



25th world gas conference
"Gas: Sustaining Future Global Growth"

GAS MARKET INTEGRATION: FOR A SUSTAINABLE GLOBAL GROWTH

By: Chairman of the Management
Committee, Gazprom
Alexey Miller



Patron



Host

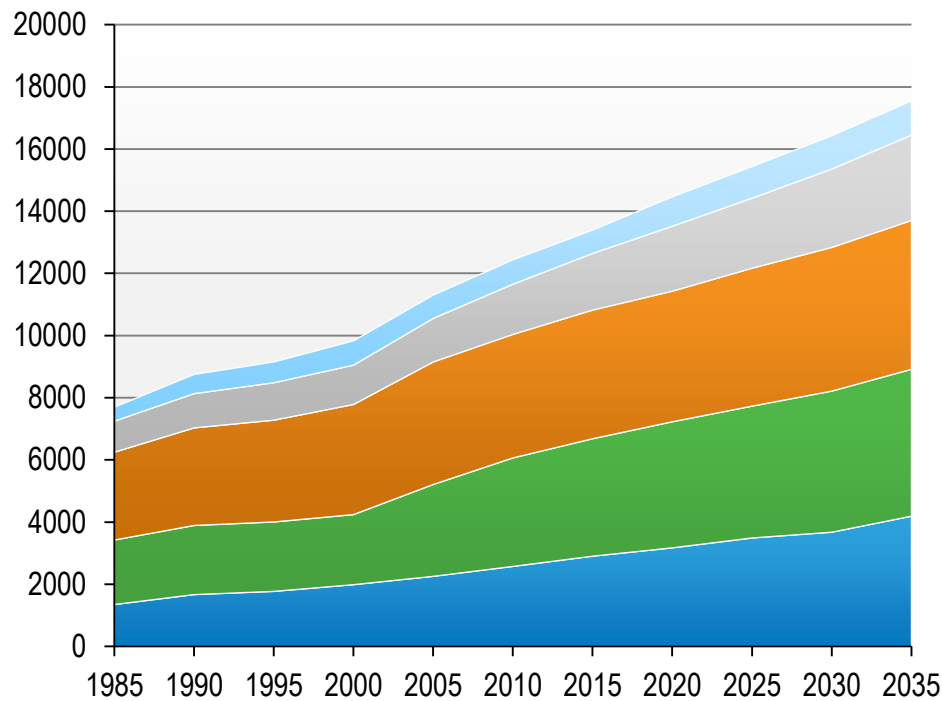


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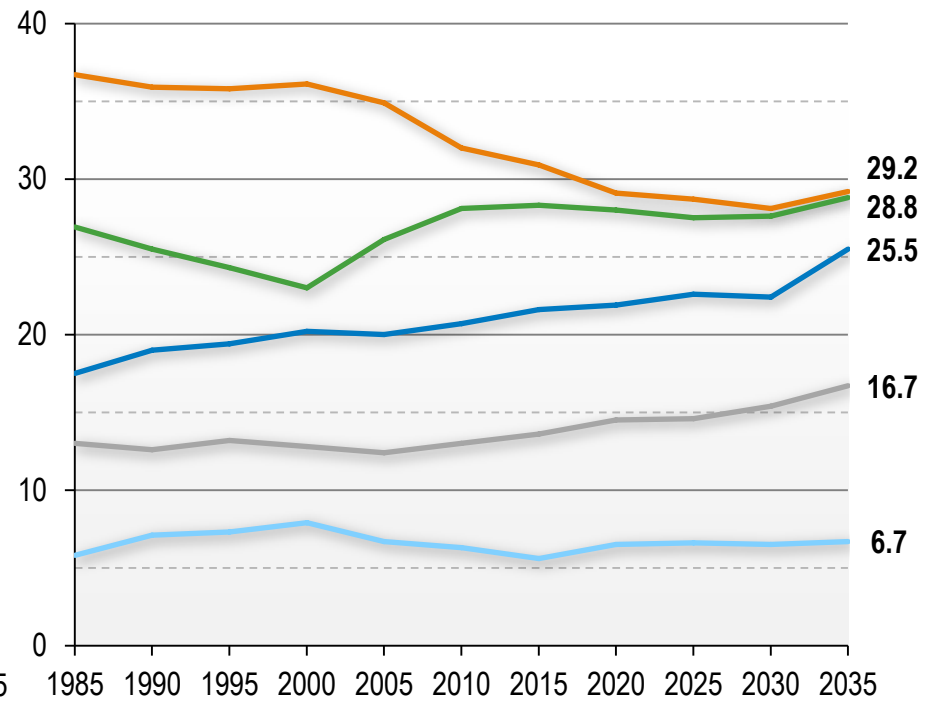







Growth dynamics and structure of energy consumption

Dynamics of world energy consumption, million TOE.



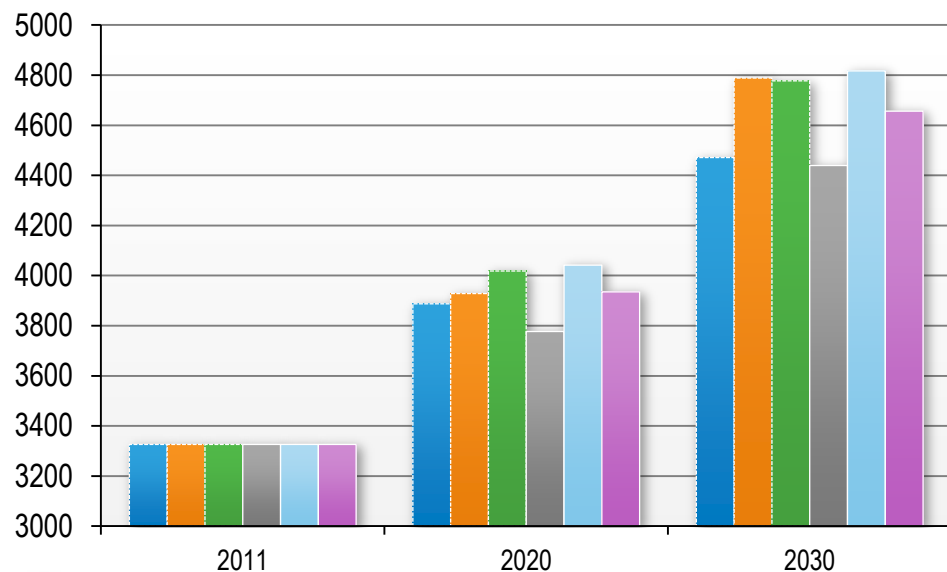
Structure of world energy consumption, %









-  Natural gas
-  Coal
-  Oil
-  Atom
-  RES (wind, solar, tidal power, geothermal energy, biomass, hydro)

