

Russia and global energy security

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Moscow

THK·BP



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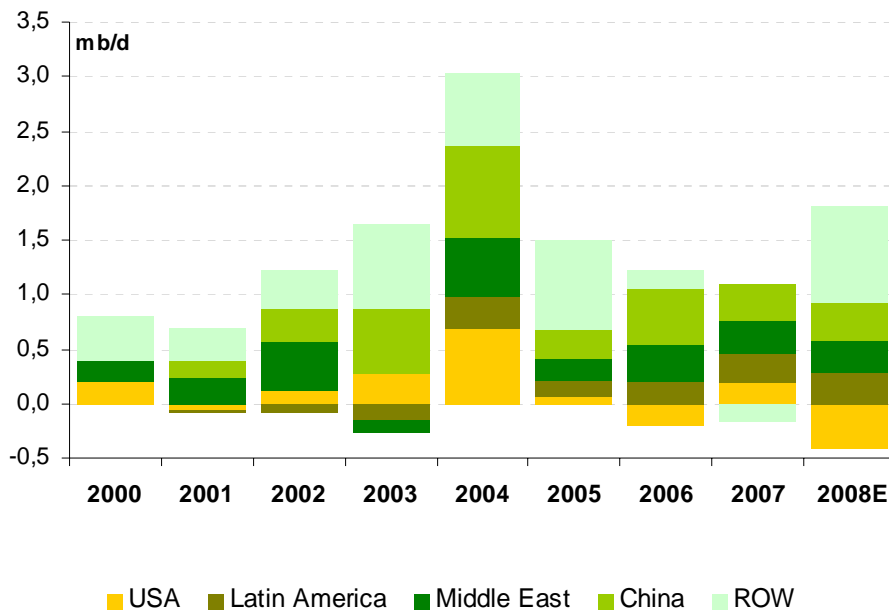
1. Global context: supply and demand
2. Russia's role in energy security
3. Industry challenges in Russia
4. Global investment call
5. Reciprocity: a need for a balanced approach

Global Supply vs. Demand: Balance Equation

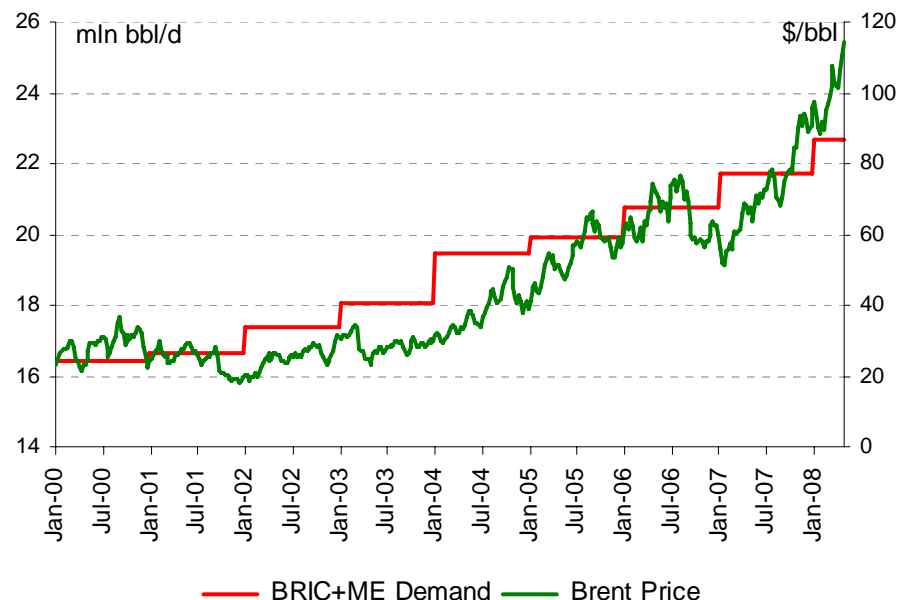
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Annual World Consumption Growth



