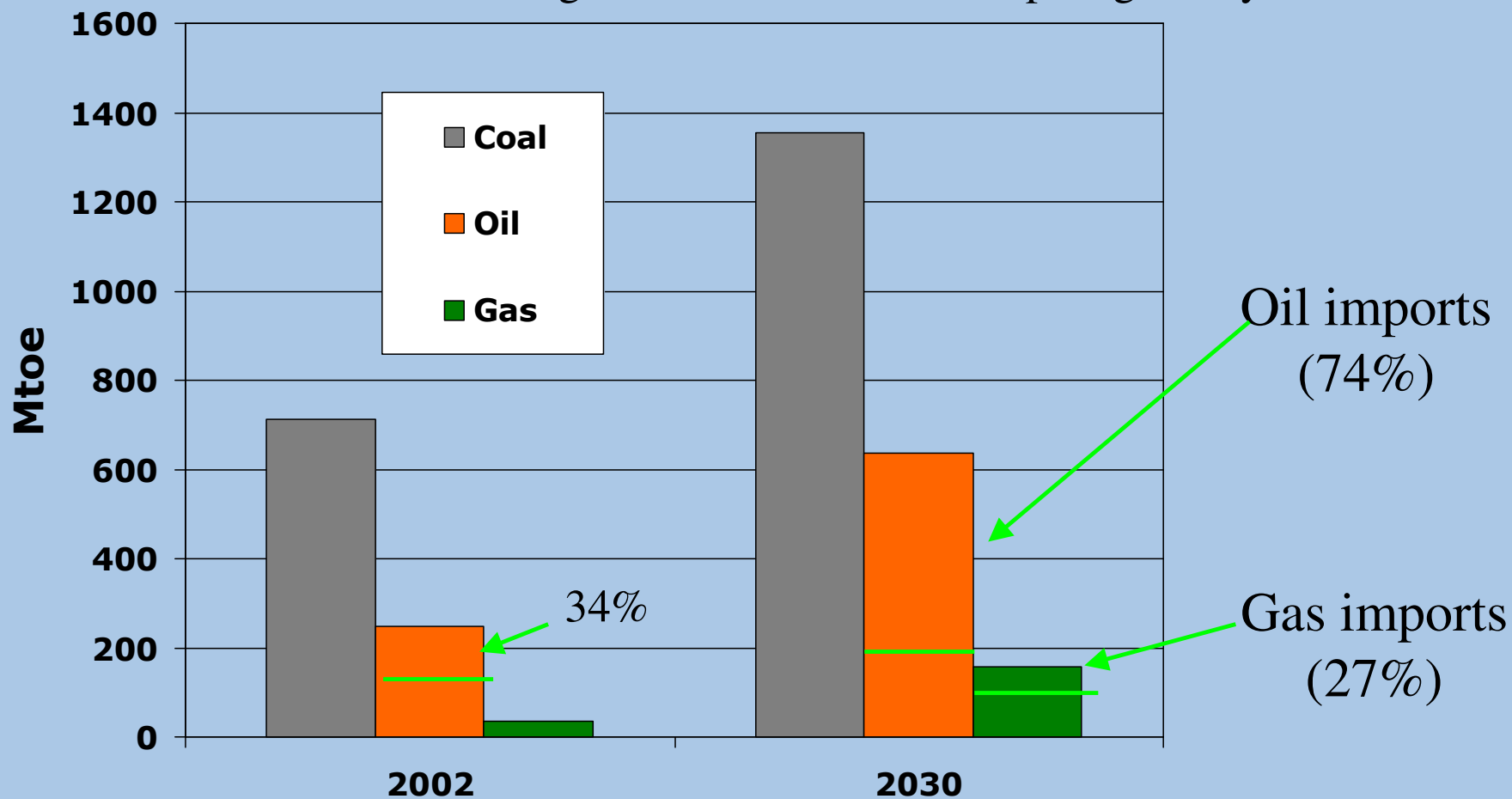
Data: IEA, WEO 2004

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China hydrocarbon demand

Chinese gas demand of limited impact globally?



