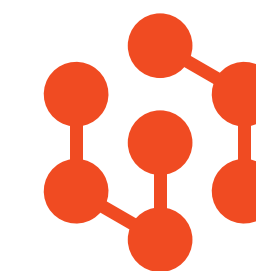


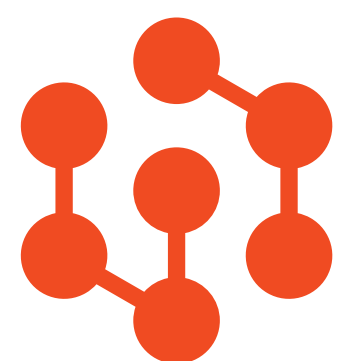
SIBERIAN FEDERAL UNIVERSITY PRESENTATION FOR COUNCIL OF 5-100 PROJECT

Major Achievements and Indicators
of the University International
Development Dynamics



СИБИРСКИЙ
ФЕДЕРАЛЬНЫЙ
УНИВЕРСИТЕТ

SIBERIAN
FEDERAL
UNIVERSITY

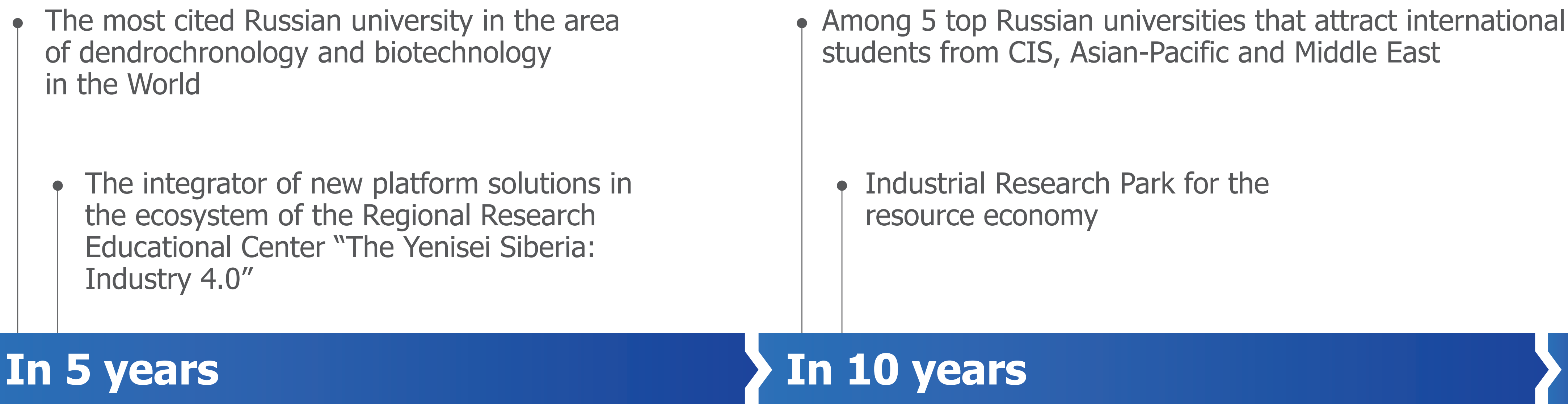


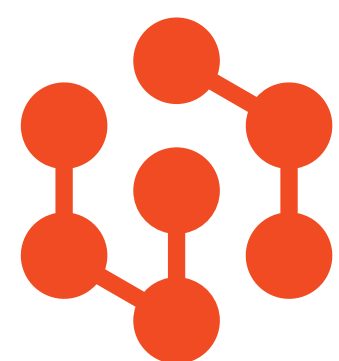
1. TARGET MODEL

1.1. TARGETING AND AMBITIONS

The University as a Center of Excellence in sustainable environmental management, natural resource management, forecasting of climate change and its effects and improving the quality and expectancy of human lives that will bring new knowledge and technology to the global market

The University as a research and guidance center facilitating the development of the Russian national climate policy





1. TARGET MODEL

1.2. POSITIONING



INTERNATIONAL CENTER of

- Preserving and restoration of natural resources
- Spectroscopy and quantum chemistry
- Biomedical technology (Nuclear technology)



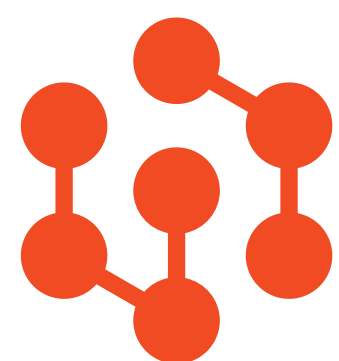
NATIONAL CENTER of

Scientific and educational solutions for facilitating the Russian policy at the market of hydrocarbon resources, space informational technologies, non-ferrous metals and new materials



