

# What kind of universities does society need?

Knowledge transfer: Influence of universities

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# Knowledge transfer: Influence of universities

Moderator: **Mikhail Strikhanov**, Rector of National Research Nuclear University MEPhI (Russia)

Our speakers will share their experience of

- Transferring technologies from universities to companies in China
- Knowledge transfer from universities in Italy to small & medium companies (SMEs)
- Student & faculty mobility
- Experiences in Russia



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# Transformation of Imperial College 2001 – 2014 (1)

## University with long-tradition of innovation & application of research

- Science, technology, medicine & business only
- Was >20<sup>th</sup> in QS/THE
- High research output; strong international collaboration
- Highly inter-disciplinary; much industry fertilisation
- Traditional university structure
- **Tech transfer company (“Innovations”) highly active but until 2000 was preventing success - why?**
- Up until 2000 policies of Innovations & university were the same so that
  - only university-generated IP was of interest
  - no clarity over student IP rights
  - unclear rewards for academic inventors
  - no on-campus entrepreneurial community
  - no space for new small-scale start-ups
- **2001-2010 Imperial dramatically changed its approach with huge success and reward. How?**



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# Transformation of Imperial College 2001 – 2014 (2)

- New Rector: ex CEO of GSK (global pharma)
- Major changes in university structure: budgets & responsibilities passed to academic departments; senior team more fluid; empowerment; no control; easy access for all to Rector; Rector had less direct reports; the freer structure encouraged inter-disciplinarity
- Lean and dynamic university structure and administration
- Physical campus infrastructure modernised to reflect new culture of university
- Business School created in 2003 which quickly became globally strong, focussing on entrepreneurship & innovation
- Established Imperial Create Lab (student led activity) embracing regional entrepreneurial community
- Transparent rewards for academics
- **From a top-down traditional university it became disruptive, risk-taking, innovative community**



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***What did Imperial do?  
Learned from Aalto, Auckland, TSUR Tomsk ..***

# Transformation of Imperial College 2001 – 2014 (3)

- Fundamentally changed university technology transfer function from a traditional model to a completely new model for raising money
- 2005, Imperial sold 30% of Innovations to stock market (value in future IP) raising new free money to invest in start-ups and “play the long game”; new money allowed investment in top people
- 2011, sold another 40% (US\$230m) and started developing IP of other universities (Oxford, Cambridge etc)
- Students started Imperial Entrepreneurs in 2006 focussed on networking with banks, investors, business angels
- Imperial invested in a dedicated site (10km away) for translational research and incubators
- **Fundamental cultural change**
- **No top-down entrepreneurial strategy – innovation and entrepreneurship the responsibility of Innovations & Business School**



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## My three takeaways - 3 bullets

- Learn from other successful models
- Be willing to be disruptive and take risks
- Student led entrepreneurship





# Knowledge transfer: Influence of universities

- **Victor Koksharov**, Rector Ural Federal University
- **Claudio Roveda**, Rector of Link Campus University, Rome (Italy)
- **Weiping Wu**, Professor, Columbia University (United States)
- **Zsolt T. Kosztyán**, Associate Professor and head of Department of Quantitative Methods, University of Pannonia; Senior Research Fellow, MTA-PE Budapest Ranking Research Group (Hungary)
- **Olga Pilpenko**, Rector Orel State University
- **Yaroslav Kuziminov**, Rector Higher School of Economics



# Success factors: what should universities in Russia do?

Each university starts from a different baseline position but common to the success of many examples:

- Learned from other successful models
- Willingness to be disruptive and take risks
- University becomes interdisciplinary with cross-cutting themes
- Student led entrepreneurship
- Commitment (not suffocation) by university management (“to support but not direct” – strong leaders support vocally & publicly)
- Not possessive about IP; rewards to inventors (including students)
- Training and courses in entrepreneurship (e.g. through Business School)
- Encouraging environment (e.g. incubator space)
- University & tech transfer activities have clear but separate priorities

