

JSC “Gazprom”

LLC “VNIIGAZ”

TRENDS AND PROSPECTS OF RUSSIAN GAS INDUSTRY DEVELOPMENT

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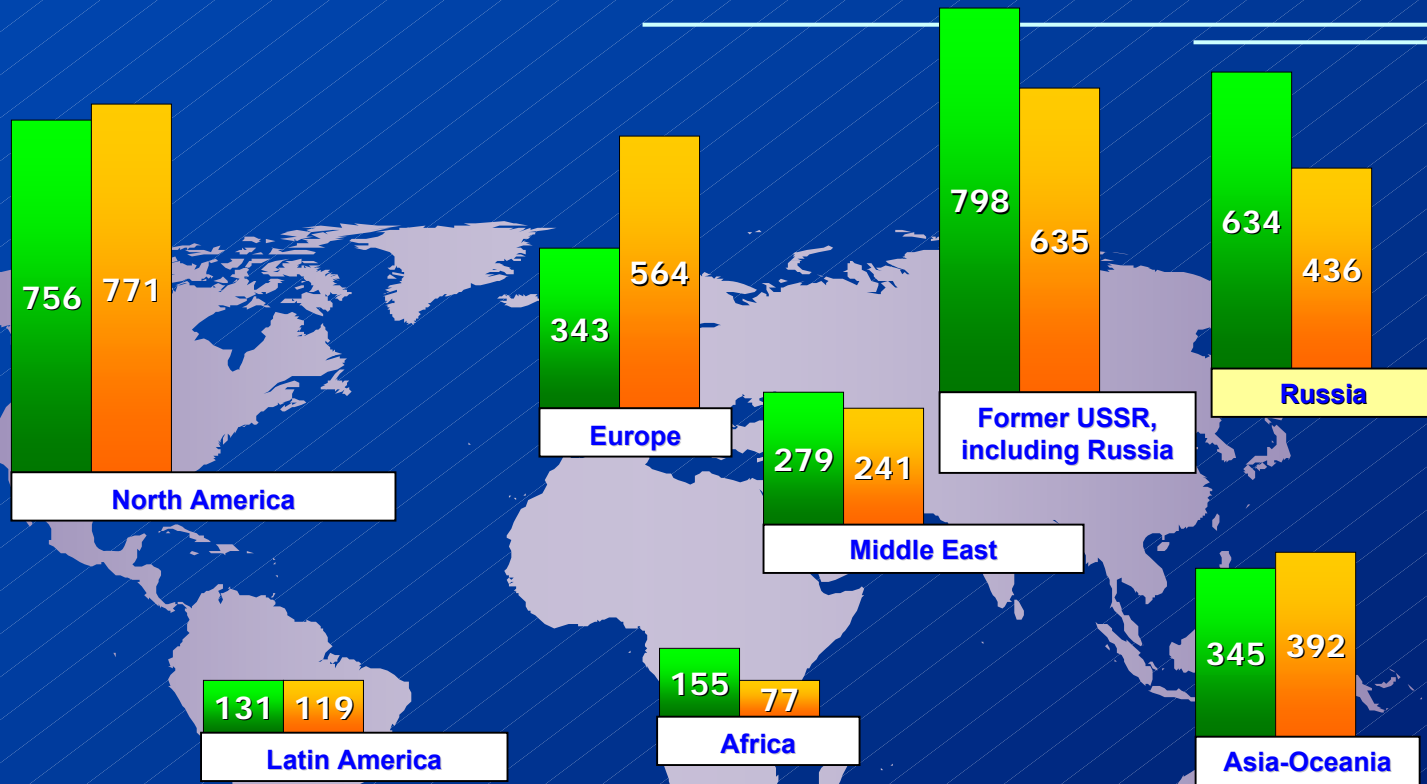


Contents

- Gas reserves, production and consumption worldwide
- JSC "Gazprom" in the gas industry of Russia
- Major directions of JSC "Gazprom" activities
- Prospective directions of gas industry development