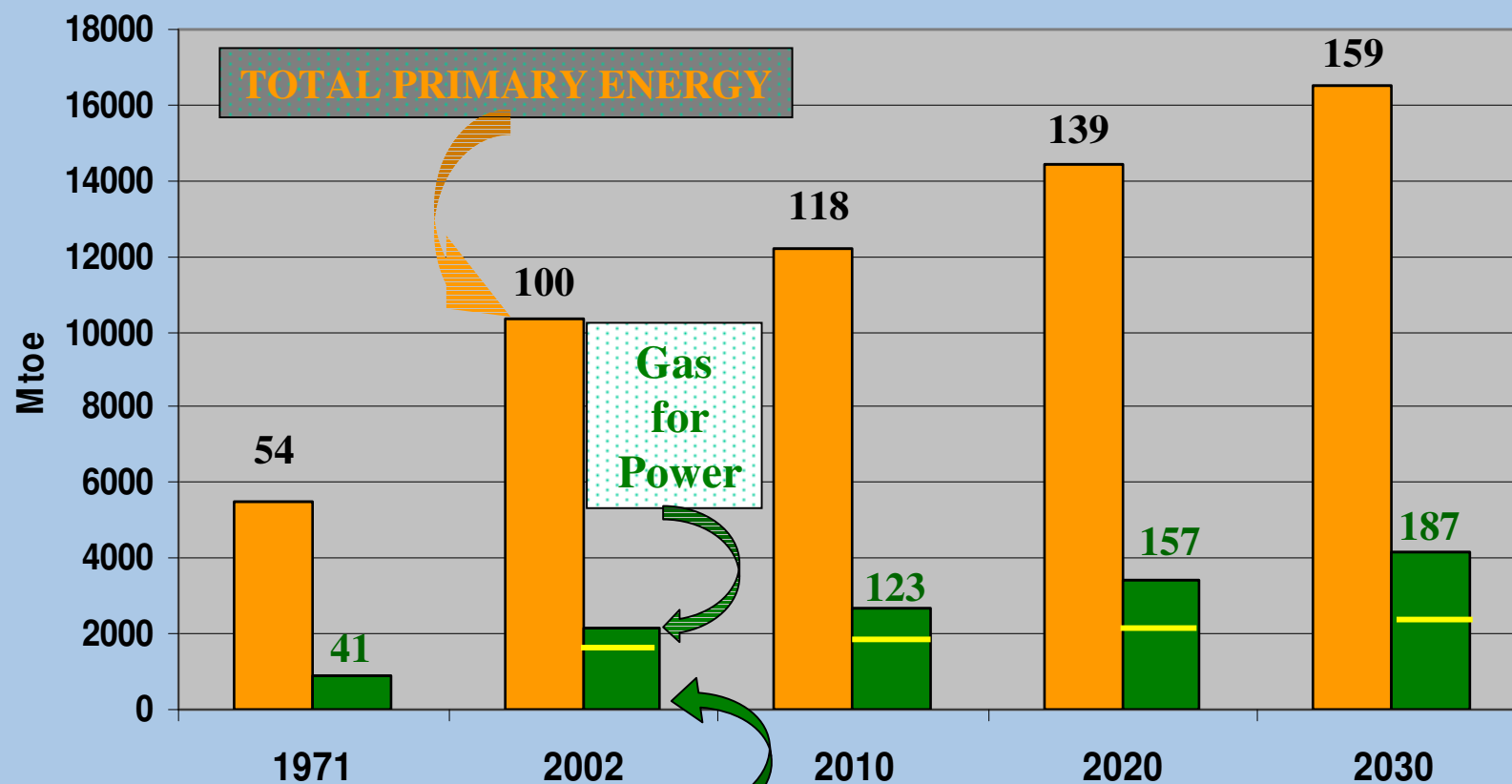
Data: IEA, WEO 2004

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Global Energy Demand Forecast IEA