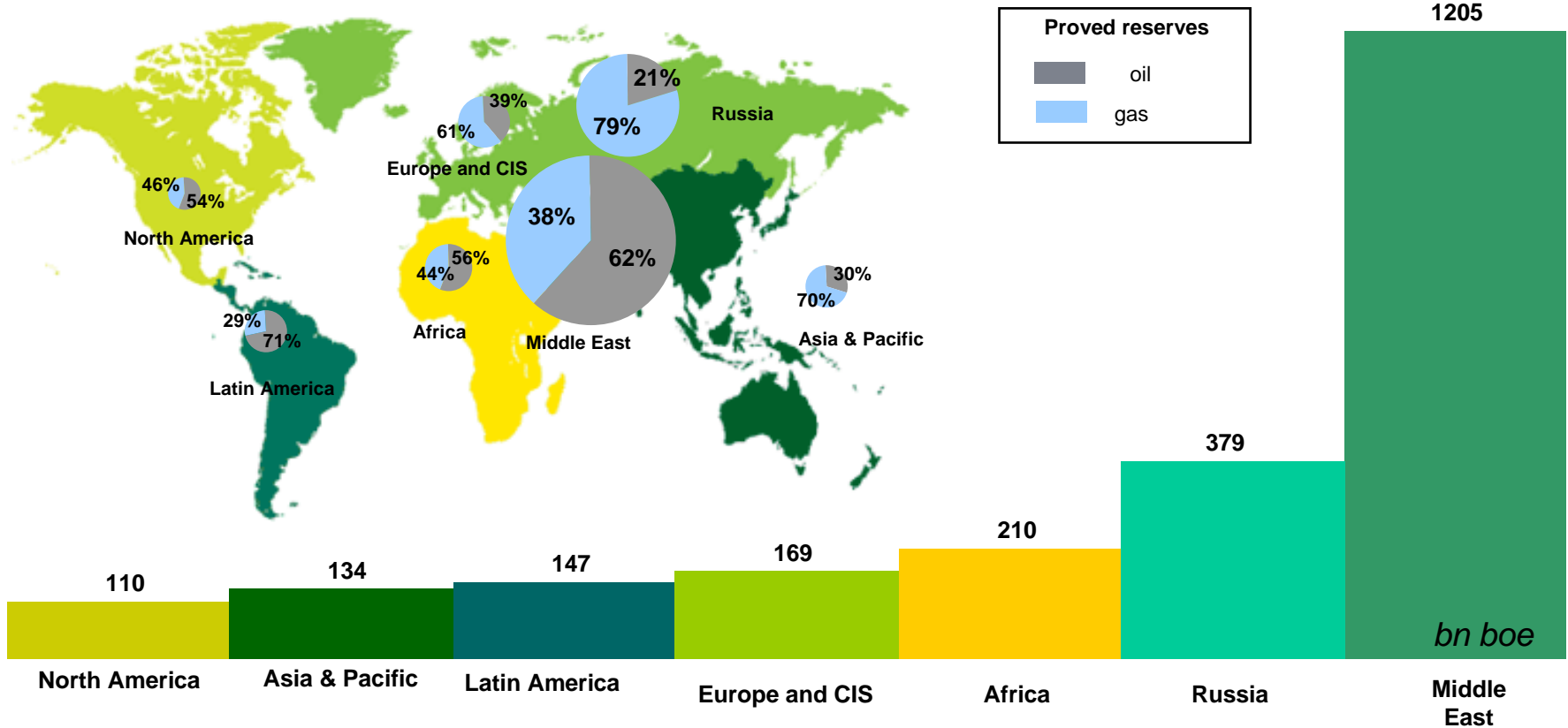
BRIC+ME Demand vs. Brent Price



Source: IEA, Platts, BP Statistical Review, TNK-BP estimates

Since 2000 and especially after 2005, China, Middle East and Latin America have replaced US as key drivers of growth in global demand for hydrocarbons; meanwhile BRIC+ME demand growth has appeared closely correlated with global oil price