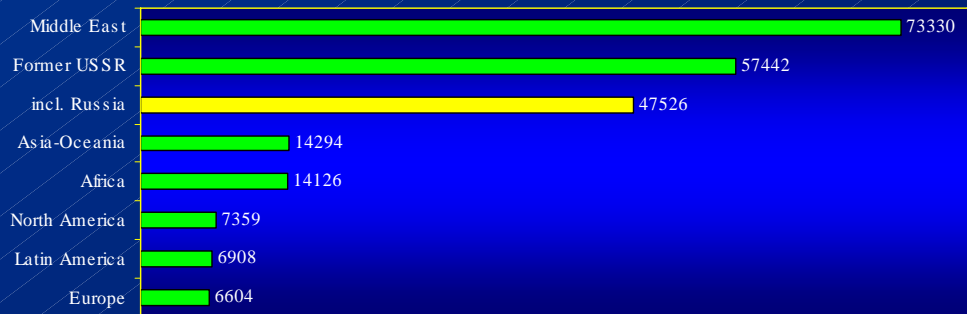


Gas proved reserves, production and consumption worldwide in 2004



Proved reserves of natural gas by region as of 01 January 2005, bcm

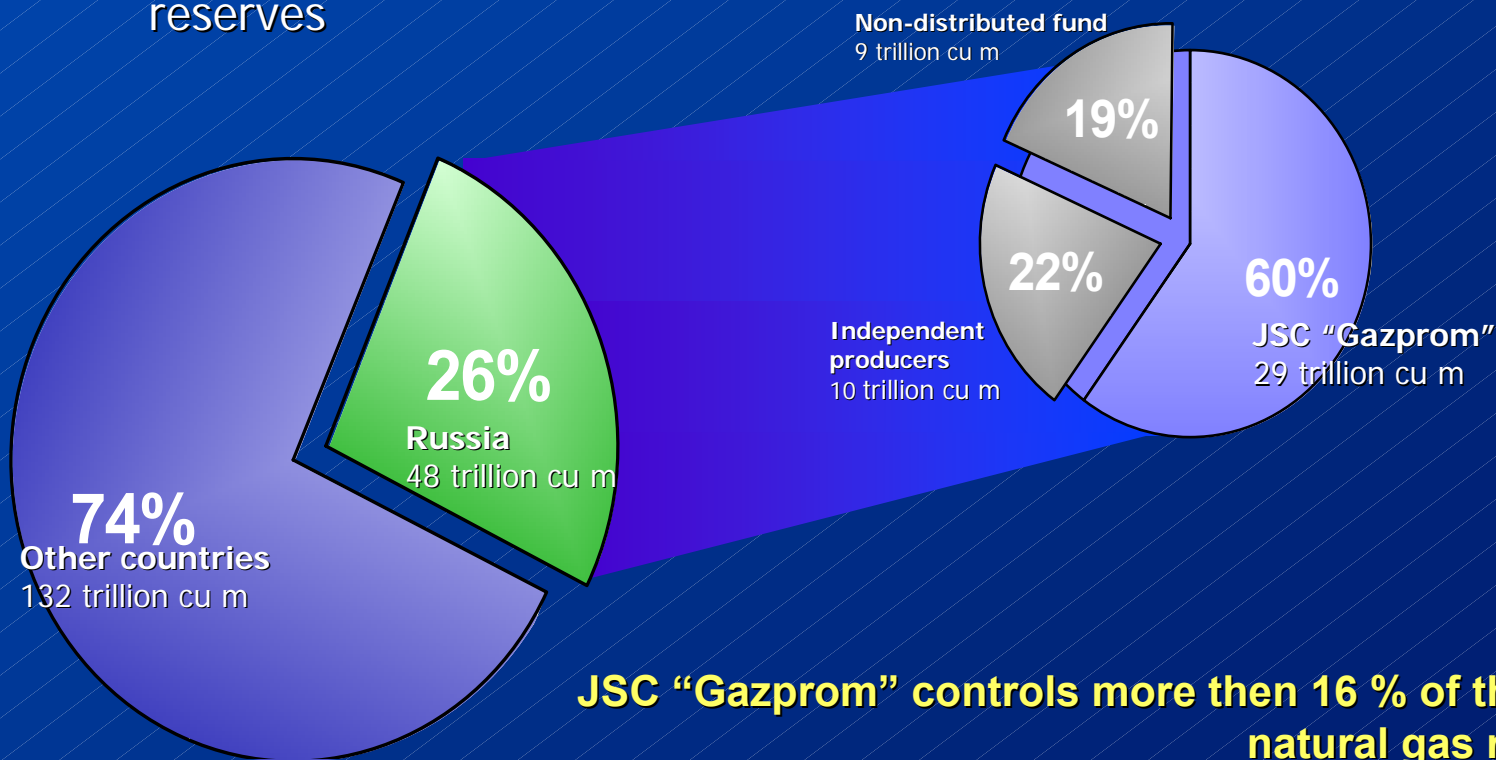
■ Production, bcm
 Total: 2807 bcm
■ Consumption, bcm
 Total: 2799 bcm



Explored gas reserves structure in Russia as of 01 January 2005

Share of JSC "Gazprom" in gas reserves of Russia

Share of Russia in world gas reserves



JSC "Gazprom" controls more than 16 % of the world natural gas reserves



Gas production dynamics in Russia



It is required to ensure concurrent development of gas production, transport and processing as one complex system

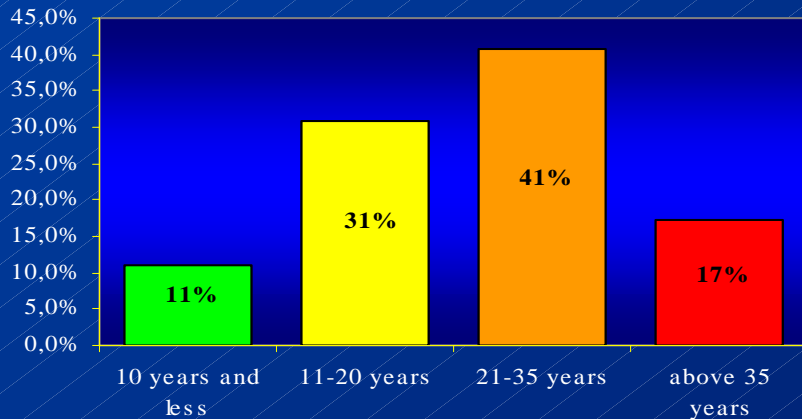


Unified gas supply system (UGSS) of Russia

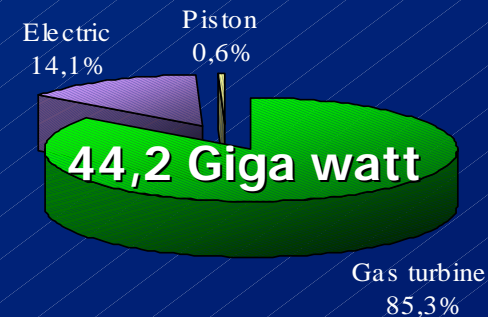
Gas transmission bulk by UGSS in 2004, bcm	687,4
JSC "Gazprom", bcm	525,2 (76%)
Other companies, bcm	162,2 (24%)
Trunk pipeline distance, thousand km	153,3
Condensers and product pipelines distance, thousand km	5,1
Number of compressor stations	263
Number of gas-distribution stations	3 666
Number of gas pumping units	4 067
Summary capacity, million kwatt	44,2



