IREG Observatory
on Academic Ranking
and Excellence

IREG Observatory experts' advice on the NTF project:

Development and Approbation of a Template Methodology for National Rankings of Higher Education Institutions

IREG Observatory on Academic Ranking and Excellence

(IREG *stands for* International Ranking Expert Group)

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IREG OBSERVATORY EXPERTS' ADVICE ON THE NTF PROJECT:

DEVELOPMENT AND APPROBATION OF A TEMPLATE METHODOLOGY FOR NATIONAL RANKINGS OF HIGHER EDUCATION INSTITUTIONS

SUMMARY

Considering IREG Observatory's competencies, knowledge and experience in the field of academic ranking and quality assessment of higher education, and works of the National Training Foundation (NTF) on the project "Development and Approbation of a Template Methodology for National Rankings of Higher Education Institutions", IREG Observatory agreed to designate international experts competent in academic rankings assessment to provide NTF with advice on methodology for a national ranking of higher education institutions in Russia. The Executive Committee of IREG Observatory designated the following experts: Jan Sadlak , Gero Federkeil, Sholpan Kalanova, Waldemar Siwinski and Robert Morse to evaluate the Template Methodology for National Rankings of Higher Education Institutions' compliance with IREG criteria for rankings. The Perspektywy Education Foundation coordinated the expert advice project on behalf of IREG Observatory.

Reviewing the Template Methodology, the IREG experts came to conclusion that overall the concept of ranking methodology prepared by the NTF, looks serious, and is based on a very thorough analysis of existing projects and initiatives. The NTF project, experts believe, is in line with the IREG Berlin Principles. If implemented, it should facilitate quality assessment and performance of higher education institutions; it can also serve as transparency instrument supplementing a mechanism of quality assurance. The experts notice that the NTF project avoids methodological flaws that marred the earlier Russian ranking attempts, and better connects with the international trends and developments.

The experts positively assess the multi-dimensional approach of the NTF project, and the fact that the project takes into account interests of different categories of ranking users (stockholders): prospective students and their parents, national and local government, employers, academic community, and business organizations.

The experts are unanimous in suggesting limitation of the number of indicators selected for the ranking of higher educational institutions in Russia. Gero Federkeil: "I would strongly recommend reducing the number of indicators, in particular of "sub-indicators". Many of them are very detailed … but the relevance for a ranking may not be very high." According to Jan Sadlak "such extensive number of indicators complicates the whole initiative

in terms of availability, validity and comparability of provided information." Sholpan Kalanova referring to her own experience in the field, pointed out that in the case of some indicators, even if the data is available, extracting and processing the collected data may be overly labor intensive and too costly.

According to the experts, the authors of the Template Methodology for National Rankings under review should focus on the indicators most important for assessing the position of a higher education institution and indicators relevant for the stockholders. Gero Federkeil suggests to include not only experts but also the "lay" stakeholders (students, employers) in the consultations on the relevance of indicators.

In the process of providing advice service, some of the IREG experts took part in the panel organized by the NTF in Moscow; advice was also provided through the exchange of opinions over the phone and via electronic mail. The representatives of NTF were invited to participate in the IREG-6 world conference "Academic Rankings and Advancement of Higher Education. Lessons from Asia and other Regions" in Taipei.

The IREG experts recognize the very thorough and solid work done by the NTF team in preparing the Template Methodology for National Rankings of Higher Education Institutions and express appreciation for broad internal and external consultations in the process. The NTF approach to the ranking, the care for the transparency of the process, and thoroughness of the methodology demonstrates compliance with the principles of quality in academic ranking that IREG Observatory stands for.

The advice was prepared by experts of the IREG Observatory on Academic Ranking and Excellence in accordance with the agreement with the National Training Foundation (NTF) signed on 26 June 2012.

