



Anatoly Chubais,  
Chief Executive Officer

# **RUSNANO: Fostering Nanotechnology Innovation in Russia**

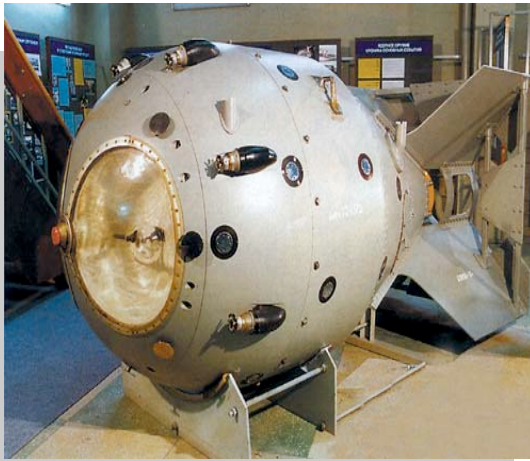
Moscow  
May 26, 2010



# Innovative economy in USSR:

## Real achievements and “golden age of stagnation”

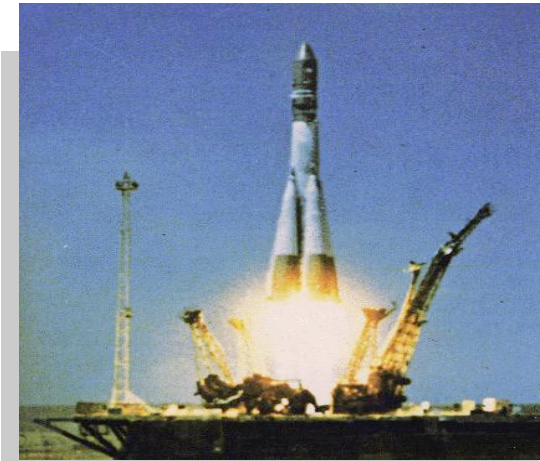
### Nuclear program



*First Soviet atomic bomb, RDS-1 (1949)*

**Key Soviet innovative projects  
were launched during  
1940-1960:**

### Space program



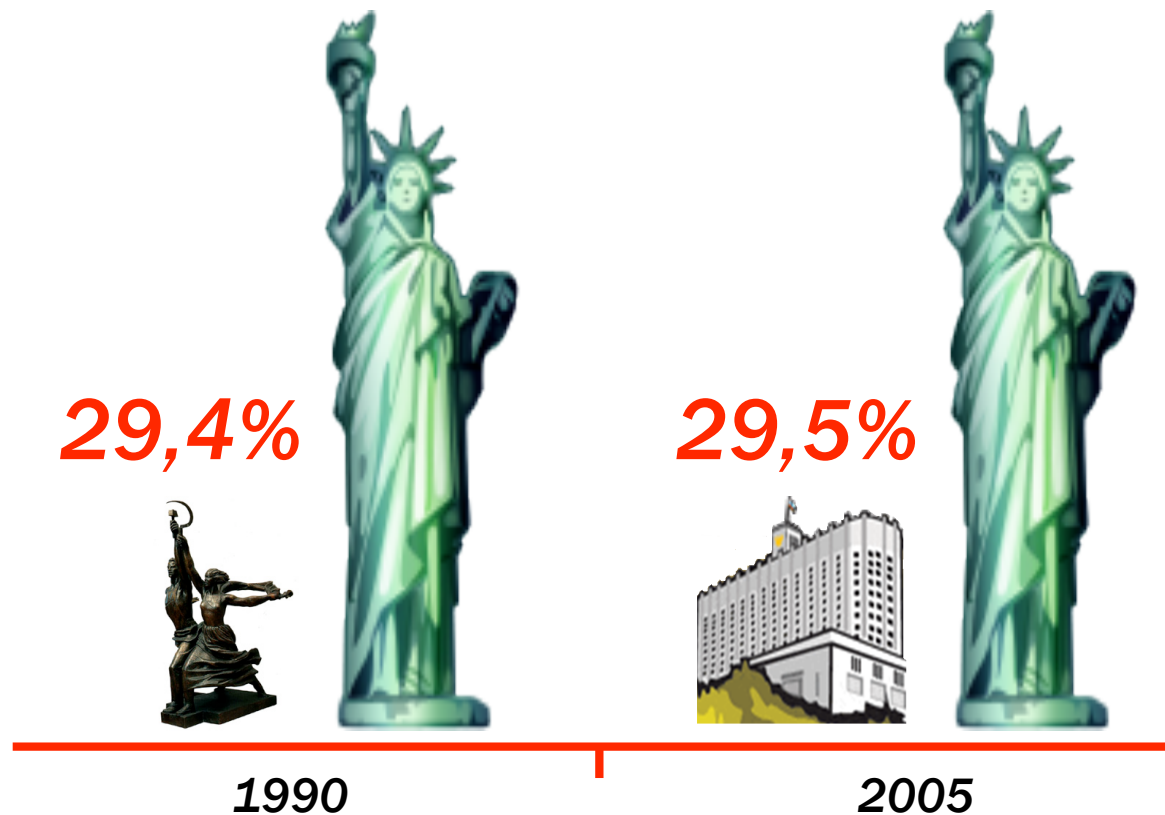
*Take off of Vostok-1 (1961)*

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***1970-1980– economy in stagnation,  
increasing dependence on energy prices***