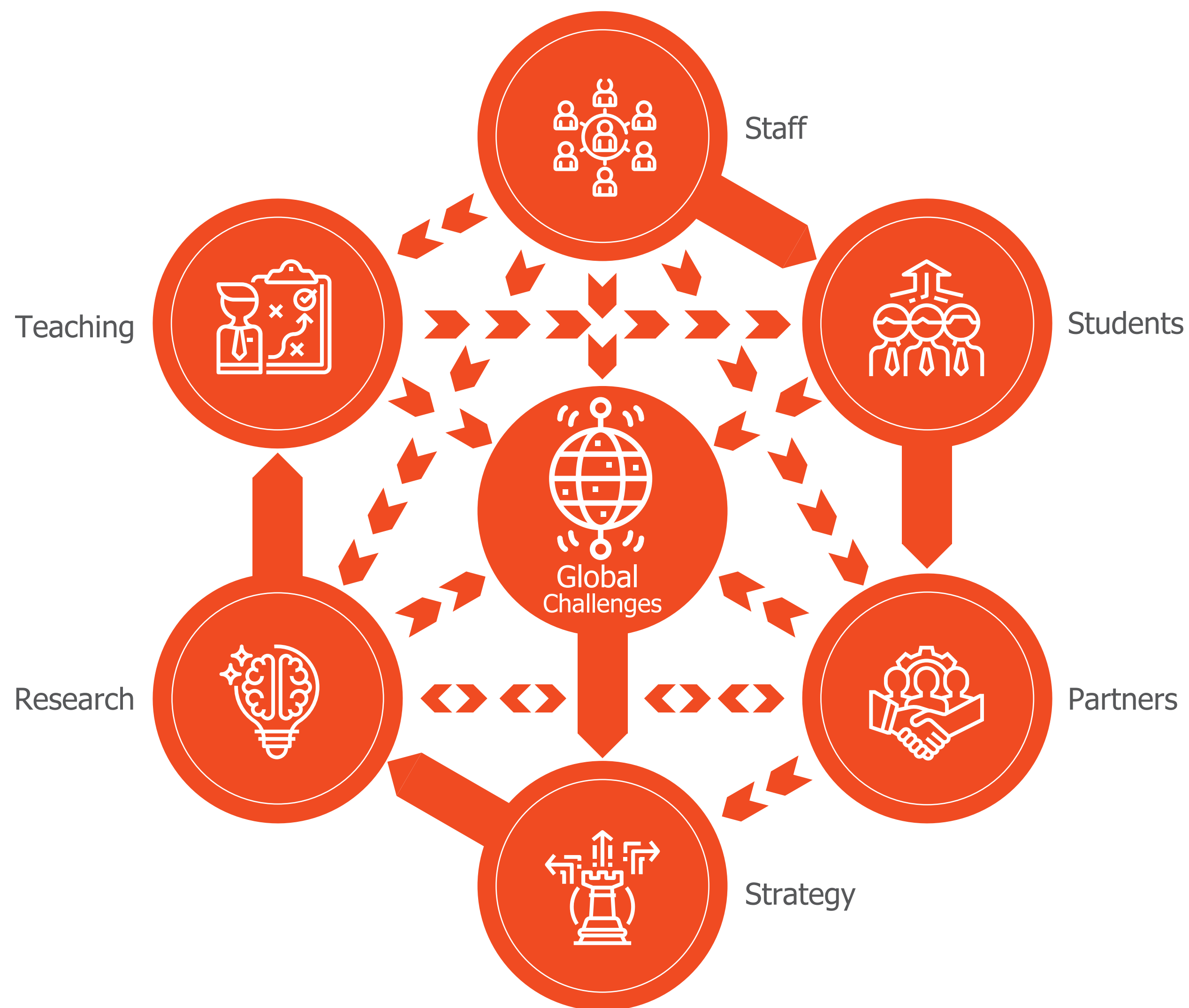
REGIONAL CENTER of

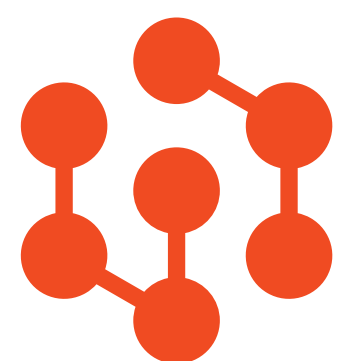
Producing and transferring intellectual property for the high-tech industries



