An Entrepreneurial University in Russia: From an Idea to Reality

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TUSUR

Outline

- Introduction
- Evolution of Triple Helix interactions in Russia
- Transition towards an Entrepreneurial University
- The case study of TUSUR University
- Future of Entrepreneurial Universities in Russia
- Conclusion

Introduction

- The triple helix arrangements between government, academia, and industry are key economic factors for innovation and sustainable development

- Entrepreneurial university is a driving force towards transition to the knowledge based economy

Three WHAT questions

- What is the Russian model of entrepreneurial university?
- What is the role of Russian government in building entrepreneurial universities?
- What is the future of the entrepreneurial universities in Russia?

Triple Helix Interactions in Russia

Soviet period (prior 1990)

- Autonomy of helices
- Military R&D

The key challenge in the 1990s was to stop dissolution of national research institutions and universities.

Transitional period (1990 - 2000)

- Universities – proactive agents
- Raising awareness
- Bilateral interactions

Universities actively received research prerogatives and started playing more active role in local economy.

Growth period (> 2000)

- Active government support
- Business engagement
- Trilateral interactions

Universities becoming agents of the economic and technological development, disseminators of entrepreneurship and knowledge commercialization engines.

Towards Entrepreneurial University

I. Innovation Infrastructure (2005 - 2008)

- Science and Technology parks
- Technology Transfer Offices
- Innovation Centers
- Special Economic Zones
- The Russian Venture Company
- Skolkovo, large innovation and education center, with MIT

II. Innovation Legislature (2009 - 2010)

- Federal Law 217 (similar to the US's Bayh-Dole Act)
- Federal Decree 218 to stimulate R&D
- Federal Decree 219 to establish bilateral university-industry interactions
- Federal Decree 220 to support leading researchers

III. Entrepreneurial University and Innovation Cluster (> 2011)

- Federal grants to transition towards entrepreneurial universities (2011)
- Ministry of Economic Development stimulates development of regional innovation clusters
- Ten regional clusters awarded $80 million for the next 5 years

On its way: the case study of TUSUR University

I. Innovation Infrastructure (2005-2008)

- Business Incubator (2005)
- Technology Transfer Office (2005)
- Cluster of high-tech spin off firms with TUSUR as the core (2005)
- Science Park: telecommunication, electronics, nanotechnology, biotechnology, and medical technology firms (2006-2009)

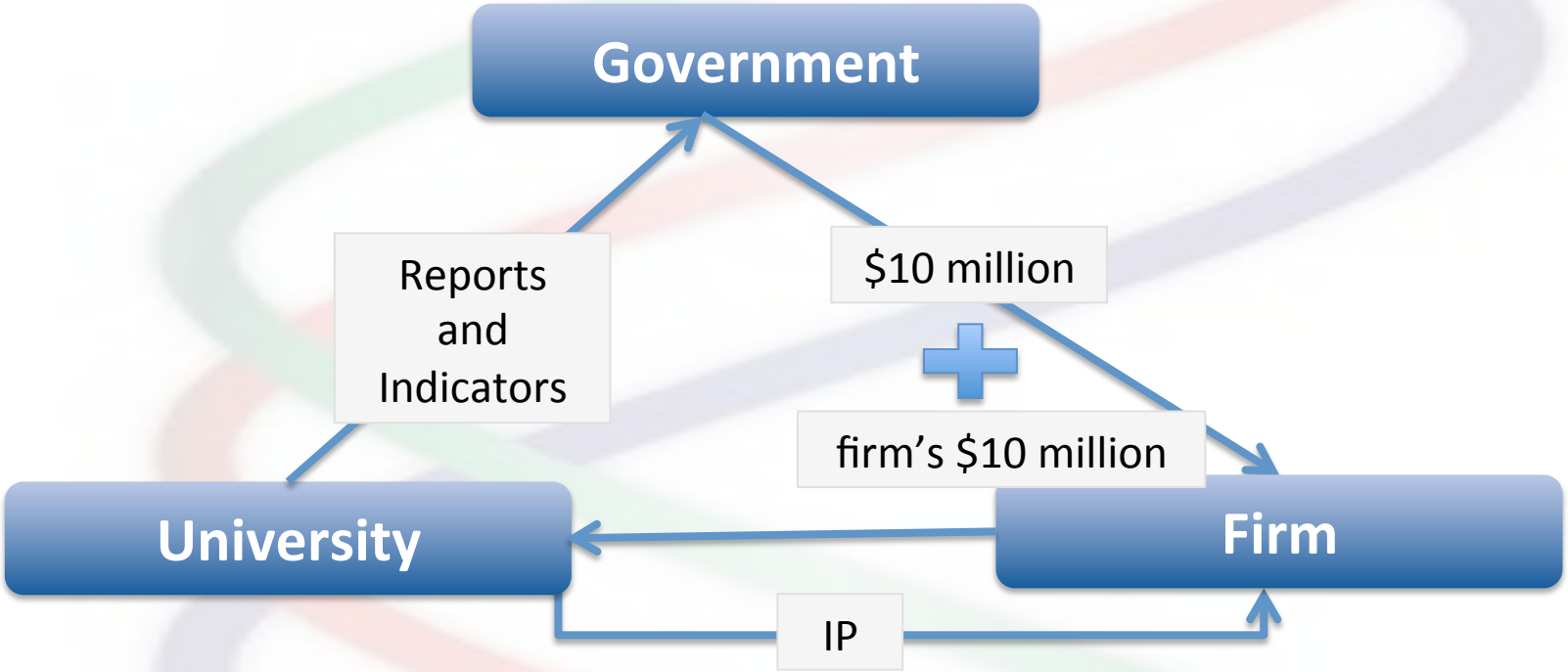
II. Innovation Legislature (2009-2010)