Trunk pipelines age structure



Gas pumping units capacity distribution vs. type of drive, %



Underground gas storages

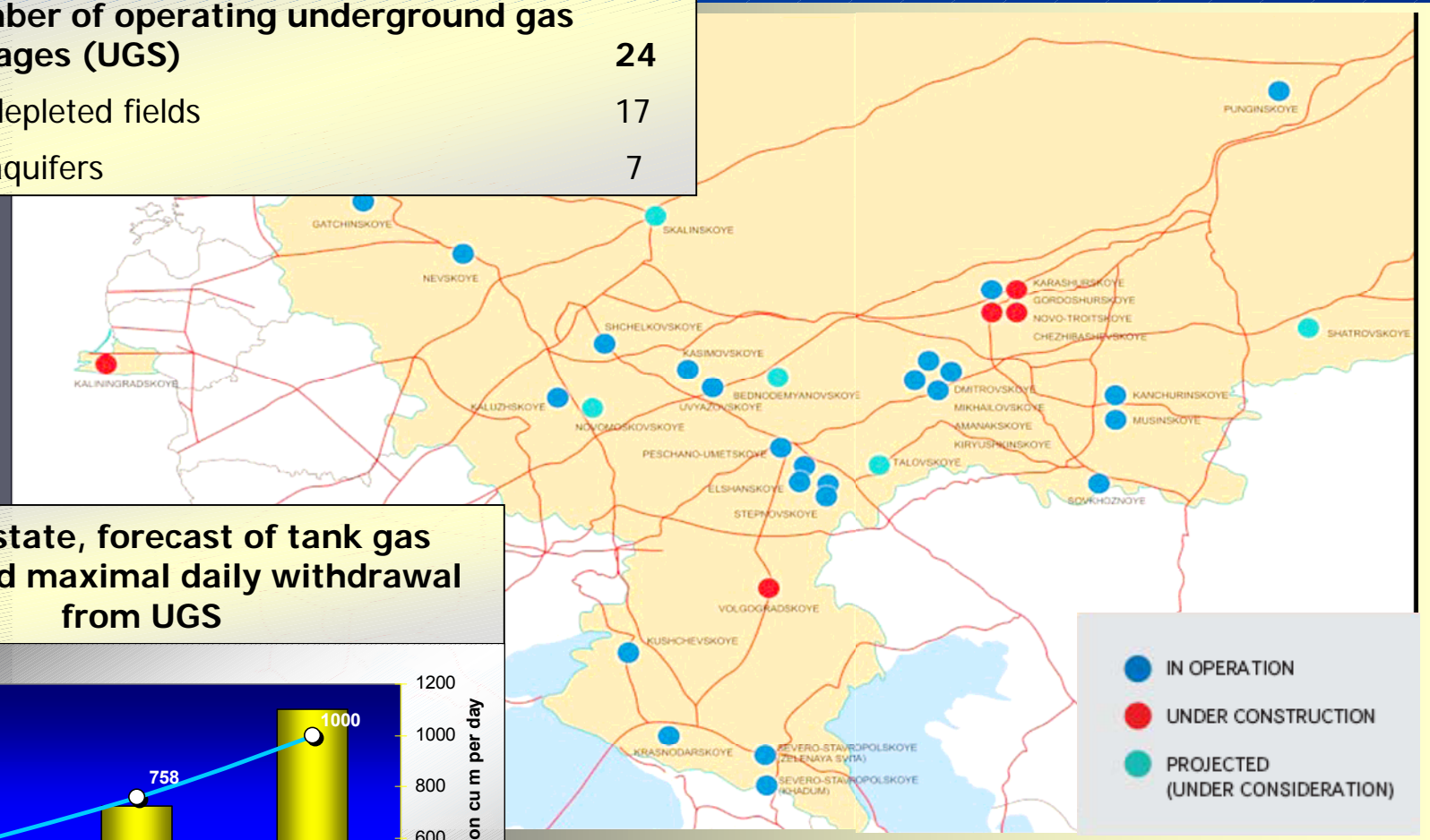
Number of operating underground gas storages (UGS)

- in depleted fields
- in aquifers

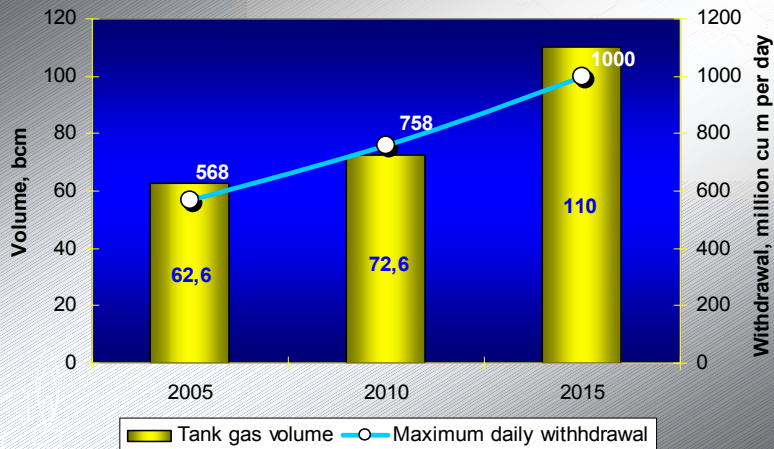
24

17

7



Current state, forecast of tank gas volume and maximal daily withdrawal from UGS



Russia's regions gasification



2005-2007 gasification program includes

Gasification of

Settlements	1 120
Households	3 850

Conversion to natural gas

Utility enterprises	20 000
Rural boilers	5 000
Agricultural enterprises	500

Gas distribution network (current state)