1. TARGET MODEL

1.3. MANAGEMENT MODEL





1. TARGET MODEL

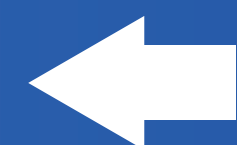
1.4. GAP ANALYSIS AND NECESSARY MEASURES TO OVERCOME

GAPS

MEASURES

Gap №1

Low international visibility

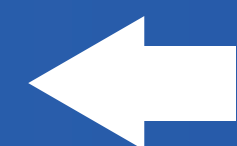


Measure №1

- Holding large international events in 2020
- Implementing assertive informational policy in mass media
- Broadening the partnership networks based on scientific collaborations

Gap №2

Lack of efficiency of the University's interaction with industrial partners at the regional level

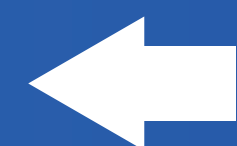


Measure №2

- Establishing the Research Educational Center "The Yenisei Siberia: Industry 4.0"
- Developing the model "University as a platform"

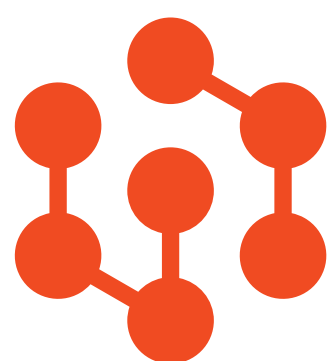
Gap №3

Slow transformation of the University due to its size



Measure №3

- Introducing digital services to the University management system
- Outsourcing of maintenance services



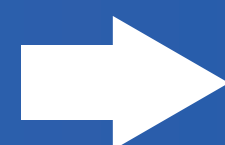
1. TARGET MODEL

1.5. FULFILLMENT OF COUNCIL RECOMMENDATIONS

Council Recommendations

Implementation of the Recommendations

Recommendation №1

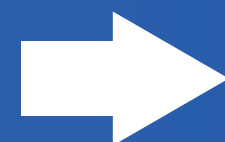


Implementation №1

To focus on the key research areas that can assure international recognition of the University as a leading research educational center, taking financial, HR, time resources and global agenda into account

- Supporting the laboratories in the key research areas, opening a new laboratory on genetic research
- Creating innovative cluster in dendrochronology in cooperation with Sukachev Forest Institute, Siberian Branch of the Russian Academy of Sciences
- Establishing the Research Institute of Spectroscopy
- Launching a new Master program "Technical Maintenance for Nuclear Medicine and Medical Equipment"

Recommendation №2

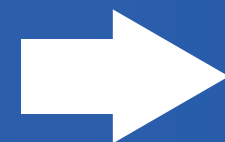


Implementation №2

To reach the average level of the Universities – Russian Academic Excellence Project participants – in the transformation dynamics and KPIs achievement (publication activity, internationalization, etc.)

- Improving the system of an efficient contract
- Implementing "Learn to read and write science" and "Proofreading" projects
- Creating comfortable conditions for living on campus, developing the infrastructure
- Launching a project aimed at fostering SibFU staff's activity in applying for Russian and international grants

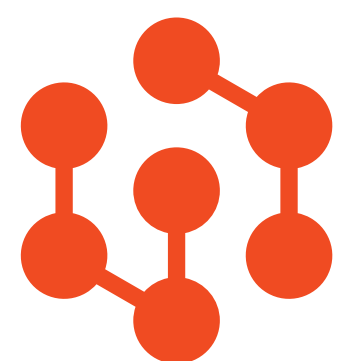
Recommendation №3



Implementation №3

To develop a target model that will foster the University's competitiveness both nationally and globally as well as a new strategy

- The target model has been updated – the focus on the key issues of the regional agenda and support for research relevant on the global market
- Transfer to the dominating position in the regional research educational consortium, forming efficient "breakthrough teams" in the key topics of the global agenda