Growth relative to consumption in 2002
Gas has growing Power segment



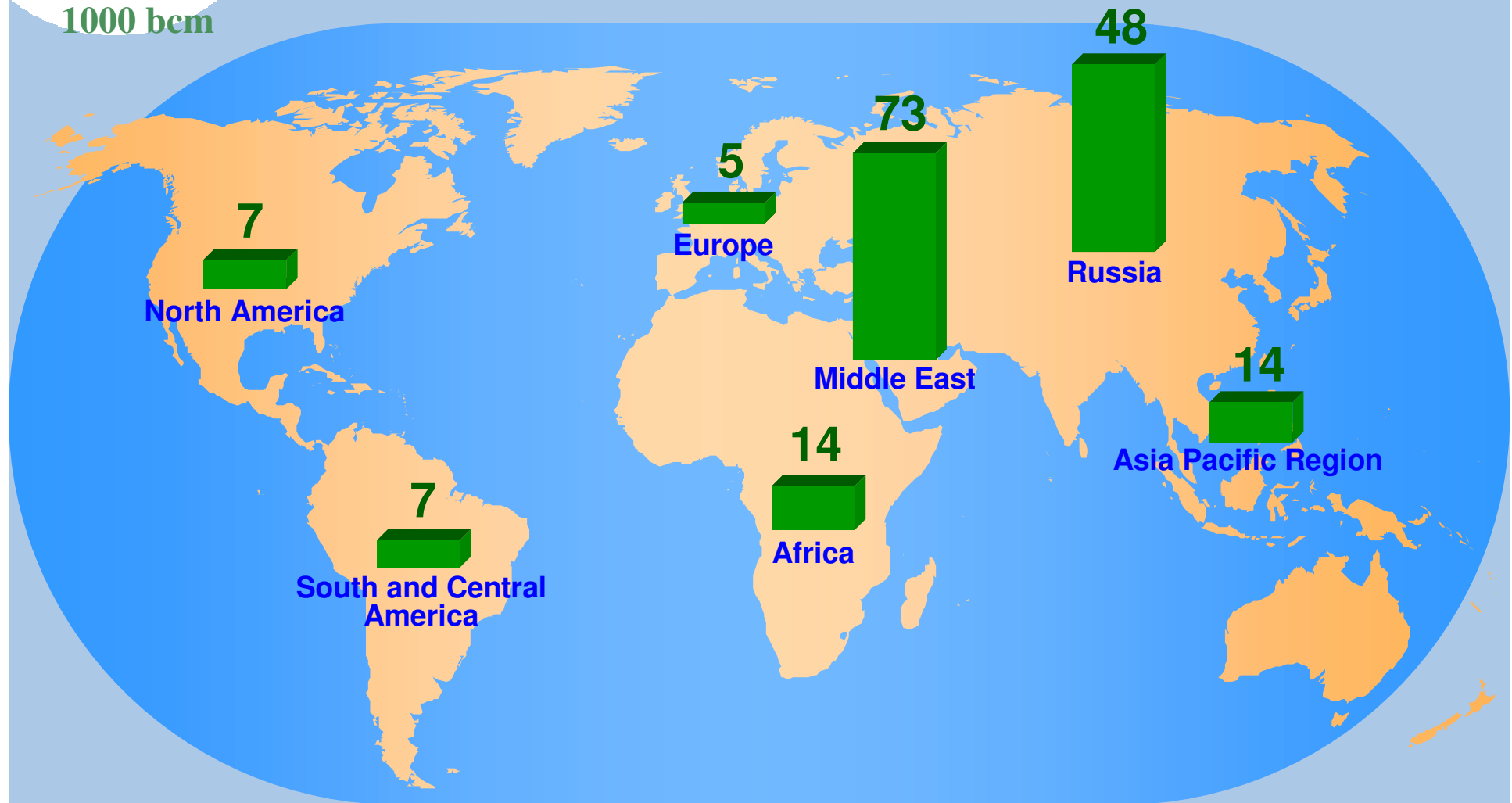
Gas for other market segments

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World Gas Reserves Proven 180 Trillion m³ R/P ratio ~66 years

1000 bcm



Data: BP Statistical Review 2005

05/12/2005

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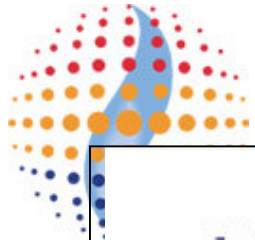
Position RF Oil & Gas

| | production | exports | proved reserve |
|---------------------------|------------|---------|----------------|
| OIL <i>MTOE</i> | 460 12% | 300 | 9.900 6% |
| GAS <i>BCM</i> | 590 22% | 150 | 48.000 27% |