# Labor productivity in Russian economy: Neither fall, nor growth

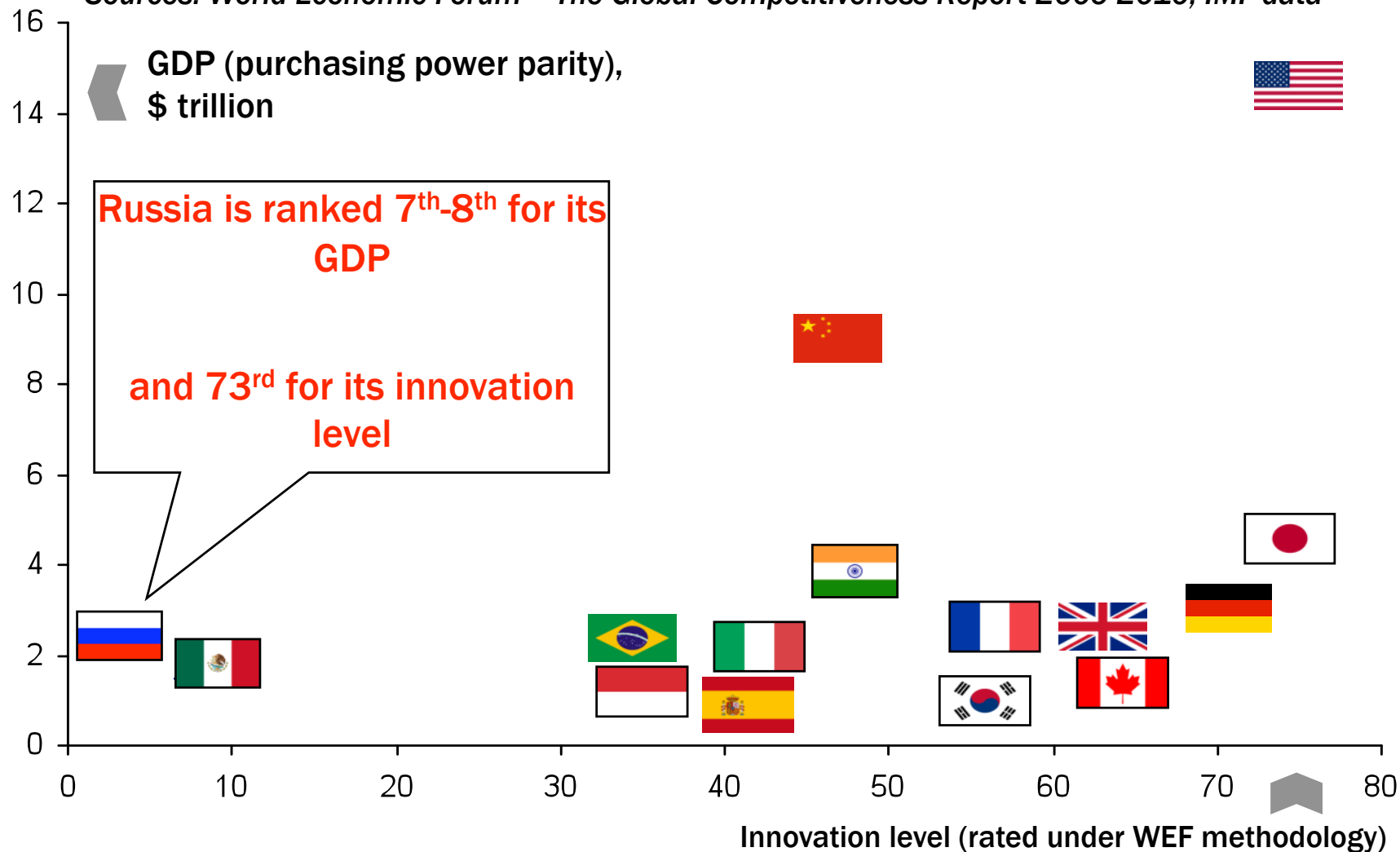
Productivity per one employed citizen in USSR and post-Soviet Russia  
based on purchasing power parity (in %% of the similar indicators in USA)



Source: «International comparison of GDP in Europe in 1990 .» (ECE ,UN, Geneva. 1994) ;  
Global round of international comparisons of GDP in the World for 2005

# Russian Economy: Gap in innovations

Sources: World Economic Forum – The Global Competitiveness Report 2009-2010; IMF data



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# 1990-2020:

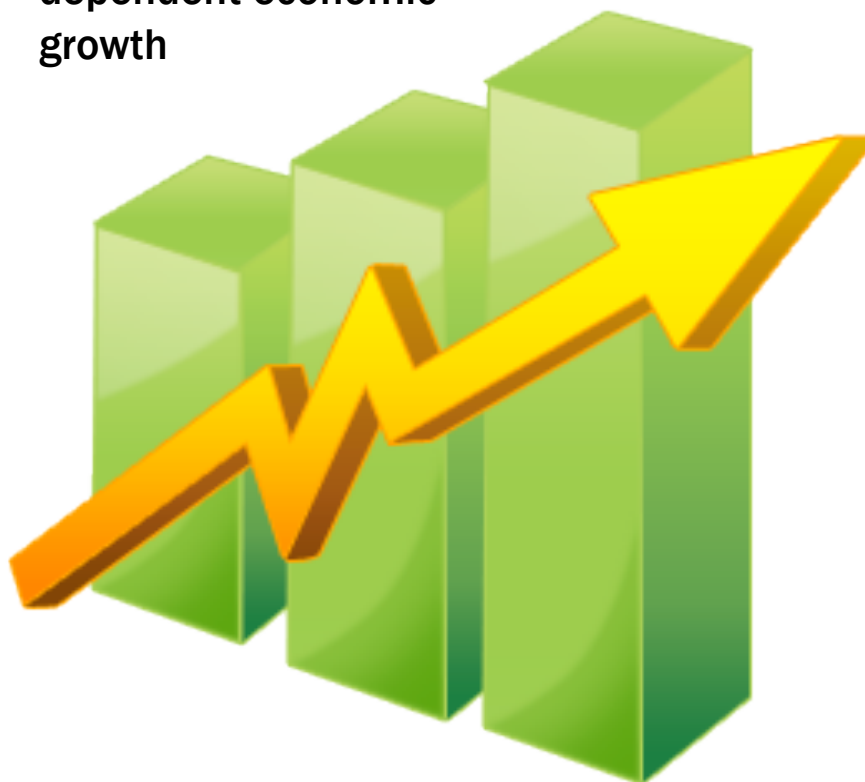
## *Milestones of initial development and further growth of Russian economy*

**1990-2000** Setting  
the base for market  
economy

**2000 - 2010**  
Raw materials export  
dependent economic  
growth

**2010 - 2020**

New model of innovation-  
based economic growth



# Russia's Modernisation: Main Policy Challenge

"In our work to make our economy radically more effective we also need to put in place incentives and conditions for progress in a whole number of different directions [...] **This calls for large-scale modernisation of production facilities in all economic sectors.** This requires a completely new quality of business management and completely new technology, above all machines and equipment. In most cases, the best technology is energy effective and energy conserving technology, economical and environmentally friendly technology".

