

Methodology for the Russian Version of the Pilot BRICS Ranking, 2025

The methodology for the Russian iteration of the pilot ranking of BRICS universities is based on the approaches employed to compile the global list *The Three University Missions* – the first academic ranking that garnered significant international discourse from its inception. The ranking model has been amended to accommodate the national specific features of educational institutions in the BRICS countries.

The ranking answers the question which universities harmoniously fulfill the three key missions: educational, scientific, and social. The ranking is based on verified objective indicators and does not utilize subjective assessments from experts.

Shortlist of participants

The ranking shortlist included over 1,000 universities representing the consortium countries – Brazil, Egypt, India, Indonesia, Iran, China, the United Arab Emirates, Russia, Saudi Arabia, Ethiopia and South Africa, as well as countries that had received the status of BRICS partner states before June 1, 2025 – Belarus, Bolivia, Kazakhstan, Cuba, Malaysia, Nigeria, Thailand, Uganda and Uzbekistan.

The list includes universities that hold leading positions in global academic rankings and/or leading positions in national rankings. In some cases, the selection was based on the number of scientific publications of the higher educational institution in 2019–2022. The evaluation did not include narrow-profile higher education institutions (HEIs), i.e. those that do not offer educational programs in at least two of the six fields of knowledge as classified by the OECD, as well as HEIs that lack bachelor's, master's, or Ph.D. programs (or their equivalents). Subsequently, universities with fewer than 500 students were excluded from the shortlist.

Data sources

Only objective criteria approved by international experts were used to create the ranking; reputation surveys were completely excluded. Information was taken from open data sources – official websites of universities and national authorities, as well as independent international sources: the largest aggregator of online course platforms Class Central; the mass education platforms Open Education (Russia) and icourse163.org (China); the publicly accessible multilingual universal encyclopedia Wikipedia; search engines Google, Yandex, Baidu; social media Facebook*, X (the former Twitter**), VK, Sina Weibo, YouTube, Telegram; Similarweb, a leading global web analytics company; websites of international student Olympiads; bibliometric data providers; websites of scientific awards from the IREG List of International Academic Awards.

Evolution of the rating model

One of the tools used to incorporate the national specific features of the BRICS countries was special calibration of the ranking model weighting factors. To ensure more accurate assessment of the BRICS HEIs, the ranking uses parameters with weights different from weights of the global *Three University Missions* ranking criteria. Specifically, the weights were increased for the indicators “The number of students’ wins in international students’ Olympiads” (from 7% to 9 %) and “The share of international students in the total number of students” (from 8% to 10 %). At the same time, the weights of some other indicators were decreased for “The HEI budget-to-student” (from 15% to 13 %) and for “The faculty-to-student ratio” (from 15% to 13 %).

As part of the scientific mission assessment, an additional criterion “Joint publications with BRICS partners” (weight 2%) was used in the ranking. The number of scientific publications prepared jointly with foreign partners from BRICS countries was counted. The criterion measures

the intensity of the university's scientific collaboration with BRICS partner organizations. Once this indicator was added to the ranking, the weight of the "Average normalized citation impact (global level)" criterion was decreased from 10% to 8%.

Rating calculation

The total weights of the group indicators are: 45% for the "Education" group, 25% for the "Science" group, and 30% for the "University and Society" group.

For each indicator, the HEI's score characterizing its position relative to competitors was calculated. The calculation was carried out in two ways:

1) For normalized indicators (the global and national citation impact, the share of publications, and transparency), the score for participating HEIs was calculated using the formula:

$$x_i = \frac{a_i - a_{min}}{(a_{max} - a_{min})},$$

where:

x_i — score of indicator i ;

a_i — value of indicator i ;

a_{max} — maximum value of indicator i ;

a_{min} — minimum value of indicator i .

2) In cases where linear calculation is not applicable, data normalization methods were used. Subsequently, HEIs' scores for each ranking indicator were multiplied by the corresponding weighting factors. After this, the weighted scores of HEIs across all indicators were summed:

$$f = \sum_{i=1}^{n_x} x_i v_i,$$

where:

f — ranking function (score);

x_i — score of indicator i ;

n_x — number of ranking indicators;