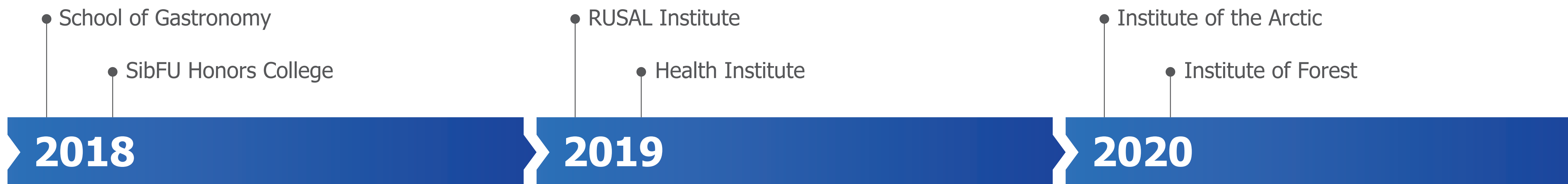
2. UNIVERSITY POLICIES

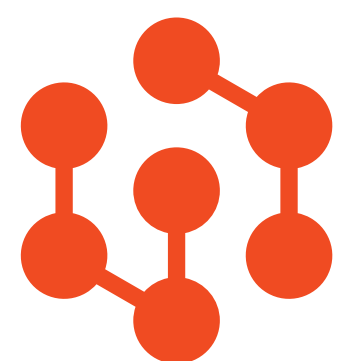
2.1. EDUCATIONAL POLICY AND MODEL

DEVELOPING NETWORKING ACADEMIC PROGRAMS



DEVELOPING NEW EDUCATIONAL GREENFIELDS





2. UNIVERSITY POLICIES

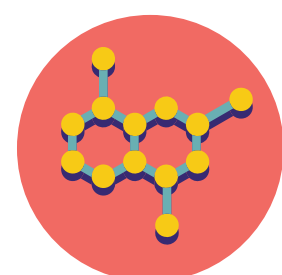
2.2. RESEARCH POLICY AND RESEARCH MANAGEMENT MODEL

BASIC RESEARCH

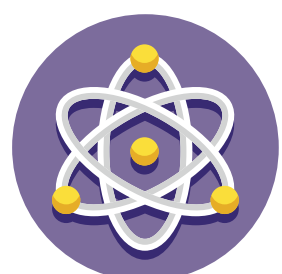
Focus of World-class scientific schools



Dendrochronology
Top 15% prominence
FWCI 2,3



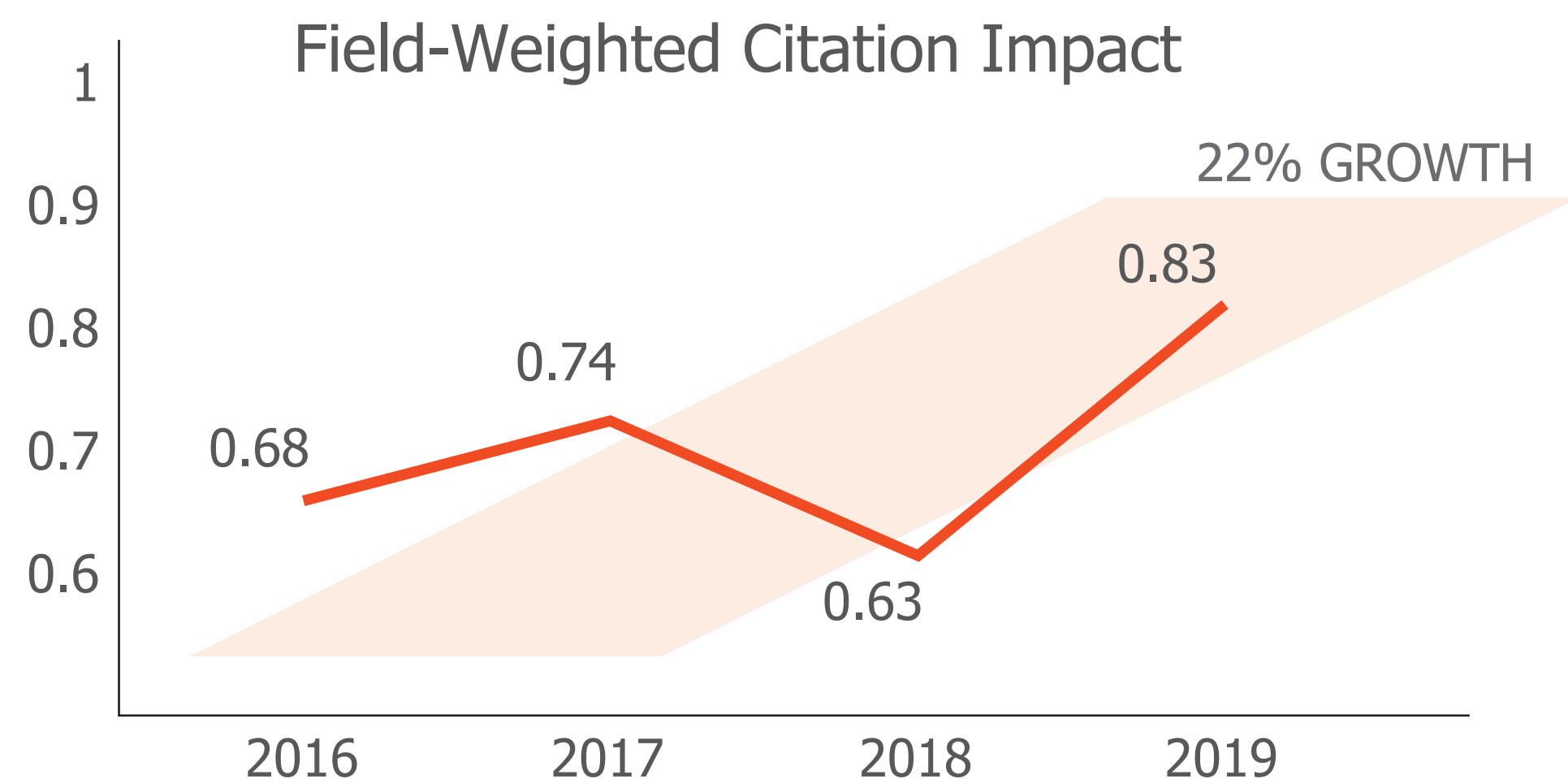
Metamaterials
Top 1% prominence
FWCI 0,74