*(President Vladimir Putin. Speech at Expanded Meeting of the State Council on Russia's Development Strategy through to 2020, February 8, 2008)*

**In the twenty-first century, our country once again needs to undergo comprehensive modernisation.** [...] We have a duty to heed the lessons of recent events. So long as oil prices were growing many, almost all of us, to be honest, fell for the illusion that structural reforms could wait and that what was important now was to make maximum use of the high prices. The priority was on pushing ahead the old raw materials economy, while developing unique technology and innovative products was the subject of only random individual decisions. But we can delay no longer. We must begin the modernisation and technological upgrading of our entire industrial sector. **I see this as a question of our country's survival in the modern world.**

*(President Dmitry Medvedev. Presidential Address to the Federal Assembly of the Russian Federation, November 12, 2009)*

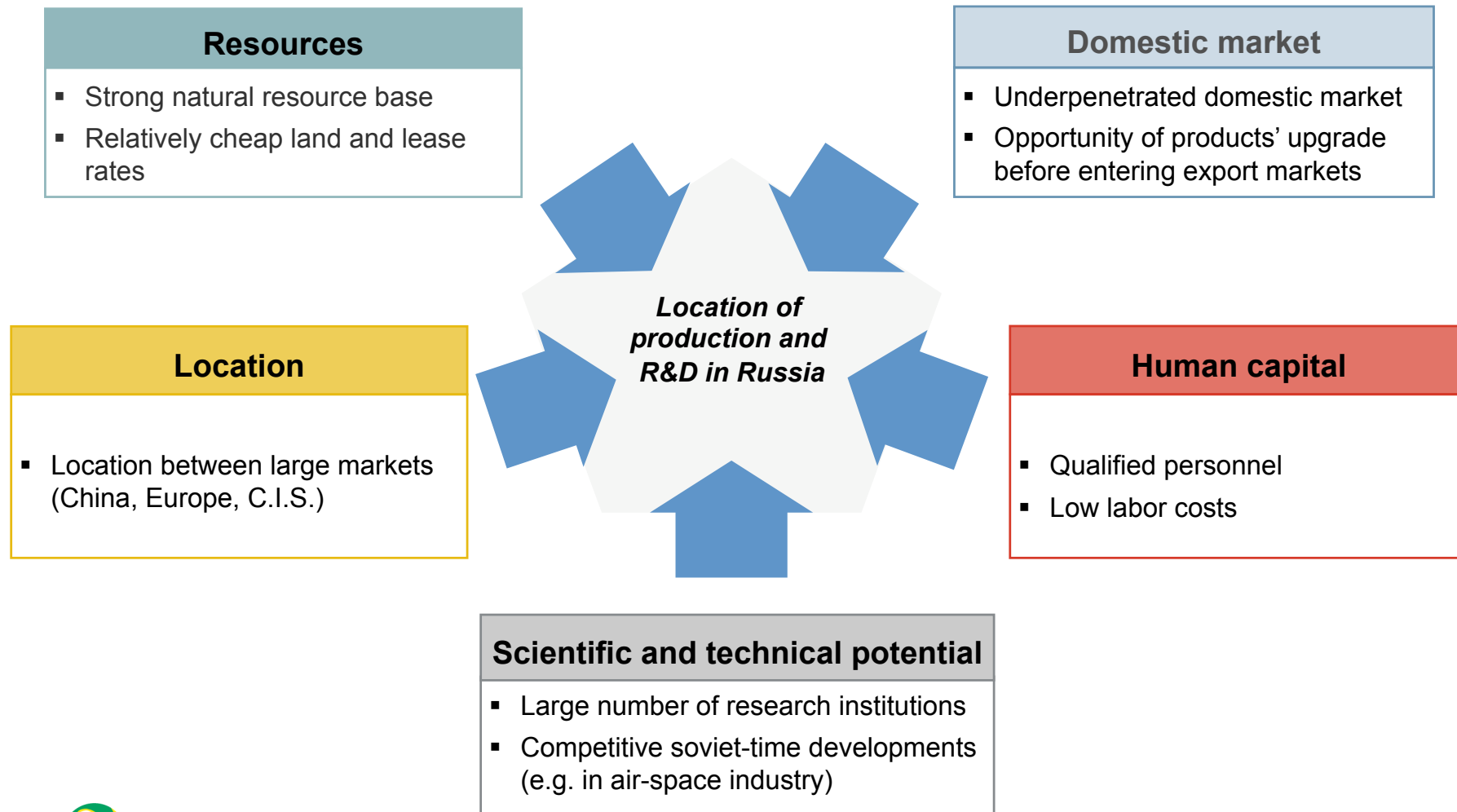
# Investments into innovative sector in Russia:

## Risks...



# ...and Opportunities

Russia as a production location place offers multiple benefits in terms of available resources, access to domestic market, logistics, scientific and technical potential