Waldemar Siwinski
Coordinator of the IREG Observatory
Expert Advice Team

Perspektywy Education Foundation

Brussels-Warsaw, 31 October 2012

Appendix 1 – Comments by Jan Sadlak
Appendix 2 – Comments by Gero Federkeil
Appendix 3 – Comments by Sholpan Kalanova

JAN SADLAK

EXPERT ADVICE ON A PROJECT "DEVELOPMENT AND APPROBATION OF A TEMPLATE METHODOLOGY FOR NATIONAL RANKINGS OF HIGHER EDUCATION INSTITUTIONS" [AGREEMENT WITH THE NATIONAL TRAINING FOUNDATION (NTF)

1. General observation and comments:

The NTF project is to be seen in a broad context of on-going transformations in higher education in Russia, especially those related to its internal modernization, greater economic and social relevance, quality and competitiveness. As such it has also a strong support of political leaders of the country which are aware of the needs for increased quality and social and economic relevance.

Introduction of "ranking" is in line with the state educational policy of the last few years oriented towards the implementation of new mechanisms quality assurance which, on the one hand, put emphasis on internal self-evaluation of higher education institutions, and, on the other hand, facilitates quality assessment and performance from "external angle". Not to mention additional role which is at the origin of ranking – providing synthetic information for students/parents as well as other stake-holders.

In a way, proposed in this project "national ranking" [in case it became operational] is going to supplement various policy initiatives, such as:

- National programme entitled "The Best Educational Programmes in Russia";
- the establishment of "national research universities" (NRU) which status can be granted to higher education institution that passes the competitive selection.

In addition it will serve as transparency instrument supplementing an overall mechanism of quality assurance.

The way how this project is designed and implemented is in contrast with previous attempts to design "ranking" which gave a more positive picture of performance of Russian higher education institutions but had been criticized for methodological flaws [i.e. Global ranking published in 2009 by the Russian independent rating agency - RatER].

2. Methodology and indicators:

From the very outset a "multi-dimensional approach" was decided as the methodological principle for the project. The arguments in favour of such approach are well known, the most often brought about is diversity of informational needs among the potential users of the rankings.

The NTF project identifies the following five categories: prospective students and their parents, government [central and local], employers, academic community, and business organizations. It should also be noted that there are differences with regard the informational needs not only between but also within each of the above mentioned category of potential users of rankings [e.g. student population is a heterogeneous population].

In this context it is worthy to point out that the until now there is only one "multi-dimensional/multi-indicator ranking" which is fully operational; that one produced since 1998 by CHE – Centre for Higher Education Development, Germany. It is strongly student-oriented ranking and it covers 35 subjects. The other three types of ranking produced by CHE - CHE-Research-ranking, CHE- Excellence-ranking, and CHE/dapm-Employability Rating, are also covering a limited number of areas.

It is therefore advisable that ranking to be produced on the basis of NTF-developed methodology foresee a progressive strategy concerning the covered domains.

There is certain confusion with regard to a total number of "indicators" which has been identified by the experts working with NTF. The documents provided by NTF states that there are 65 indicators which are covering the following functions: research, teaching and learning, internationalization, knowledge transfer, and engagement with regional stake holders. At the same time, full list which is presented in Appendix 1 covers 73 indicators. There are also 86 "sub-indicators". Such large number of indicators might be justified by intention of the authors of this methodology to assure a comprehensive coverage of what higher education are doing and what is their performance in respective area. However, such extensive number of indicators complicates the whole initiative in terms of availability, validity and comparability of provided information.

Analyses of the questionnaire [Appendix 3] allows me to identify a possibility for reduction of indicators exist in such areas as internationalization and mobility, number and other information concerning academic staff, bibliometrics; budgetary information which is to be provided by higher education institutions.

3. Specific methodological problems and additional observations:

With regard to a specific problem raised by NTF concerning; to restore or not to restore the data with a zero value [missing data], it is my opinion that this problem should be analyzed from the point of view of an overall relations between the ranking organization and higher education institutions covered by the ranking. In my opinion, it should be prevented that lack of information adversely affects relative position of the given higher education institution. However, if a particular institution is not able [or not willing] to provide relevant information it could be foreseen that such institution is not covered in the given domain.