Thermophysics
Top 5% prominence
FWCI 1,1



Spectroscopy and Quantum Chemistry
Top 1% prominence
FWCI 0,9



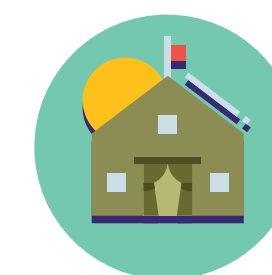
Source: Scopus, SciVal databases

APPLIED RESEARCH

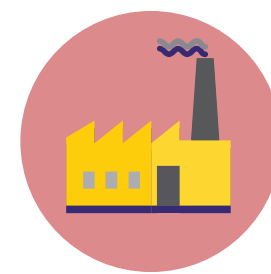
Strengthening the cooperation in applied research areas



Mega grants of the Russian Government (Metallurgy, Satellite systems)



Government Defense Order



Programs of innovative development for large industrial companies



Federal target program "Research and developments in priority areas of the Russian scientific and technological complex development for 2014-2020"



РусГидро



«НПП «Радиосвязь»



РОСНЕФТЬ



РЕШЕТНЕВ
АО «ИСС»



РУСАЛ



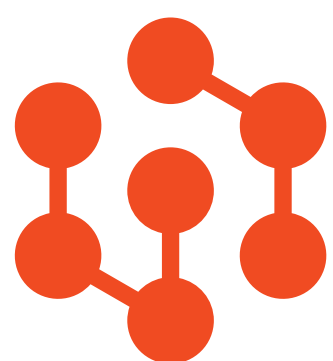
РОСКОСМОС



POLYUS



НОРНИКЕЛЬ

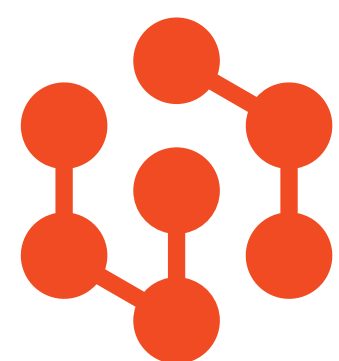


2. UNIVERSITY POLICIES

2.3. INNOVATION POLICY AND INNOVATION MANAGEMENT MODEL



- Creating a support system for innovative activities in cooperation with Krasnoyarsk Regional Business Incubator (TechnoStartUps, Startup Tour, etc.)
- Developing a platform for intellectual property management of the university and the region based on block chain technology commissioned by the Russian Ministry of Science and Higher Education (IPUniversity.ru)
- Intensifying the cooperation with high-tech civil and military industries of the region
- Involving leading experts to the University work in the relevant subjects
- Financial and non-financial incentives for the staff involved into innovative projects
- Developing a program of business mentoring
- Introducing principles of entrepreneurship to the curricular as an educational component

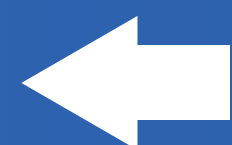


2.4. GAPS ANALYSIS AND NECESSARY MEASURES TO OVERCOME

GAPS

MEASURES

Gap №1

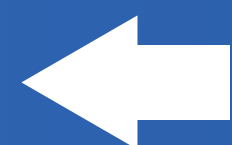


The KPI of the average USE score – 69 points – not achieved

Measure №1

- Taking measures to support talented university applicants
- Developing comfortable campus
- Launching a new high-tech medical center for students
- Launching a digital platform as additional means of preparation for the Unified State Exam

Gap №2

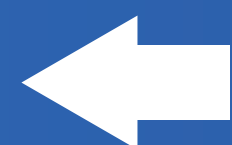


Lack of R&D revenue

Measure №2

- Launching a project aimed at fostering SibFU staff's activity in applying for Russian and international grants
- Renewal of science and technology infrastructure and facilities

