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Introduction to the CHE University Ranking System

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Ladies and Gentlemen,

At first let me thank you for inviting me to present the CHE-Ranking system. It is a great pleasure having the opportunity to outline our specific Ranking approach to this honourable audience.

Today, throughout Europe and the world, we find a number of different kinds of university rankings with different methodologies, scopes and target groups and – as most of you know – of different quality!

In order to satisfy the variety of needs and expectations, rankings must be imperatively based on a scientifically founded methodology. Validity and reliability of data are indispensable for serious and honest rankings that merit publication and consultation.

Let me start with some background information on the Centre for Higher Education Development and the history of CHE-Ranking, because this is part of the – from my point of view – success-story. I will then provide an outline of the basic methodological principles of our ranking system. And at last I will describe the strategies of internationalizing the CHE-Ranking

System which started in Germany but has opened to other European countries by now.

Let me start with the CHE: The Centre for Higher Education Development was founded in May 1994 by the German Rectors' Conference and the Bertelsmann Foundation. The Centre's purpose is to initiate and assist reform in German institutions of Higher Education. The CHE defines itself as a "think tank" and consulting group for Higher Education. As a non-profit organisation, the CHE formulates non-partisan political objectives, develops integrated concepts, and explores existing options for future development through pilot projects in close cooperation with both academic and government institutions. It is important that the Centre is part of the higher education system and strongly connected with the German Rectors' Conference but also has a highly independent status.

Creating transparency about German universities by means of a ranking was one of the major founding tasks of the CHE. After four years of development the first ranking was published in 1998, since 1999 we published it in cooperation with the big German magazine "stern" and since 2004 with the well-known weekly newspaper DIE ZEIT which has a high reputation within the academic community.

Communication

Before presenting the unique selling points of our ranking, let me add some remarks on the communication and publication strategy we have with our media-partner DIE ZEIT. The contract states that CHE alone is responsible for methodology, selection of indicators as well as academic disciplines etc. In other words, all decisions are made by us and cannot be influenced by DIE ZEIT. DIE ZEIT is preparing the information for the

young target group and they work well, as can be seen by the newest cover. This is important because of the possible dichotomy of economic interest and methodological interest. They are thus in our case separated.

The results of our ranking are published in three different ways: A regular issue of the DIE ZEIT, usually in April/May, dedicates its cover story to the publication of the new ranking. A series of articles goes along with this first publication containing some general information on the programmes and ranked disciplines and presenting selected results of the ranking in a more aggregated way. This regular edition of DIE ZEIT is accompanied by a special issue, called “Studienführer” (study guide), which contains the so-called “Ranking kompakt”, i.e. ranking results for five selected and telling indicators. Finally the ranking-website (www.che-ranking.de) provides all available data, which can be selected according to various means of access, and allows for an interactive use of the ranking.

CHE-Principles

Our aim is to provide an informative, fair and valid ranking. So we developed, what I will call CHE-methodological principles, that distinguish CHE-Ranking from most other ranking approaches in the world:

Comparison of disciplines, not universities

The main target group of our ranking are prospective students. They choose – at least in the German and European context - for a specific discipline or programme at a university, rather than for a university as such. Therefore the ranking does not rank whole universities, but strictly refers to a single discipline. This approach is supported by the theoretical argument that universities comprising many disciplines and programmes

are far too complex to be ranked as a unit. In addition empirical evidence suggests that there are great differences in performance between different subjects within a university. A university may be ranked high in physics and at the same time ranked very low in psychology. The information, that this university is ranked in the middle, which inevitably will be the result of ranking the whole university, would not have any relevance to a freshman in physics. For this reason, we only rank single disciplines or subject areas, as you can see on the screenshot from the English version of the internet. This means that we only compare physics at university A to physics at university B, but we do not compare university A as a whole to university B as a whole. We believe that this principle takes into account the diversity we encounter at our universities and Fachhochschulen and which in most cases does not form a coherent picture. Therefore, the 'subject or discipline' is the unity we rank. We started in 1998 with Economics, Business Management and Chemistry. Every year after additional disciplines followed. Since 2002 we have organized a three-year-cycle, thus all subjects areas have been ranked three times with the ranking 2007. In total, in a three year cycle, we are updating 35 disciplines covering about 75 % of all students in 261 universities, two and a half thousand departments, more than 6.000 degree programmes and some 200.000 single data.

No league table but rank groups

Most rankings order universities in league tables with individual rank positions. This approach suggests that each difference in the numeric value of an indicator marks a difference between the entities ranked. This inevitably involves the danger to misinterpret small differences in the numeric value of an indicator in terms of differences in performance or in quality. For example in the 2005 edition of the Times Higher Education

World Ranking the difference between rank 57 and rank 132 is only 8 points on a 100 point scale. In many cases, data are not precise enough to establish clear cut and unambiguous table positions in a reliable way. Or, to put it in statistical terms, such a procedure ignores the existence of standard errors in the data. Instead the CHE-ranking orders universities into three groups: The best universities are ranked into the top group with the colour green, the worst into the bottom group with red colour and the rest is considered to be middle-rate with the colour yellow attached, which can be seen in the screenshot for five selected indicators. Grey points signify: no data. In all our publications, universities are ordered alphabetically within a group.

