



NATIONAL RESEARCH  
UNIVERSITY

# **GOVERNANCE OF LARGE HIGHER EDUCATION SYSTEMS**

# Three bodies problem

In [physics](#) and [classical mechanics](#), the **three-body problem** is the problem of taking an initial set of data that specifies the positions, masses and velocities of three bodies for some particular point in time and then determining the motions of the three bodies, in accordance with the laws of classical mechanics ([Newton's laws of motion](#) and of [universal gravitation](#)). The three-body problem is a special case of the  [\$n\$ -body problem](#).

# What is the system (of higher education)?

- System is a set of interrelated elements each of them is connected to every other element, directly or indirectly. There is no one subset of elements which are not related to other subsets “ (Ackoff, 1971)
- Set of elements can be considered as a system if (Blumenfeld)
  - ✓ exist defined links between the element
  - ✓ each of the elements within itself considered as indivisible
  - ✓ the system interacts with outside as a whole
- System can be characterized by several categorical aspects (Schedrovitsky):
  - ✓ Processes
  - ✓ The functional structure and particular functions of each elements
  - ✓ Set of elements and particular links between them
  - ✓ Content
- Higher education system (B. Clark) - a set of formal organizations (narrow definition) or a combination of all those associated with the HEI - inspectors, organizers, employees or consumers (broad definition)
- OECD (2013) – complex education systems (Education systems are now characterized by multi-level governance where the links between multiple actors operating at different levels are to a certain extent fluid and open to negotiation).

## Frameworks for systems analysis (using in HE studies)

**1) Classical market-oriented approaches:** theory of industrial organizations, quazi-market approach, etc.

**2) Theories of organizations: organizational ecology**

(Selznick 1849; Pfeffer and Salancik 1978; Hannah, Freeman, 1989; DeMaggio and Powell 1983)

Populations of organizations (in their niche), isomorphism (in order to survive, organisations must conform to the rules and belief systems prevailing in the environment) and dynamics of transformation

**3) Neoclassical institutionalism** – the role of social capital, the quality of institutes and amount of transaction costs.

**4) Stakeholder theory** - reflections of the interests of different organizations' stakeholders (Freeman, E., 1984).

# Issue 1 - Educational organizations act in different systems simultaneously

Glouacal Agency (Marginson and Rhoades, 2002)

**Global**

**National**

**Local (regional)**

Institutional



**What are the features and rules of each systems?**

## Issue 2 - Institutional diversity within the system

«The critical element in the structure university systems is their ability to combine contradictory functions» (Castells, 2001)...

Perspectives of the diversity within the system (Huisman, 1995):

- systemic diversity
- structural diversity
- programmatic diversity
- procedural diversity
- reputational diversity
- values and climate diversity

VERTICAL AND HORIZONTAL

## Issue 3 – Role of state, society, students and academic community in governing the systems

What is role of the state and civil society?

Students – consumers or actors?

Professors – employees or actors?

Their organizations?

## Issue 4 – Governing systems or governing changes

How to ensure changes in the systems?

Expansion?

Technological revolution?

New public management?



- State control model and state supervising model (van Vught, G. Neave, 1992)
- «Steering from the distance» (Marginson, 1997)
- Quasi-market
- Commanding heights (Lenin, Wang Rong, 2015)

# Comparative project “Higher education federalism: regulation and structure of higher education in “federal type” systems

The project organized by *National Research University “Higher School of Economics” (Moscow)*

The research aims to identify and analyze the different models of governance of "federal type" higher education systems.

## *Main research questions:*

- What are the common features of higher education systems in “federal type” countries, how do they differ, and what factors govern the variations?
- What are the characteristics of regional higher education systems in the context of national-regional relationships in higher education?
- What is the impact of a particular governance model in the higher education system on the quality and access, on the role of higher education in the regional social and economic development?