Issue is not lack of new resources, but ability to deliver them

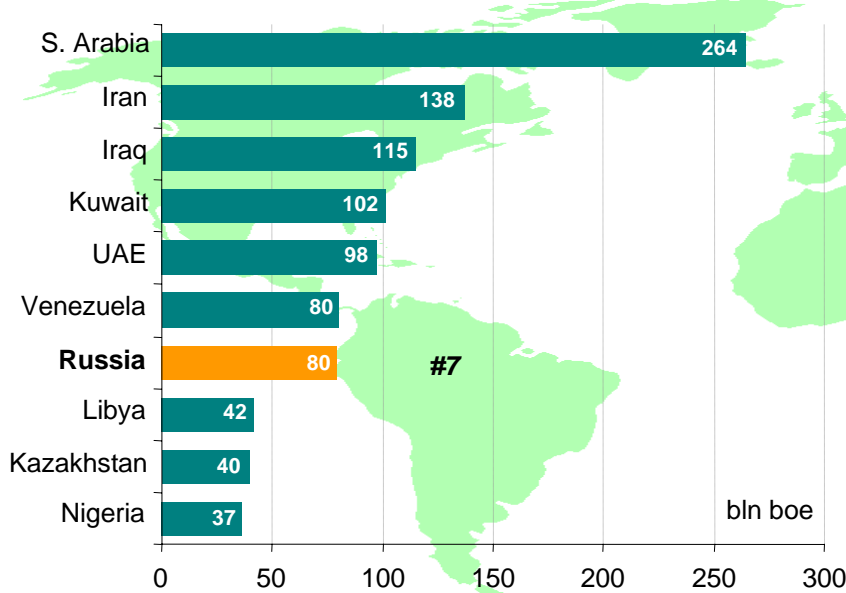


Key risks affecting deliverability of new resources:

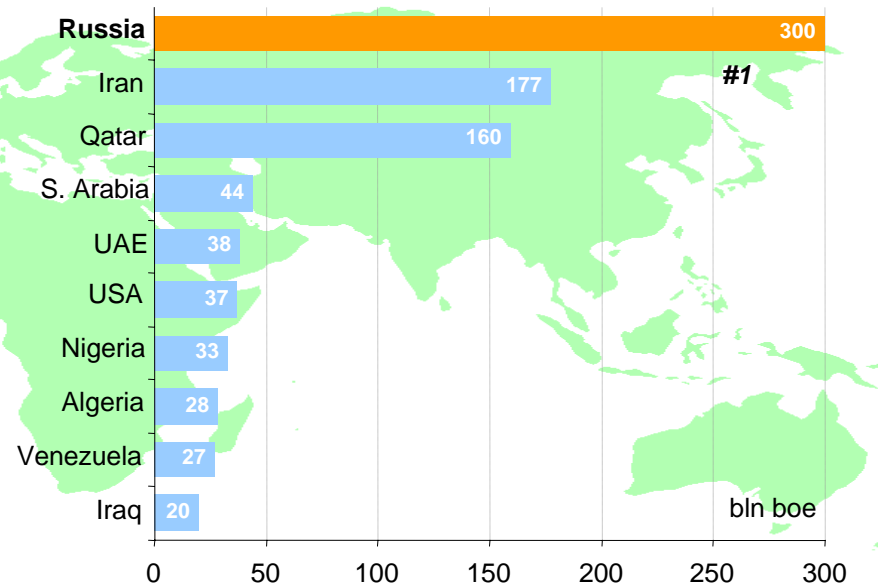
- concentrated in a limited number of regions with high political risks;
- located far from the main markets;
- take considerable lead time to develop

Russia's role in energy security

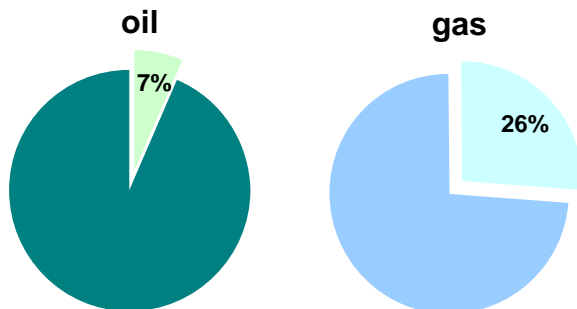
Top 10 countries with the largest oil reserves