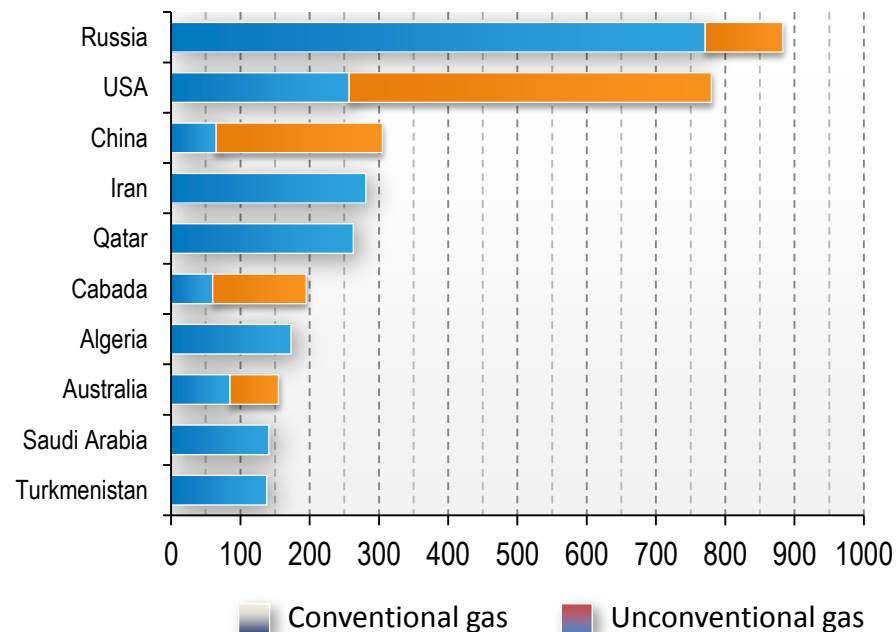
The potential of hydrocarbon energy

Forecasts of global gas demand, billion cubic meters



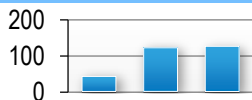
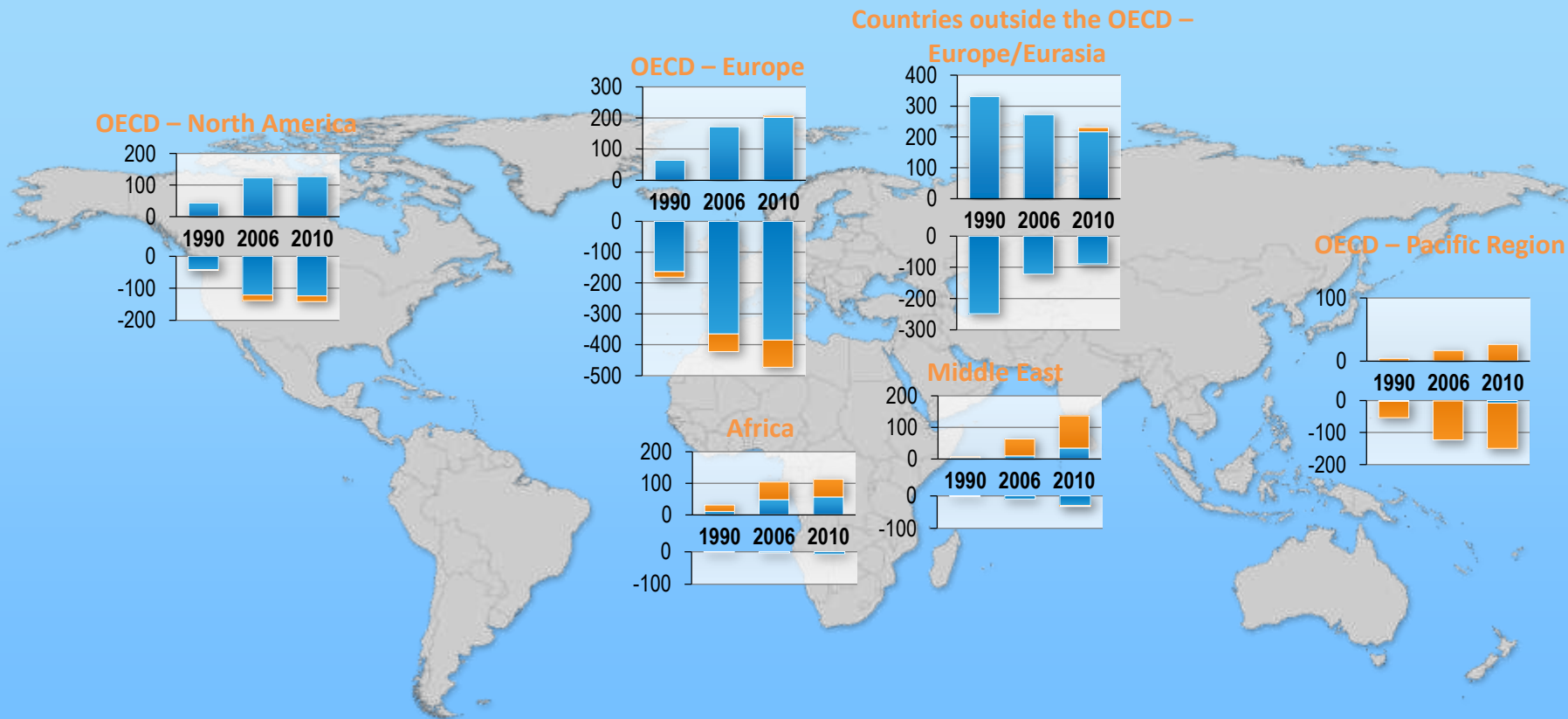
-  The International Energy Agency (New Policies Scenario 2011)
-  The International Energy Agency (Current Policies Scenario 2011)
-  The International Energy Agency (Gas Scenario 2011)
-  U.S. Department of Energy (Reference Case 2011)
-  CERA (Global Redesign Scenario 2011)
-  Energy Research Institute of Russian Academy of Sciences 2012

