### CDIO European Regional Meeting 2018

# Changing Face Of Russian Higher Education: Trends And Priorities

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10 years of Higher education development in Russia 2006-2016

Why we are here and what shell we do...

Demography

Economy and labour market

Global / international context (Ed., R&D, competences)

# HE consistent development

2016

RF Population aged 15-24 (mln) **14.518**Number of students enrolled in HEIs per 10.000 – **300**Number of HEIs (public) **501**Number of HEIs (private) **268**Number of students (all HEIs) (mln) **4.419**Federal budget on Education **568** bln. p

### 2006

RF Population aged 15-24 (mln) **24.300**Number of students enrolled in HEIs per 10.000 – **512**Number of HEIs (public) **660**Number of HEIs (private) **430** 

Number of students (all HEIs) (mln) 7.310 Federal budget on Education 212.4 bln. p

# Engineering education 2017

# Some formal indicators



**329 HEIs** provided **2025** educational programs in the field of engineering

1050 students

An average passing entrance score: **62.1** (engineering)

The highest passing entrance score: **95,6-86,9** (amongst top-10 universities – ITMO, MFTI, MEPHI)

The lowest passing entrance score **55-58** – agriculture, forestry, transport

Number of enrolled students in HEIs (engineering, 2016-2017)

130376 –state-funded places (23479 – Moscow); fee-based places <20%

# Key systemic decisions for HE development 5



Unified state examination



QA system



Multilevel HE system



Stratification of HEIs



Federal competence based educational Standards



Strong accent on R&D



Internationalization



HEIs autonomy, financing and management

# People, Institutions and Regions

# Unified state examination



### **Obligations**

Since 2009 is obligatory for all school leavers (2016 – 750 000 school leavers)

### **In-country Mobility**

Applications for 5 HEIs

No entrance exams (excl. some HEIs)

Regional talent's outflow

### **Choice for further trajectory**

Passing subject score 2017 (physics: min 36 – max – 91)

Passing entrance score (min 132 – max – 263)

### **HEIs strategic development**

Cooperation with local schools

Competition for school leavers

Changing of ed programms

# Institutions, People and Employers

### Multilevel HE system



### **Legislation – new 3-level-structure of ed programs**

	2006	2016
Bachelors	7%	74,2%
Masters	1,0%	10,2%
Specialists	91,6%	15,7%

### Different students' trajectories

Mobility within different programs at bachelor and master programs

#### Programs' re-development

Professors' competences

Methodological provision

Labour market expectations

### Institutional strategies

"Liberal art", "technical baccalaureate", "engendering" or "medical" schools, strategic academic units for leading universities, university 3.0, NTI University, etc.