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***Countries for cases:*** characterized by the presence of national and regional (provincial) universities and / or authority departments of higher education

- |    |  |
|----|--|
| 1. | Brazil (R. Verhine, L. Dantas, University of Bania)                                  |
| 2. | Canada (G. Jones, C. Noumi, University of Toronto)                                   |
| 3. | China (R. Wang, Po Yang, Peking University)  |
| 4. | India (J. Tilak, National university of education planning and administration)       |
| 5. | Germany (U. Teichler, University of Kassel)  |
| 6. | Mexico (I. Ordorika, R.R. Gomez, M. Lloyd, National Autonomous University of Mexico) |
| 7. | Australia (S. Marginson, UCL)  |
| 8. | USA (M. Carnoy, A. Antonio, C.R. Nelson, Stanford university)                        |
| 9. | Russian Federation (I. Froumin, O. Leshukov, HSE)                                    |

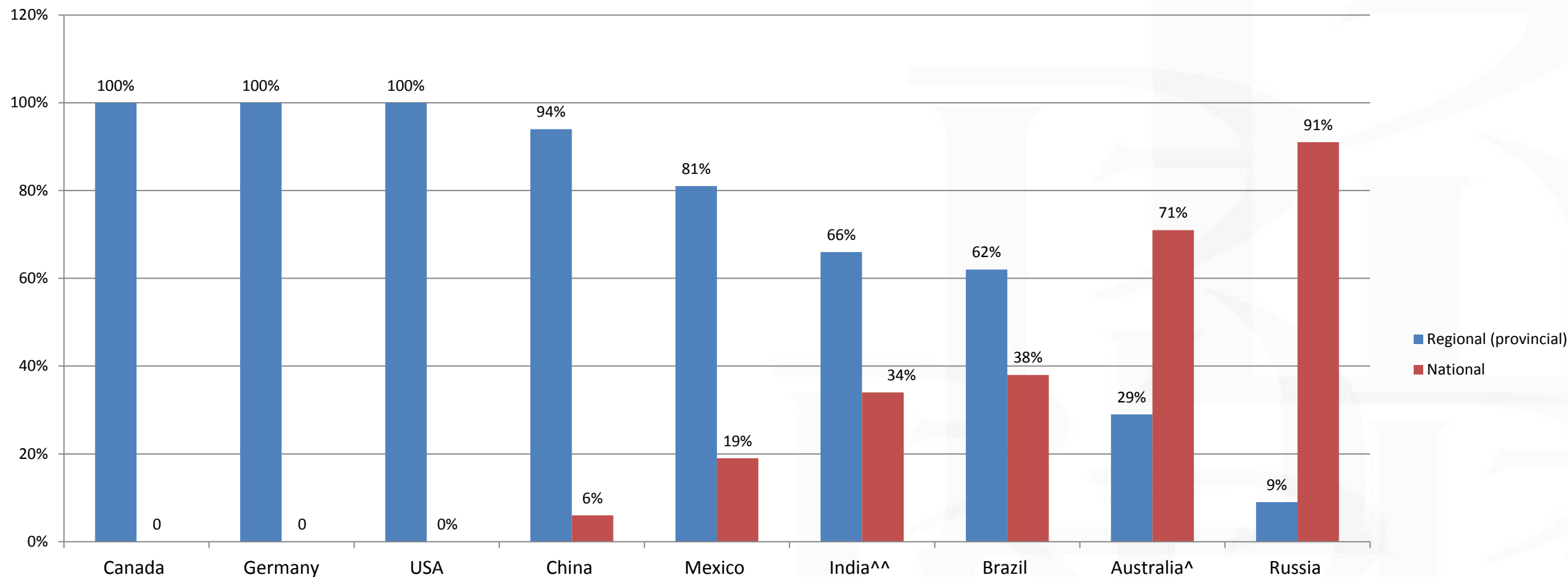


# Theories of federalism

- A Constitution is federal if (1) two levels of government rule the same land and people, (2) each level has at least one area of action in which it is autonomous, and (3) there is some guarantee (even though merely a statement in the constitution) of the autonomy of each government in its own sphere (Riker 1964: 11).
- Cooperative federalism
- Competitive federalism
- Noncentralization (Elazer, 1987; Osaghae, 1996)
- Legal federalism (legal vs executive)
- System approach

- Theory of market-preserving federalism (de Figueiredo, B. Weingast, 2001)
- “Hard” and “soft” federalism (Smith & Wood, 1992).
- Centralization; decentralization; «centralized decentralization» (Mok Ka-Ho, 2013)
- “Pragmatic federalism” (Hollander, Patapan, 2007)

# The distribution of number of public higher education institutions\* by subordination, 2014\*\*



\*Excluded military, and in some cases civil services training HEI as group of special federal government interest