Forecast of gas production by 2035, billion cubic meters

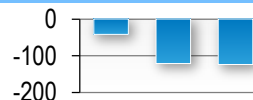


-  Conventional gas
-  Unconventional gas

The development of global trade in natural gas



Export, billion cubic meters



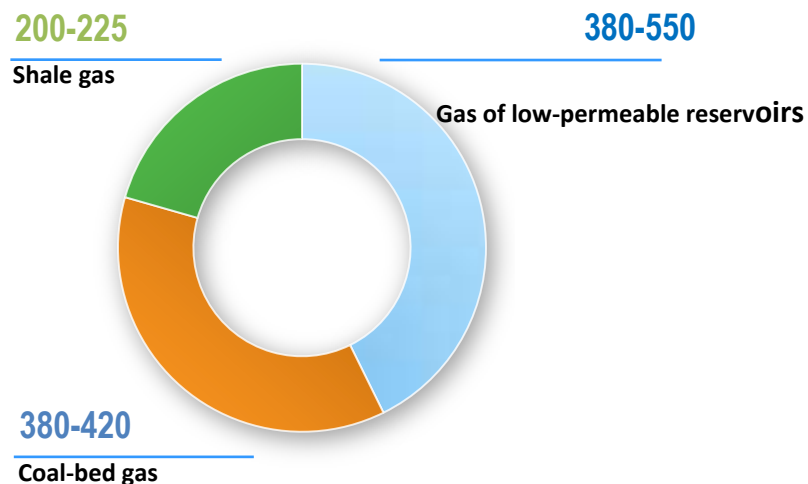
Import, billion cubic meters

Volume of international trade in gas by pipelines

Volume of international trade in LNG

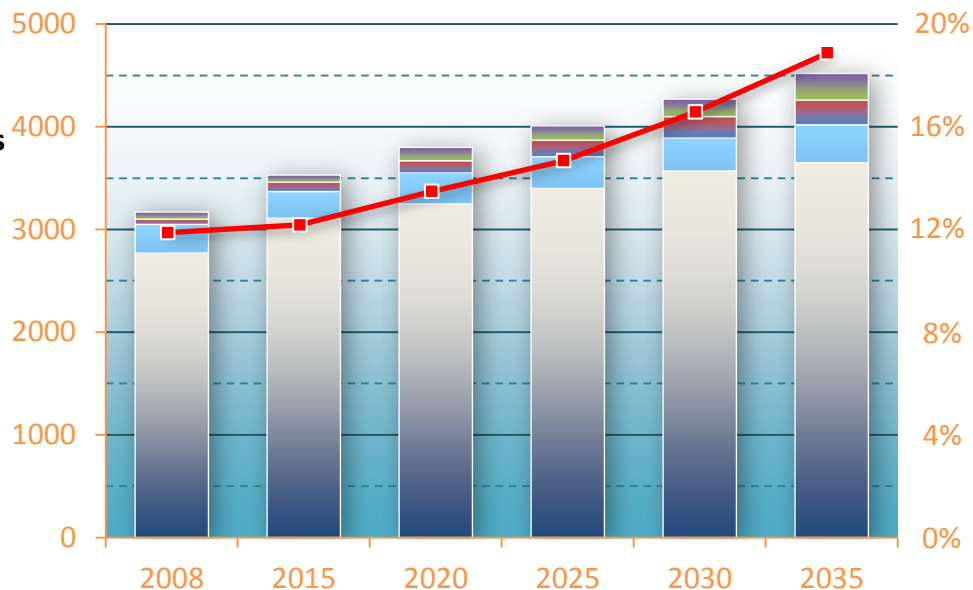
Alternative sources of natural gas

Global structure of unconventional gas resources, trillion cubic meters



Conventional gas
 Low-permeability gas reservoirs

Global gas production by types, billion cubic meters

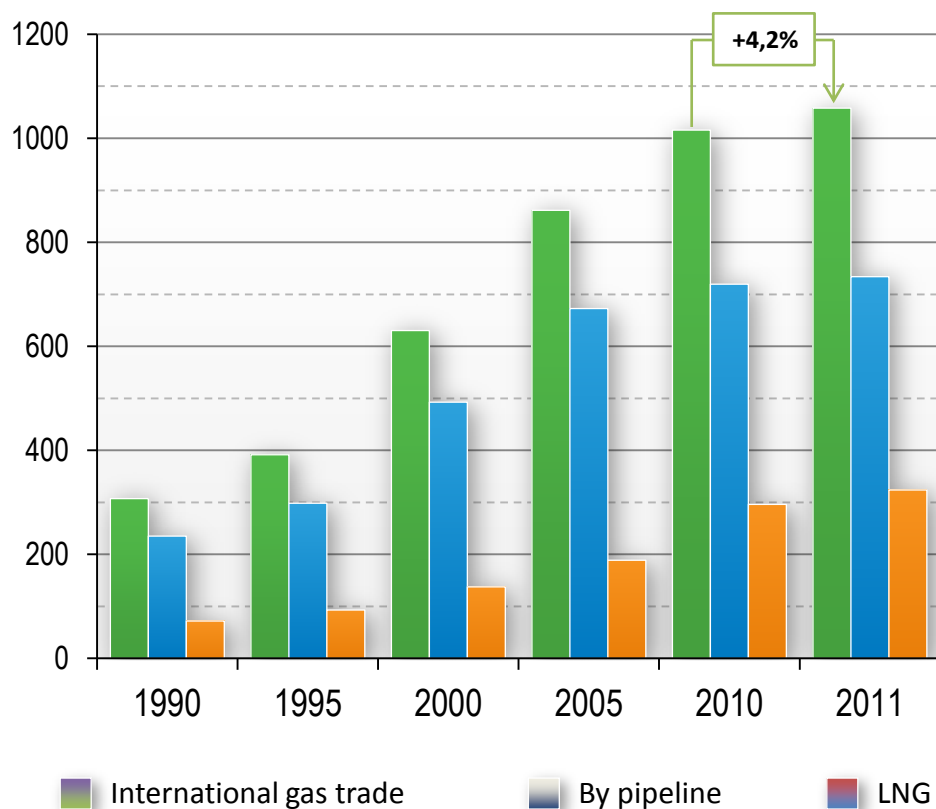


Coal-bed gas
 Shale gas

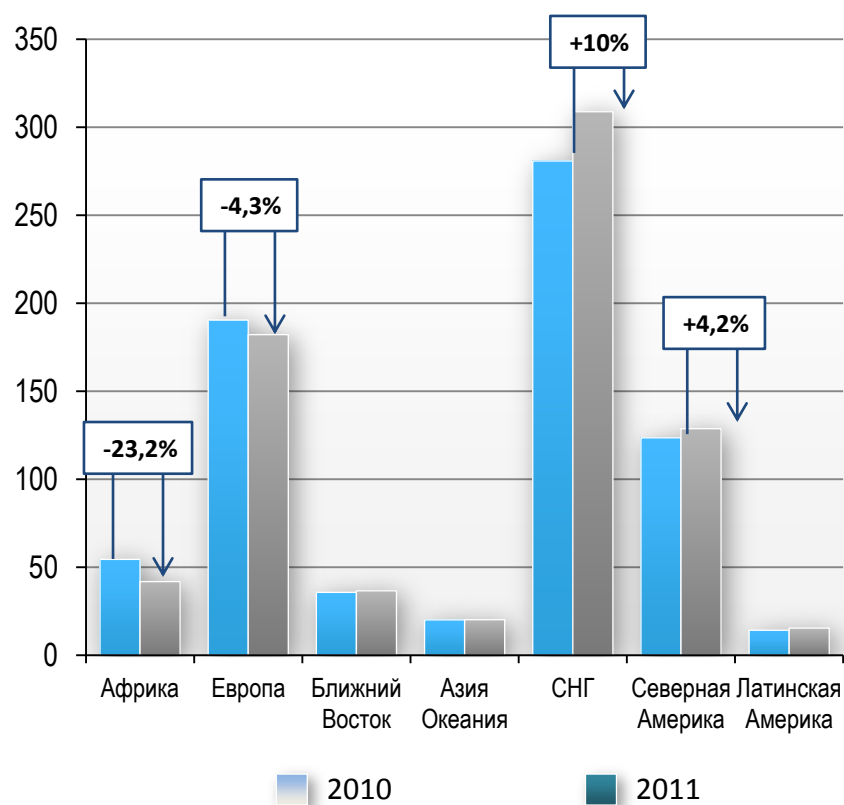
Share of unconventional (right axis)