- Four companies has been awarded $17 million to establish bilateral R&D collaboration with TUSUR (Federal Decree 219, 2010-2012)

III. Entrepreneurial University and Regional Innovation Cluster (>2011)

- TUSUR has been awarded $10 million to facilitate its transition to an entrepreneurial university (2012-2014)
- The Innovation Cluster Development Program has awarded $80 million to TUSUR, the core of the Tomsk Regional Innovation IT and Electronics Cluster (2012-2016)

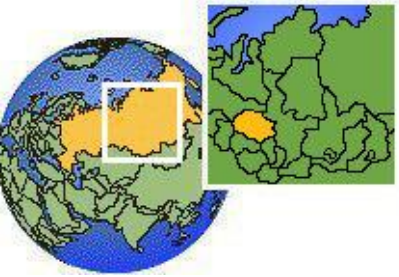
A Stimulation of Bilateral R&D Collaboration: $20 million Project



Mechanism:

1. Government allocates $10 million to a firm
2. The firm contributes another $10 million to establish a joint research project with a university
3. The university provides reports to the Government, and the firm gets IP

Currently, TUSUR University is engaged in R&D collaboration with 4 local companies.



TUSUR Regional Innovation Cluster, The $80 million Development Program

IT and Electronics cluster	• 5 local universities • > 100 firms • 3 Research Institutions • Local government departments
Spin-off firms cluster	• 125 firms with $506 million in total revenues • 80% of hi-tech revenues • Joint research with TUSUR • Invested $14 million in TUSUR
 TUSUR	• Mission includes education, research and knowledge commercialization • 41% of budget to research • Patenting, licensing, and incubation

TUSUR University is the core of the IT and Electronics cluster with open membership for regional companies, research institutions, and government agencies working in the area of IT and electronics

