Russia – Today and Tomorrow

Panel session, June 18, 2010

MAKING RUSSIAN EDUCATION GLOBALLY COMPETITIVE

14:00 – 15:30, Pavilion 4, Conference Hall 4.2
Chinese students are almost 4 times more likely to study abroad than Russian students.

Top sources for international students in tertiary education:

- **China**: 1.9%
- **India**: 1.7%
- **Korea**: 3.1%
- **Germany**: n/a
- **Japan**: 1.2%
- **France**: 2.5%
- **US**: 0.3%
- **Malaysia**: 6.1%
- **Canada**: n/a
- **Russia**: 0.5%

*Students studying abroad as a percentage of total tertiary enrolment*

Source: UNESCO Global Education Digest 2009
Russia produces more university graduates than the UK, France and Germany combined.
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RUSSIAN LABOR PRODUCTIVITY
– COMING OUT OF THE CRISIS
14:00 – 15:30, Pavilion 3, Amphitheatre
Russia's labour productivity stands apart from its BRIC peers

Labour productivity of select nations

Source: University of Groningen, Total Economy Database

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RUSSIA’S BALANCE SHEET: BETWEEN A RISING EAST AND A DECLINING WEST

16:00 – 17:30, Pavilion 4, Conference Hall 4.2
Emerging economies' economic clout

EU, US and BRIC economic indicators

Source: IMF World Economic Outlook (April 2010); WTO; BP Statistical Review of Energy 2009

* proved reserves are end of 2008
Eastern and Western economies have opposing trade balances

Trade balances, East v. West

Note: West is represented by the US and EU. East is represented by China, Japan and Korea

Source: IMF Direction of Trade Statistics and World Economic Outlook databases (2010)
Eastern export volumes are tracking those of Western economies

Exports, East v. West

- **Russia**
- **East**
- **West**

**Note:** West is represented by the US and EU. East is represented by China, Japan, and Korea.

**Source:** IMF Direction of Trade Statistics and World Economic Outlook databases (2010)
Foreign investment began to flow faster into Eastern economies in 2007

FDI, East v. West

Annual change in foreign direct investment inflows

Note: West is represented by the US and EU. East is represented by China, Japan and Korea

Source: UNCTAD (2010)
Eastern economies' share of global output has risen 5 percentage points since 1992

Note: West is represented by the US and EU. East is represented by China, Japan and Korea

Source: IMF World Economic Outlook (April 2010)
Russia's population is over 50 times denser in the Central region than in the Far East

Density of Russian population

Population density, 1 Jan 2009
(persons per km²)

Far East  Siberia  Urals  North West  Russia total  Volga  South  Central

Source: Russian national statistical office
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MITEF SESSION: UNLEASHING INNOVATION IN RUSSIA

16:00 – 17:30, Pavilion 4, Conference Hall 4.3
The number of Russian companies in the Forbes 2000 has doubled in the past 5 years

Largest BRIC multinationals

* based on an index of sales, profits, assets and market values

Source: Forbes (2010)
Innovation leaders are found in North America, Western Europe and Asia-Pacific

Global Innovation Index

US R&D spending is nearly double that of the BRIC nations combined.

Forecast R&D spending

R&D spend as % of GDP
1.50% 0.90% 1.04% .91% 2.85%

China  India  Russia  Brazil  US

Source: Battelle, R&D Magazine (2009)
Science and engineering PhDs are issued in near-equal numbers by developed and emerging markets

Do doctoral degrees in science and engineering

Source: NSF Science and Technology Indicators 2010
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Chinese inventors increased their patent applications 34% per year since 1999

Patent family applications, by national source

Note: A patent family eliminates double counts of patent applications filed with multiple offices for the same invention.

Source: WIPO, World Intellectual Property Indicators 2009
Russian companies are focusing innovation efforts on technologies and processes

Corporate innovation outputs from Russia

In 2008-2009, did your company (begin manufacturing products/implement technologies/implement business processes), which it had never (manufactured/used) before?