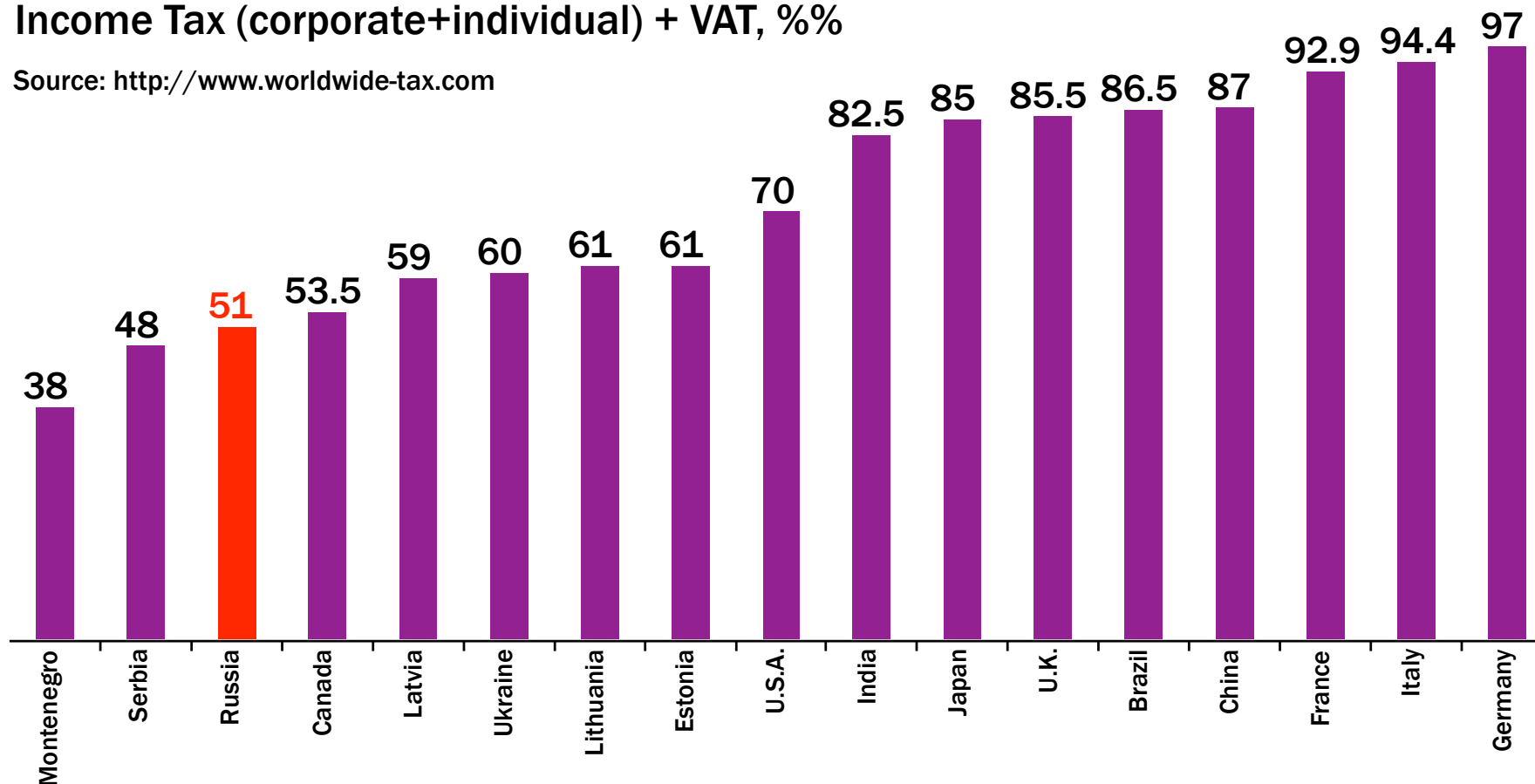
# Investments into innovative sector in Russia:

## Additional opportunities: **Low taxes**

### 2010: Tax Rates Around the World

Income Tax (corporate+individual) + VAT, %

Source: <http://www.worldwide-tax.com>



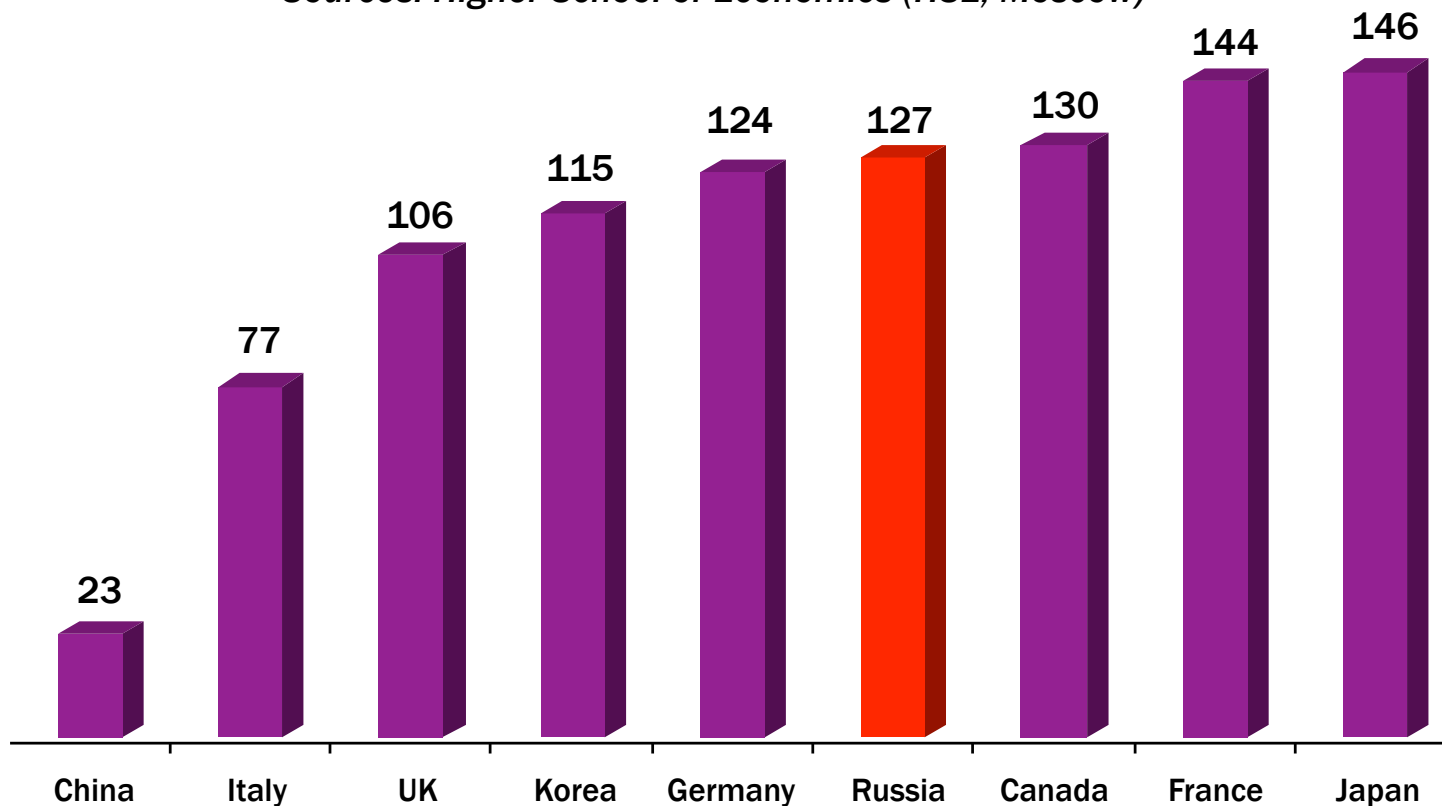
**Tax haven countries excluded,  
tax rate in Russia are among the world's lowest**