### **QA** system



### Harmonization of Russian QA System with international approaches

### Legal straightening of independent QA procedures

Public accreditation

Comparative evaluation of learning outcomes

Joint and international programs' accreditation development

### Institutional strategies' development In view of QA procedures

Structures, learning approaches

Cooperation with enterprises etc

### Membership in international registers

NCPA-EQAR,

Akkork - EQAR

AEER –Washington Accord

# Federal education standards



Based on professional standards Competence based approach Project-based learning

Own educational standards for 46 leading universities

Credit-based modular system

"Own diplomas" provided by MSU and SPB SU

### Internationalization



### **Foreign students**

Req.: more then 1% for all HEIs; 4,0% for Moscow; 4,9 for SPb

fact: av.6,7%; 7,7% leading universities

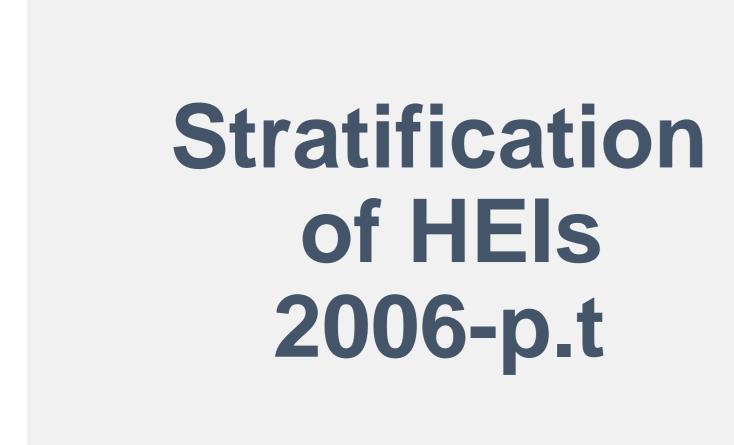
### Foreign professors and researches

Special projects support by the RF MoES

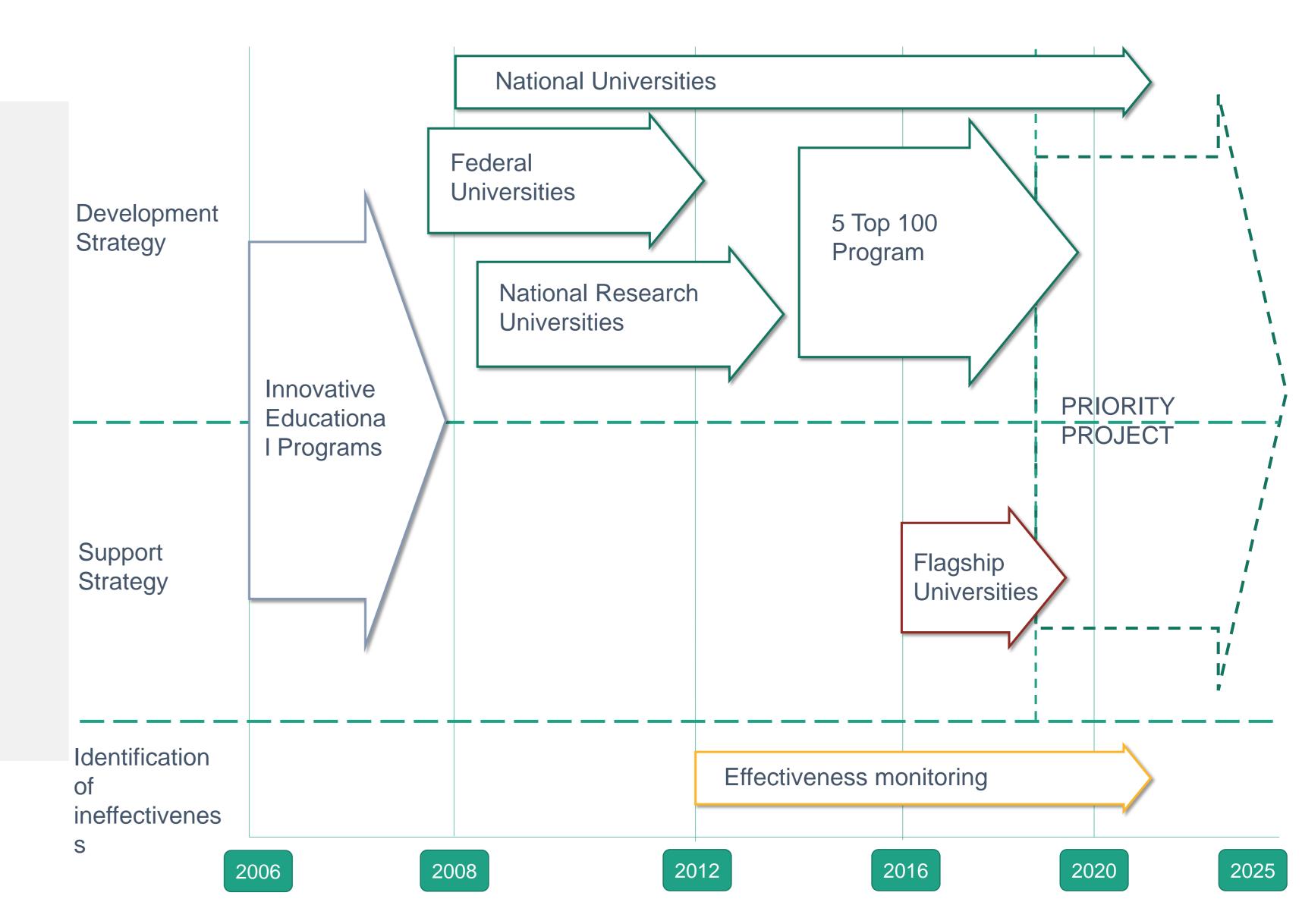
Joint international programs and research