- Innovative globally
- Innovative for Russia/region/key markets
- Innovative for company only

Note: Survey of senior executives at 100 large companies operating in Russia, conducted in May 2010.

Source: PricewaterhouseCoopers (2010)
Two-thirds of Russian companies cited access to capital as an important barrier to innovation.

Barriers to innovation in Russia

What in your opinion is the largest obstacle to the growth of your company’s innovative activity?

- Difficulty with export and customs control: 9%
- Difficulty in raising funds for innovation: 28%
- Excessive red tape: 25%
- Insufficient security of intellectual property: 11%
- Lack of risk management procedures: 11%
- Lack of management resources: 13%
- Insufficient demand for innovative products: 18%
- Lack of capable employees: 12%
- Lack of ‘innovation culture’ within your company: 11%
- Competitive pressures: 21%
- Commercialization problems: 15%

Note: Survey of senior executives at 100 large companies operating in Russia, conducted in May 2010.

Source: PricewaterhouseCoopers (2010)
Corporate R&D spending is set to rise in 2010

R&D investments by Russian companies

What share of the turnover (did your company spend/is your company planning to spend) on R&D in (2009/2010)?

<table>
<thead>
<tr>
<th>Percentage of Russian companies</th>
<th>2009</th>
<th>2010</th>
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<tbody>
<tr>
<td></td>
<td>14%</td>
<td>19%</td>
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<tr>
<td>&gt;10%</td>
<td></td>
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<td>6-10%</td>
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<td>35%</td>
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<td>3-5%</td>
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<td>32%</td>
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<td>&lt;3%</td>
<td>30%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: Survey of senior executives at 100 large companies operating in Russia, conducted in May 2010. Responses of "Don't know/Refused" excluded.

Source: PricewaterhouseCoopers (2010)
Russian inventors are increasingly looking for overseas patent protections

Patent applications from Russian residents

Source: WIPO, World Intellectual Property Indicators 2009

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World tourism fell by nearly 10% in 2009

Tourism receipts

Index of tourist receipts, current US$ and exchange rates (100 = year 2005)

Note: Data for Russia prior to 2005 not available

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RUSSIAN AGRICULTURE POST-CRISIS

18:00 – 19:30, Pavilion 4, Conference Hall 4.2
Russian agricultural yields began to rise in 1998

Agricultural yields

Index of gross agricultural production per hectare of agricultural land, 1999-2007 (international dollar, 1998=100)

Source: FAOSTAT (2010)
China's net imports of agricultural products totalled $45 billion in 2008

Agricultural trade balance in BRIC nations
Russia's agricultural sector is a smaller component of GDP than its BRIC peers.'

Agricultural value-added in select economies

Panel session, June 18, 2010

NEW MODELS OF EDUCATION AND TRAINING IN COMPREHENSIVE SCHOOLS

18:00 – 19:30, Pavilion 4, Conference Hall 4.3
Chinese students are almost 4 times more likely to study abroad than Russian students

Top sources for international students in tertiary education

Students studying abroad as a percentage of total tertiary enrolment

Source: UNESCO Global Education Digest 2009
Russia produces more university graduates than the UK, France and Germany combined

New graduates of tertiary education programmes

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Panel session, June 19, 2010

UNIVERSAL CITIZEN SMART CARD – ARE SOCIETY, THE STATE AND TECHNOLOGIES READY FOR THIS?

09:00 – 10:30, Pavilion 8, Conference Hall 8.2
Revenues are expected to grow by 61% CAGR from 2006-2011

Worldwide biometrics use

Source: Frost & Sullivan
By 2011, almost 80% of the biometrics market will be finger and face based.

Biometric information

Source: Frost & Sullivan

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Russia – Today and Tomorrow

Panel session, June 19, 2010

RUSSIA AND THE “GLOBAL” RUSSIANS

10:00 – 11:30, Pavilion 3, Amphitheatre
Science and engineering PhDs are issued in near-equal numbers by developed and emerging markets

Doctoral degrees in science and engineering

Source: NSF Science and Technology Indicators 2010

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