v_i — weight of indicator i . ■

BRICS universities ranking criteria, 2025

No.	Criterion	What is measured	Criterion weight, %	Meaning of the criterion and rationale for its use	Data source	Scoring specifics
I. "Education" criteria group						
1.	Number of HEI students' wins in international student Olympiads.	Student competitiveness	9	The number of winners in international student Olympiads and other prestigious international competitions cannot be large; nevertheless, the count of winners and prize-winners in prestigious contests can concisely demonstrate the educational effectiveness and the university students' potential for breakthrough scientific research.	Websites of international Olympiads	The number of wins in individual and team competitions across 13 international student Olympiads*** in 2020–2024 was determined similarly to the Olympic Games "medal table" (Olympiad winners and prize-winners were counted). A weight was assigned to each Olympiad based on its country coverage (the ACM ICPC with participating students from over 100 countries has the maximum weight of 1.00; the NSUCRYPTO and the Belgrade Business International Case Competition which involve students from 9 countries have the minimum weight of 0.09). The resulting weighted values were summed up.
2.	The share of international students in the total number of students	Attractiveness to international students	10	The indicator showing the share of international students in the total number of students is widely used in existing academic rankings.	Websites of universities and state authorities	Foreign students enrolled full-time or part-time in bachelor's, specialist, master's, and highly qualified personnel training programs, who spent more than 3 months at the university in the estimated year (normalized to the total number of students enrolled full-time in bachelor's, specialist, master's, and highly qualified personnel training programs (ISCED-2011 Levels 6-8)). Student numbers were calculated on a full-time equivalent basis.
3.	The HEI's budget to the number of students ratio	Financial resources	13	This criterion measures the level of financial well-being of the university. The higher the value of the indicator, the wider the range of opportunities the HEI has to pursue its three key missions – educational, scientific, and social.	Websites of universities and state authorities	Since the cost of goods, works and services can vary greatly from country to country, the budget was calculated using purchasing power parity as determined by the World Bank (if not available, using parity according to the OECD data). Students enrolled full-time or part-time in bachelor's, specialist, master's, and highly qualified personnel training programs (ISCED-2011 Levels 6-8) were taken into account.
4.	Faculty-to-student ratio	Human resources	13	The indicator effectively measures the university's staffing sufficiency. The greater the number of teaching and research staff per student, the more attention the HEI's employees can devote to each student, and thus the better the conditions at the HEI.	Websites of universities and state authorities	The faculty headcount (professors, teaching staff, and research personnel) was calculated on a full-time equivalent (FTE) basis. Students enrolled full-time or part-time in bachelor's, specialist, master's, and higher qualification training programs (ISCED-2011 Levels 6-8) were included, with student numbers calculated on a full-time equivalent (FTE) basis.

No.	Criterion	What is measured	Criterion weight, %	Meaning of the criterion and rationale for its use	Data source	Scoring specifics
II. "Science» criteria group						
5.	Number of scientific awards from the IREG list among the university's faculty and graduates	Outstanding scientific achievements	7	The proposed metric is a development of the approach proposed by the Shanghai ranking. The ranking is compiled using the IREG List of International Academic Awards, which takes into account 99 of the world's most prestigious scientific awards (with potential future expansion of the list of awards).	Websites of international awards	The weighted number of awards from the IREG List of International Academic Awards received by university staff and alumni in 2005 – 2024 was calculated. Only staff members who worked in the university when the award was presented were included. Individuals who had successfully completed their studies in bachelor's, master's, and doctoral programs at the HEI (and in equivalent programs) were counted as graduates.
6.	Average normalized citation impact (global level)	Quality of scientific publications (international level)	8	Normalized citation impact quantitatively indicates how much better or worse a specific publication is cited compared to the global average for works of the same type, field of knowledge, and year of publication. The indicator shows how much the HEI's R&D activities are valued by the global scientific community, reflecting their relevance and quality.	Calculations based on bibliometric data	Publications from 2020–2023 were considered. Normalized citation impact was calculated separately for six broad fields of knowledge according to the OECD classification (natural sciences, engineering and technology, medical sciences, agricultural sciences, social sciences, humanities). The resulting indicators for all fields of knowledge were summed up.
7.	Average normalized citation impact (national level)	Quality of scientific publications (national level)	3	The indicator shows how much the HEI's R&D activities are valued by the national scientific community of the university. Inclusion of this criterion into the system of indicators allows to better account for achievements of national scientific schools and more accurately measure results in the humanities.	Calculations based on bibliometric data	Publications from 2020–2023 were considered. The ratio of the HEI's average normalized citation impact to the corresponding national indicator was calculated. The final score was calculated as the ratio of the HEI's result to the best result among universities in the HEI's country.
8.	The research revenue-to-faculty ratio	Employee involvement in research and development	5	The indicator effectively shows the amount of research and development funding per employee. The greater the amount of attracted funding per employee, the higher the demand for the university's research is.	Websites of universities and state authorities	Funds attracted by the university for scientific research and development were considered. This amount does not include other components such as income from educational activities, investments, commercialization, etc. If national or other specifics do not allow to isolate research revenue, the research budget is used as the indicator of funds spent on research. The calculation was performed using purchasing power parity as determined by the World Bank (if not available, using parity according to the OECD data). The faculty headcount (professors, teaching staff, and research personnel) is calculated on a full-time equivalent (FTE) basis.
9.	Joint publications with BRICS partners	Scientific collaboration with BRICS countries	2	A new criterion, used for the first time in compiling the academic ranking, reflects the intensity of the university's scientific collaboration with partner organizations from BRICS countries. The indicator stimulates strengthening partner relations within BRICS.	Calculations based on bibliometric data	The number of joint publications of the HEI with BRICS partners over four calendar years (2020–2023) was taken into account.