International gas trade from 2010 to 2011

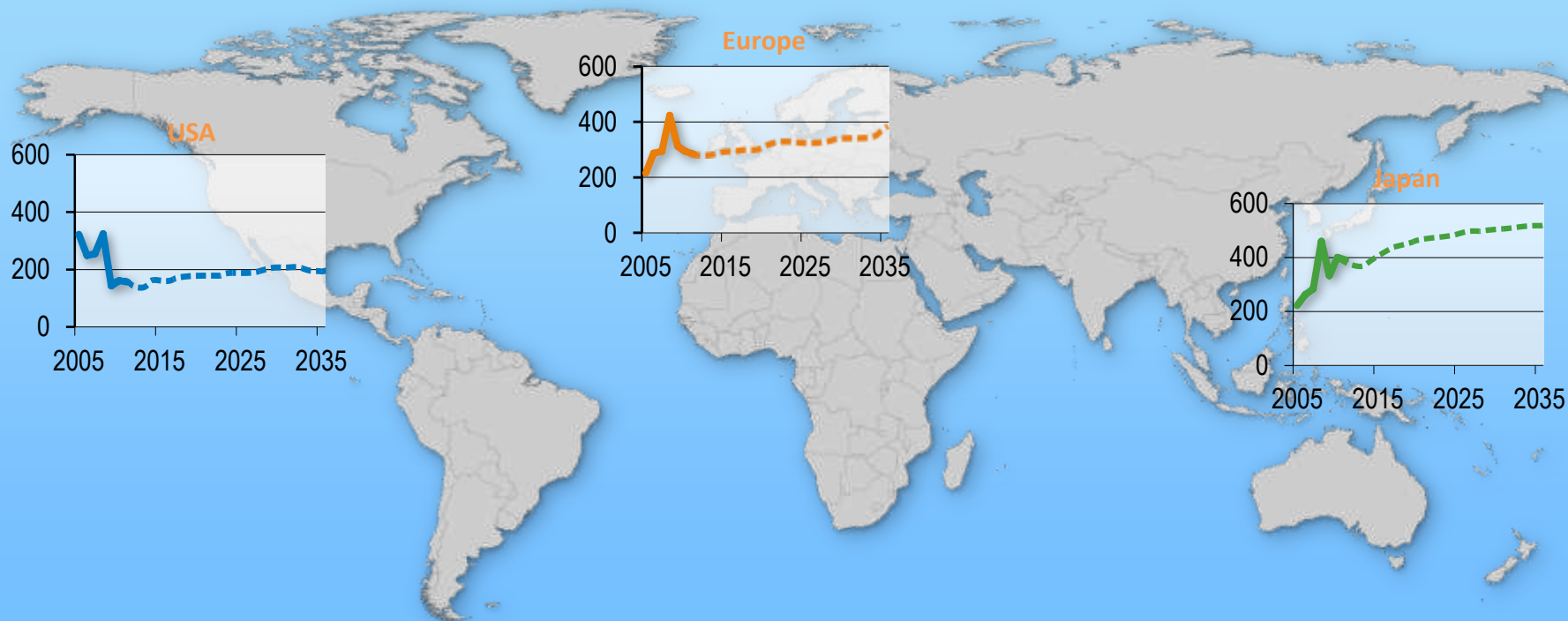
Dynamics of international gas trade, billion cubic meters



World exports by regions of the world, billion cubic meters



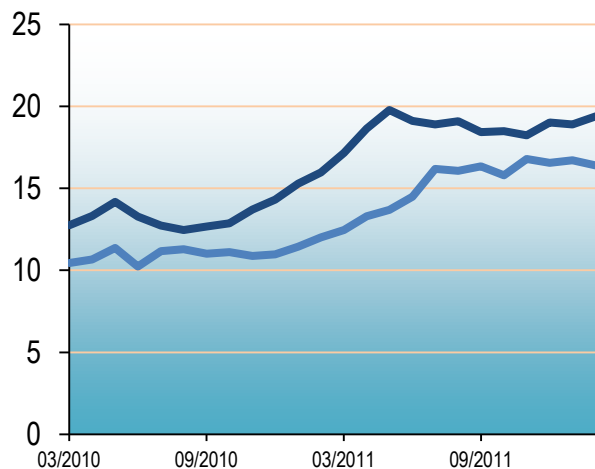
Regional gas pricing



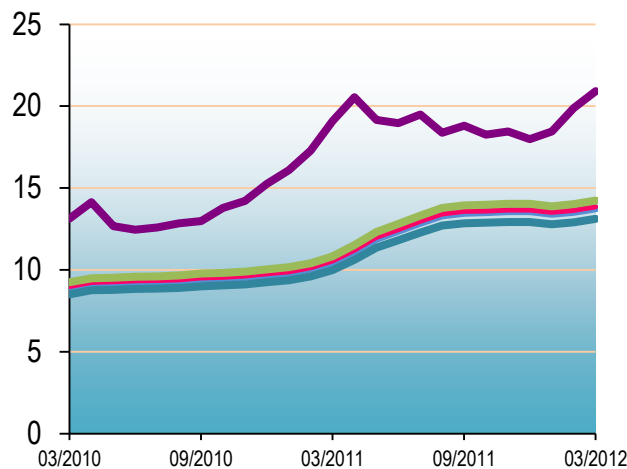
- Average import gas price in Europe, USD/thousand cubic meters
- Spot gas price in the U.S. (Henry Hub), USD/thousand cubic meters
- Import gas price in Japan, USD/thousand cubic meters
- - - Perspective projects

Price formation in the gas market

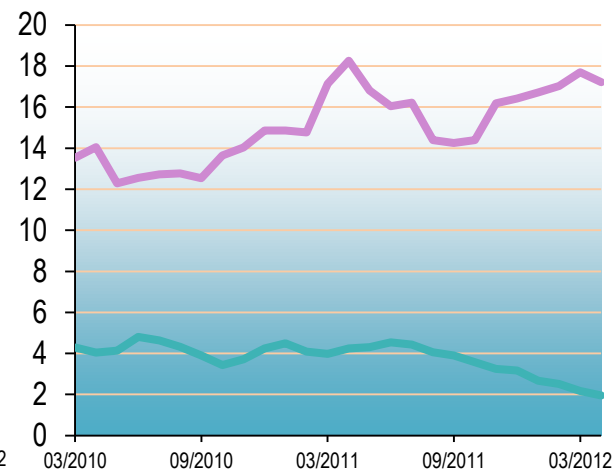
Dynamics of LNG prices in Japan, USD/million Btu



Dynamics of oil and gas prices in Europe, USD/million Btu



Dynamics of oil and gas prices in the U.S. (USD/million Btu)



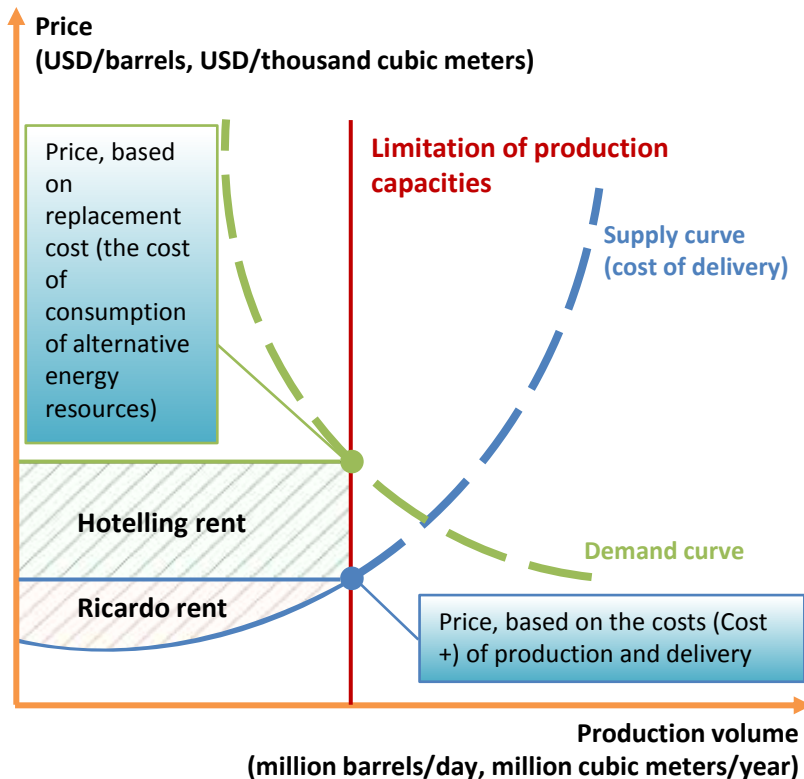
— Japanese Crude Cocktail
— LNG (Japan)

— Russian gas at the border of Germany
— Russian gas at the border of France
— Russian gas at the border of Hungary
— Russian gas at the border of Italy
— Brent