Top 10 countries with the largest natural gas reserves



Russia's share in the global production

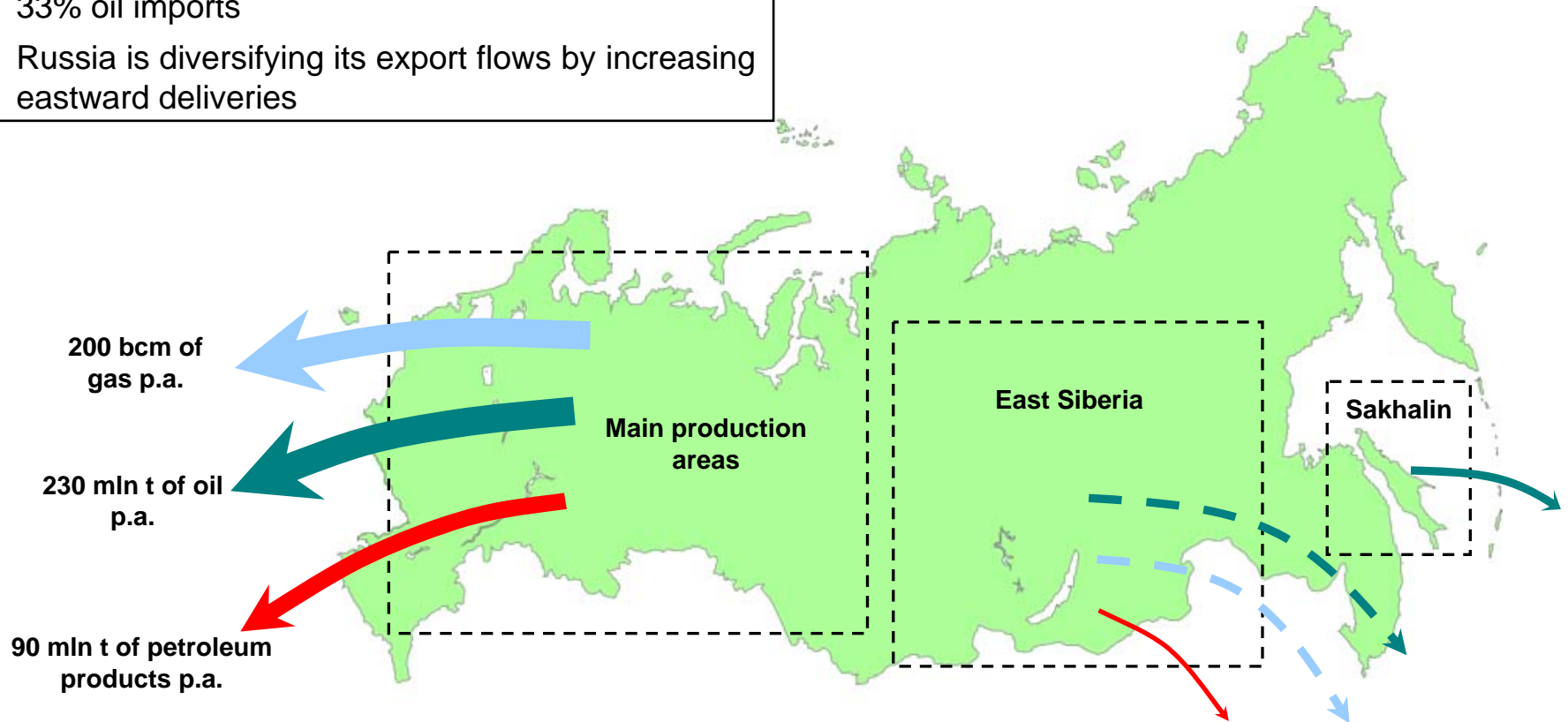


- **Russia holds considerable oil reserves (#7 in the world, 7% of global reserves)**
- **Russia holds world's largest gas reserves (26% of global reserves)**

Russia remains an increasingly important part of the global energy supply chain



Track record of almost 50 years of delivering reliable energy supplies to Europe
Russia accounts for ca. 46% of European gas and 33% oil imports
Russia is diversifying its export flows by increasing eastward deliveries



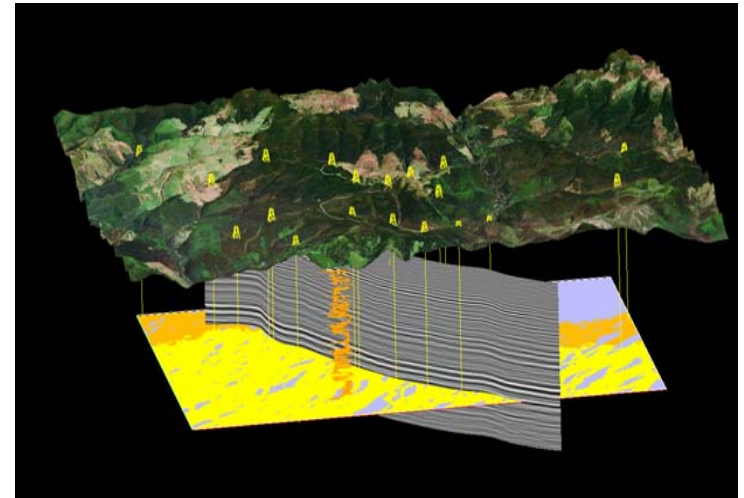
Key Industry Challenges

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CHALLENGES in RUSSIA

1. Sustaining brownfield production
2. Commencing development of new provinces
3. Large capex and infrastructure requirements
4. Technology
5. Tax regime; inflation and costs management
6. Organizational capability