No.	Criterion	What is measured	Criterion weight, %	Meaning of the criterion and rationale for its use	Data source	Scoring specifics
III. The «University and Society» criteria group						
10.	Number of HEI's massive open online courses	The HEI's contribution to accessible online education	6	The more open courses are available on online platforms, the greater the knowledge the university imparts using internet technologies and the greater its contribution to making education available worldwide.	The Class Central aggregator, the Open Education online platform, icourse163.org	The number of massive open online courses hosted on platforms included in the Class Central aggregator, as well as on the Open Education and icourse163.org platforms, was determined at the time of data collection (July 2025). Each platform was assigned a weight based on its total number of online course enrollees (the Coursera, edX, FutureLearn, Open Education, and icourse163.org platforms have the maximum weight of 1.00). The resulting weighted values were summed up.
11.	HEI's share in the country's total publication volume	The HEI's contribution to the development of scientific research in the country	4	The criterion measuring the national significance of universities for the development of science in their countries. The higher the share of the HEI's publications in the total number of publications by universities in the country, the higher the share of such a HEI in the volume of research conducted in the country, and therefore, the more significant and valuable such a HEI is for society.	Calculations based on bibliometric data	The ratio of the number of publications of the HEI over four calendar years (2020–2023) to the number of publications of the country where the university is located. The final score was calculated as the ratio of the HEI's result to the best result among universities in the HEI's country.
12.	The total number of the university's website pages indexed by leading search engines	Online presence	3	The indicator reflects some key components ensuring the quality of interaction between the HEI and the society: openness and transparency, accessibility of information, the HEI's drive for information exchange	Search engines Google, Baidu, Yandex	The number of web pages indexed by search engines on the official domains of HEIs was determined using standard syntactic domain search operators of the Google, Baidu, and Yandex search engines. Following measurements during April–June 2025, the minimum index value was determined for each of the instruments. The highest result of the measurements by three search engines was included in the HEI's final score.
13.	Number of views of the HEI's Wikipedia page	Internet popularity	1	Along with the university's official website, Wikipedia is an important source of information. A high number of views of the university's page is an indicator of its societal influence.	Wikipedia	Total views of the HEI's Wikipedia page in English and, if applicable, the official national language(s) of its country in 2024
14.	Number of followers of the university's account in social media	Communications in social media	3	Social media platforms are one of the most efficient tools for communication between universities and their stakeholders; many universities use social media to inform the public about their activities. The popularity of different social media varies by country and university, so data on followers on six social media platforms was collected for each university.	Facebook*, X (former Twitter**), VK, Sina Weibo, YouTube, Telegram	The number of subscribers to the HEI's page or channel on six social media platforms – Facebook*, VK, X (former Twitter**), VK, Sina Weibo, YouTube, Telegram was analyzed. Pages in English and national languages (if applicable) were reviewed. The total number of subscribers on the two social media platforms where the university has the largest audience was included in the HEI's final score.
15.	The number of HEI graduates with dedicated Wikipedia pages	Impact of graduates on society	7	Quality education is largely comprised of incommensurable phenomena and is determined, <i>inter alia</i> , by the university's societal impact. One of the most effective ways to measure this is by counting the number of alumni successful in various fields of activities (politics, science, arts, business, charity) with dedicated Wikipedia pages. The indicator quantitatively assesses the HEI's impact on society.	Wikipedia	The total number of university graduates with a personal Wikipedia page that meets the thresholds: the graduate's year of birth — no earlier than 1954, the number of page views — at least 1000 in 2024. Thus, pages of alumni that are not used by users are not included in the calculations.

No.	Criterion	What is measured	Criterion weight, %	Meaning of the criterion and rationale for its use	Data source	Scoring specifics
16.	Size of the HEI's website online audience	Societal demand	4	The indicator reflects the global user demand for the HEI's official website. The higher the number of unique internet users visiting the website, the more popular the university. Universities with websites visited by numerous Internet users are highly demanded by society and valuable.	Similarweb	The number of unique visitors to the university website per month is measured. Data from Similarweb (similarweb.com), one of the global leaders in web analytics, is used; measurements were made in July 2025.
17.	Transparency	Information openness and quality of the information policy.	2	The indicator comprehensively assesses the HEI's policy of information openness toward society, its consistency, and fostering lateral collaborations by the HEI.	University websites	The indicator evaluates whether the following resources, materials, and publications are available on the university's official website: the most recent general annual statement, the most recent financial statement, an alumni portal, an open staff directory or search system, and the university mission statement.

* — prohibited in Russia; owned by Meta Corporation, which is recognized as extremist in Russia.

** — blocked in the RF.

*** — list of student Olympiads taken into account:

- The International Collegiate Programming Contest,
- Belgrade Business International Case Competition,
- International Mathematics Competition for University Students,
- John Molson Undergraduate Case Competition,
- Network of International Business Schools Worldwide Case & Business Plan Competitions,
- NSUCRYPTO,
- SCORE Software Engineering Contest,
- The Annual Willem C. Vis International Commercial Arbitration Moot,
- The Mathematical Contest in Modeling,
- The Philip C. Jessup International Law Moot Court Competition,
- The SIAM Award in the Mathematical Contest in Modeling,
- The University Physics Competition,
- The World Universities Debating Championships.