

**“National ranking of higher educational institutions  
of the Republic of Kazakhstan.”**

**by Independent Agency for Accreditation and  
Rating (IAAR)**

**Report of the IREG Auditing Team**

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## **Introduction**

“National ranking of higher educational institutions of the Republic of Kazakhstan was launched by the Independent Agency for Accreditation and Rating (IAAR) in 2014 and has been published annually since.

The main aim of the ranking is to evaluate, compare and rank the programmes of studies (at the three levels: bachelor, master and doctoral) along the multiple dimensions. Moreover, it aggregates the results into the comparison of HEIs at the national level. No matter that IAAR has well-developed and bold plans for expansion of the coverage of its ranking to countries of Central Asia, its international version is considered here as a matter for separate discussion. Although the self-report includes a reference to the international pillar of the ranking, which covers higher education institutions from the Republic of Kyrgyzstan it does not allow at the current stage for the comparison of Kazakhstan and Kyrgyzstan HEIs.

### **The IREG Ranking Seal of Approval Criteria fulfilment**

This section addresses and comments the ranking along the lines of each of the criteria separately.

**Criterion 1.** The Ranking is focused on the school graduates in the Republic of Kazakhstan and serves as a navigator in the actual preferences of the most talented amongst them, as well as informs the future students and their families in the process of choosing the place of further education. The aim of the ranking is declared in a mission of the ranking and self-report of the IAAR on its development and implementation.

More in-depth analysis of the ranking shows that it is also oriented towards the needs of national authorities which are responsible for higher education development in the Republic. Moreover, what seems to be equally important addressees of the ranking are higher education institutions themselves and their leadership willing to pursue and enact further internal reforms, as well as gaining the external recognition by the state authorities and wider stakeholders.

The auditing team thinks that in general the description of the ranking aim and its' target audiences seem a bit unclear, and need to be focused either on multidimensional measurement of the educational programmes or institutional ranking. Combination of both contributes to the feeling of ambiguity.

**Criterion 2.** The ranking recognises the diversity of types, missions and goals of different HEIs that constituted national system of higher education. The ranking includes all types of modern higher education institutions in Kazakhstan, including national and state universities, as well as joint-stock and private institutions of higher education. To address this diversity, the methodology of the ranking has been designed accordingly.

**Criterion 3.** The system of indicators of the ranking includes indicators that could potentially provide comparability of higher education institutions across different national systems of higher education. For example, the I<sub>4</sub> indicator “*Competitiveness of scientific publications of teachers, undergraduates and doctoral students in the speciality*”. The other indicators, no matter that at the current stage is more country-specific (like “number of Altyn belgi scholarship holders”) could easily be adopted, as proven during the auditing meeting, to other country-specifics. When the IAAR starts the international ranking, most of the indicator could be useful but for the international comparison.

**Criterion 4.** There is a slight gap between the actual usefulness of the existing product (“National rating of demand of higher educational institutions of the Republic of Kazakhstan”) and functional options that could be derived from the database and analytical system, such as the academic ranking by faculty, educational programs and institutional ranking. It could be said that the initial system of indicators developed with the current methodology is clear for the multidimensional ranking of HEIs and could be beneficially used as such. When it comes to the aggregation of the results in a league table some questions may be raised to the system of weights (for example, why h-index weights the same 25% of the outcome as 25% of input indicators such as the numbers of talented students or the labour market outcomes – there is no clear justification and explanation for that provided). In its current form the system of equal weights seems like an elegant mathematical formula, rather than expertise-driven decision. Besides, it could be recommended to clarify to the wider audience what exactly the product is about (is it a league table or multidimensional ranking).

**Criterion 5.** Except for the data for the indicator on the employers' perception of the programmes, the ranking relies on diversified and objectified sources of data. That means that

with this single exception all the data is verified against the objective sources of data. As the auditing team understands, the reason for relying on self-reporting is crucial for building the legitimacy of the ranking tool amongst the institutions, as well as for building up the feeling of agency on the side of the participating institutions. The data processing is impersonalized (automatizes) to provide more objectivity to the data and ranking results.

**Criterion 6.** If taking into consideration that the ranking system of indicators consists of 5 complex indicators, two out of this five could be evaluated like outputs. For example, the citation and publication data collected from the scientific databases (Scopus or Web of Science).

**Criterion 7.** No matter how paradoxical it may seem, the ranking methodology could be partly assessed as transparent. In terms of general information, the self-report and the paper version of the annual publication of the ranking contains few methodological comments. But neither the website provides any details on the methodology (at least the basic information on the system of indicators and weight they received for the integrated league table). However, the online panel for the upload of the data by the institutions themselves contains a separate section explaining the methodology in every detail. Thus, the recommendation to raise the availability and visibility of this information for wider audience could be made.

At the end of the auditing meeting, the IAAR's team explained that this policy of methodological secrecy is their tool to defend against the competitors (the separate methodological section was posted on the website for some time but was put down), who used to copy their work to develop a ranking of their own. The reply of the auditing pointed at the essence of the ranking phenomenon as a process (that involves building relations between participants and the rankers) rather than a thing that could be just copied, as well as at the actual strengths that IAAR have in this area that should ease their fears about negative consequences of transparency.

