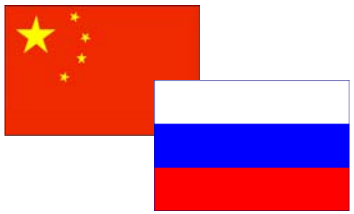
INSTITUTE OF ENERGY STRATEGY

Gas turn of Russia and Central Asia to the East: problems and prospects



Alexey Belogoryev

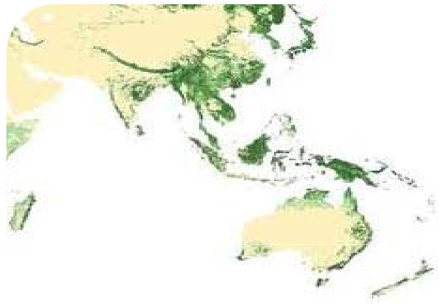
Head of Fuel & Energy Complex Department,

Scientific secretary,

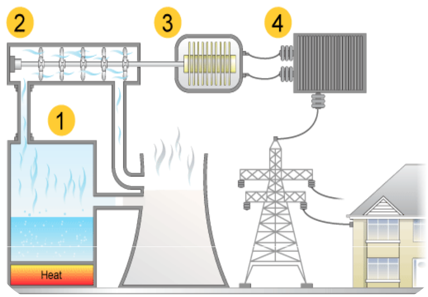
Institute of Energy Strategy, Moscow

Russian priorities in the natural gas export: ***diversification & safety***

Long-term stability and reliability of deliveries



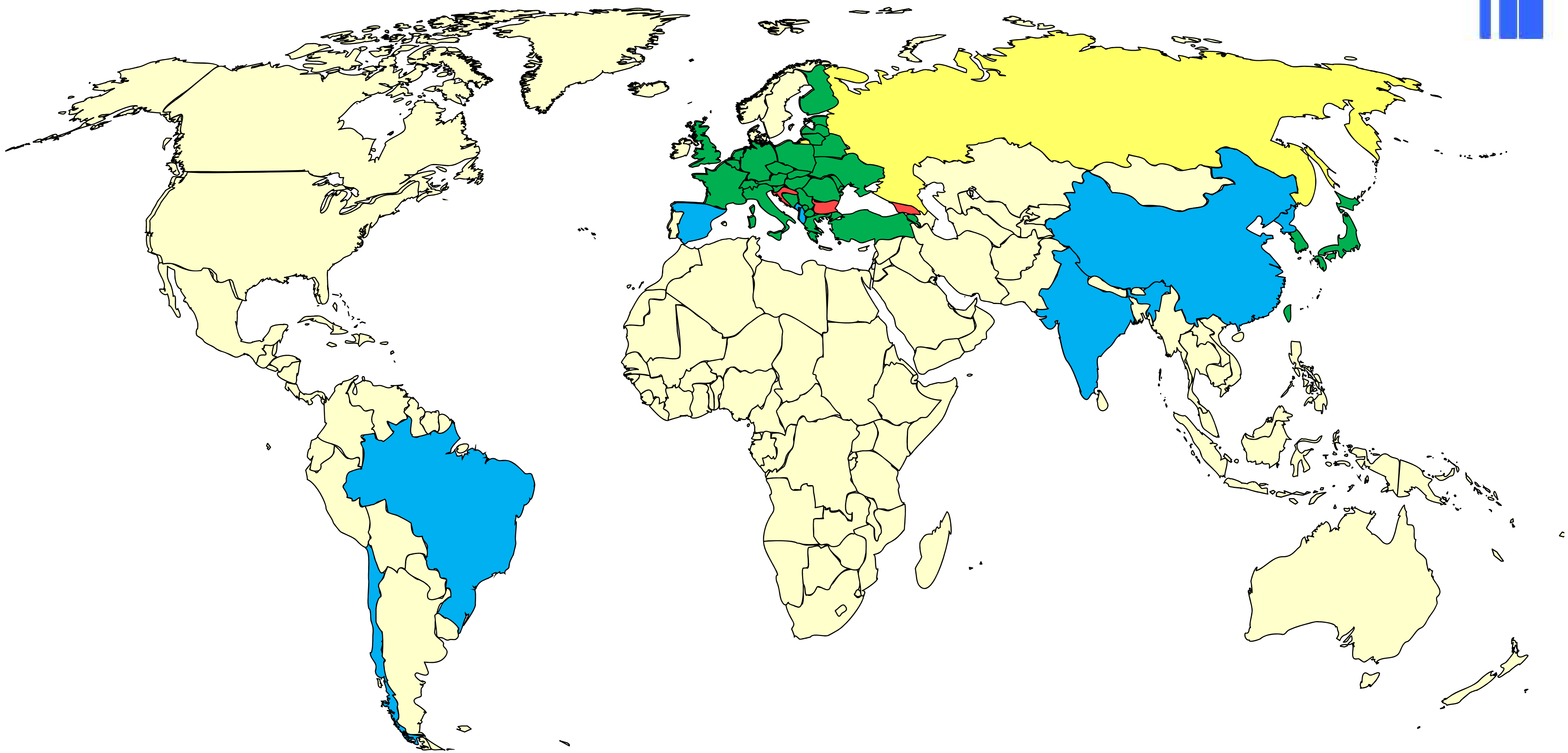
Entering the new markets (China, South Korea, India etc.)



Access to the final buyers of natural gas and electricity produced by gas generation

Decrease of the dependence on transit counties (Ukraine, Byelorussia etc.)