# Investments into innovative sector in Russia:

## Additional opportunities: **Skilled Labor**

R&D personnel headcount  
per 10,000 people employed in the economy (2008)

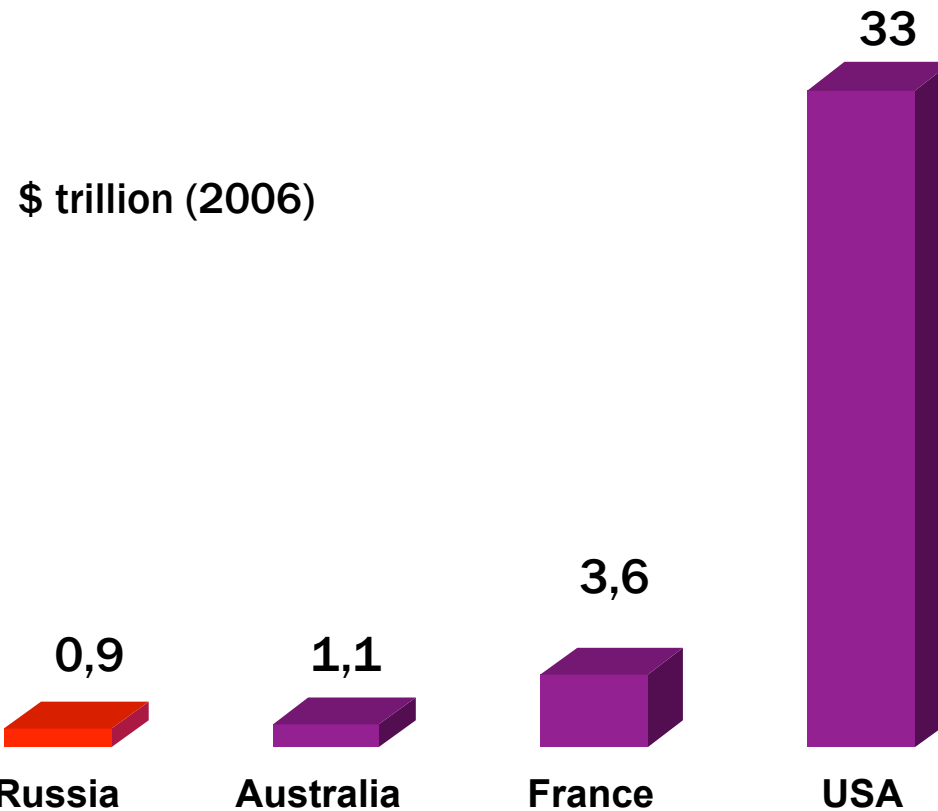
*Sources: Higher School of Economics (HSE, Moscow)*



# Investments into innovative sector in Russia:

## Additional opportunities: **Low value of land**

Total cadastral value of all land in the country



Sources: World Bank, Ministry of economic development of Russia

# RUSNANO: Brief overview

- Founded in 2007
- Mission: to implement the state policy in the field of nanotechnologies
- Tasks:
  - commercialization of nanotech industry projects and innovations
  - production volume of Russian nano-enabled products by 2015 – ~ \$30 bln per year
- Areas of financing:
  - fabrication of nano-enabled products and materials
  - foresight and road maps, standardization, certification, safety in nanotech industry
  - education, popularization



# RUSNANO's terms of financing

- Financing projects **at early stage** and **stage of expansion**
- Ownership participation — **no more than 50% *minus 1 share***
- Investment horizon — **up to 10 years**



# RUSNANO: Management structure

## Management



### ***Supervisory Council***

Includes representatives of the President, the State Duma, the Federation Council and the Government  
Chairman: Fursenko A.A.

Function: final approval of the projects to be funded



### ***Management Board***

Includes Corporation's top management  
Chairman, Chief Executive Officer:  
Chubais A.B.

Function: preliminary approval of projects to be funded before their presentation to the SC



### ***Investment Policy Committee***

Includes business representatives  
Chairman: Teplukhin P.M.

Function: approves projects' investment attractiveness and deal structure



### ***Scientific and Technical Council***

Includes academicians of the Russian Academy of Sciences and prominent scientists  
Chairman: Alfimov M.V.

Function: approves projects' scientific and technical components

## Investments

### ***8 Investment Departments***

Includes teams of Managing Directors

#### ***Key functions***

- Initial project evaluation
- Investment analysis of the project
- Corporate compliance
- Deal structuring
- Participation in project company management (inclusion in the BoD, etc.)



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# RUSNANO: Support for co-investors

## Financial support

### Corporate:

RUSNANO's minority stake in all projects

### Credit:

Long-term and comparatively cheap money.  
Guarantee for loans



## Non-financial support

### Infrastructural:

Technical and investment expertise, certification, foresight and road maps

### Managerial:

Assistance in marketing, investment spending supervision in the interests of all shareholders