From received information it is not clear if it is foreseen that potential users of ranking will have a possibility to produce "own ranking" based on selected number of indicators. For example, the CHE-University ranking allow the users to select up to 5 indicators that they consider important in order to select an institution which corresponds to their needs or preferences.

One of the four declared main goals of the proposed methodology is "developing a data base of the Russian higher education system taking into consideration its diversity". While it is more likely that entity which will implement the methodology will collect and "sit on" large amount of data, it should be underlined that it is not the purpose of ranking organization to serve also as comprehensive data collection organization.

Even if it is not covered by terms of reference of this particular project it would nevertheless be valuable if NTF could formulate some preliminary assessment about the cost of data collection and data processing. Not less important it would be to foresee a training programme for those to be involved at the level of higher education institutions to collect requested information.

Jan Sadlak

Paris, September 2012

GERO FEDERKEIL

EXPERT ADVICE ON A PROJECT "DEVELOPMENT AND APPROBATION OF A TEMPLATE METHODOLOGY FOR NATIONAL RANKINGS OF HIGHER EDUCATION INSTITUTIONS" [AGREEMENT WITH THE NATIONAL TRAINING FOUNDATION (NTF)

1. General observations

The concept for the Russian ranking initiative is based on a very thorough analysis of existing projects and initiatives. The concept looks very serious, particularly positive is the fact that the concept is based on analytical considerations (see key principles) and does not just look on the availability of data.

With those key principles and its basic approach the NTF initiative connects to international trends and developments – which is also an issue for Russian higher education after the critical and predominantly negative reactions to prior Russian ranking initiatives (as e.g. the RatER global ranking).

The explicit definition of target groups for the new ranking is in line with the Berlin Principles. Taking those target groups serious needs the development of specific ways of presenting the ranking as the different target groups have a quite different knowledge and understanding of higher education and have different needs of information. In particular (prospective) students and their parents, but also – to some degree – employers and business can be seen as "lay" users of the ranking which do not have a deep knowledge of higher education and higher education institutions. Hence for them the presentation of the ranking has to be different than for academic "expert" users within higher education and universities.

2. General methodology and indicators

The concept opts for a multidimensional ranking approach – in my view for good reasons. Yet it has not become quite clear how this will be applied in the ranking. The paper mentions that performance on five different dimensions will be measured which is one aspect of multidimensional ranking. The other aspect of the multidimensional ranking approach is the basic argument that there is not one single objective ranking and that there are neither theoretical nor empirical arguments for the weighting schemes underlying composite indicators. On page three it is reported that experts' input has been used to "weighting indicators within each functional area". – There should be a clear decision if weighting of individual indicators will be applied or if the ranking will follow a stricter multidimensional approach.

The number of indicators still seems to be too high. The paper is not quite clear about the number of indicators that will be used in the ranking. The paper states that there are 65 indicators, the table in the appendix lists 73 indicators, and with the given distinction between indicators and sub-indicators the paper states that there are "86 plus 12" indicators (page 10). No matter which of those numbers describes the "real" number, the number seems too high. I would strongly recommend reducing the number of indicators, in particular of "sub-indicators". Many of them are very detailed (and may be nice to know) but the relevance for a ranking may be not very high. To give an example: The indicators on the number of international students (D.1.1.) include a distinction of full-time and part-time international students and even more, by regions. What do the numbers of international full-time and par-time students tell about the performance of universities? The total number of international students is a sufficient indicator of the international orientation. (In general of course, the total number of full-time and part-time students is an important context indicator to describe the profile of an institution.)

The reduction of the number of indicators should be based primarily on their relevance to stakeholders. My suggestion would be to include not only experts but

also the "lay" stakeholders (students, employers) in the consultation on the relevance of indicators (in the end, the final decision should be made of course by the producers of the ranking). This consultation could be organised in workshops as well as in (online) surveys. Additional criteria to assess the indicators are validity, reliability and availability of data. A process and a template to assess indicators can be found in the U-Multirank report which used those criteria (and tested them in a pilot data collection).