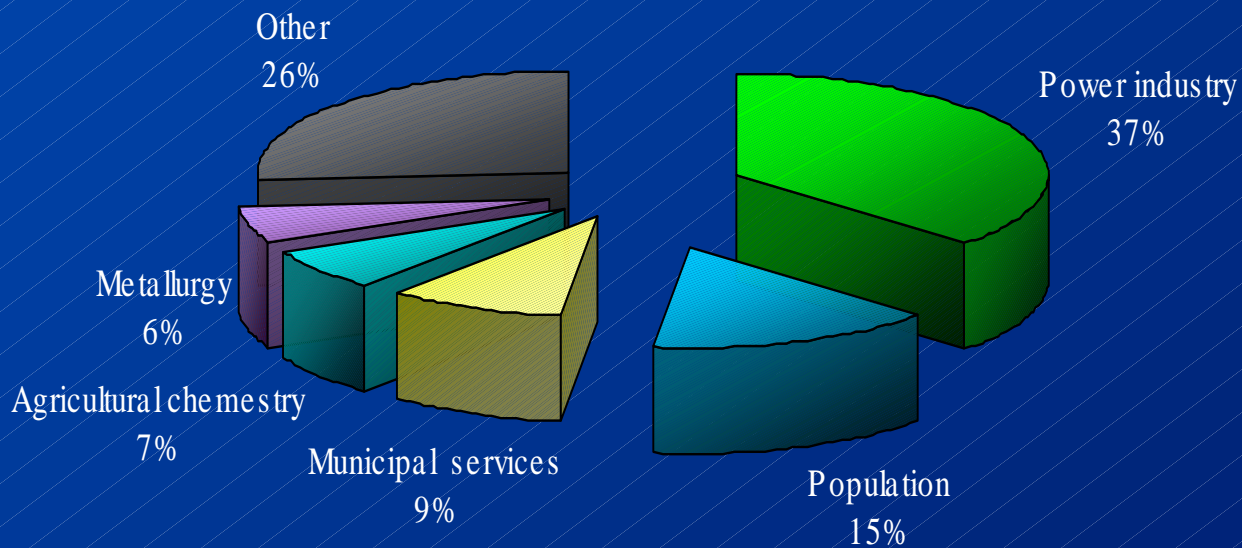
Number of gas pipeline branches	3 500
Total length of gas pipeline branches, km	40 000
Length of gas distribution Network, km	430 000

Level of gasification, %



Structure of JSC "Gazprom" gas consumption in Russia in 2004

292,1 bcm



Hydrocarbon feedstock processing by JSC "Gazprom" in 2004



Feedstock

Natural gas, bcm	32,4
Unstable condensate and oil, million tons	11,3

Products, million tons

Ethane
0,2 (1%)

Mazut
0,4 (2%)

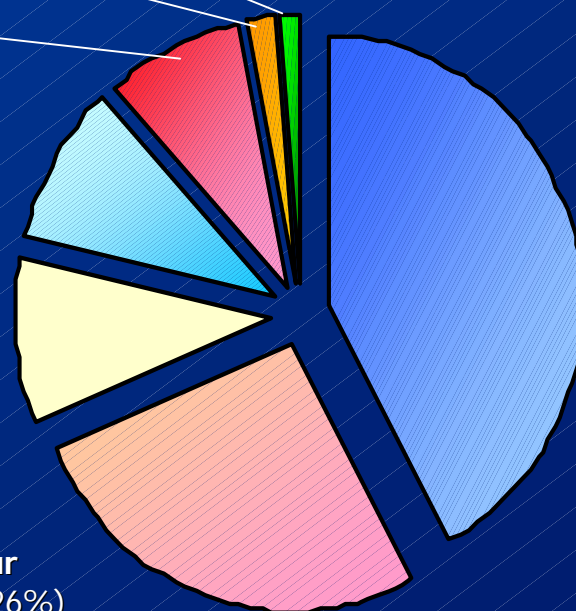
Diesel fuel
1,7 (9%)

LPG
1,9 (10%)

Gasoline
2 (10%)

Sulfur
5,2 (26%)

Stable condensate and oil
8,3 (42%)