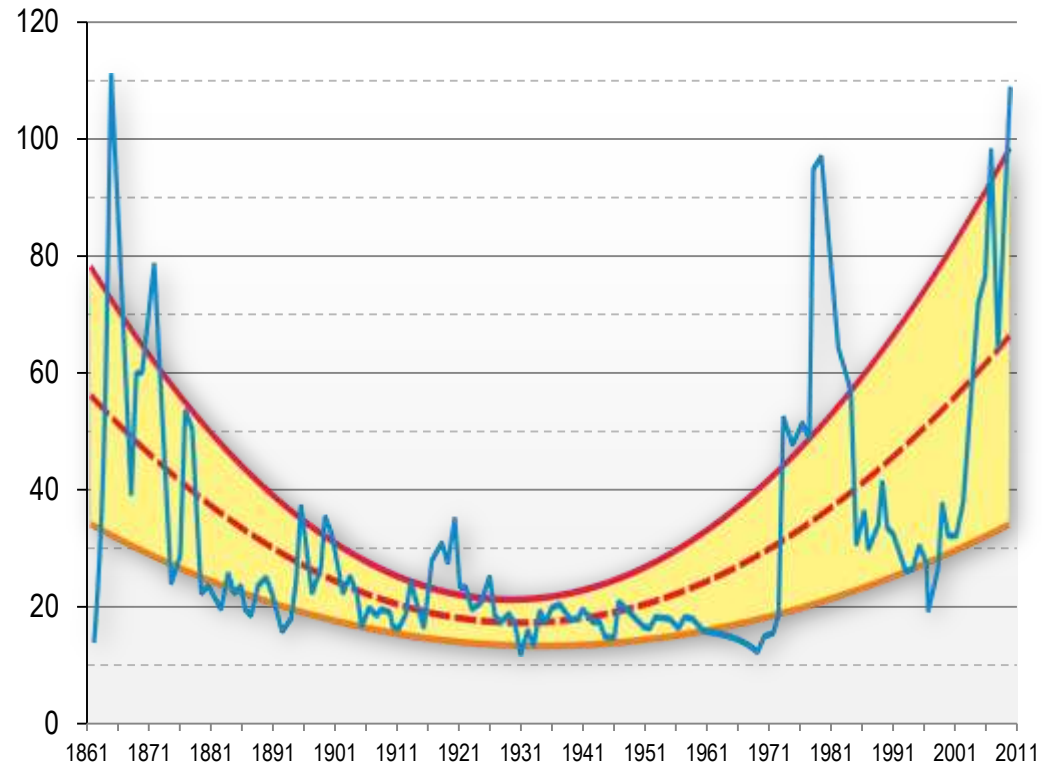
— Henry Hub
— WTI

Price formation in the gas market

Hotelling rent

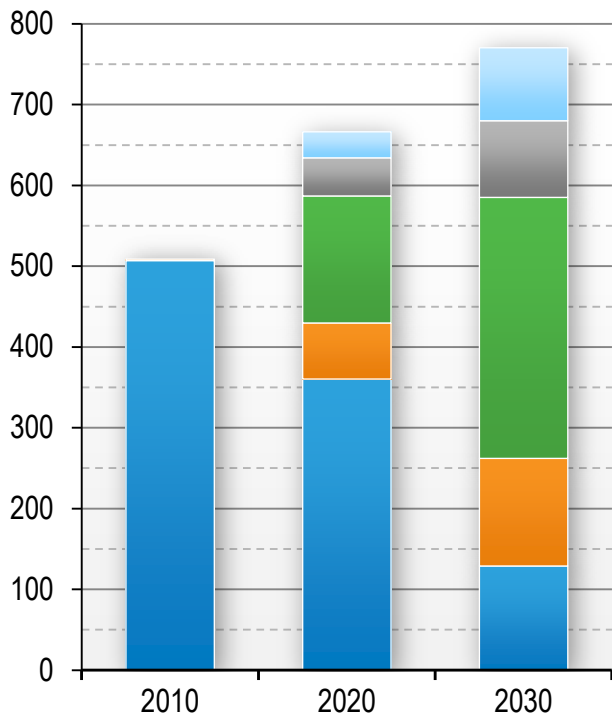








Dynamics of price integration of the world gas market



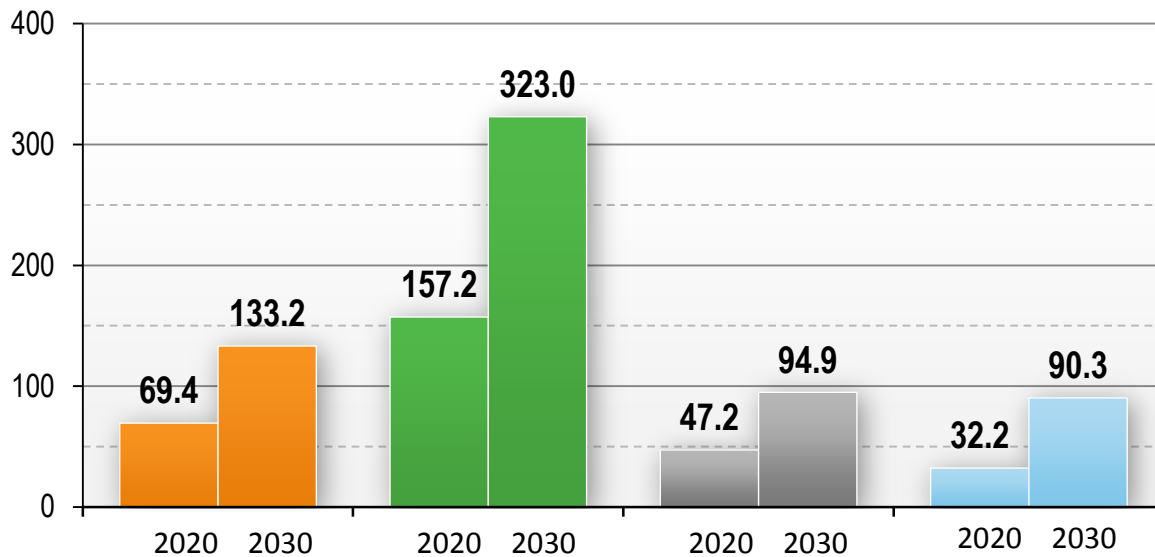
Development of Gazprom's resource base

billion cubic meters



-  Existing projects
-  New fields
-  Nadym Pur Taz District
-  Yamal
-  Stockman
-  Eastern Siberia and the Far East

billion cubic meters

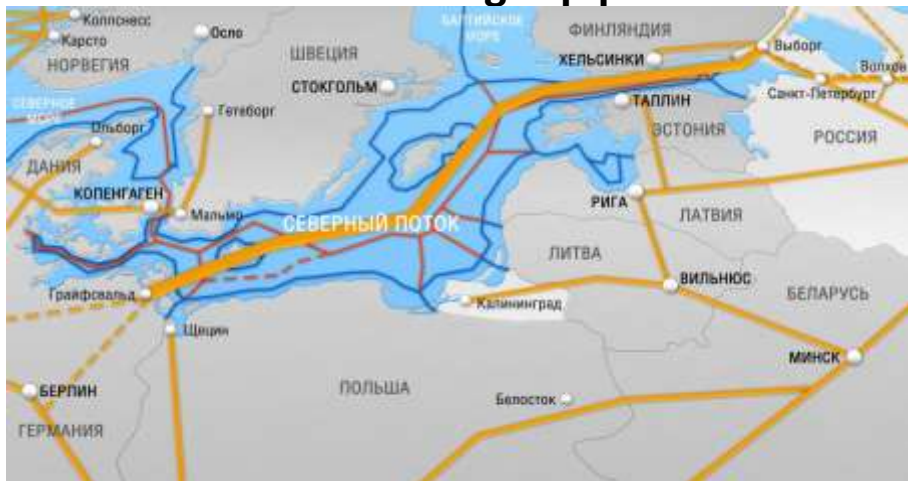


Commissioning of the Yamal Peninsula fields and the shelf

Expected production, billion cubic meters/year	
2015	2030
116	310-360 (land+shelf)