In a large country like Russia with a highly developed and diversified higher education system it is wise to start the ranking project with a pilot study and data collection. The sample 140 of institutions seems well balanced in terms of institutional diversity. It is important to test the approach with different institutional profiles / different types of institutions.

The paper does not give much information on two important issues of rankings: First the ranking procedure (league table, groups) and the procedures to control for effects of the structure of universities (in particular their fields). An institutional ranking of whole universities inevitably is aggregating data from sub-units (as faculties, departments) which belong to quite different academic cultures to the institutional level. Most institutional rankings do not pay much attention to this and are in danger to measure field effects rather than differences in performance. To give an example: Due to differences in the culture of publishing and citing an average medical school (faculty) will always have more publications and citations than a good Humanities university or faculty. There should be a concept on how to control for such differences in the profiles and structures of institutions.

3. Comments on individual indicators

For the understanding of indicators it could be helpful to introduce a distinction between "indicators" really measuring performance and "descriptors" providing descriptive and contextual information without ordering institutions in terms of performance (such as e.g. A.3. or A.6.).

Indicator	Comment
A.10 /A.13.	What is the difference between "academic staff" and "researchers"? Does this reflect a formal distinction in Russia?
B.3. – B.11.	Those indicators are highly differentiated. I am not sure if it is necessary to calculate all bibliometric indicators for three different data bases (Russian e-library, Scopus and Thomson Reuters) The indicators could be adapted to the Leiden Ranking which is the most sophisticated bibliometric ranking. In particularly filed-normalised citation rates are important to avoid biases in institutional rankings of whole universities (B.3. to B.8.)
B.1. / B.12.	What is the difference between the two indicators? One might be enough.
C.7. / C.8.	Those ratios rather reflect the profile of an institution (and hence should be descriptive only) than the performance.
C.11.	This indicator is highly dependent on the field structure of an institution! Expenditures are by definition much higher in engineering and medicine as compared to arts and humanities. Hence the indicator rather measures the structure of an institutions than its quality.
C.12.	Awards have to be defined, see IREG Awards Project
D.1. – D. 12.	"International" has to be clearly defined with regard to students and staff: either by citizenship or by previous mobility (e.g. international PhD students defined as having obtained their Master/previous degree abroad)
E.	Additional ideas: number of spin-offs

Gero Federkeil
Gutersloh, September 2012

ПРОФ., Д.П.Н. КАЛАНОВА Ш.М.

ЭКСПЕРТНОЕ ЗАКЛЮЧЕНИЕ ПО ПРОЕКТУ « РАЗРАБОТКА МОДЕЛЬНОЙ МЕТОДОЛОГИИ РЕЙТИНГОВАНИЯ РОССИЙСКИХ ВУЗОВ»

1. **Концепция модельной методологии рейтингования**

Основные принципы при разработке методологии оценки российских вузов представленные на основе характеристик образовательных учреждений учитывают многообразие целей, которым должен отвечать рейтинг - это: положение конкретного вуза в списке национальных вузов, информация для заинтересованных лиц, стимулирование конкуренции среди российских вузов и надежный источник информации для глобальных рейтингов. Модель, которая предложена авторами представляет институциональный рейтинг, т.е. положение вуза в целом, вместе с тем имеет многомерную конструкцию.

Разработчики для систематизации разнообразия российской системы высшего образования применили уже имеющуюся классификацию вузов, которая используется Министерством образования и науки РФ. Полагаю, что это правильное решение использовать уже имеющиеся наработки по классификации подразделить вузы на 7 групп, которые базируются миссии высших учебных заведений.

Выбор методологии многомерного рейтингования также заслуживает одобрения, чтобы пользователи по своему усмотрению использовали, представленные интегрированные показатели. Разделение на направления: научно-исследовательская деятельность индикаторы группы A; обучение и преподавание, индикаторы группы C; международная деятельность, индикаторы группы D; трансферт знаний, индикаторы группы E; взаимодействие с регионом, индикаторы группы F, является оправданным.