Main markets for Russian Gas 2030



Current markets, stable up to 2030

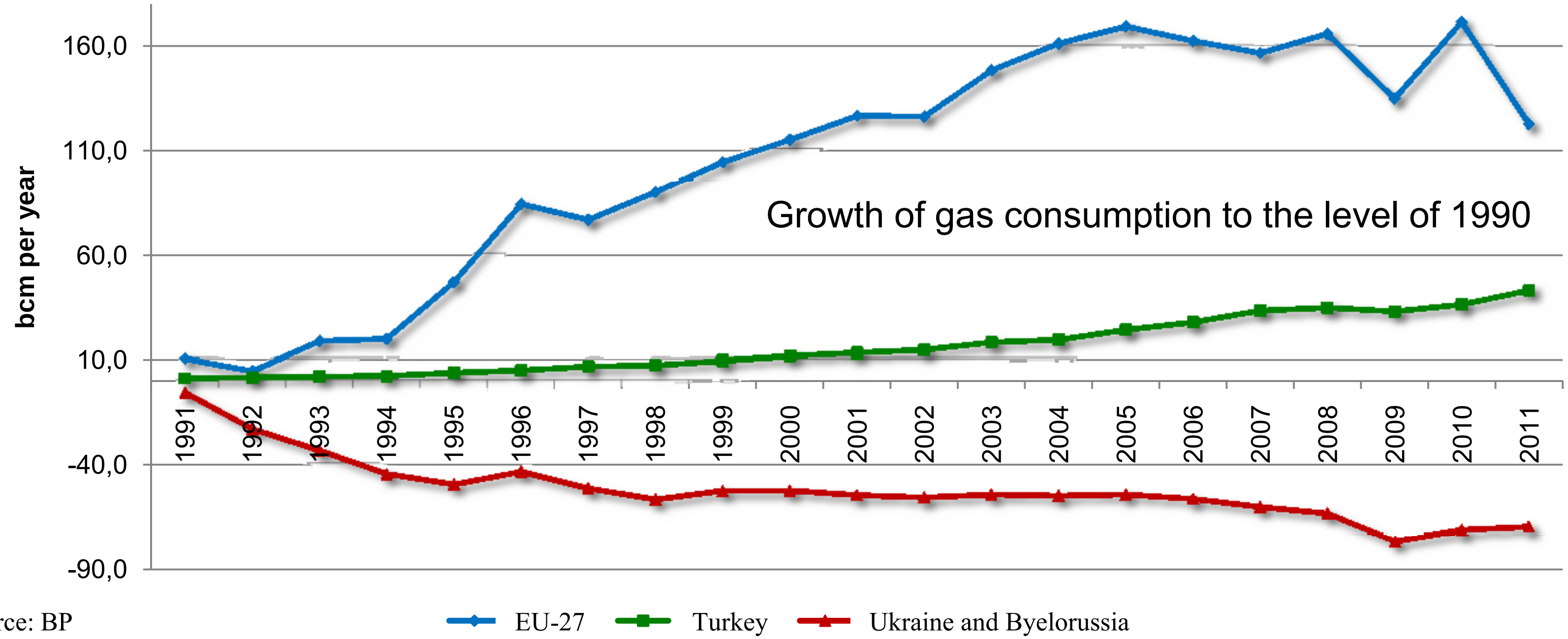
Expected loss of current markets

New markets

The share of the Asia-Pacific region by 2030 will reach 20%

Sources: Institute of Energy Strategy

Reasons for Russian and CA turn: European gas crisis

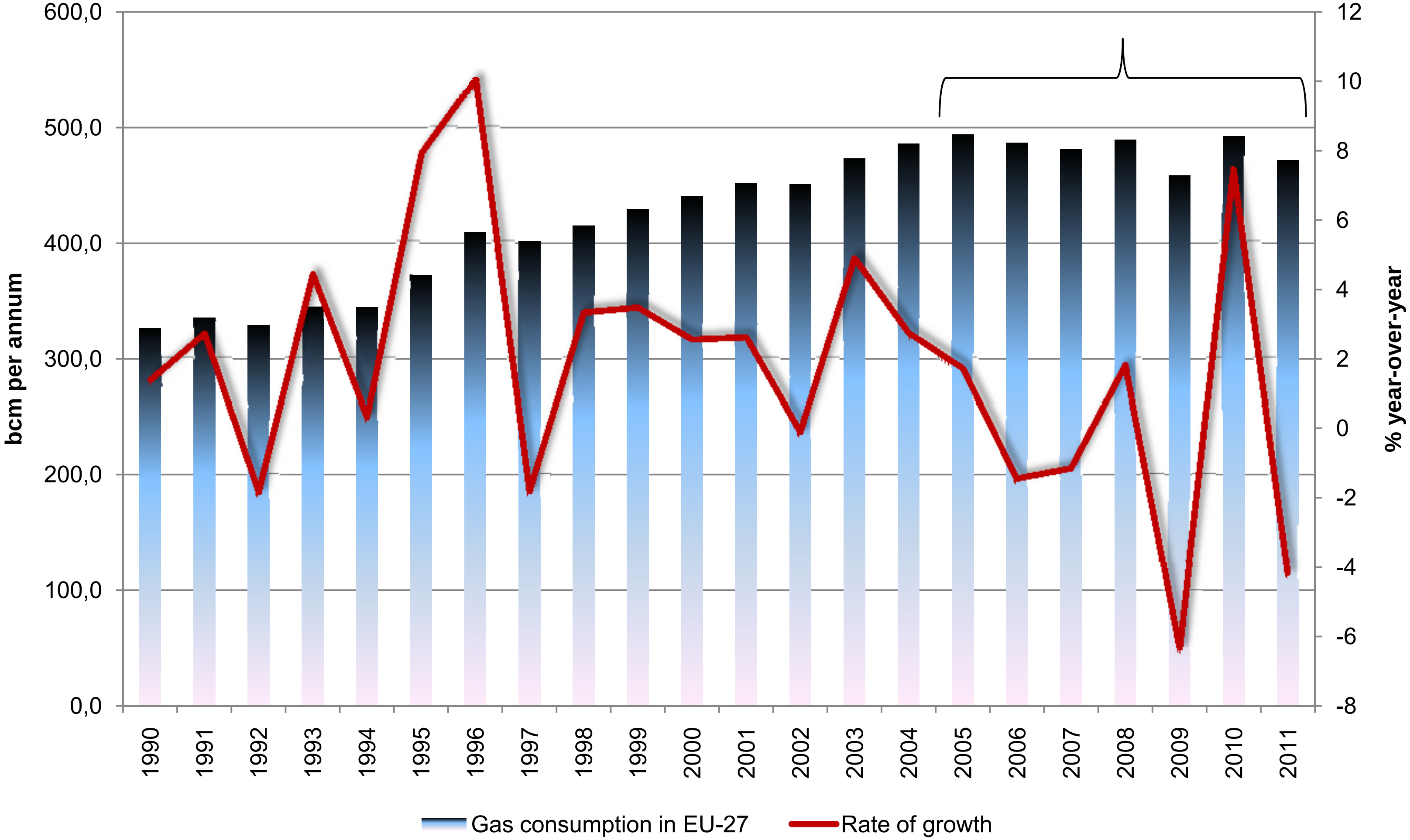


Source: BP

- long-term stagnation of gas demand in the EU-27, the increase only in Turkey;
- reduction of gas consumption in the CIS countries (largely because of high prices, very heavy for the region);
- the prospect of permanent price conflicts;
- progressive toughening of requirements to suppliers (third energy package);
- the volume of Russian delivery to Europe will be stable until 2020 (in the framework of the current contracts):
- The growth of supplies while maintaining the current price ratios will be insignificant (mainly, at the expense of the countries not included in the EU)