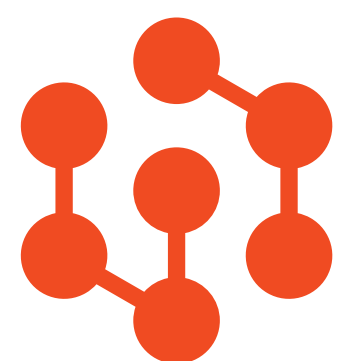
Gap №3



Imperfection of the current legislation in the of intellectual property turnover to create startups

Measure №3

- Developing a platform for intellectual property management of the university and the region based on block chain technology (IPUniversity.ru)
- Entering the consortium "Block Chain Technology Center" in cooperation with St. Petersburg State University

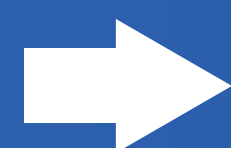


2.5. FULFILLMENT OF COUNCIL RECOMMENDATIONS

Council Recommendations

Implementation of the Recommendations

Recommendation №1

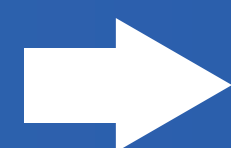


Implementation №1

To optimize the University management system, organizational and administration structure, to strengthen the management team's competences and attract efficient managers in education and science to the University

- Transfer to the profile department management system
- HR structural changes: positions of deputy vice-rectors have been abolished; leading experts from the regional government have been involved to the University management

Recommendation №2

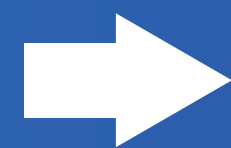


Implementation №2

To develop additional measures to recruit more international students as well as recruiting students with high quality educational background

- Active promotion at the target markets (Asian Pacific, CIS, China, Middle East)
- Developing postgraduate programs in cooperation with industrial partners
- Hosting international youth festivals
- Launching a special project in cooperation with CIS National universities aimed at recruiting CIS students for SibFU Master programs

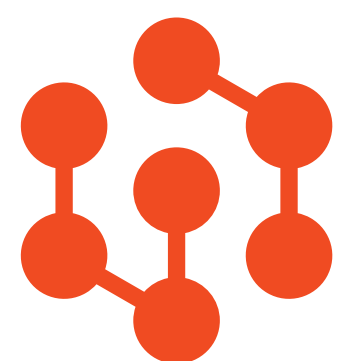
Recommendation №3



Implementation №3

To take measures aimed at HR development: faculty staff professional development, recruiting professionals from overseas universities

- Recruiting faculty and research staff from the leading international universities
- Creating favorable conditions for Russian faculty staff who has international work experience or/and international PhD degree
- Positioning SibFU as a science frontier for research and faculty staff



3. INFRASTRUCTURE

3.1. INFRASTRUCTURE



SibFU Campus 24/7

Comfortable campus:

- 100% students live on campus
- Recreation zones

Digital environment:

- “Smart bus stops”

Ecological area:

- University located in the eco-park with the unique forest landscape

Students’ Games Heritage :

- High-tech medical center for students, multifunctional complex, “Peria” residence cluster



R&D Centers and Research Laboratories

R&D centers:

- Norilsk Nickel R&D Center
- Schlumberger R&D Center
- RUSAL R&D Center

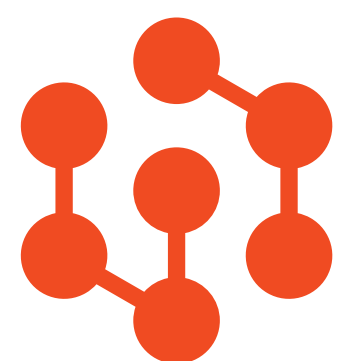
**Research Laboratories in the University
key research areas:**

- Forest genomics laboratory
- Bioluminescent biotechnology laboratory
- Laboratory of prospective nanomaterials and nanotechnology
- Laboratory of innovative chemicals and materials



National Center of Students’ Sports

- 2 swimming pools
- 3 sports complexes
- 3 stadiums and football pitches with artificial grass
- 3 skiing centers
- 23 gyms
- 1 hockey rink
- Golf course
- Rugby pitch



3. INFRASTRUCTURE

3.2. NETWORKS AND PARTNERSHIPS

Top 5 most efficient
SibFU collaborations by their
contribution to the world science:



Columbia University



Johannes Gutenberg
University Mainz



University of Bern



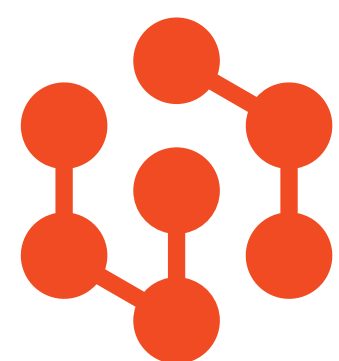
University of Science
and Technology Beijing