#1

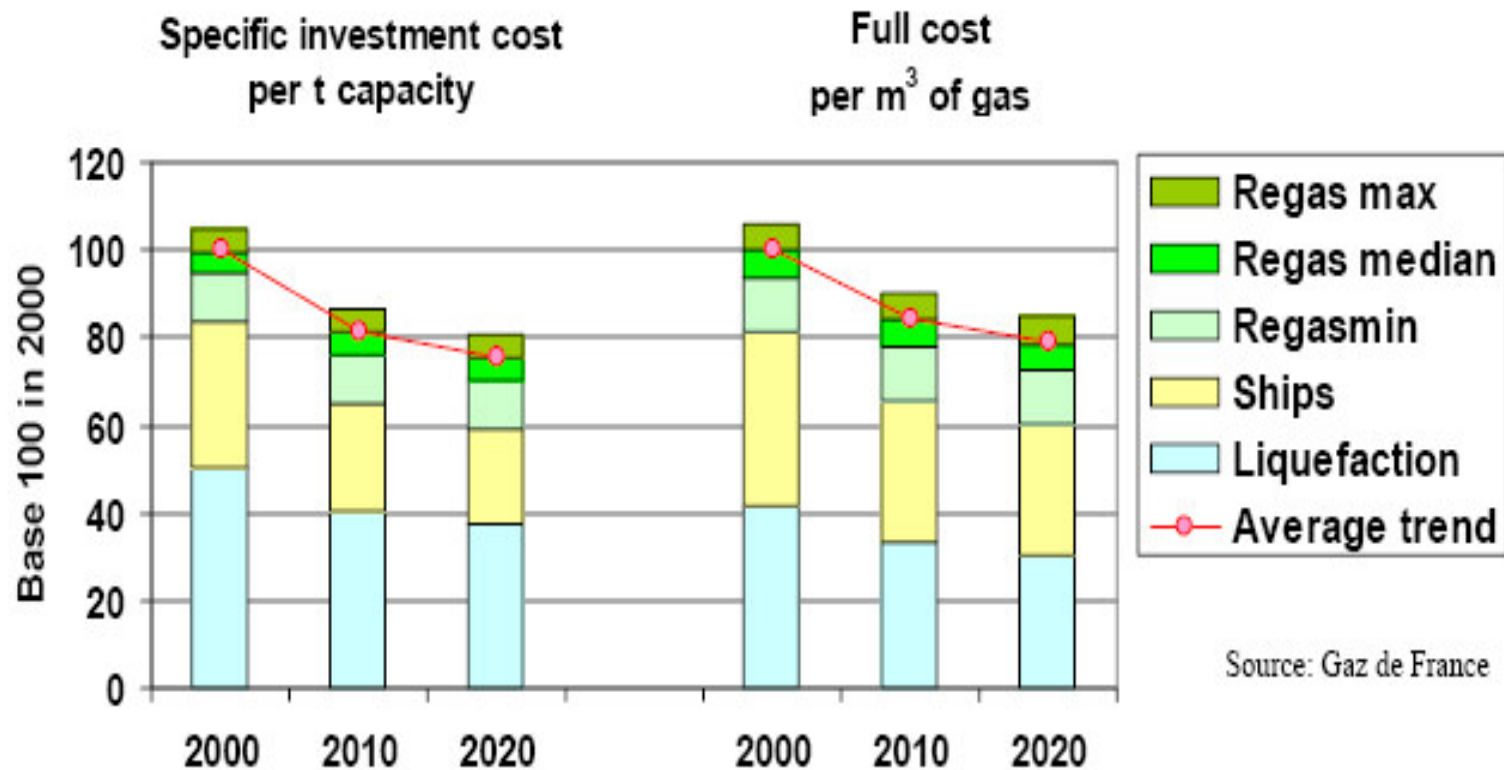
share of global production/reserves

data source: BP stat. Review 2005 and IEA WEO 2004; data for year 2004, rounded



LNG trumps: decreasing costs

For a 7 400 km LNG chain



Source: Gaz de France

Source: presentation by GdF at 19th WEC, sept. 2004

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LNG paves the way for Global Competition

- **LNG is more flexible than pipeline transport and has the ability to connect regional markets**
- **LNG will compete with pipeline transport: costs have decreased, offers diversification to sellers (and profit optimisation through the spot market).**
- **As gas demand remains high, gas import regions (Europe, US, Pacific Rim, China, India) will compete with each other for supplies.**



Market Models

USA, UK, EU(25)

- **Competition in gas trading**
- **Regulated access to transport and distribution networks**
- **Long term contracts under pressure**

GAS PRODUCING COUNTRIES

- **Production, transport, sales under control of one company**
- **LT contracts preferred to gurantee pay back of investments**



RF Gas Exports 2004

148 Bcm

| | | | |
|----------------------------|-----------|--|-----------------|
| Europe West | 86 | | EU25 107 |
| Europe Central/East | 47 | | |
| Turkey | 14 | | |

Consumption EU25: 467

- RF covers 23% of EU25 supply

- EU25 is RF's main export market

data source: BP stat. Review 2005; data for year 2004, rounded



Diversification of gas export



 = gas development

Transport by pipeline or LNG 



Impacts on price: Sellers or Buyers Market?

Overall the gas markets will turn out to be a sellers market:

- **Strong demand growth**
- **Diversification of purchases therefore limited**
- **Investments are delayed**
- **Exploration and exploitation is difficult and expensive in important areas**
- **Bottlenecks in LNG-chains till 2008-2010**
- **Access to promising acreage is limited**

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**Thank you
for your attention**



See you in Amsterdam!
**23rd World Gas Conference
and Exhibition**
June 5 - 9 2006