### Administrative:

Shielding from the red tape and corruption

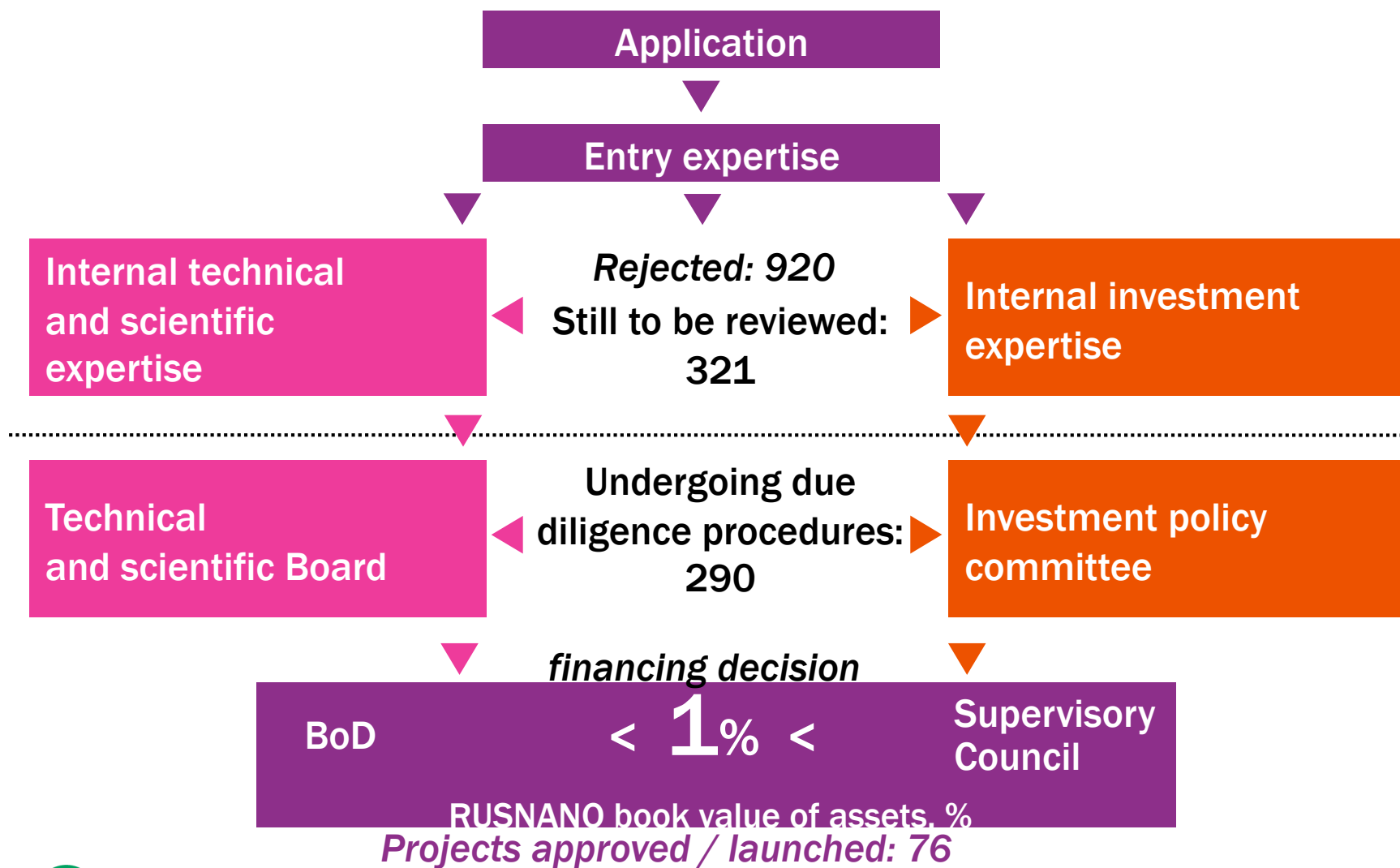
*Basic condition – location in Russia*



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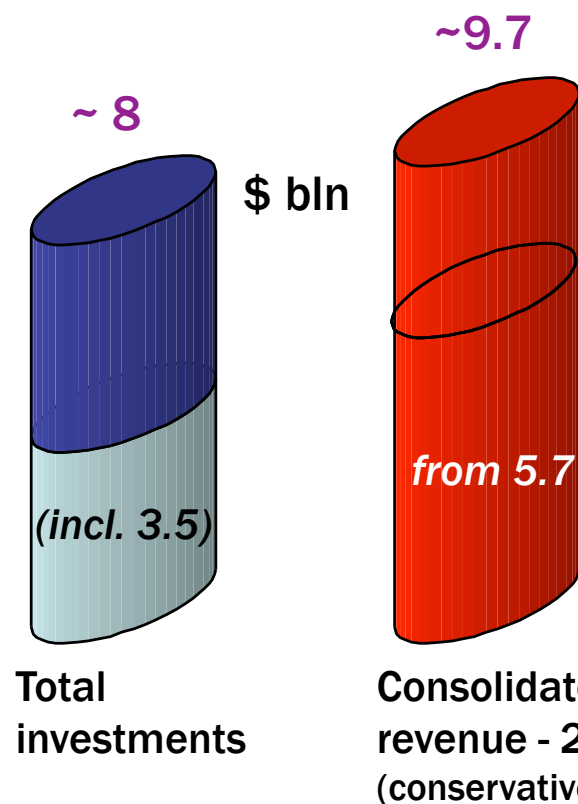
# RUSNANO's Project Selection Mechanism

01.04.2008 – 14.05.2010, total applications: 1607





# Investment Projects Today



- Approved by the Supervisory Council: **76 projects** in **27 Russian regions**
- Total investment volume: **~ \$8 billion** (incl. RUSNANO's share: **~ \$3.5 billion**)
- Consolidated revenue - 2015: **from \$5.7 billion** (conservative scenario)

In Q3 2009, RUSNANO achieved the planned “project capacity” – a minimum of 15 projects per quarter. It makes our strategic task possible:

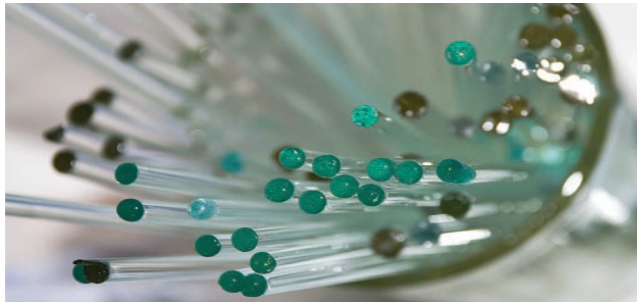
**to ensure production volume of Russian nanoindustry by 2015 –  
~ \$30 billion per 1 year**