University of Arizona



Source: 2018 Report on the realization of the University competitiveness enhancement program ("the roadmap") of the Federal State Autonomous Educational Institution of Higher Education "Siberian Federal University" in 2016-2020 (stage 2 – 2018-2020)



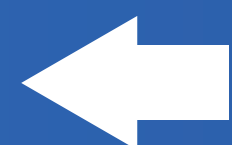
3. INFRASTRUCTURE

3.3. GAPS ANALYSIS AND NECESSARY MEASURES TO OVERCOME

GAPS

MEASURES

Gap №1

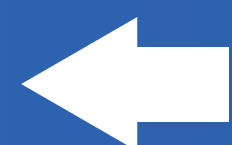


Lack of research spaces / co-working areas

Measure №1

- Creating research and co-working areas in cooperation with industrial partners ("PolyusZoloto" Public Joint Stock Company)
- Creating "Young Researchers of Siberia" co-working area

Gap №2

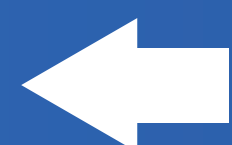


Demurrage of the University facilities due to the World Winter Students' Games – 2019 (Athletes' Village)

Measure №2

- Promoting the University campus as one of the best in Russia
- Using the University campus advantages and Students' Games facilities to host large international sports competitions (Arctic Winter Games)
- Developing the strategy of capitalization of the World Winter Students' Games heritage