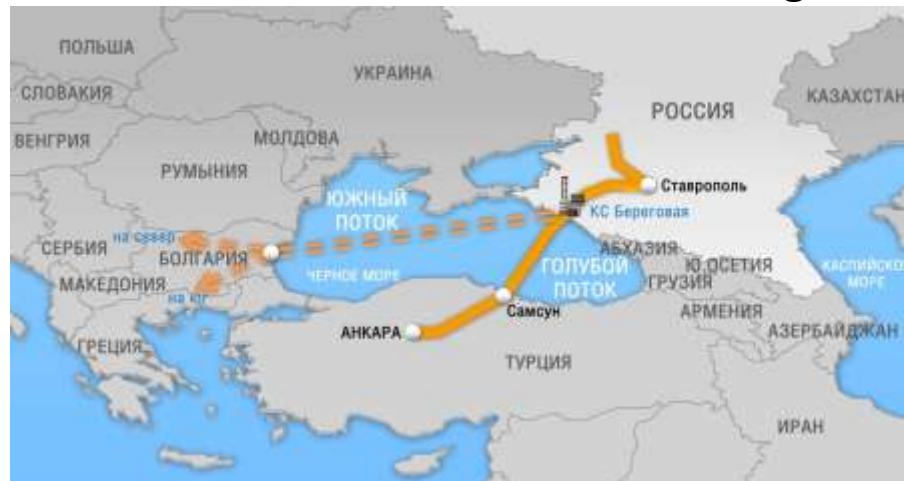
Gazprom's transportation projects

Nord Stream gas pipeline



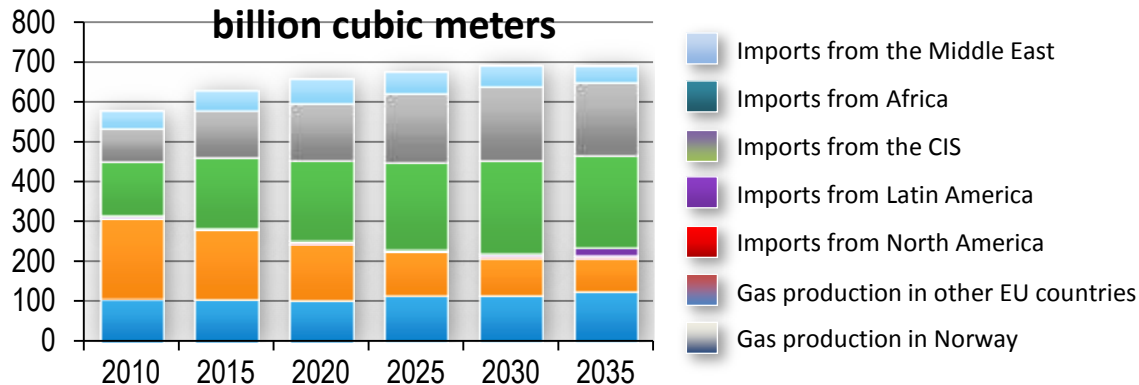
Capacity: 55 billion cubic meters/year

South Stream and Blue Stream gas

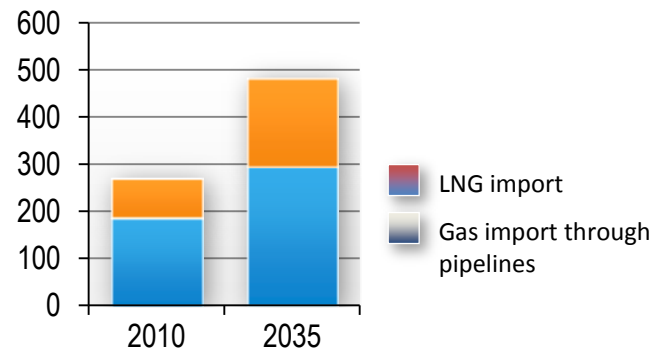


Capacity: 63 billion cubic meters/year (South Stream)

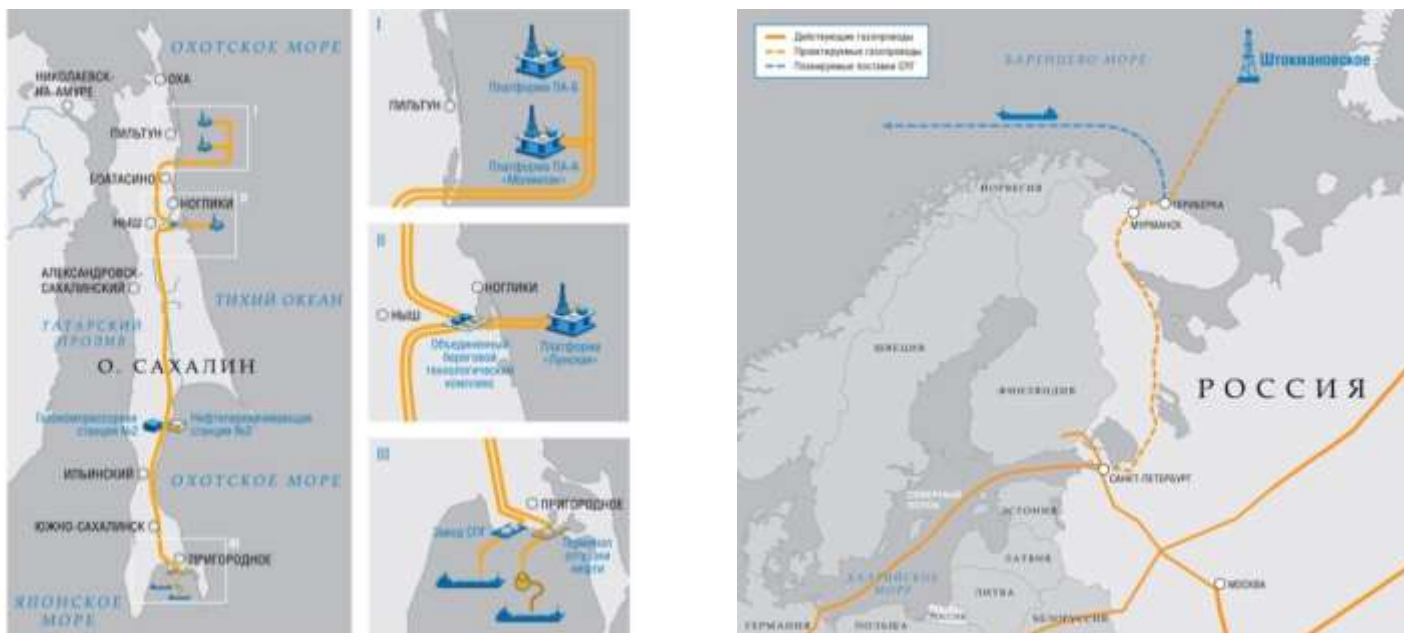
Gas balance in Europe, billion cubic meters