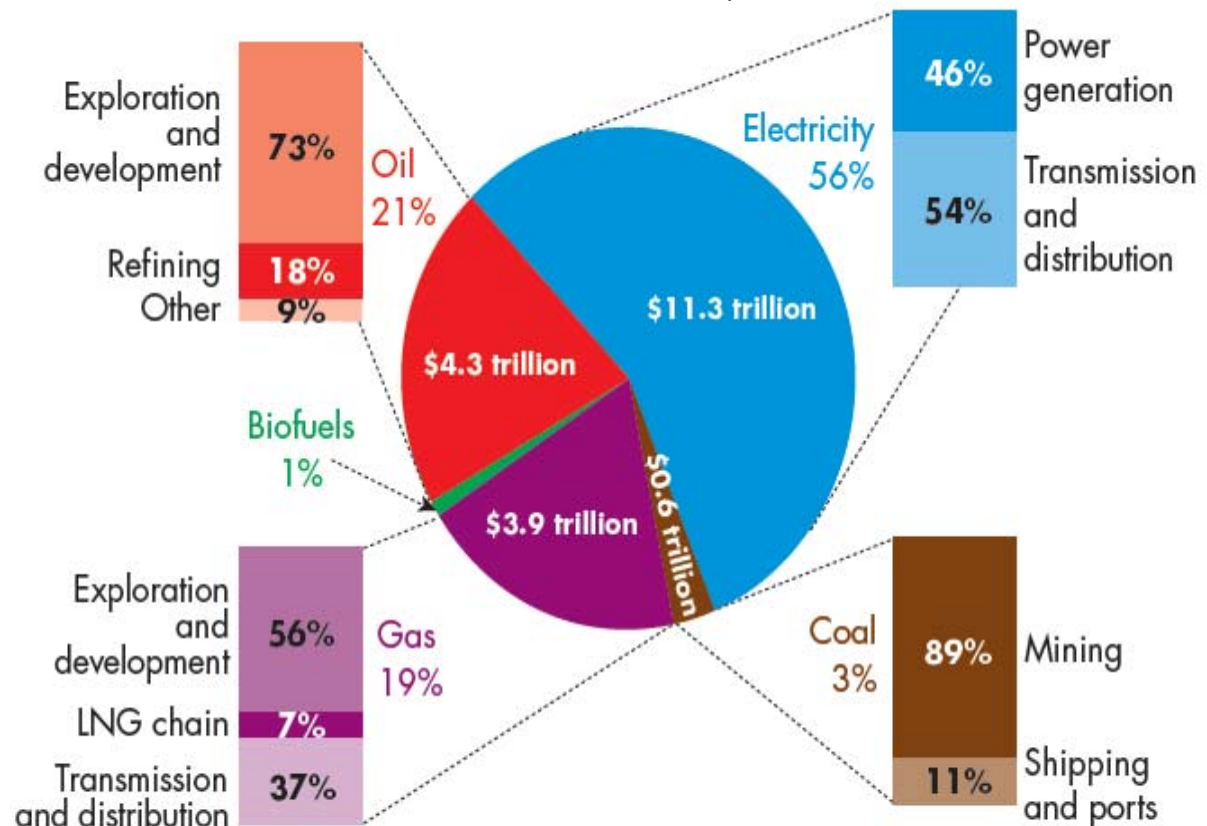
Global Investments call



- Meeting the world's **growing hunger for energy** requires massive investment in energy supply infrastructure.
- Attracting **sufficient investments** is a **significant challenge** for the industry, governments, society
- Russian already has extensive energy infrastructure, but still need to invest 6% of total investments

	Russian share of investments \$bn
Coal	15
Oil	478
Gas	440
Power	263
Total	1,195

Cumulative investments in energy infrastructure 2005-2030 (in year 2005 dollars)



Total investment = \$20.2 trillion (in year-2005 dollars)

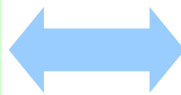
Reciprocity: a Critical Element of Energy Security

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Reciprocity

stimulates a functional interdependence between producers and consumers



Transparency

enables planning of demand, supply, investments and deliveries



Balanced market access and openness to investment
foster greater energy security

Cross-border capital flows, openness to investments and absence of protectionism

- Openness of producer nations to investment into their upstream sector
- Openness of consumer nations to investment in their refining, marketing and retail

Russian oil and gas and global energy security

- Russia has emerged as an important player in global supply system and a stabilizing factor for international energy security
- Reserve potential is vast but serious challenges need to be addressed to sustain its role
- International cooperation is needed and would benefit both Russia and the world
- Rules for international participation are being given more definition, however more needs to be done
- Interdependence will increase: a new model of energy cooperation needs to evolve.