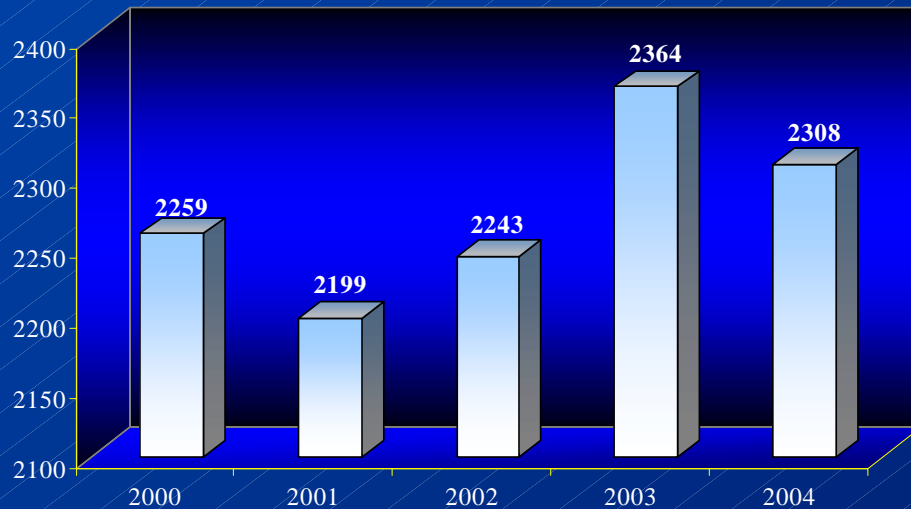


Environmental safety

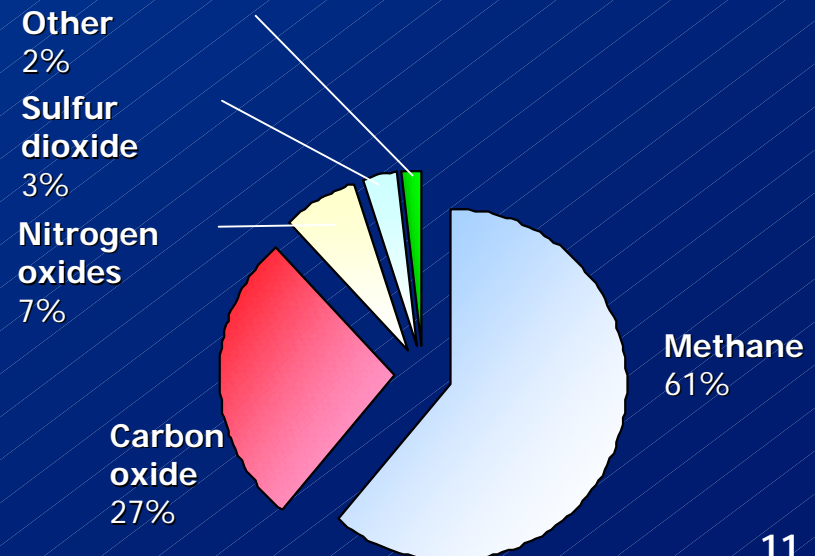
The main principles underlying OAO JSC "Gazprom" environmental activities are the reduction of the adverse effect of its production processes on the nature and the efficient use of natural resources



Volume of pollutant emissions into the atmosphere, million tons



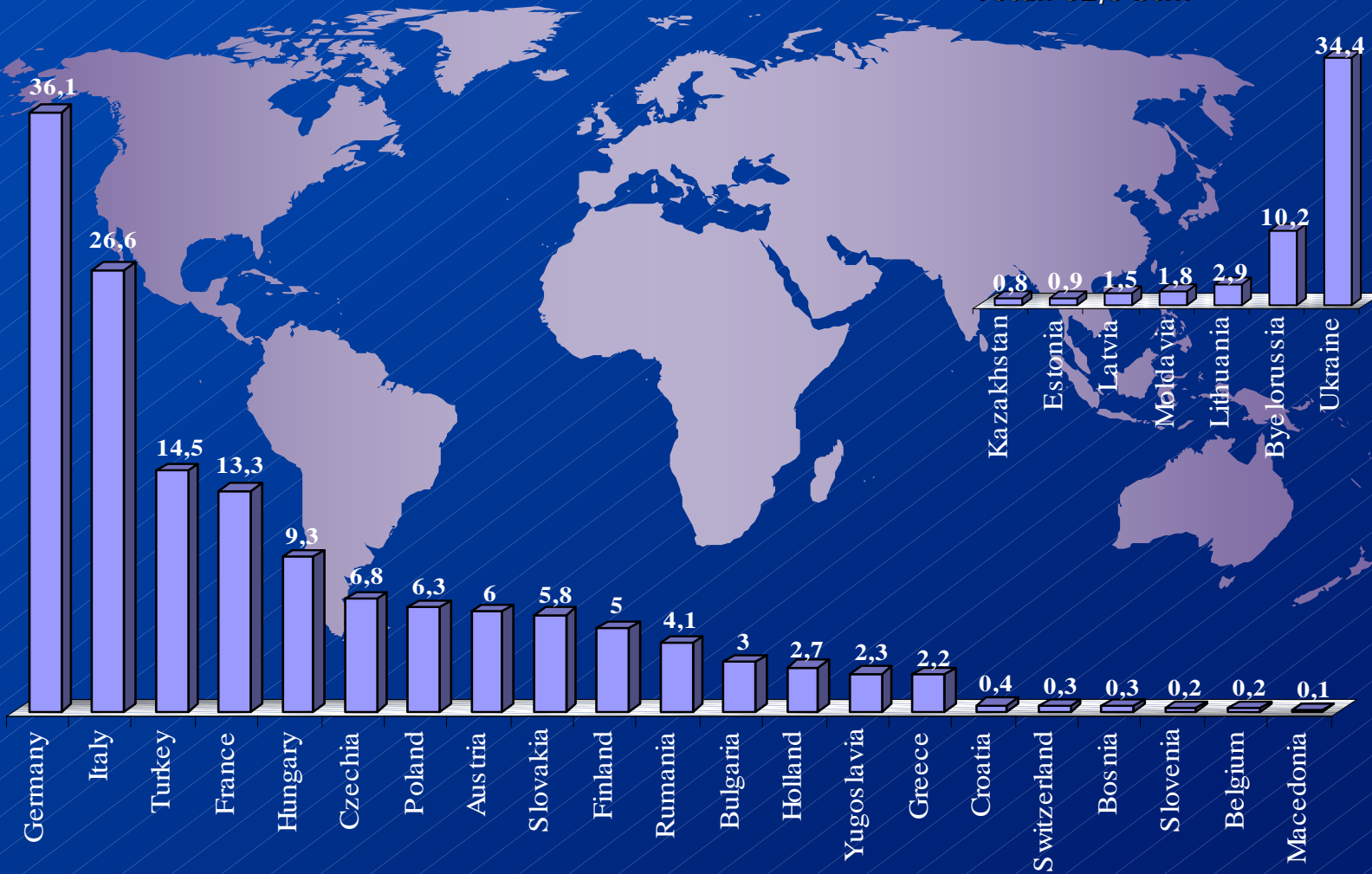
Structure of pollutant emissions into the atmosphere in 2004