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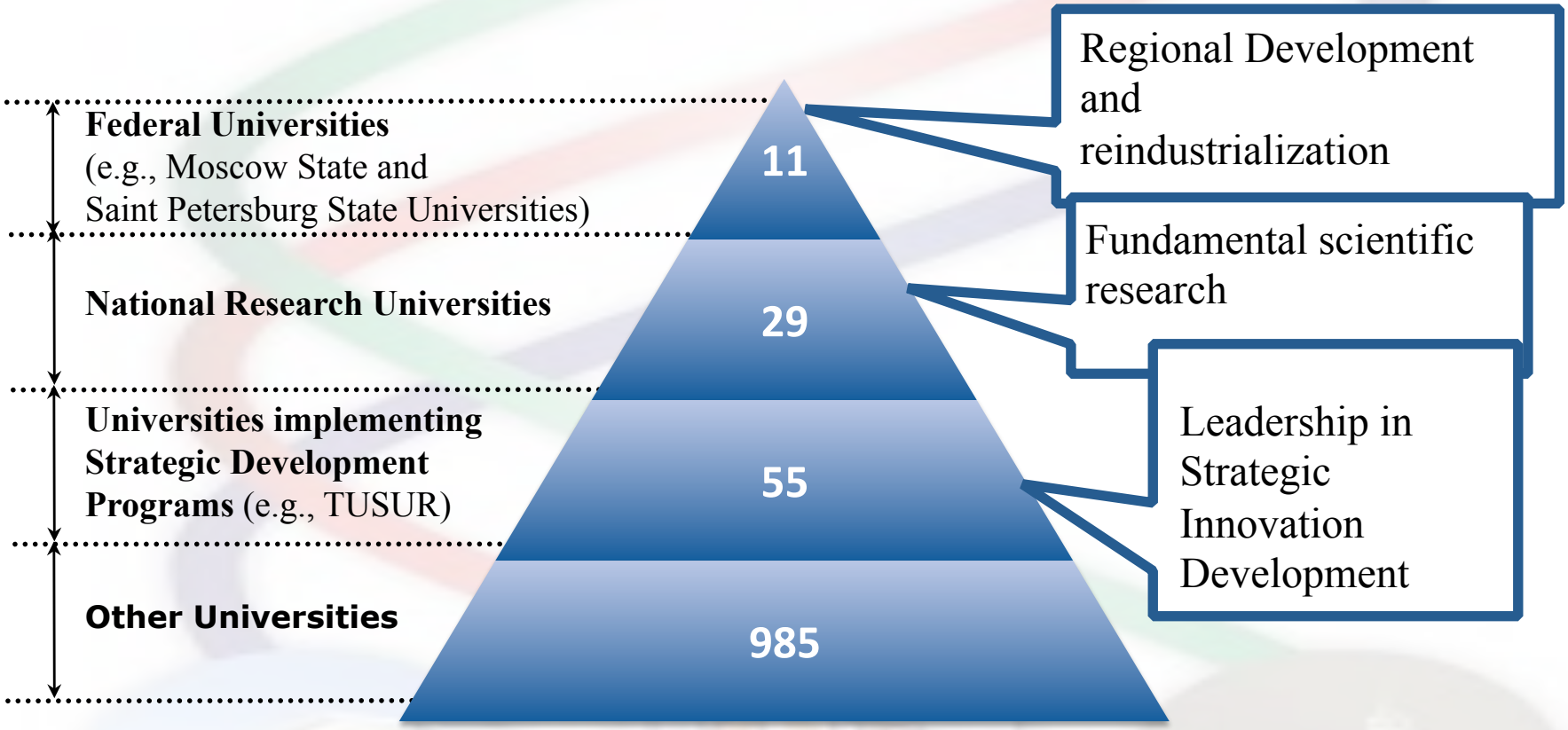
Russia's University Network: Government Classification



Federal Policy Priorities to strengthen the University Helix:

- University clusters and regional development strategies
- Implementation of the best practices
- Network interaction among academic community
- Monitoring

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Triple Helix Progress and Paradigm Shift

1. Transition to Entrepreneurial University in Russia is under way
2. Growing awareness of the importance of triple helix interactions, entrepreneurial education and culture
3. Numerous entrepreneurial activities at the university, regional, and national levels
4. Active government recognition and support of entrepreneurial culture, education, entrepreneurial universities and regional innovation clusters
5. Trilateral university-government-industry interactions are major components of the future strategic development of the Russian Federation

1. Lack of institutions to promote culture of trust, transparency and collaboration
2. Lack of collaboration and synergy between between university, government and industry
3. Week domestic demand for R&D
4. Bureaucracy and lack of resources to commercialize university's research
5. Traditional values require a paradigm shift

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Lessons Learned

University

- Promote entrepreneurial education, aspiration, and culture
- Lead to the Triple Helix paradigm shift
- Establish bilateral and trilateral interactions
- Become the core of regional development strategy

Business

- Respond to government incentives and invest in R&D
- Develop entrepreneurial capacity and aspirations
- Actively seek cooperation with local universities
- Acknowledge relevance of university research

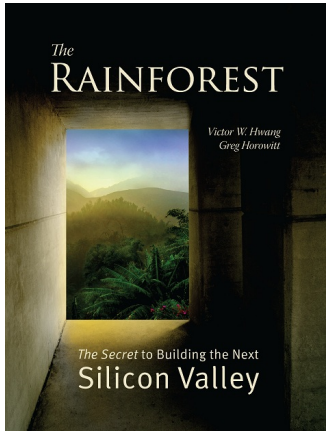
Government

- Build innovation infrastructure and establish knowledge commercialization and technology transfer mechanisms
- Encourage synergetic cooperation between university and regional stakeholders: a) tax incentives to develop their own R&D capacity, b) promote culture of trust, transparency and collaboration,
- Fight corruption
- Build and maintain infrastructure and create conditions to attract FDI

The Rainforest: The Secret to Building the Next Silicon Valley

Plantation

Rainforest



The Rainforest: The Secret to Building the Next Silicon Valley

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Date: November 29th, 2012

Place: TUSUR University

Everyone is welcome! Thank you!

Q&A

Thank you!

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