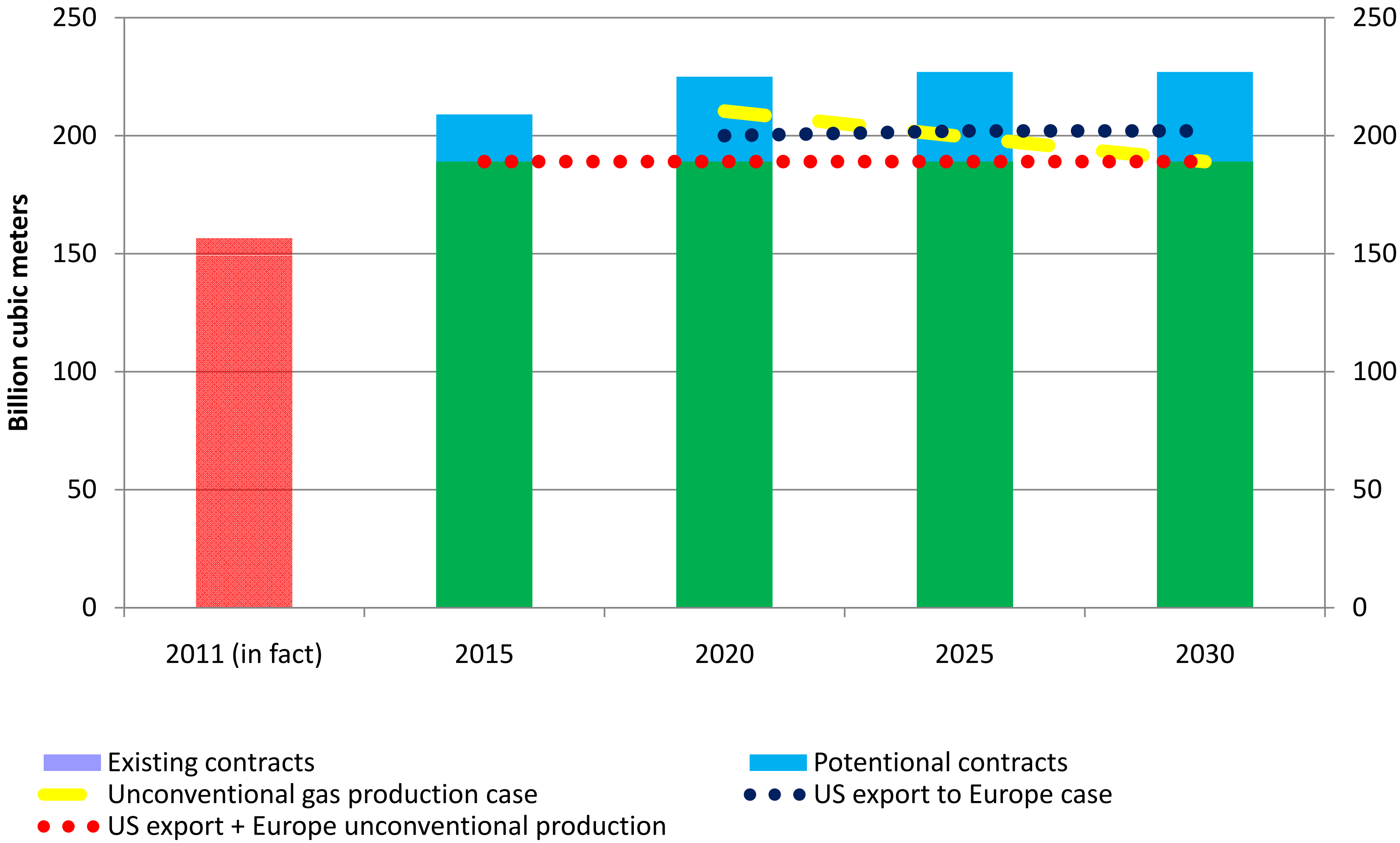
Sources: Institute of Energy Strategy

Status quo in Europe



European market stagnates.
Existing supply + LNG + Nigeria is enough in the foreseeable future.

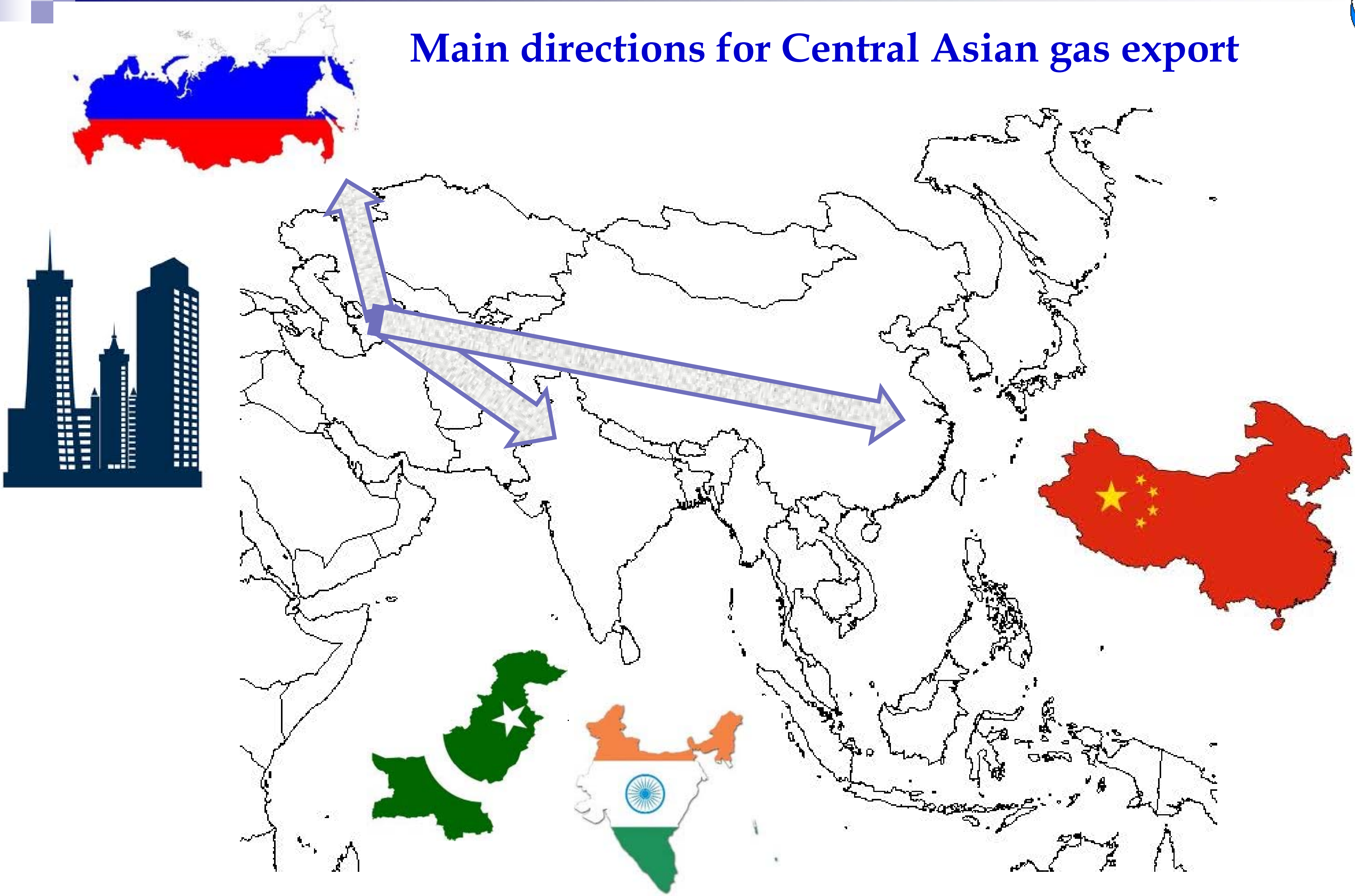
Russia's natural gas exports to Europe (cases)