### **Global rankings**

Global and subject ranking for leading universities as obligations







# HE System

# Stratification of HEIs 2006-p.t



### Monitoring of HEIs' efficiency (annual since 2012):

More then 100 indicators are opened for public use

7 indicators are used for the federal decision making process (reorganization or closing): Unified state exam; R&D per 1 research and pedagogical staff, foreign students, HEI's income from all sources per 1 research and pedagogical staff, ratio of staff salary to average regional salary, graduates' employment)

Up to last monitoring more than 100 HEIs and more than 500 branches were reorganized

Monitoring takes into account some regional differences and HEIs' profile

# Institutions and regions

Stratification of HEIs 2006-p.t





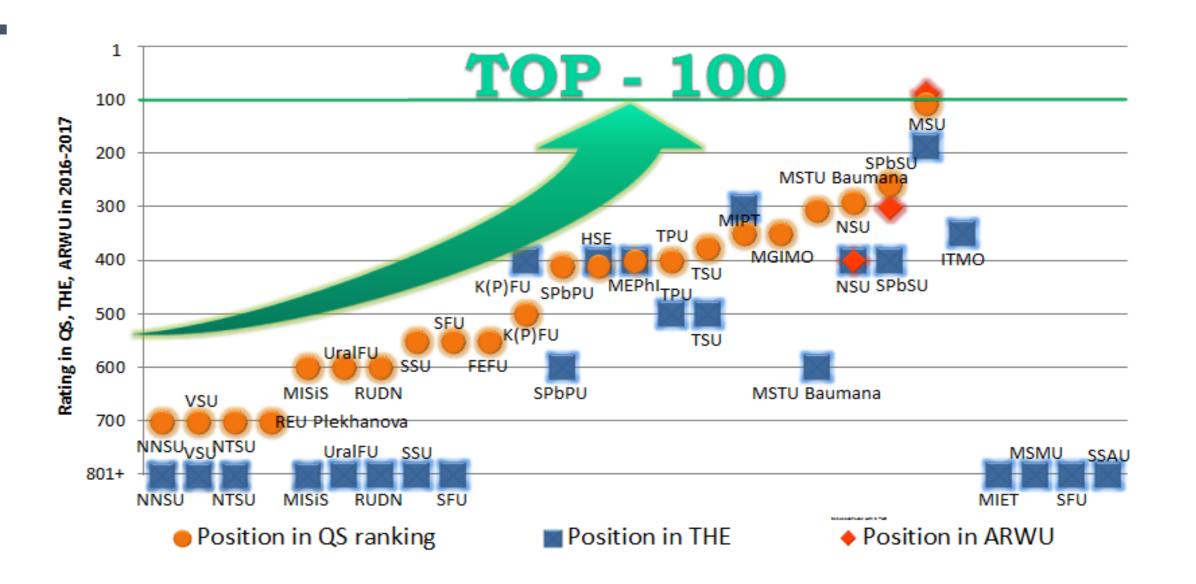
# Stratification of HEIs 2006-p.t



Indicator	An Average among Russian HEIs	An Average among Research Universities	An Average among Federal Universities	An average among flagship universities
Annual Income, mln. p	944,6	4 788	5 950	1547
Annual R&D Volume, mln. p	116,5	1 155	676	151
Percentage of foreign students	6,76	8,95	6,96	6,50

# Strong accent on R&D in HEIs





(average)	Publications, WoS per 100 faculties	Publications, Scopus per 100 faculties	Rate of R & D income in the total income of HEI, %
5\100	86.5	112.3	24.7
National Research Universities	52.6	73.5	25,9
Federal universities	40.9	52.9	12.1
All Russian universities	10.8	16.6	8,6

# Financing and management



From estimated funding to normative financing per capita (since 2012)

#### **Additional coefficients**

Level of entrants

R&D,

Publications,

Own standards, etc

From functional to project management

### **HEIs autonomy**

App 10% of HEIs have a form of autonomous organizations

# HE System

New legislation: Federal Law on Education #273, 29.12.2012



#### For the first time:

3 tiers HE structure

Per-capita financing

Educational standards based on professional standards

Networking programs

E-learning education

State financing for private HEIs (possibilities)

No accreditation for additional professional programs



# Further development: what's next?..

RF Socio-economic development strategy in prospective to 2035... (under development)

"No revolution"

The completion or development of the key infrastructural projects

Regulatory support for already made decisions

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