\*\*The data for China is for 2013

^ By regional universities mean only state or territories accredited public higher education institutions

^^ Also India case includes about 40 000 colleges which are affiliated with state (regional) universities and 100 colleges which are affiliated with federal universities

## Different forms of HE federalism in the reviewed countries

- Decentralized to states and particular institutes (Canada, USA, Germany)
- Intermediate, mixed (Brazil, Mexico, India)
- Centralized (Australia)
- Primarily centralized at least at the top (China) - centralization of political, personnel and fiscal authority and the decentralization of administrative responsibilities
- Absolutely centralized (Russia)

## Main rationales for redistribution powers between different levels

- massification of higher education
- expansion of private sector in higher education: provincial governments would take the lead in expanding the higher education system (India, Brazil, etc.)
- cost-sharing between different levels of powers, changes to taxation arrangements (Australia)
- power legitimization (Russia)
- diversification of higher education
- globalization and ranking competition (Germany, Australia)
- strengthening of the federal government in some areas - for example, financial accountability and student loans (USA)



## Strengthening federal control through

- Quality assessment
- Student support and aid
- R&D funding
- Internationalization issues

## Federal support of world-class universities



Strengthening the development of universities in the context of regional development (Flagship university, Douglass, 2016)

# Main problems and challenges for HE federalism development

- Lack of coordination between federal and regional levels initiatives, especially in areas of common interest, such as research policy, international education
- Functional division of responsibility makes it difficult to set a single comprehensive policy
- The attempt of regionalization can let to hyper-bureaucratization (Mexico)
- Centralized system don't let to education equity (Russia, Mexico, India)
- The choice between diversification or unity and homogeneity of higher education development (Germany)
- Centralized system stifles capacity for local initiative and responsiveness (Australia, Russia, etc.)
- Conflict between regional development objectives and national policy agendas, e.g. WCUs (Russia)
- Significant heterogeneity of educational space between regions could cause problems for students' mobility and cooperation between universities.

# New conceptual approaches

1. Pragmatic governance of the complex systems
2. Accelerating governance

- Changed focus from comprehensive higher education policy to **the targeted support of the limited number of universities**
- Affected the whole higher education systems by **stimulating the competition** between universities and **promoting the global research university model**
- Implemented by (1) transforming existing universities or (2) establishing new universities

# The idea of “PUSHING” universities for excellence

## Newton’s first law of motion:

“When viewed in an inertial reference frame, an object either remains at rest or continues to move at a constant velocity, unless acted upon by an external force.”

## Newton’s second law of motion:

$$\vec{a} = \frac{\vec{F}}{m},$$

Governments are not happy with slow evolution of the higher education systems



Push universities to compete internationally by offering them additional funding and setting targets



External force changes the speed of the development and gives “acceleration” to the universities

# Basic strategic forks for universities' accelerated development

Development of the  
university in general

or

Development of particular  
departments and centers of excellence

“External management”

or

Autonomy

Changes in the rankings  
position by any means

or

Transformation of the “core” of the  
university

# Challenge to “push” for excellence ensuring autonomy

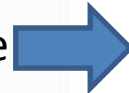
Universities that are supposed to be the leaders of higher education system got more restrictions on their autonomy than other (“normal”) universities:

The allocation of big money makes the governments worry about its efficient use



Governments build complicated instruments to steer the universities

For many centuries **the autonomy and internal energy** of universities were the main sources for HE development. Excellence initiatives represent different approaches where the **push for the excellence comes from outside.**



The challenge for the governments is to find the right push instruments to ensure flexibility and internal energy of participating universities

# Russia in search for the optimal model of governance in the higher education system

- The model of governance inherited from the Soviet Union
- A private sector emerged in higher education
- Changes in the economy and the labor market and their relation to higher education
- Federal structure has changed

**How to find the optimal model of governance in the higher education?**



# Transition to the per capita financing of educational programs of higher education (since 2012)

- Set of the principles and rules for calculating the amount of funds allocated from the federal budget for education of each student for all the higher education institutions.
- Raising standards of financing the leading universities that train specialists in engineering, medical and science fields.



Development of the **quasi-market** in which people operate as consumer-investors, making private choices within a game-structure controlled by government.