**Criterion 8.** In terms of publication of indicators and their weights used by the ranking IAAR does not provide a complete set of information. The website does not contain this information either.

The booklet version of the annual publication provides some information on general calculations of the institutional ranking but without clarifications on what are the exact indicators (only abbreviation and general formula).

The control over the effects of different disciplinary field structures in their aggregate results is understood as important for analysis. But at the current stage it is highly problematic, as the institutional league table is composed without paying attention to either disciplinary differences or to levels of education. It just provides the total weighted number of points gained for different programmes.

**Criterion 9.** Assessed against this criterion, the IAAR is partly succeeded. On the one hand the data collection is organised at professional level (participating universities are using special soft program and providing IAAR with official data and statistics). But on the other hand, the website and booklet versions of the Ranking does not contain information on data sources used and methods of the data collected. As for the structure of the sample, the elementary breakdown of HEIs by region of their location usually is provided on the website, booklet and newspaper versions.

**Criterion 10.** As a presentation and further discussion of the Ranking with IAAR representatives showed, some changes had been made in methodology since 2018 according to the application from Osh State Technical University. These changes were stated and documented accordingly during the advisory board meeting (January 2018). However, in principle, the core idea behind the ranking's methodology and functioning is stable over the years.

**Criterion 11.** The IAAR ranking is made available annually (in mid-May or June every year) to stakeholders in the printed version of “Kazakhstanskaya Pravda” – a daily newspaper with national coverage. The article contains a lead text that describes the ranking institution (1/3 of a newspaper page) and the tables (2 pages) with the results of the ranking programmes plus a small table with the result of the institutional (aggregative – the points acquired by an institution is a sum of the points of the rated programmes it conducts) ranking of Top-20 higher education institutions in Kazakhstan. Moreover, the results are accessible online on the organisation webpage. Additionally, the booklet containing the tables with the results and a lead text is published each year in 50 copies, and it plays supplementary function to the two other means of circulation (newspaper and the online version).

**Criterion 12.** The publication in the newspaper provides the readers with just a tip of the iceberg of the complexity of methodology used to compose the ranking itself. Similarly, brief information is provided on the website with the online version of the publication of the results. The auditing team found it helpful when the IAAR team, and prof. K. III. ШyHKEEB

responsible for the development of the algorithmic engine of the ranking tool explained the assumptions behind crafting each of the indicators used in the ranking itself. Although the published materials include brief (5 paragraphs each four lines long) one can have legitimate doubts that the lay public can understand from the ranking just a little bit more than an ordering hierarchy based on the abstract points. However, the IAAR is putting a lot of effort in order to explain the tool, methodology and the indicators to the participating institutions. It provides consultancy through a series of its seminars, as well as it offers consultancy and even helps in uploading the data to the online repository that then becomes its database. The auditing team sees a benefit in putting the coherence into the modes of presentation of the methodology in all of the published outlets.

**Criterion 13.** The ranking is based on multiple composite indicators. The publication offers the reader (the lay public) to access just the summarised points for every programme rated. The institutional ranking – in its published form in the newspaper, operates at an even greater level of aggregation. However, institutions that are taking part in the ranking are allowed to freely access their de-aggregated results through an online panel. They are provided with separate login and the password for this purpose. Moreover, the IAAR has at its disposal the diagram version of the results for every programme or institution. Much more could be achieved in terms of providing useful resources for the wider audiences and the institutions by considering making public of this information.

**Criterion 14.** *The 14th criterion is missing on the IREG's website and was not delivered to the auditing team in any other way.*

**Criterion 15.** The strong procedures used by IAAR secure a proper verification of the data entered by the institutions, the fully automatized calculation of the results, as well as good communication with the institutions themselves allows for the avoidance of appearance of the errors in the published version of the ranking. The cases discussed and explained during the audit meeting shown the effectiveness of such protocol for navigating within the emerging controversies over seemingly, at first sight, low results of given institutions and initial unhappiness of their leadership. In all of the discussed cases the transparency and the objectivity of the indicators used plus the automatization of the ranking procedure (based on crafted algorithm) proven that they are enough to calm down the institutional leadership and

contributed to building up the legitimacy and credibility of the ranking among the academic community.

**Criterion 16.** IAAR is a highly responsive organisation when it comes to its contacts with higher education institutions that take part in the ranking. The individual institutions have full access to their data and the results. They are given full explanations of the methodology and the indicators used through the cycle of seminars, individual responses to their questions and consultancy. IAAR's Consultative Council is also discussing (on a regular basis) the suggestions about how the ranking itself can be improved that come from the participating institutions. Recently, one of the additional indicators has been approved by the council through this procedure and will be added in the coming round of the organisation of the ranking.