Gazprom will lose significant part of EU market in case of success in shale gas

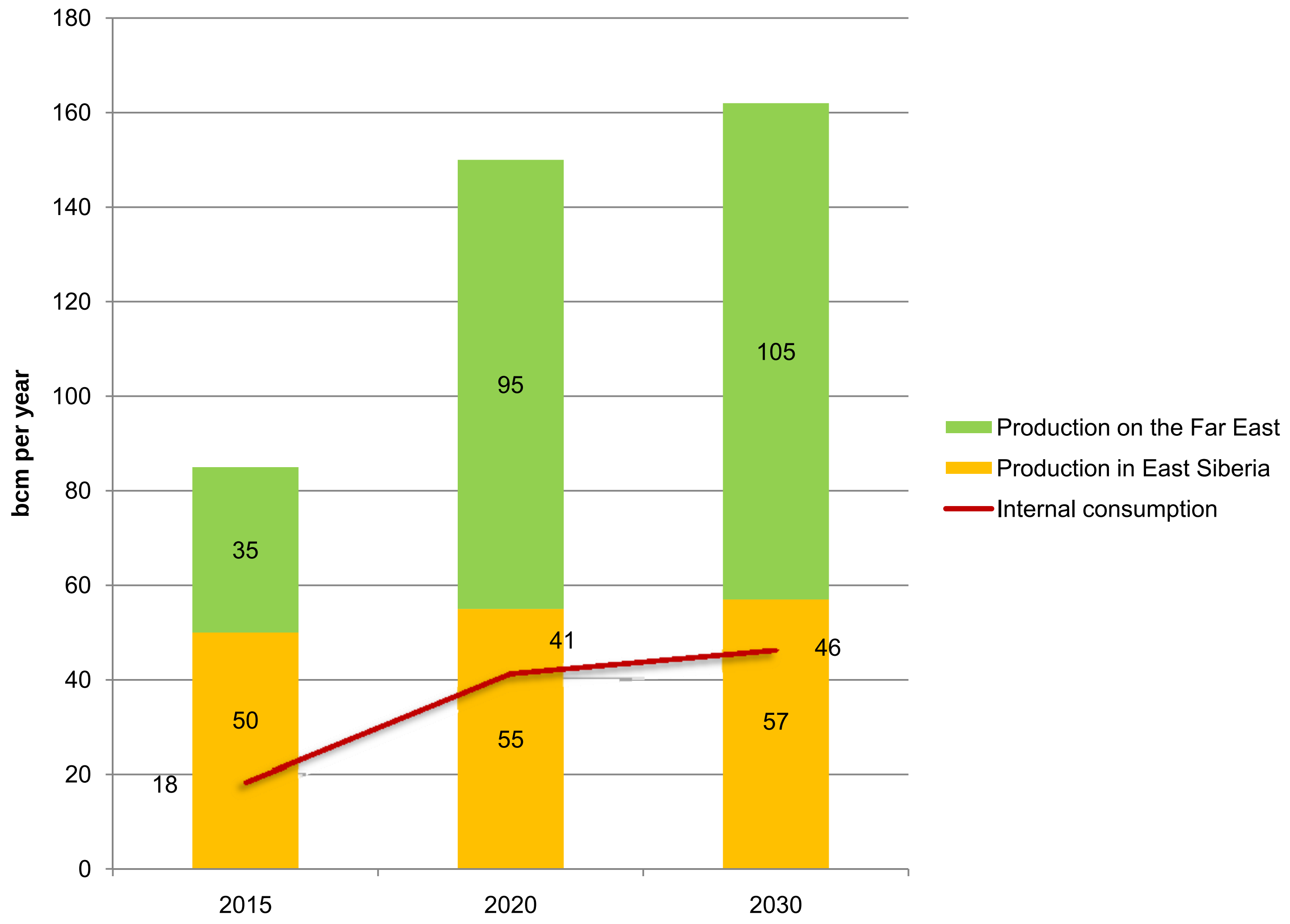
Sources: Institute of Energy Strategy

Main directions for Central Asian gas export



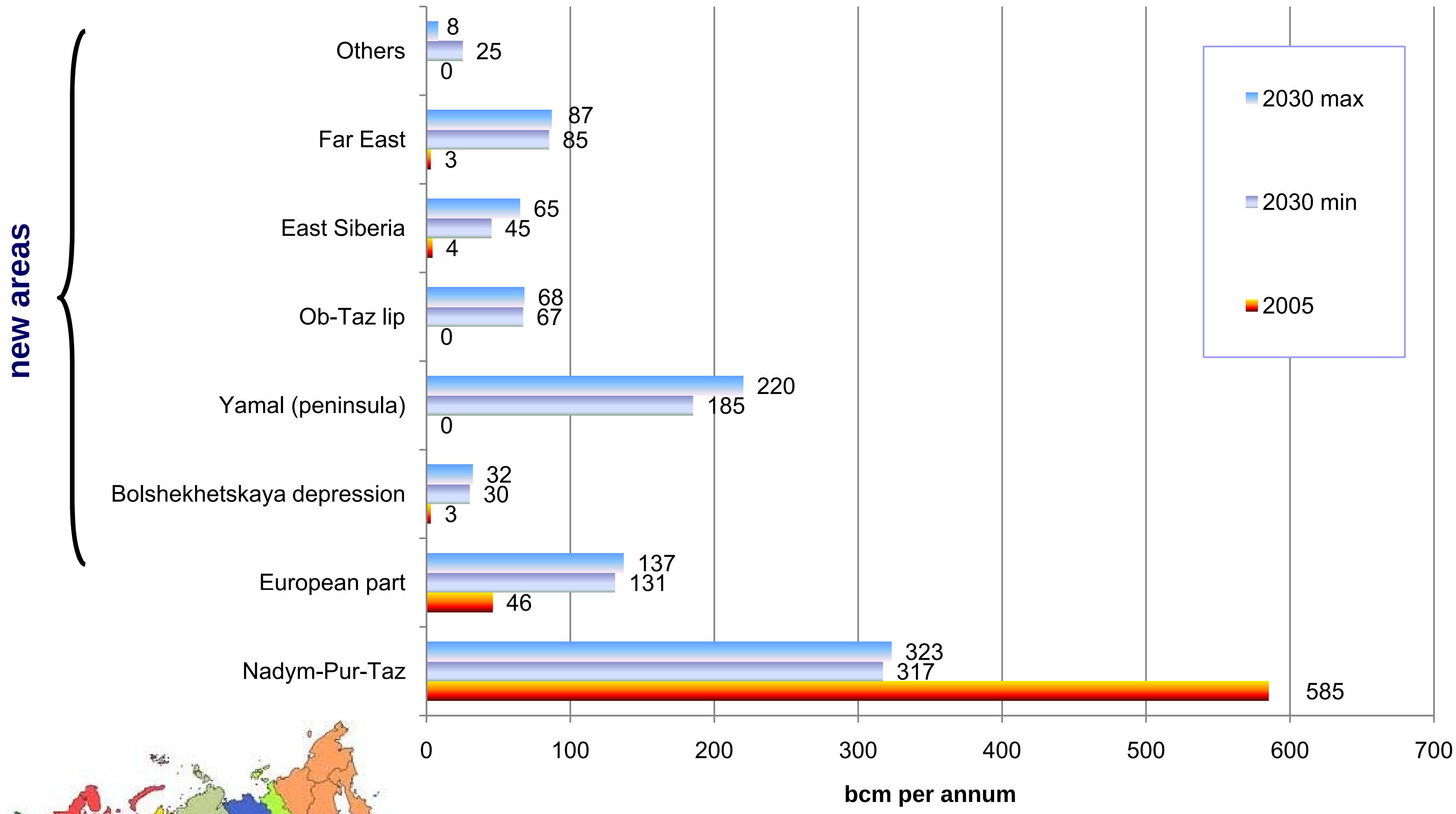
- ❑ Developing of local consumption
- ❑ In leaps and bounds growing Asian markets

Reasons for Russian turn: regional development



Sources: Eastern gas program

Changes of Russian gas production map



Stabilization of production in West Siberia and fast growth in European part (Shtokman) and on the Russian East