# Projects' clusters

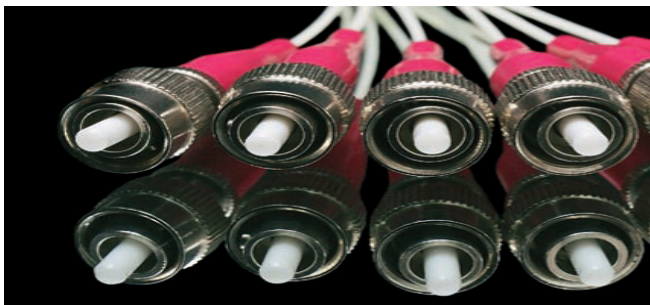
**Solar energy and energy conservation**



**Medicine and Biotechnology**



**Optoelectronics and nanoelectronics**



**Nanostructured materials**



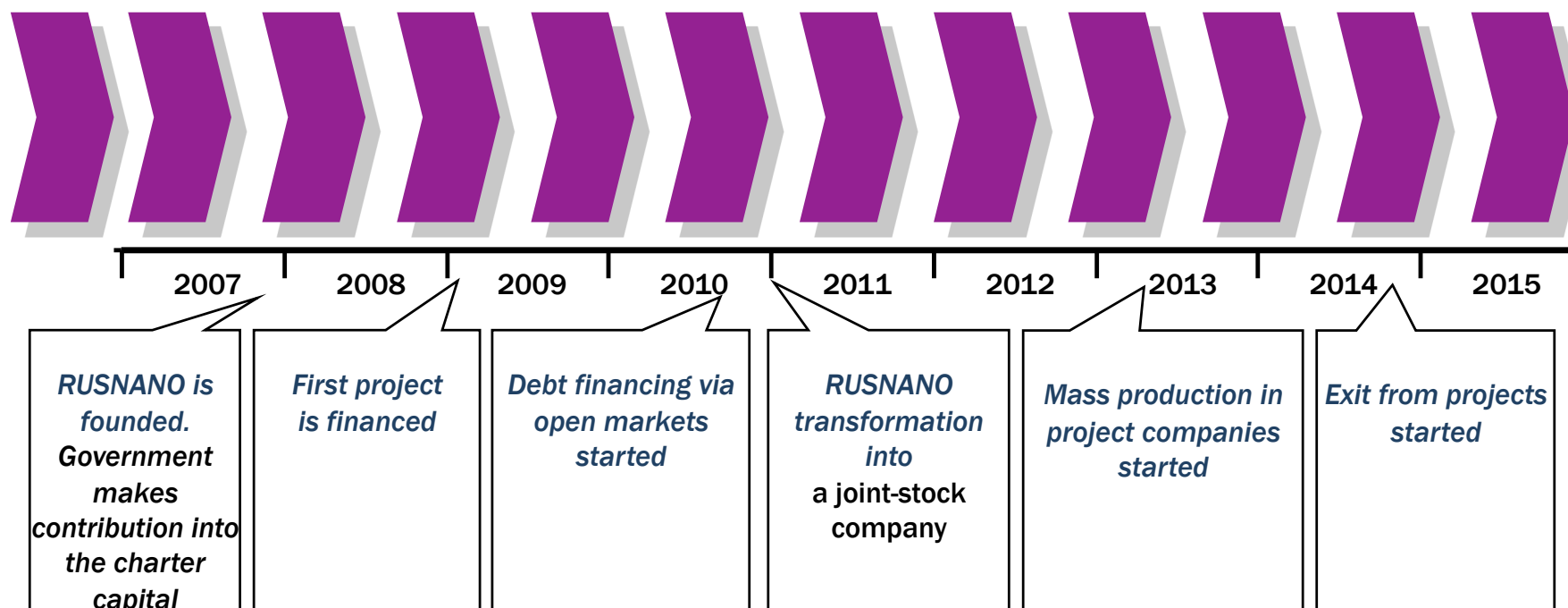
**Mechanical engineering and metalwork**



