

# *Is Stellenbosch one of the Top 500 universities in the world?*

One of the reasons that university rankings are attracting so much attention is the various attempts made to answer questions such as "What is a 'world-class' university?", "Which universities are the best in the world?", "Is the university where I want to study, or to which I want to send my child, or where I studied, or that approached me for a donation, one of the top universities in the world?" The problem is that several institutions are compiling their own university rankings and that their *modi operandi* differ significantly from one another. There is thus no final list of the foremost 200 - or 500 - universities as an objective given, writes Prof Jan Botha, Senior Director: Institutional Research and Planning at Stellenbosch University (SU).

## Rankings by media organisations

Numerous media organisations - such as the Australian Good Universities Guide, the US News and World Report and the Canadian weekly Maclean's - compile rankings.

In the United Kingdom, the daily The Times publishes the Times Higher Education (previously The Times Higher Education Supplement). This supplement published its "World University Rankings" for the first time in 2004. The list is based on five indicators:

1. The opinion of more than a thousand academics from almost 90 countries on the reputations of universities (50%).
2. The percentage of foreign academic personnel (5%).
3. The percentage of foreign students (5%).
4. The lecturer:student ratio (20%).
5. The number of times that research publications by the personnel of an institution are cited by other researchers (20%).

There are, however, indications that, in the reputation surveys, universities bearing the name of a well-known city - such as the University of Melbourne or the University of Cape Town - are ranked more highly than other universities in the same metropolitan area that are also very good - such as Monash University or SU.

## Rankings by academic study groups

University rankings are also compiled by academic study groups, such as the University of Florida's "The Top American Research Universities" and the Swiss Centre for Scientific and Technological Studies' "Champions League of Research Universities".

In Spain, the Cybermetrics Laboratory publishes the "Webometrics Ranking of World Universities", based on the presence of universities on the web. The Centre for Scientific and Technological Studies of the University of Leiden in the Netherlands

compiles a ranking based on publication output included in the Web of Science database. In this database, more than 30-million publications (since 1980) and more than 300-million citations have been included. This is the most comprehensive and reliable database of its kind in the world.

The Postgraduate School in Education at Shanghai Jiao Tong University in China has been publishing the annual "Academic Ranking of World Universities" since 2003. This ranking has popularly become known as the list of top 500 universities. Three South African universities are included in this list - none of which is SU. The list is based on six indicators:

1. Former students who have won a Nobel Prize or Fields Medal for mathematics (10%).
2. Personnel members who have won a Nobel Prize or Fields Medal for mathematics (20%).
3. Researchers whose publications (in 21 fields) have been cited by other researchers (20%).
4. The number of articles published in the journals Nature and Science (20%).
5. The number of articles in the Science Citation Index-expanded and in the Social Science Citation Index (20%).
6. Adjustment for the size of the institution (10%).

## Rankings in perspective

University rankings are highly criticised on various points. These include the choice of indicators, the random way in which weightings are allocated, the formulas (which are frequently adjusted and therefore invalidate any deductions over time), the importance attached to opinion surveys not based on hard data, problems with statistical reliability and

inconsistencies.

In many cases, data that are used are incomplete or unreliable. Experts in the field of scientometrics are also very critical of the problematic *modus operandi* frequently used. Many of the rankings are, in fact, based on pseudo-science. A one-size-fits-all approach does not make sense - universities and contexts differ far too much.

The importance attached by the Chinese lists to Nobel Prize and Fields Medal winners is also contentious. This can be compared with a provincial rugby team that, instead of basing its position in the Currie Cup league on the number of matches that it has won against other provinces, bases its

position on the number of players who have played for the Springboks during that season. Furthermore, attaching so much importance to former students winning

**If one therefore focuses on  
research output and its impact,  
SU ranks among the top 500  
universities in the world.**

Nobel Prizes can also be compared with a provincial rugby team basing its Currie Cup position on former players who have played for the Springboks instead of on the results of the matches played by the team.

However - whether universities like it or not - rankings have become very prominent over the last few years and many people do heed these lists. A university that is not satisfied with its place in a ranking or is not listed in a specific ranking may, of course, be tempted to call the *modus operandi* or rankings themselves into question. It would be human nature: if you don't like the results of a match, blame the rules or the umpire! Or choose the ranking in which your university is ranked more favourably!

## How does SU rank?

According to the University of Leiden's ranking, SU ranked 454th out of the top 500 universities world-wide in terms of international publication output and 415th in terms of the impact of citations from SU scientific publications in 2007. This is one of the most reliable rankings in respect of research but it does not - and rightly so - attempt to rank universities in a comprehensive sense. It therefore does not consider the teaching at universities or community interaction or research funding or popular reputation or any of all the other possible indicators. It is indeed highly complex to express a factor such as

Prof Lee Harvey of the United Kingdom, one of the most respected international experts in quality assurance in higher education, made the following statement on rankings during a presentation at the Annual Forum of the European Association for Institutional Research in September 2008: "What's good about them? They are easy to use. What's bad about them? Most everything else." 