Export of gas produced by JSC "Gazprom" to Europe and the FSU countries

Total: 140,5 bcm

Total: 52,5 bcm



North European gas pipeline

THE NORTH-EUROPEAN GAZ PIPELINE (NEGP)



Rated throughput capacity, BCM

Total 55,0

First stage 27,5

Commissioning of the first line of the North European gas pipeline is planned in 2010

Underwater section length, km 1 200

Diameter, mm 1 219

Working pressure, atm 20,0

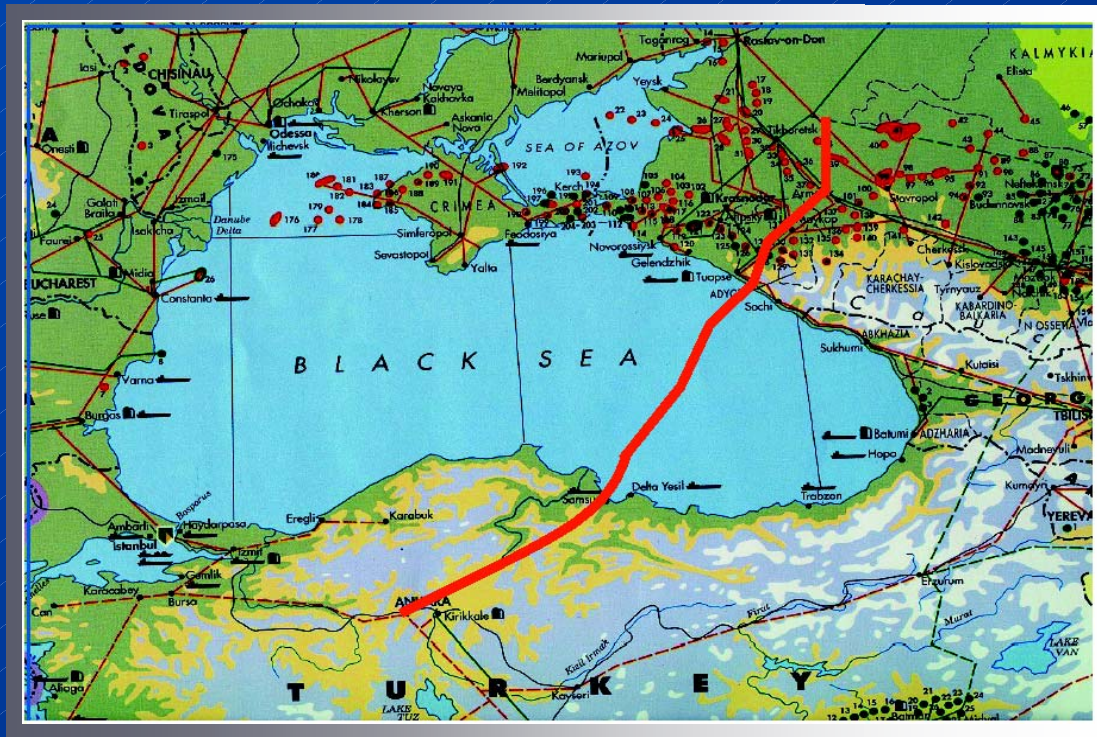


25.01.2006



Blue Stream gas pipeline

Total length, km	1 213
Underwater section length, km	395
Water depth, m	2 200



Gas supply, BCM

2005	3,7
2010	16,0

Russia and Ukraine: cooperation in gas industry



Formation of joint venture

- Separation of transit from direct supplies
- Transition to market-based pricing
- Transparency in mutual relations