Sources: Institute of Energy Strategy

First results in the East

Main tasks	2008	2010	Target to 2015
Share of Eastern Siberia and the Far East in the gas production	2%	4,70%	7-8%
Share of LNG in the gas export	0%	4,00%	4-5%
Share of the Asia-Pacific countries in the structure of gas export	0%	4,50%	11-12%

Sources: Institute of Energy Strategy

Goals of Eastern program

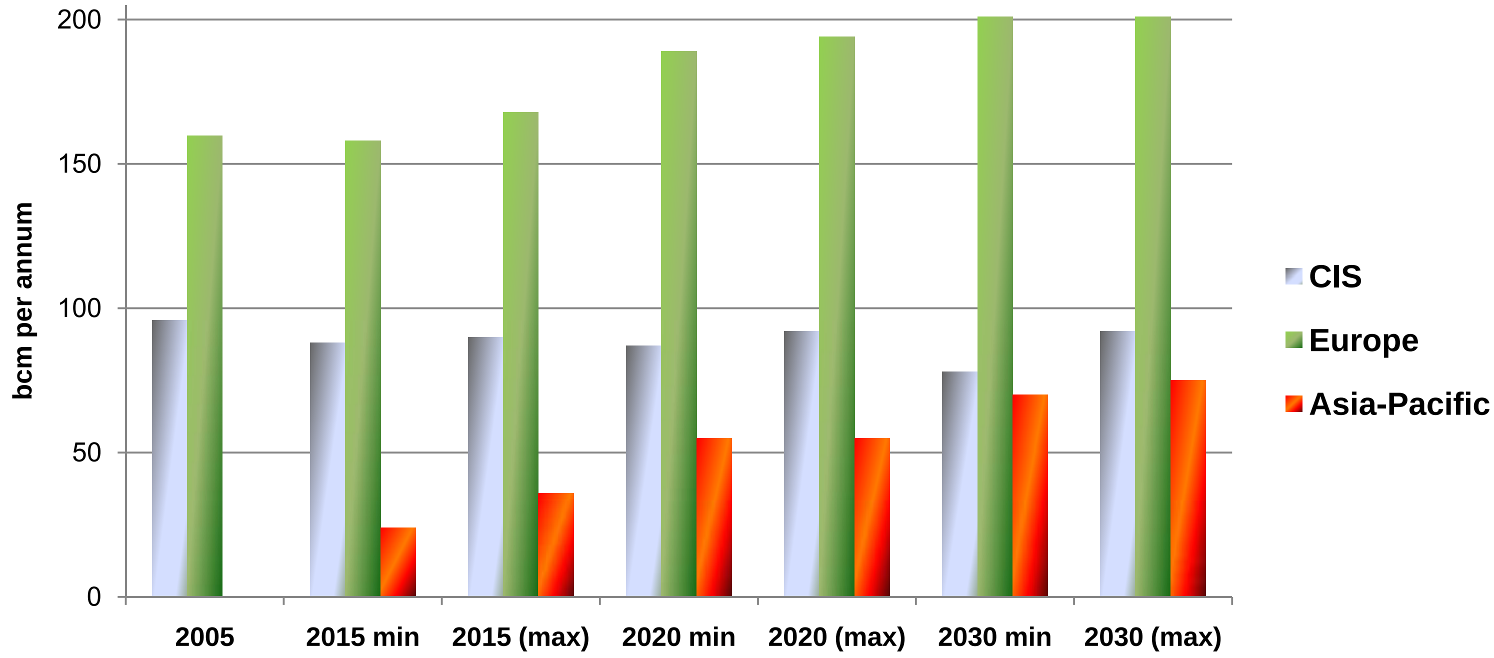
	2011	2030
Total export	230,1 bcm per year	*300-350 bcm per year*
The share of the Asia-Pacific region	6,0%	*not less then 20%*
The share of LNG	6,2%	*not less then 18%*