**Infrastructure and Education**



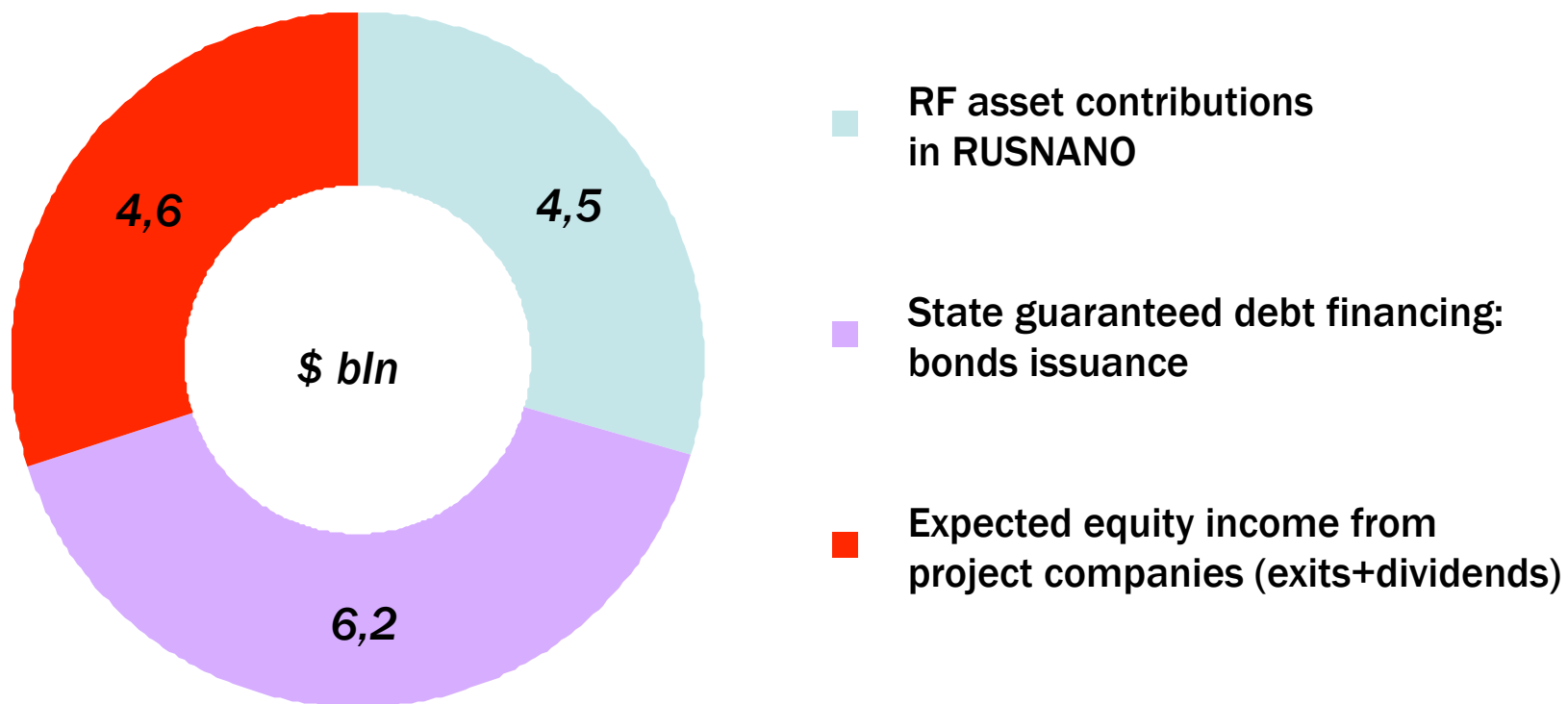
# RUSNANO plans: timeline



Additional major challenge:  
IPO after RUSNANO transformation into a joint-stock company

# Long-term financing program

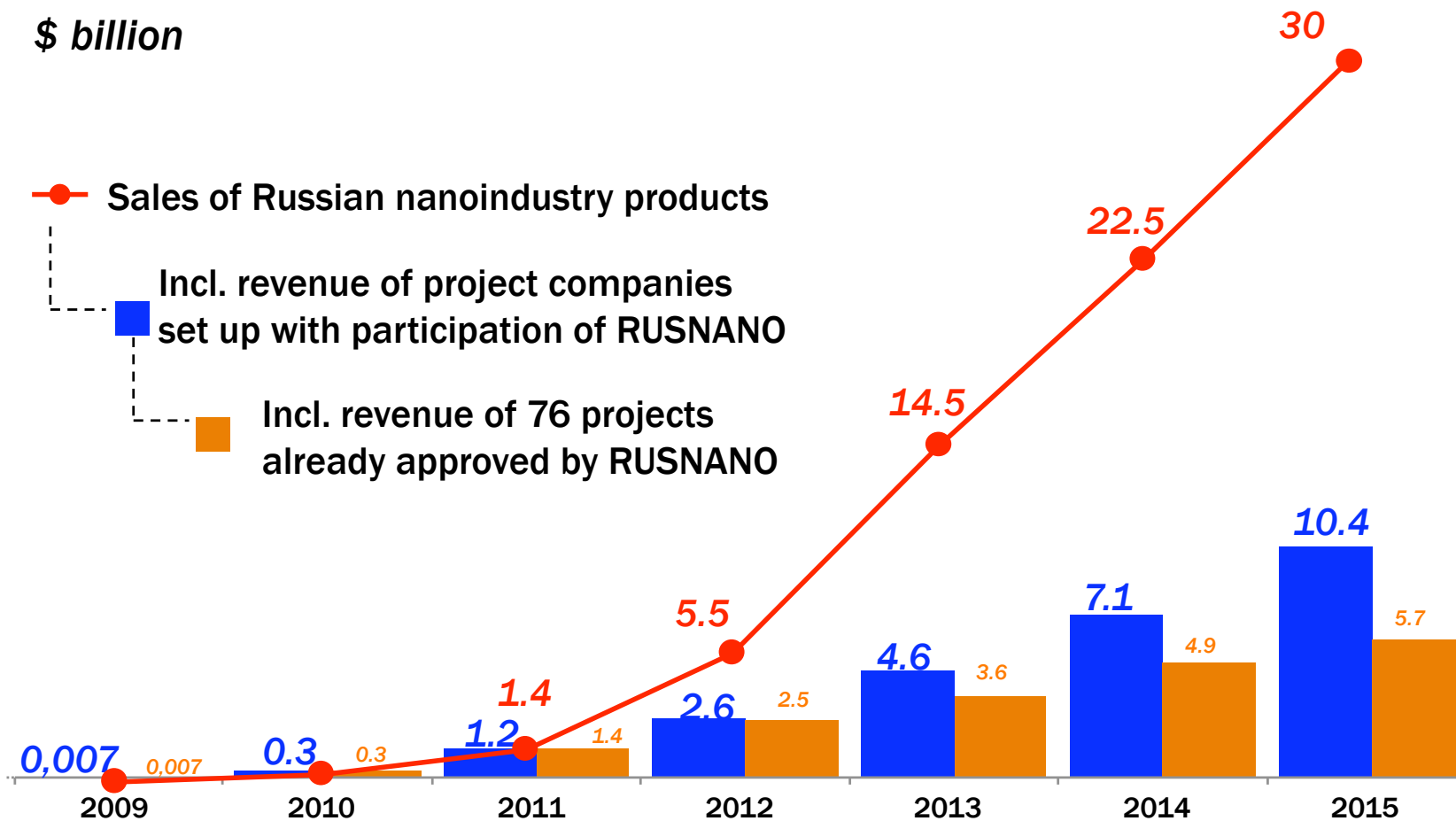
RF Government Decree No. 1454-r of 05 October 2009



Total in 2008-2015: up to \$15.3 bln

# Dynamics of the Russian Nanoindustry Market:

## Target



# What we can do together



## *RUSNANO offers*

- ✓ Co-investment
- ✓ Support in companies entry into the Russian market
- ✓ Access to RUSNANO's scientific and technical expertise
- ✓ Joint creation of venture funds



## *Funds could*

- ✓ Consider opportunities for portfolio companies expansion into Russia
- ✓ Encourage portfolio companies to apply for RUSNANO financing
- ✓ Act as co-investors in RUSNANO projects
- ✓ Encourage portfolio companies to cooperate with RUSNANO projects to achieve synergies:
  - in accessing global product and finance markets
  - in exits from projects (IPO or selling to a strategic investor)



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