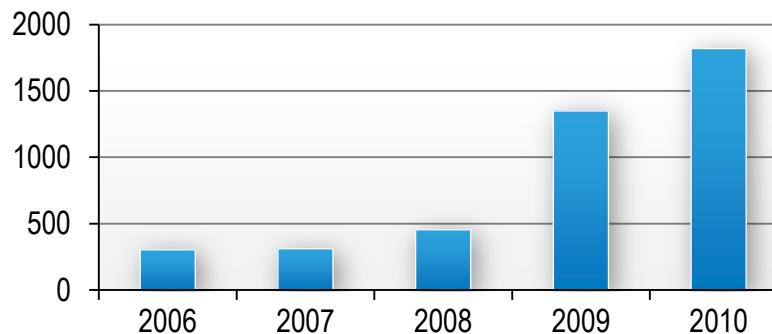
Europe's inter-regional gas trade, billion cubic meters



Gazprom in the LNG sector

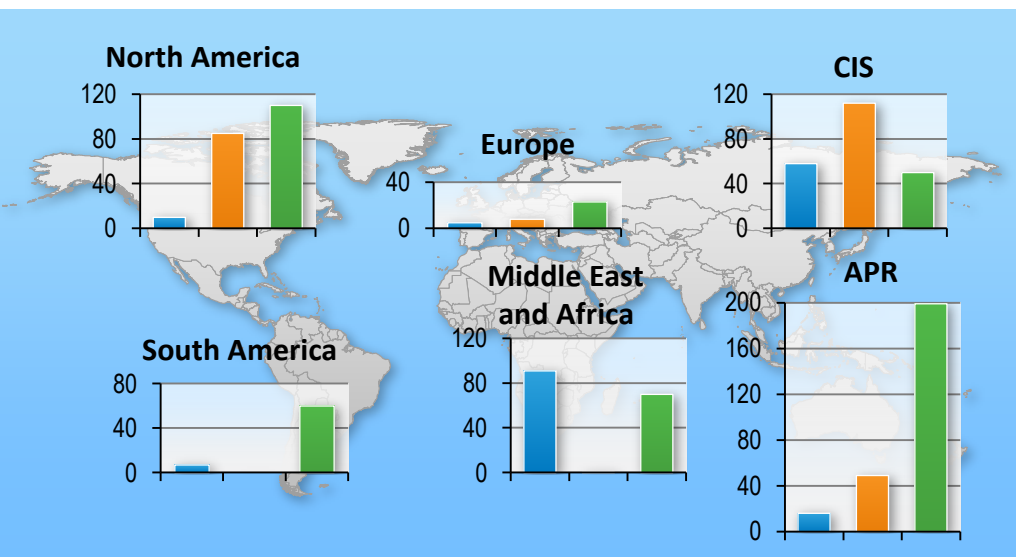


Volumes of Gazprom Group's transactions with LNG, thousand tons



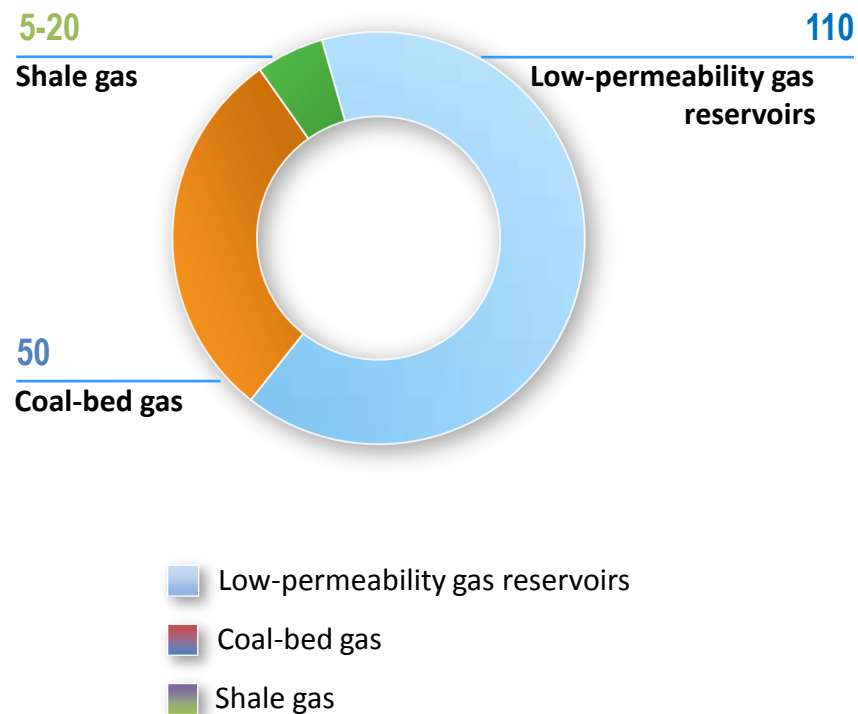
The strategy of relying on conventional natural gas resources

Distribution of conventional and unconventional gas by regions in the world, trillion cubic meters



■ Conventional gas
 ■ Coal-bed gas
 ■ Shale gas

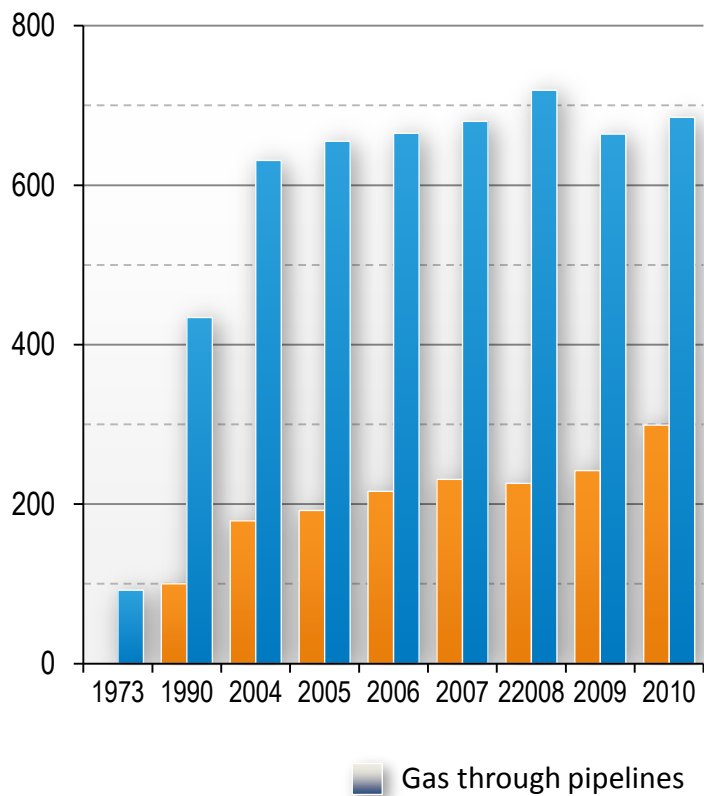
The structure of Russia's unconventional gas resources, trillion cubic meters