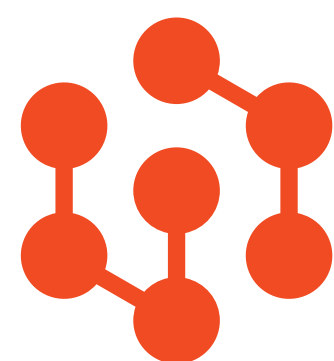
Gap №3



Lack of services for international students that meet their day-to-day needs

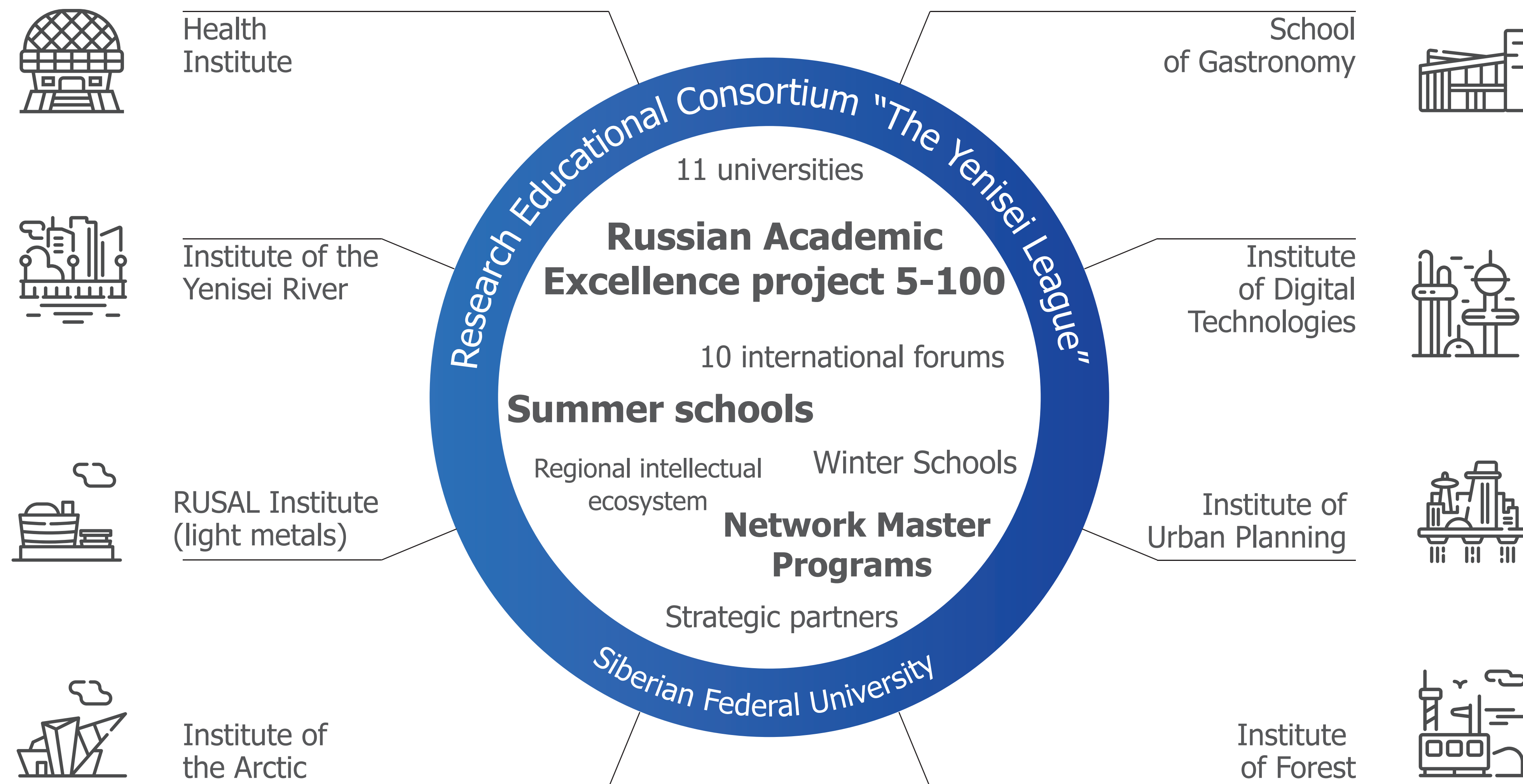
Measure №3

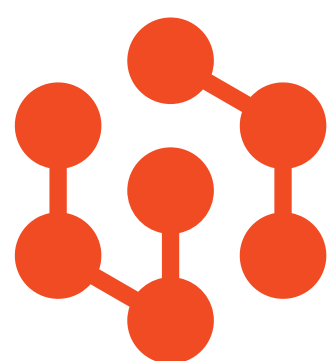
- Creating multi-cultural environment, centers of various religions, cafés of national cuisines



4. SOCIOECONOMIC ROLE

4.1. UNIVERSITY IMPACT ON SOCIOECONOMIC DEVELOPMENT AT REGIONAL AND NATIONAL SCALE





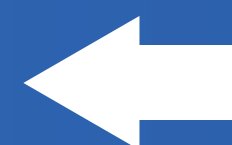
4. SOCIOECONOMIC ROLE

4.2. GAPS ANALYSIS AND NECESSARY MEASURES TO OVERCOME

GAPS

MEASURES

Gap №1

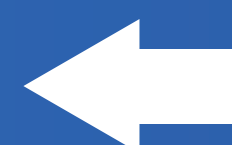


Decreased number of applicants for the academic programs in natural science

Measure №1

- Founding SibFU Physical Mathematical Secondary School
- Hosting the Russian National Festival "Science 0+"
- Holding "Robotech" festival
- Establishing hub schools of the Russian Academy of Sciences
- Launching undergraduate and postgraduate programs in cooperation with industrial partners

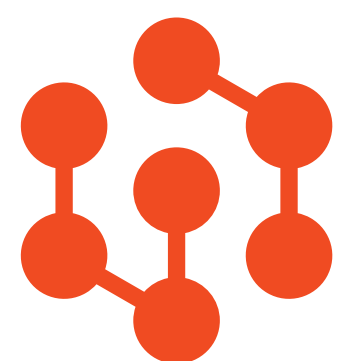
Gap №2



Lack of research projects on the topics connected with the life quality in industrial areas

Measure №2

- Opening the School of Ecology and Geography
- Positioning SibFU as an intellectual center for solving urgent ecological problems of large cities at the sample of Krasnoyarsk city



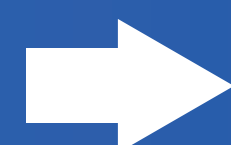
4. SOCIOECONOMIC ROLE

4.3. FULFILLMENT OF COUNCIL RECOMMENDATIONS

Council Recommendations

Implementation of the Recommendations

Recommendation №1

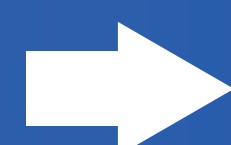


Measure №1

To develop a strategy of the University integration with the regional scientific institutions that will intensify the University research work

- Opening Research Educational Center “The Yenisei Siberia: Industry 4.0”
- Establishing the innovative cluster in dendrochronology in cooperation with Sukachev Forest Institute, Siberian Branch of the Russian Academy of Sciences
- Joint research with the Institute of Forest Technologies, Reshetnev Siberian State University of Science and Technology

Recommendation №2



Measure №2

To intensify the University’s interaction with industries by creating business environment and innovative ecosystem at the University

- Updating the Roadmap of cooperation with the Regional Business Incubator
- Developing the concept of SibFU Entrepreneurship League