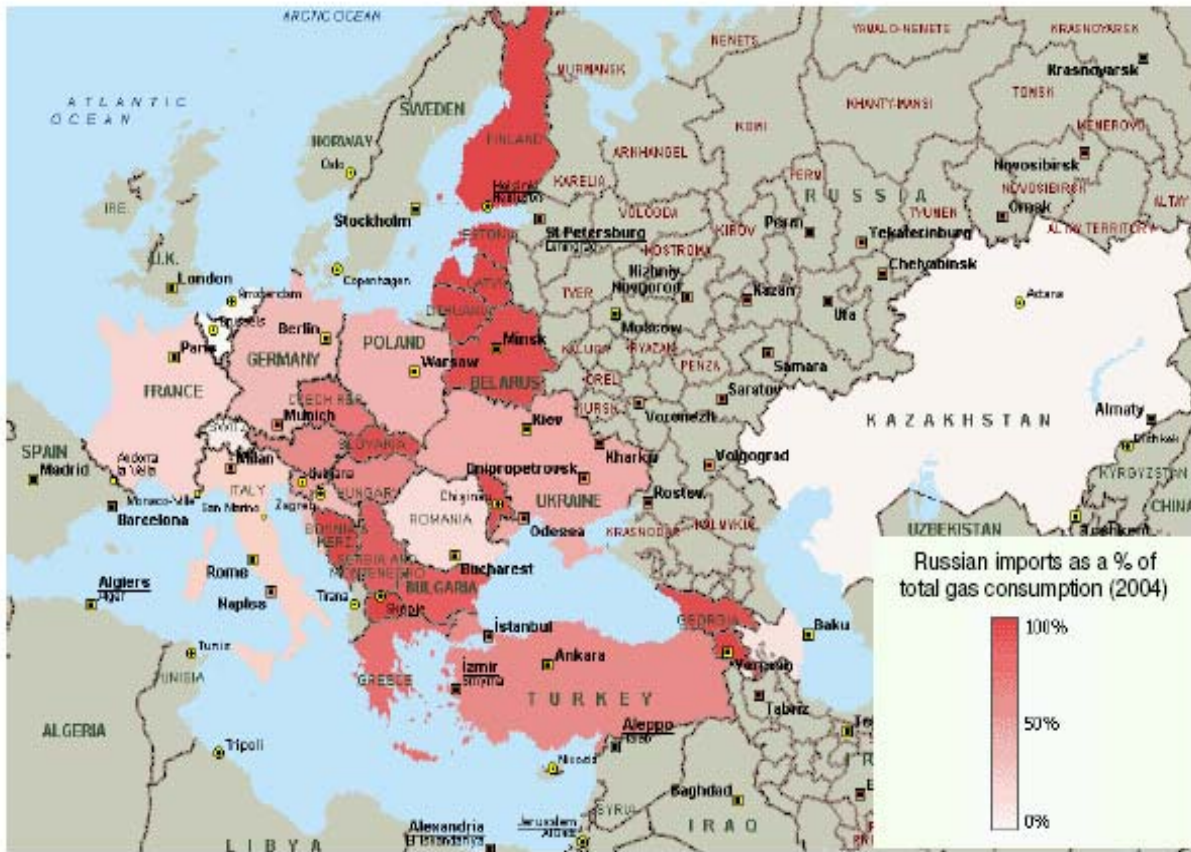
In 2006 IEA stated \$17 trillion in new energy investment were required to sustain world economic growth through 2025

Backup - RF Supply to Europe



Gazprom's market share in European countries

Gazprom gas balance, 2007 (bcm)



Source: CEDIGAZ, 2004

	Supply		Demand
Gazprom production	550	Russia	467
Independents	57	Export to Europe	150
Central Asia import	57	Export to FSU countries	87
Associated gas	40	TOTAL	<u>704</u>

- **Gazprom is the main gas supplier for Europe (over 25%)**
- **Europe provides significant revenue contribution to Gazprom (over 70%)**