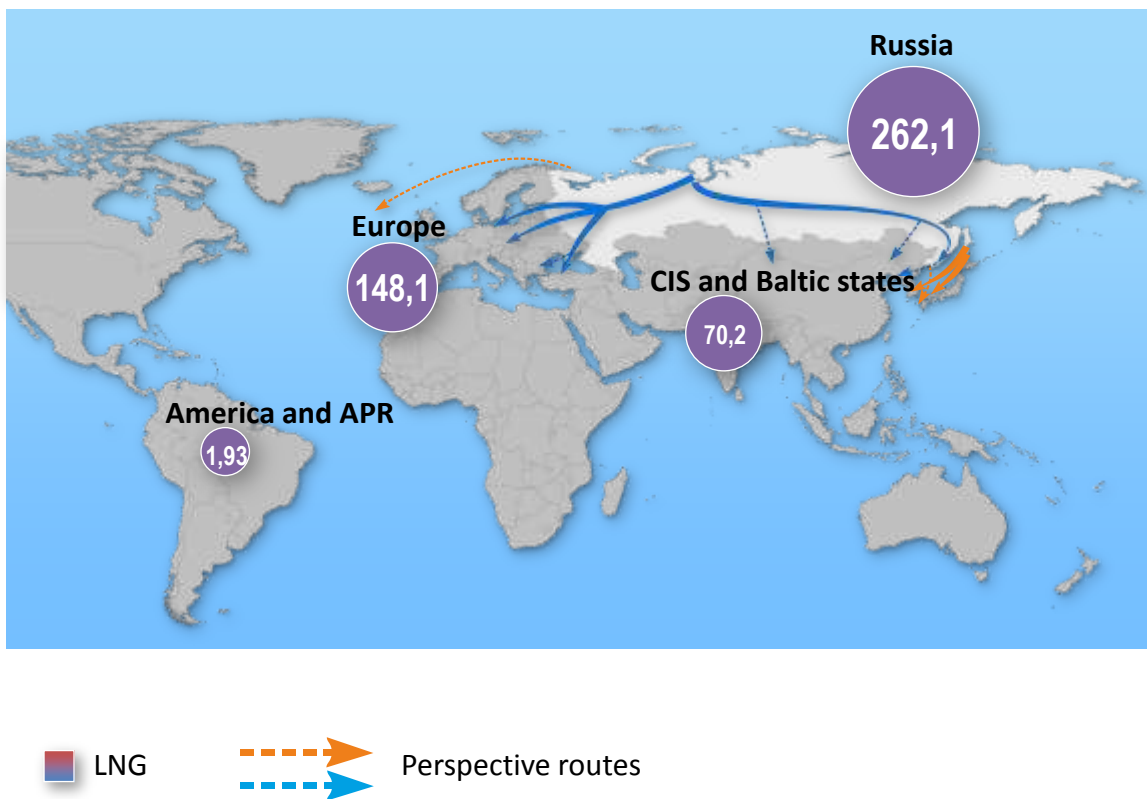
■ Low-permeability gas reservoirs
■ Coal-bed gas
■ Shale gas

Gazprom's global supplies of pipeline gas and LNG

Ratio of supply volumes of pipeline gas and LNG, billion cubic meters



Global gas supplies, billion cubic meters



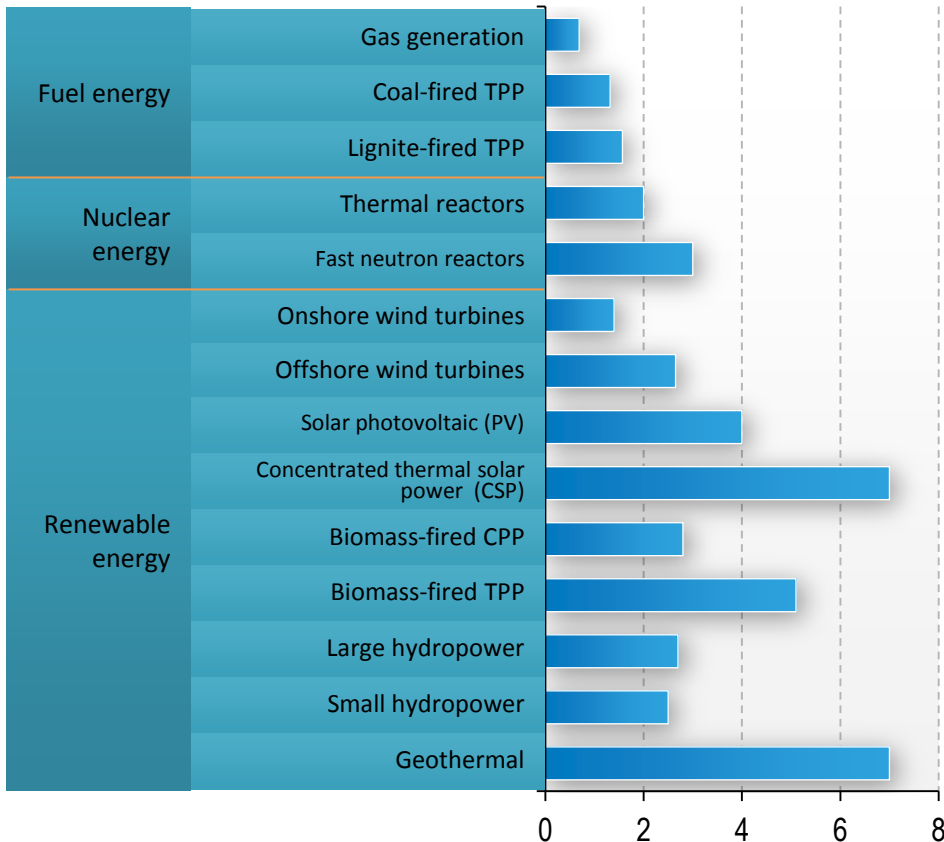
■ Gas through pipelines

■ LNG

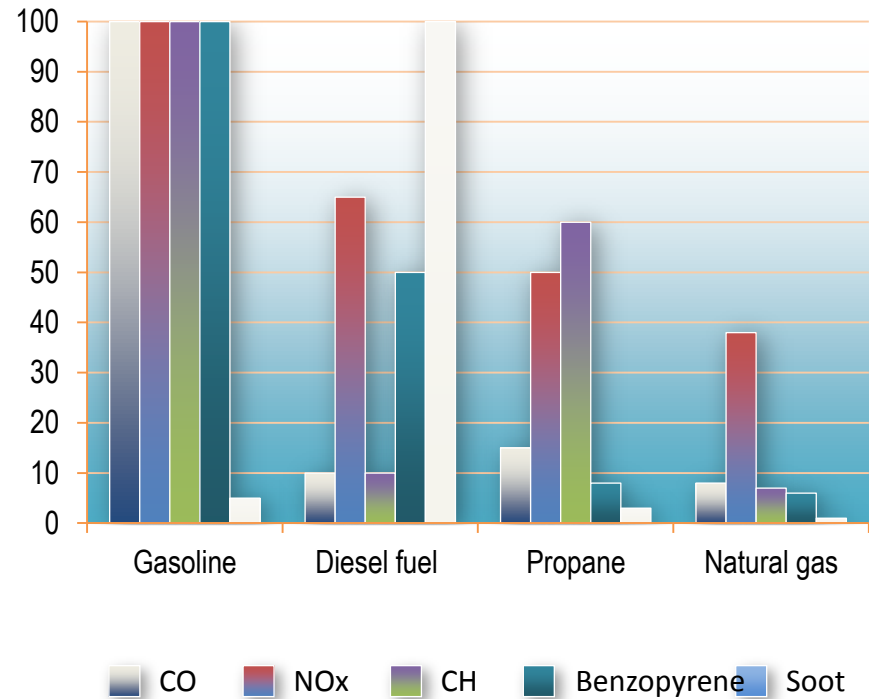
→ Perspective routes

Natural gas – an environmentally and technologically optimal solution

Cost of building 1 kW of electric power of various types of power plants, thousand dollars.



Relative content of toxic components in exhaust gases of motor vehicles





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Thank you for your attention!



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