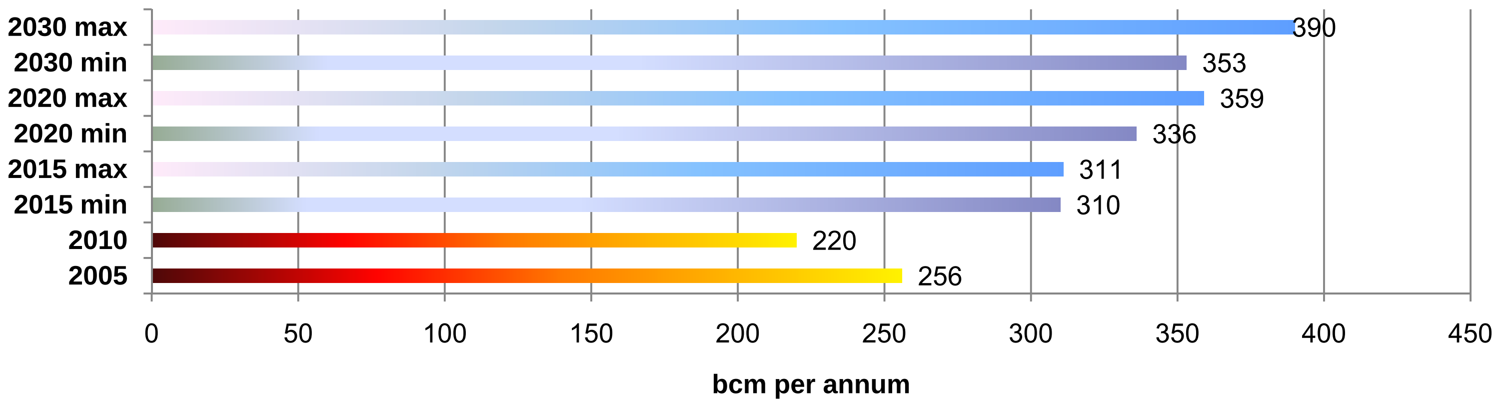
Forecast estimates of the volumes of production of energy resources in Eastern Siberia and the far East

	Measure	2000	2010	2020		2030	
		Fact	*Fact*	*Min*	*Max*	*Min*	*Max*
Oil	million tonnes	4	35	71	83	101	108
Natural gas	bcm per year	4	26	91	122	130	152
Coal	million tonnes	107	115	147	187	192	232
Electricity	Terawatt-hours	177	194	280	370	360	470