No overall score, but multidimensional ranking

Moreover, even within a single discipline, the CHE-ranking does not calculate an overall score out of single - and necessarily - weighted indicators. According to research on rankings, there is neither a theoretical nor an empirical basis for such weighting procedures. With regard to the orientation towards the students as our main target group as well as to other groups of stakeholders we have to consider the heterogeneity of decision preferences within the target groups. Some students are looking for a university with high research activities (as measured e.g. by research grants, publications etc.) while other students may look for a smaller university with close contacts between students and teachers, good mentoring and short duration of study. Calculating an overall score means to patronise the target group.

Calculating an overall score furthermore ignores the fact that also within a single subject area universities have different profiles and specific strengths and weaknesses - as I showed you in the last screenshot - that will be overlooked by an overall score. That is why we opted for a multi-

dimensional ranking: We publish a number of indicators which we rank separately one from another in order to give a realistic and differentiated impression of programs and courses. Thus we leave the decision about the relevance of an indicator to the user's individual preference. The internet with its interactive features offered us new opportunities for those individual choices: In the CHE-ranking users can create a personalised ranking by choosing and weighting indicators on their own. We call it "My Ranking".

And by the way: The results of all our rankings and all the data that we have analysed are accessible completely free of charge for everybody in the internet.

Acknowledgments

Meanwhile many famous researchers are ranking the rankings. The CHE approach is always seen very positively: The CHE-University Ranking seems to be unique worldwide in terms of approach and methodology – and as Francois Tavernas stated in a report for the EUA may be probably the best model in the world.

Or as Alex Usher described it, for him it seemed to be brilliant.

Internationalizing CHE-Ranking

In 2004 we started internationalising our ranking: in a first step by including the Austrian universities; in 2005 the Swiss universities followed. Recently we got funding from the EU-Commission for a pilot project to include the Dutch and Flemish universities (and "hogescholen") into the ranking. The EU appreciated our ranking approach as a possible "European alternative to the Shanghai ranking" and that's exactly what we want to be.

Now we pursue two different approaches to internationalisation – or better at first “Europeanisation” of our ranking.

Approach 1: Regional crossborder rankings

The first approach is the extension of our existing ranking to additional countries – that is what we started with. This approach tries to include all universities in the participating countries and a broad range of disciplines and study programmes. I guess it is not useful neither for school leavers nor for governments to include all European countries with more than 4.000 Higher Education Institutions and estimated 250.000 programs into one ranking. Our perspective for a Europe-wide ranking is something like a consortium of regional rankings adopting a comparable approach and method. In this way, users that know one ranking can easily understand the other rankings and get an idea of institutions even without a direct comparison in one ranking. The existing CHE ranking of German, Austrian, Swiss, Dutch and Flemish universities could be the core of such a consortium that could be surrounded by others, e.g. a Nordic Ranking.

Approach 2: CHEmpions League Ranking

A second approach for a broader European ranking would have to define clusters of institutions comparable according to their mission or function or performance in research and teaching. So - in my view - a European classification of higher education institutions, as Frans van Vught presented earlier, would be a good prerequisite for a ranking system in Europe.

So for example we could produce a selective ranking of European top institutions. It would definitely not include universities from all countries

and countries will be represented by different numbers of universities – even if this might be irritating for some European bureaucracies.

And that is exactly, what we started last year, a project that is going to establish a ranking of top European research departments in science. Let's call it CHEmpions League Ranking for today.

The subject areas in this pilot phase will be mathematics, physics, chemistry and biology. To identify the top universities a pre-selection was made mainly based on research performance.

We identified as top level departments in research according to the different subjects

- Biology: 25 departments
- Chemistry: 25 departments
- Physics: 24 departments
- Mathematics: 19 departments
- from 56 universities in 12 countries of Europe.

A most interesting finding is: The majority of universities (33 of 56) are only represented by one subject area, 15 by two areas and only 4 universities are strong in all four sciences. This again is a strong proof for our approach, not to rank whole universities but disciplines.

These are first results from a project in progress, but I am sure you all will be highly interested in the full ranking results which will be published by the end of summer this year.

Summary

To sum up: There is a better approach than the so called Word Rankings:

- choose a strong bottom up approach, focusing on disciplines,

- present a variety of different indicators standing for different perspectives on universities, which are not weighted nor aggregated into an overall score,
- but are given as information for autonomous users to produce their own ranking.

And last but not least, make your methodology as transparent as possible

That's the way future rankings have to go!