Однако из пяти направлений деятельности вузов, представленные в методологии, направление – взаимодействие с регионом, является очень сложным для получения достоверных данных и трудно проверяемым, в тоже время известно, что в европейской классификации деятельности университетов одним из шести направлений рассматривается взаимодействие с регионом.

Группы пользователей определены верно и соответствуют Берлинским принципам.

2. **Общая методология и показатели**

Особо необходимо отметить колоссальную и кропотливую работу, которую проделали разработчики. В общей сложности было для инструментария рейтингования было разработано 6 групп исходных индикаторов, в которые включены 73 индикатора и 192 субиндикатора, прошедшие экспертную оценку и обсуждение.

Однако, по-моему мнению, количество индикаторов и субиндикаторов слишком большое, многократно превышают число индикаторов в национальных и глобальных рейтингах других стран. В реальной работе, получение данных для такого числа индикаторов с вузов, из доступных источников, обработка их, шкалирование и т.д., представляет достаточные трудности во времени и человеческих ресурсах, поэтому финансовая цена такого рейтинга будет очень дорогой.

В методике отмечено, что приглашено 148 вузов для апробации модельной модели рейтингования. Это важно, чтобы провести сначала пилотный проект, в результате которого внести коррективы и уменьшить число индикаторов.

Число индикаторов слишком огромное!

Мне кажется, что некоторые индикаторы можно безболезненно сократить даже до пилотного проекта, например А11- численность персонала;

А18 – объем библиотечного фонда вуза. По собственному опыту известно, что если некоторые вузы дадут достоверные данные, то часть вузов может дать завышенные показатели, которые сложно проверить, и тогда в худшем положении окажутся те, которые представили достоверные данные. Кроме того, в современное время, когда книги распространяются в электронном формате, широко используются IT технологии, электронные библиотеки, данный показатель устарел.

Хорошая группа индикаторов, связанная с финансированием или получением доходов вуза, которая используются в методологии. Однако, к сожалению, все они представляются вузами, как указано разработчиками, поэтому получить доказательства в достоверности представленных материалов сложно.

Это - индикатор В1 – доля расходов на научные исследования, особенно В1.1 – объем финансирования вузом НИР из собственных средств в предыдущем финансовом году; В12 – доля доходов от научных исследований; С11- затраты на оборудование и инфраструктуру (для обеспечения обучения), С18- средства на подготовку студентов; Е1- доля доходов из внебюджетных источников; Е2- доход от продажи интеллектуальной собственности; F11 – доля доходов из региональных источников.

Могу сослаться на свой опыт. Первый год, когда в Казахстане был введен национальный институциональный рейтинг в 2007 г., проводившийся непосредственно при моем участии, мы также использовали в рейтинге индикаторы финансовых расходов на учебный процесс вузами, объем финансирования вузом НИР из собственных средств. Однако реально оказалось очень сложно проверить фактические данные. Тогда мы имели финансовые средства, поэтому выезжали в каждый вуз и проверяли в бухгалтерии доказательства расходования средств.

Этот путь – неэффективный.

Более надежный способ - это провести анкетирование ППС и студентов рейтингуемых вузов по вопросу обеспечения условиями, например, имеет ли вуз необходимую инфраструктуру для учебного процесса (современные учебные лаборатории и т.д).

Хороший индикатор С8- доля студентов магистратуры, закончивших бакалавриат или специалитет в других вузах.

В России в настоящее время более 1000 вузов и около 2000 филиалов вузов, поэтому есть необходимость в сокращении и укрупнении индикаторов и особенно субиндикаторов, т.к. большую роль в рейтинговании играет также технологичность процесса сбора и обработки данных.

Для полной экспертизы методологии, по-моему мнению, по возможности, необходимо присвоить каждому индикатору и субиндикатору весовые проценты.

Sholpan Kalanova
Astana, October 2012

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