Источники: CDU TEK, CB RF, ES-2030, IES

The targets of export





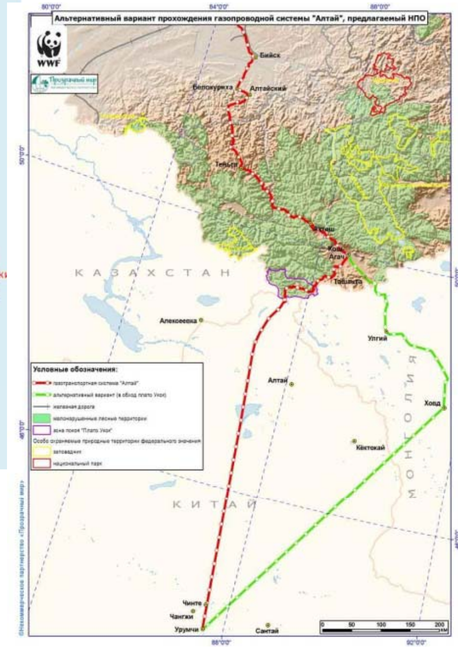
Sources: Institute of Energy Strategy

Gas pipelines and LNG plants

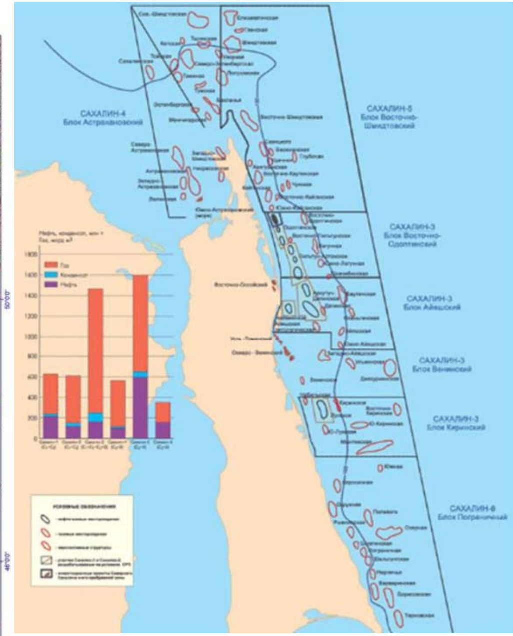
- Eastern Gas Program

- LNG Projects in Sakhalin and Vladivostok

- Natural gas Export to China

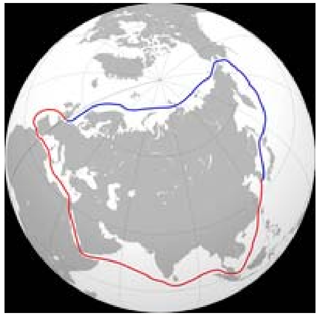


- Sakhalin development



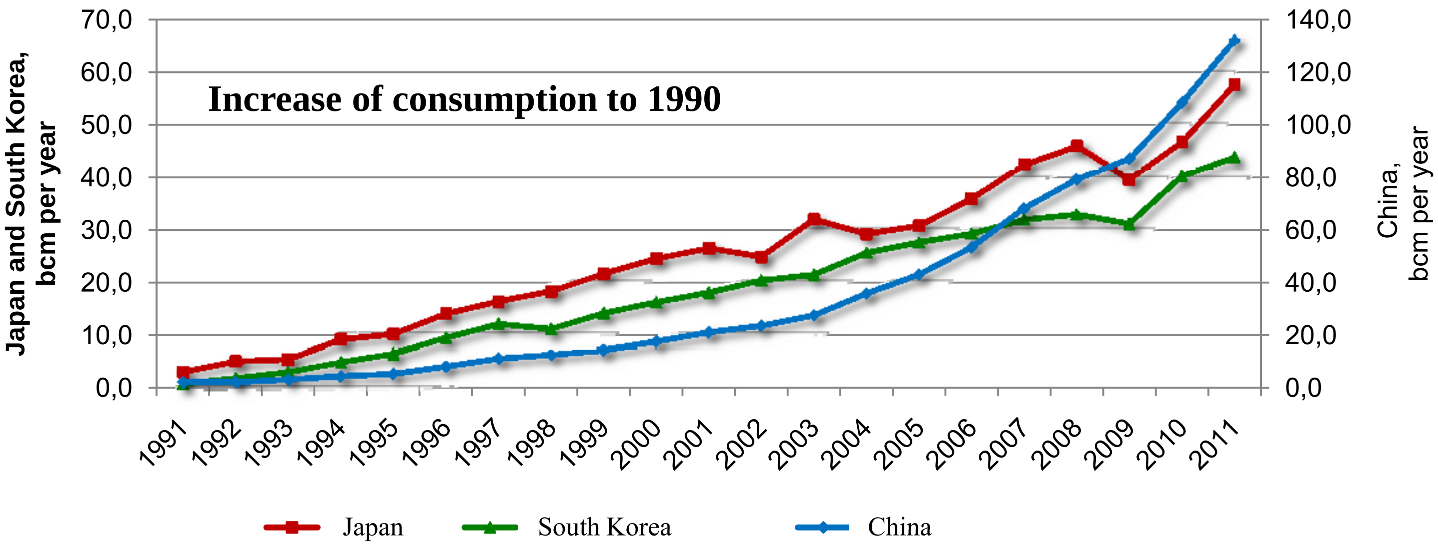
Sources: Gazprom

The Arctic



Sources: IES

North-East Asia



Source: BP

- Gas pipeline along VSTO (Yakutia – Khabarovsk – Vladivostok)
- Vladivostok LNG
- Russian gas export to 2020:

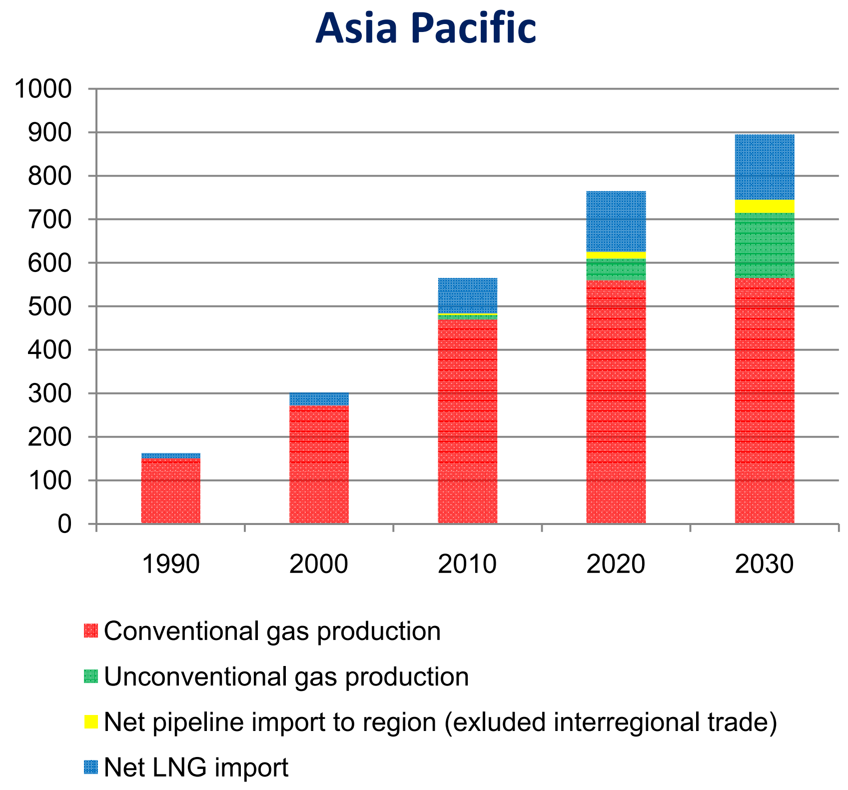
Japan - 20-35 bcm per year

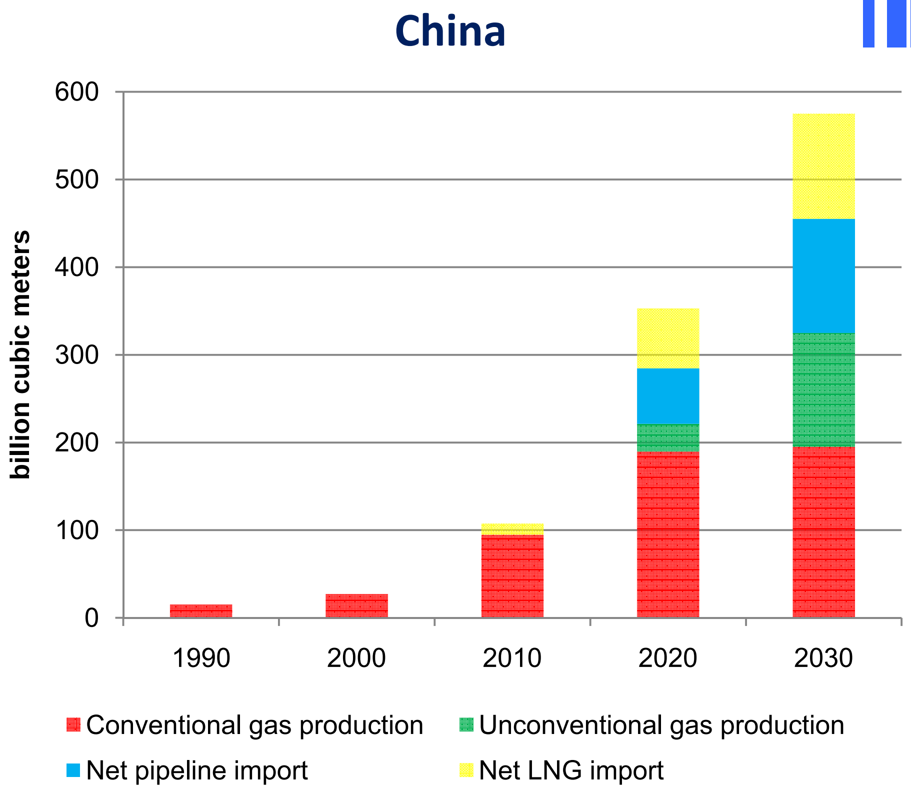
South Korea - 10-16 bcm per year

China – 0-40 bcm per year

- Without export in China the implementation of Russian Eastern Gas program is impossible