**Criterion 17.** The full printed version (booklet) of the ranking results contains full contact details and contact address of IAAR. However, both, newspaper (printed) and online version of the publication of results include a reference to the IAAR's main website – but there is no direct reference to contact details. The IAAR website does include the specific section through which one can get into contact (through a wide variety of social media portals and email services) with the organisation. The institutions that are taking part in the ranking are in constant contact with the organisation and thus they may voice their concerns and opinions, as well as point out the possible errors. The organisation documented the process of the response (positive and driven to implementation) to one of the participating university's suggestions of a new indicator for the ranking. The practice of effectively addressing the concerns of institutions over the ranking and the results forms a cornerstone of the search for legitimacy by IAAR's ranking team.

**Criterion 18.** IAAR set several procedures to assure the quality of the ranking process. They are in constant communication with the ranked institutions; they verify the self-reported data against the external sources of objective data; they extract the non-responsive institutions from the ranking when the error on their side is indicated.

**Criterion 19.** IAAR’s ranking production procedure includes three separate stages of recruiting participants, collecting data from the institutions, and verifying the data against both, the external data sources and the results from the previous years. The whole procedure is done through the medium of a programme accessible online and the data, as well as the corrections, are stored in a cloud. For every indicator except the data on the employers’ perspectives (the only subjective indicator and fully reportable by the institutions themselves) on the quality of the given programme a reliable, external source of information exists.

**Criterion 20.** IAAR implemented several organisational measures in order to improve and secure the credibility of its rankings among its various stakeholders (with the special focus on participating institutions). On the one side, there is a Supervisory Board created for the operations of the whole institution (<http://iaar.kz/en/about/supervisory-board>) composed of 5 experts and representatives of important stakeholders (including, a representative of the Parliament and a representative of the ruling party), plus an international scholar (President of Slovenian Branch of the International Academy of Engineering). One of the areas of the involvement of the Supervisory Board is the ranking itself. On the other side, the whole organisation is self-exposed to a variety of external audits and reviews that aims at ensuring the stable rise of quality of its activities and constant process of self-perfection.

**Summary of the results**

The Table 1. below presents the general assessment of the ranking in question along the lines of 20 IREG Ranking Seal of Approval Criteria. The green colour indicates that the ranking fully meets the given criterion, the yellow indicates that there is still a space for improvement, the red colour means that the ranking completely neglects the criterion.

**Table 1. Fulfilment of The IREG Ranking Seal of Approval Criteria by the ranking.**

1	2	3	4	5	6	7	8	9	10	11	12	13	14 <sup>1</sup>	15	16	17	18	19	20
Yellow	Green	Green	Yellow	Green	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Yellow	White	Green	Green	Yellow	Green	Green	Green

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<sup>1</sup> The 14th criterion is missing on the IREG’s website and was not delivered to the auditing team in any other way.



In general, “National rating of demand of higher educational institutions of the Republic of Kazakhstan” by Independent Agency for Accreditation and Rating (IAAR) in its actual form fully meets 11 out of 20 criteria. Seven broad criteria were partly meet and leave some space for further improvement. There are no areas where IAAR’s ranking completely neglects the IREG’s criteria.

## **Conclusion**

The IAAR ranking is a comprehensive ranking of educational programmes realised at higher education institutions in Kazakhstan. It has multiple strong sides:

- Stable methodology and based on a scientific approach.
- It is published regularly on an annual basis in diversified sources
- It is recognized by stakeholders at the national and institutional level.
- It recognizes and covers a wide diversity of higher education institutions in Kazakhstan
- It has the potential for international scaling.
- It is reliable and in most of its part allows for the verification of the self-reported data. It uses diversified sources of data to verify the inputs to its database by the participating institutions.
- The input and output indicators are balanced.
- It is supervised by the general Supervisory Board responsible for monitoring the quality of all of IAAR’s activities, including the ranking.
- The IAAR is open to receive comments and recommendations from the participating universities for changes in their set of indicators. However, the final decision is taken by the supervisory board.
- IAAR is a highly responsive organisation when it comes to its contacts with higher education institutions that take part in the ranking
- Ranking activity is supported with the number of quality assurance procedures (including three steps procedure of the production of the ranking itself, set of seminars, and collection of feedback from various stakeholders, and supervisory board).

However, at its current stage of development, the ranking and the procedures used for its publication and dissemination need some further attention and actions. These include:

- The clearer formulation of the target groups and product positioning (is this a ranking or several analytical tools).
- More attention should be paid to the description of the methodology that would be accessible for wider audience.
- The system of weights used should be reflected upon, justified and explained in a separate “methodology” section published either online (preferable) and/or in the booklet.
- The clear information on the data sources should be provided and (preferably) published (online).
- De-aggregation of the results and presentation of the results for each indicator separately for either programmes and institutional ranking.
- IAAR could rethink whether it is feasible to publish the points for separate indicators along the summaric points gathered by each programme and/or institution, or to use the diagram form in the booklet.
- The publication in the newspaper could contain a clear indication of contact information.

## **Recommendation**

The auditing team is convinced that “National rating of demand of higher educational institutions of the Republic of Kazakhstan” can be recommended for the “IREG Seal of approval” under the condition of conducting minor changes – mainly in the clearer, more systematic and more accessible way of presentation.

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