# Efficiency monitoring of the higher education institutions (since 2012)

- The purpose of the monitoring is to develop statistical and analytical materials to distinguish the group of ineffective universities and branches to be reorganized.
- Data collection is carried out according to the form designed by the Ministry of Education and Science of the Russian Federation.
- Every public higher education institution and all affiliates provided data on their performance on more than 50 indicators within the monitoring. Further, particular indicators were singled out and on the basis of data analysis thresholds of effectiveness were established.



**Closing down low-quality higher education segment**

# Efficiency monitoring of the higher education institutions - 2

- ❑ This project indicates that Russian government officials are serious about radical measures to eliminate weak universities. On the hypothesis of Ministry of Higher Education and Science about 20% of universities and 30% of affiliates would be cut in the next 2-3 years.
- ❑ Therefore, the design of the efficiency monitoring determines the directions of the development of the universities.
- ❑ Institutions manage themselves, while at the same time their autonomy is regulated and made 'subject to power'.

# The Formation of Leading Universities' Group.

The government recognized the need to articulate the differentiation of universities and to give better opportunities to some universities to become leaders and beacons for other universities.



## Project 5/100

The Edict of the President of the Russian Federation of May 7, 2012 No. 599 "About measures for realization of a state policy in the education and sciences", says that minimum five Russian universities should be placed in the first hundred of one of the leading international rankings till 2020. The Ministry of Education identified several tasks to be solved to achieve this objective:

- ☐ Increase the number of foreign students and postgraduates
- ☐ Attraction of foreign professors, internationalization of all areas of education and research activities
- ☐ Implementation of international management practices, the involvement of foreign experts in the field of university management
- ☐ University brand promotion activities on the world stage.

# 5-100 PROJECT: MOES's POINT OF VIEW

Leading universities - the locomotive of scientific and technological development of the economy and guarantee of the country's social welfare

Why invest in leading universities?

Development of human capital, education standards

- ▶ Modern professional competence at the level of international standards
- ▶ National highly qualified personnel capable of operating in the global market
- ▶ Centers of development of the national higher education system

The formation and preservation of the national elites

- ▶ Humanities
- ▶ Science
- ▶ Entrepreneurship
- ▶ Management

Science and innovation

- ▶ The development of promising scientific branches
- ▶ Areas of global scientific leadership investment Attraction
- ▶ Commercialization of research results, new products and technologies for the domestic and foreign markets

# 5-100 Project: Expected outcomes by 2020:



- At least five Russian universities in the top hundred global educational rankings (ranking of world universities Times Higher Education, a global ranking of universities QS, ARWU Academic Ranking of World Universities);
- not less than 15% of foreign students of the total number of students in each institution;
- not less than 10% of the total foreign specialists of scientific and teaching staff of each institution.

**The outcome of the project should be the formation of a group of modern university leaders with an effective governance structure and an international academic reputation, able to meet the global trends development and mobility to respond to global change by the 2020.**

# The first results of the project

- On average, the number of publications indexed by Web of Science and Scopus, increased by 25%, with 153% quoting in 2014.
- The number of scientific journals published by universities 5-100 project and indexed Web of Science or Scopus, has doubled.
- In 2014, the university recruited more than 100 senior managers and more than 650 young teachers with experience in leading national and international universities and research centers
- Project 5-100 Universities have organized around 3500 academic mobility programs and opened more than 500 educational programs (including short-term professional development programs).
- In 2013-2014, the universities have implemented more than 1,700 projects in collaboration with leading scientists, research institutes and high-tech companies.

The government is expanding its influence in the internal activities of the universities:

- ☐ The desire and the ability to obtain additional financing and to become a participant of the educational elite forces universities to develop in a given direction, measured through a set performance indicators.
- ☐ Market relations used as a tool for the organization and management - a model of competitive allocation of budgetary funds on the basis of the evaluation of various performance indicators.

## Concluding points

- The government is expanding its influence, "Leviathan" is growing. Creating competition between universities for additional funding through various programs such as the competitive state forces them to develop freely in a given direction. Relatively greater autonomy comes in package with stringent indicators.
- It all starts with accountability and leads to the fact that universities are restructuring for reporting their activities. In fact, the monitoring of the efficiency determines the directions of the development of universities.
- State supervising model develops into state control (monitoring efficiency)
- Government actions are contradictory: while introducing elements of the competition, the state determines the directions of the development of universities.
- State involves the public less in the governance of the higher education system and intervenes in the management of universities