The growing role of unconventional gas in Asia Pacific

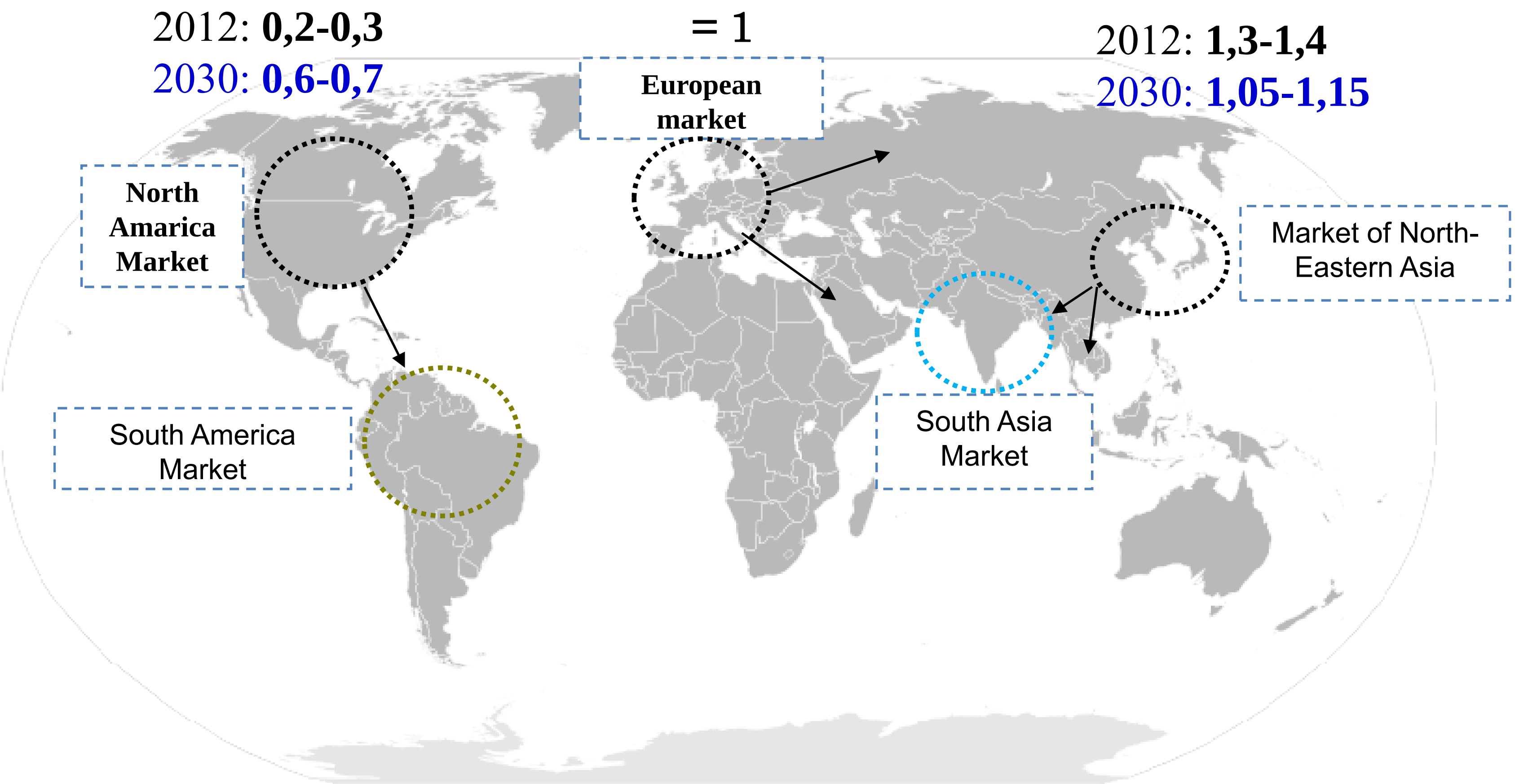




- The role of unconventional resources in Asia Pacific will grow
- The development of unconventional gas in Asia-Pacific has better prospects than the same in Europe

Sources: Institute of Energy Strategy

Price question: arbitration between regional markets

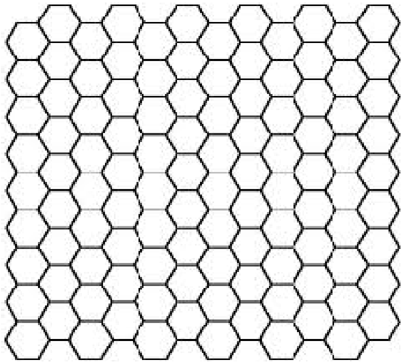


Model of price arbitration to 2030

Sources: Institute of Energy Strategy

Instead of conclusions: regionalization and regional integration

Energy
- system of systems



Bee honeycombs of Eurasia: the mesh of the energy structure

Sources: Institute of Energy Strategy

Directions of integration

- The complex solution of the problems of marketing of gas resources of Central Asia (development of supplies to Pakistan, India, China, etc.)
- to avoid acute and destructive competition of Russia, Kazakhstan, Uzbekistan and Turkmenistan in the China market (potential coordination)
- Joint development of the gas processing and gas chemical production

Sources: Institute of Energy Strategy

Potential of the energy dimension of the SCO

The key internal opportunity – elimination of mutual and multilateral contradictions, the coordination of energy projects and directions of development

Key external opportunity – the formation of the agenda for global energy policy (instead of following the policy, formed , without the participation of the SCO countries, in EU and USA)

Energy cooperation – the most actual and important basis for the economic cooperation in the SCO framework

First goal is avoid long-term and destructive rivalry in the region between Russia and China

Second goal is overcome of raw character of economic relations

Thank you for your attention

Institute of Energy Strategy

(Moscow)

www.energystrategy.ru

Alexey Belogoryev