Export gas pipelines via "Kurskaya" compressor station

- Yamburg – state frontier
- Urengoi-Uzhgorod
- Yelets-Kremenchug-Krivoi Rog

Diameter, mm

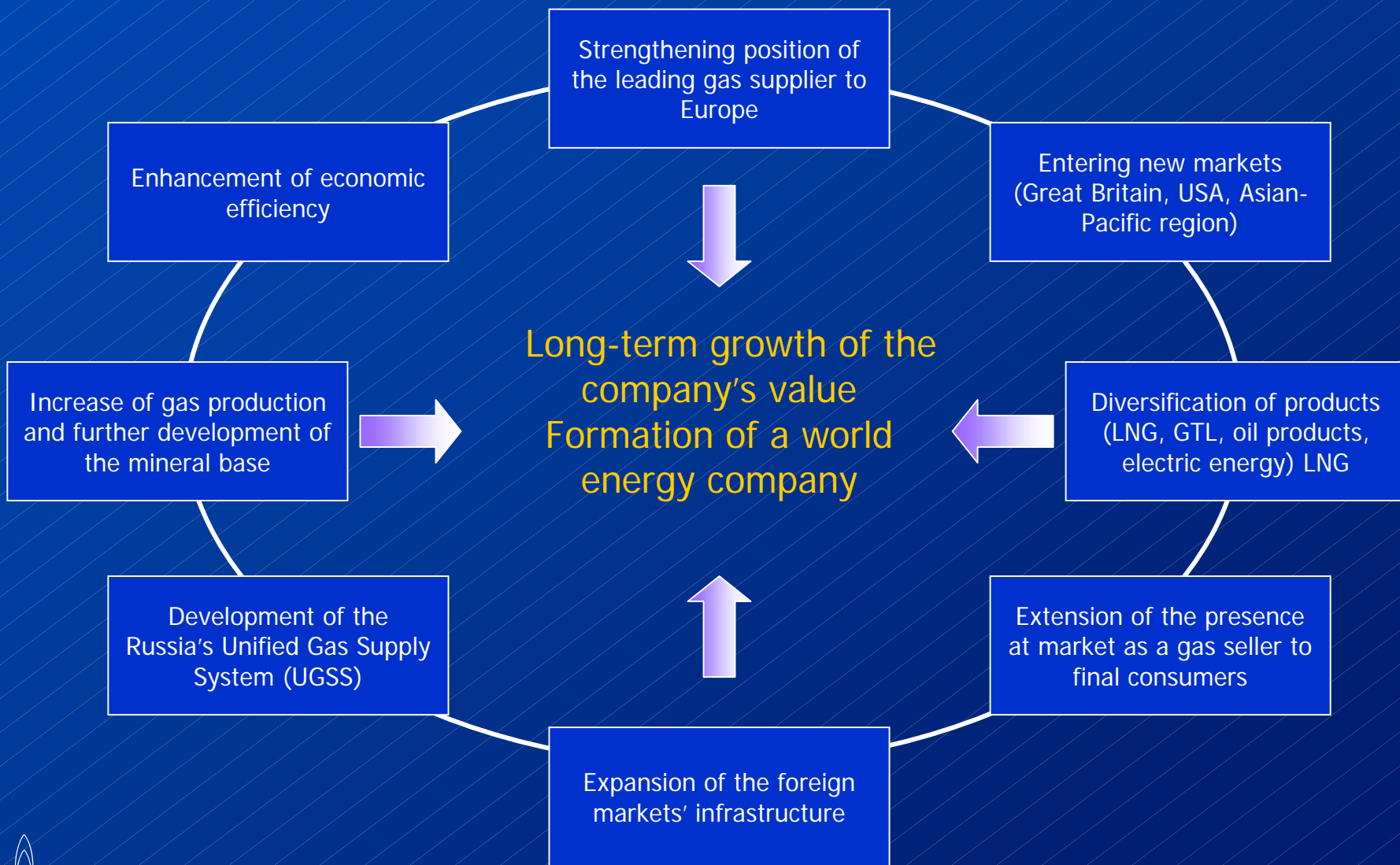
Pressure, atm

1400
1400
1400

75
75
75



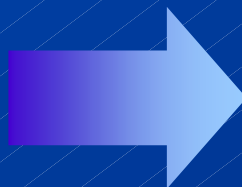
Strategic trends of JSC "Gazprom" development



Prospects of JSC "Gazprom" participation in the world LNG market

Prerequisites

- **Powerful resource base**
- **Low temperature at gas production regions**



Prospectives

- **Involvement of distant gas reserves into commercial use**
- **Mitigation of export risks due to combining of pipeline and LNG supplies**
- **Entering profitable markets**
- **JSC "Gazprom" involvement into all links of LNG value chain**

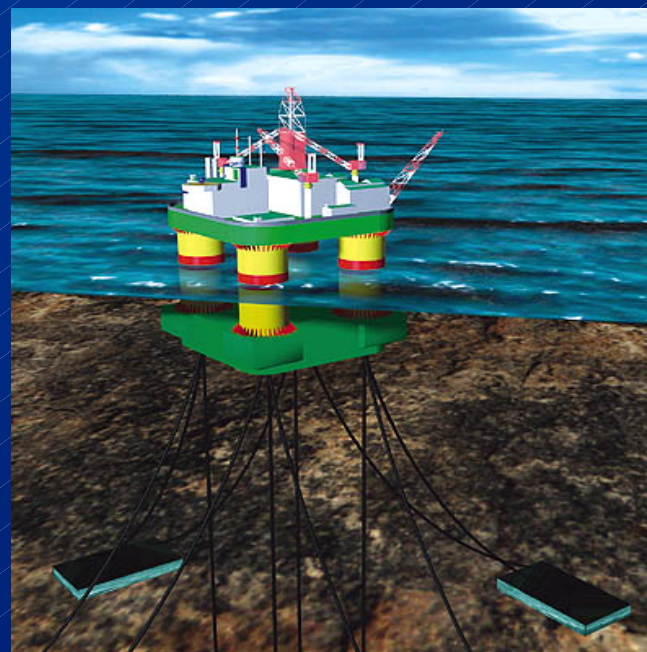
Shtokman field

Proven gas reserves > **3,2 trillion cu m**, Condensate – **31 million ton**

Forecasted gas production volumes - **67,5 bcm per year**,
at first stage – **22,5 bcm per year**

Potential markets – Europe and North America

- **Favorable gas composition**
- **Considerable reserves amount**
- **Favorable geographical location regarding receiving terminals**
- **Non-freezing sea**



Development of fields in East Siberia and Far East



Oil- gas-condensate fields	Proven reserves (A+B+C1), BCM
Chayadinskoye	379,7
Kovyktinskoye	1407,0
Sobinskoye	138,7
Yurubcheno-Tokhomskoye	120,0

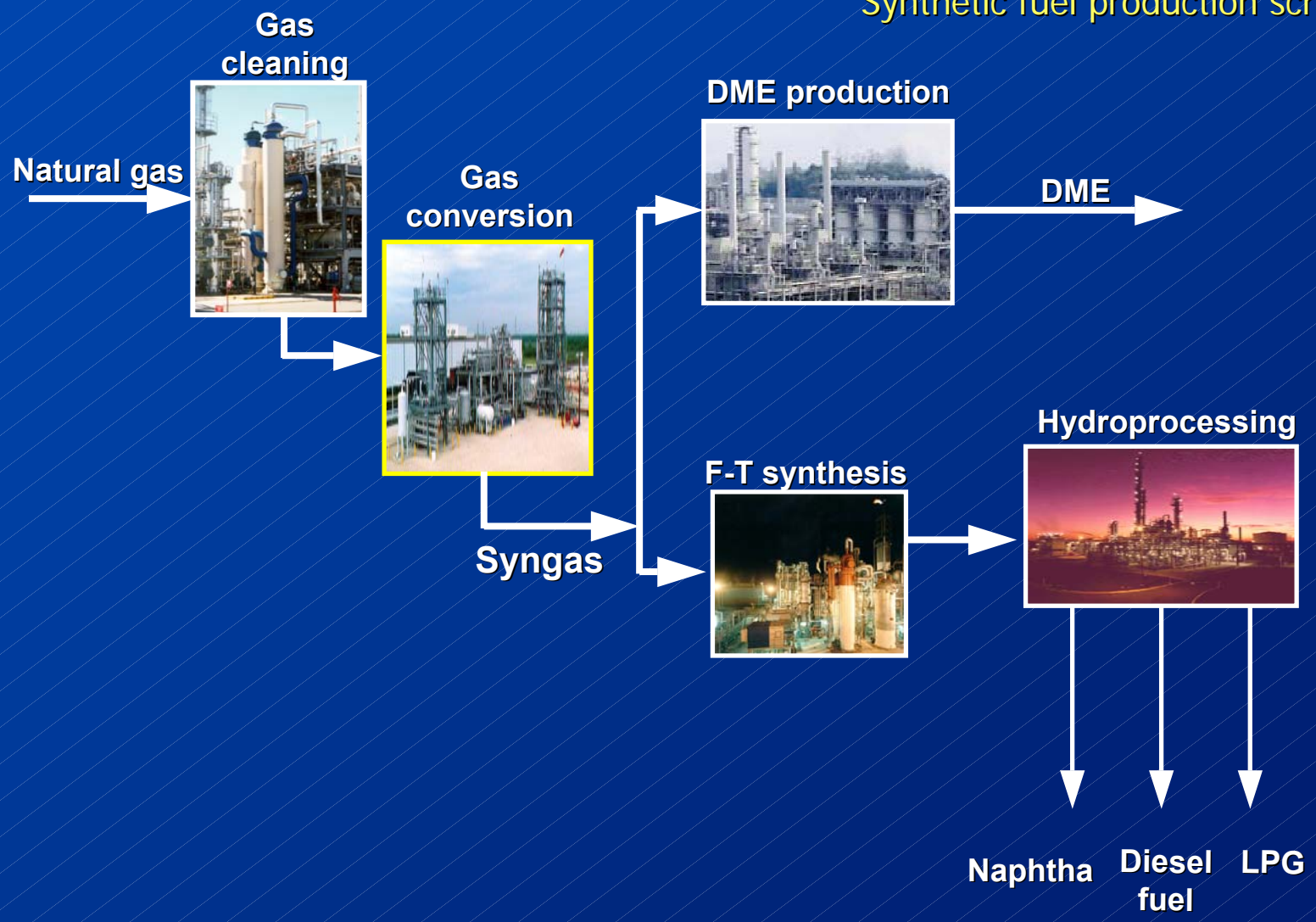
The program envisages the following possibilities:

- extraction of helium and ethane ;
- production of gas-chemical products (dimethyl ether, synthetic liquid fuel, methanol, polyethylene and polypropylene)



Formation of Russian GTL industry is prospective direction of JSC "Gazprom" activities

Synthetic fuel production scheme



JSC "Gazprom" Activity in Power Industry (2004)

JSC "Gazprom"

Energy consumption:
18,7 billion kilowatt-hour
(including 8% own
production)

Domestic gas supplies
290 billion m³

Networks length – 102 thousand km
Power sub-stations > 12 000 (6-110 kwatt)

Own generation – 2800 Megawatt
> 1 900 power units

Power stations: technological,
technological-commercial, commercial

Shares in RAO «EES», Mosenergo

Electric power supply:
17 billion kilowatt (92 %)

Gas supply:
108 billion m³

Russian power industry

Generation:
915 billion kilowatt-hour

Installed capacity:
216 Gig watt

Gas consumption:
149 billion m³ (including
JSC "Gazprom" gas –
108 billion m³)

**45% of power generation in Russia
operates on gas (70% - without
Nuclear and Hydroelectric power
stations)**

**JSC "Gazprom" possesses significant experience of
respective activities in all segments of power
generation, controls more than 10 % of power industry
assets in Russia**



Research and development trends in Russian gas industry

Key primary tasks in fuel and energy complex

Business environment

Accelerated technical re-equipment

Resources reproduction

Focus resources on priority R&D directions

Innovations

State-of-the-art technology

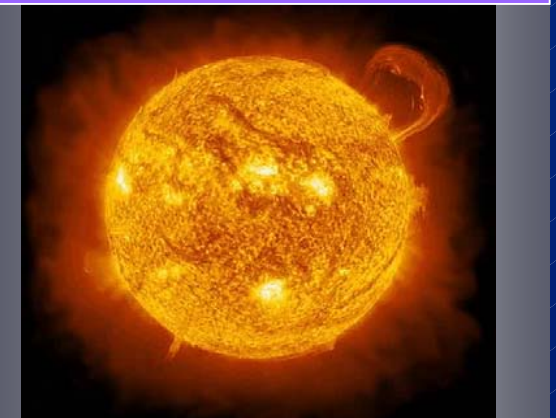
Energy-saving technologies



Deep carbohydrates processing



Energy of the future
incl. hydrogen technologies



Priority scientific and technical issues of JSC "Gazprom"

Critical technologies for Russian economy development

Export of technologies

Import of technologies

