

## Downsizing and Specialising: The University Model for the 21<sup>st</sup> Century?

*An integrated European Research Area is increasingly becoming a reality. This entails a truly European market for university research and education, giving Europe's citizens greater choice. To accomplish this, universities are being called upon to compete all the more to attract funding and students and to profile themselves. This implies adopting a distinctive competitive strategy. On the basis of available evidence, one can identify two different strategies emerging. Some larger universities try to establish a solid presence in all fields of science, resulting in a greater number of scientific publications with good citation impact scores. Other universities opt for a more focused and specialised strategy, choosing to be active in a more limited number of fields. This results in a somewhat smaller overall number of publications but with often higher than world average citation impact scores.*

### 1. MEMBER STATE PERSPECTIVES: A SNAPSHOT OF RESULTS

Selecting the top national institution at EU Member State level (with the exception of Luxembourg), from the perspective of number of publications, number of citations, and citation impact score, one can discern interesting results. The leading universities of each country are then ranked against each other based on performance in more than 20 disciplines, ranging from clinical medicine to electrical engineering. We can see that University College London comes out on top in both publications (the number of scientific publications produced by the university) and citations (the number of times those scientific publications are cited by other researchers), with Cambridge leading the way in terms of overall university impact scores. This overall university impact score gives an indication of whether a university's scientific publications in leading academic journals are cited more often (or not) than publications in those journals are cited on average.

The top performers by EU Member State					
Top performers in terms of publications		Top performers in terms of citations		Top performers in terms of impact	
Univ. London	85182	Univ. London	550278	Univ. Cambridge	1.55
Univ. Paris 6	22154	Karolinska Inst.	116900	Eindhoven Univ. of Technology	1.40
Univ. Milan	16972	Univ. Paris 6	100372	Tech. Univ. Munich	1.40
Univ. Lund	16341	Leiden Univ.	86682	Univ. Strasbourg 1	1.32
Univ. Munich	16208	Univ. Munich	83477	Univ. Cath. Louvain-la-Neuve	1.30
Katholieke Univ. Leuven	15420	Univ. Milan	81963	Univ. Helsinki	1.29
Univ. Utrecht	14942	Univ. Helsinki	81531	Tech. Univ. Denmark	1.24
Univ. Helsinki	13446	Katholieke Univ. Leuven	68876	Karolinska Inst.	1.22
Univ. Vienna	12485	Univ. Copenhagen	63432	Univ. Dublin	1.16
Univ. Copenhagen	11667	Univ. Vienna	50255	Univ. Padua	1.04
Univ. Barcelona	9678	Univ. Barcelona	33705	Univ. Florence	1.04
Univ. Athens	6609	Natl. Univ. Ireland	14842	Univ. Innsbruck	1.03
Natl. Univ. Ireland	5054	Univ. Athens	13279	Autonomous Univ. Madrid	0.99
Tech. Univ. Lisbon	2638	Univ. Lisbon	6338	Univ. Lisbon	0.88
				Natl. Tech. Univ. Athens	0.88

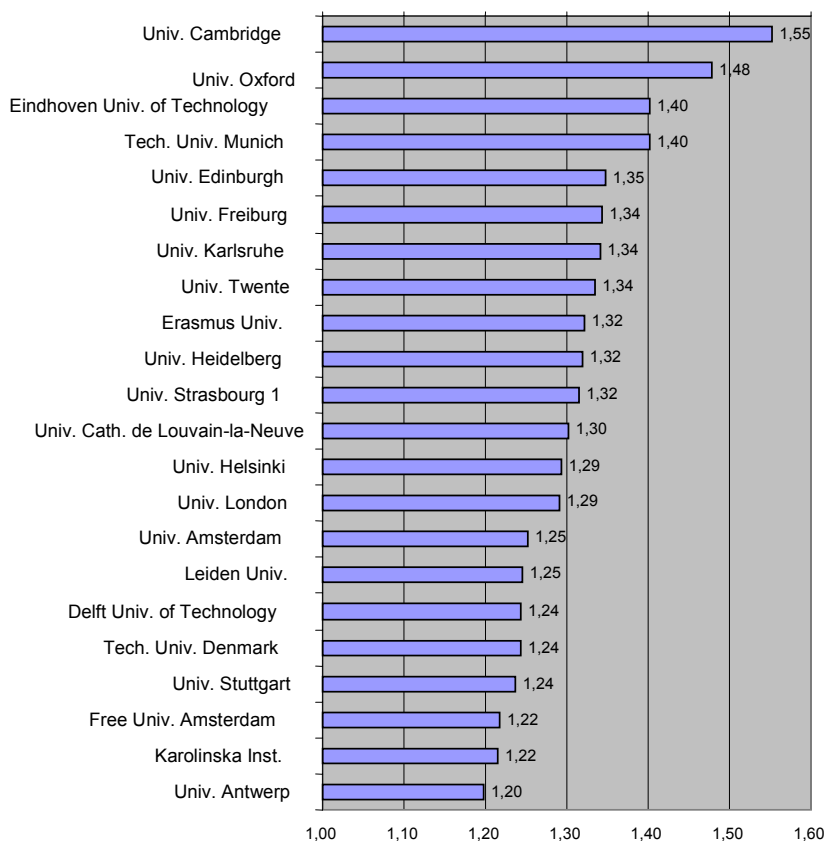
Source Third European Report on S&T Indicators, 2003

Note Publication period: 1993-1997, citation period 1993-1999; citation excluding author's self citations.

## 2. EUROPEAN PERSPECTIVE

In the above tables, the best institution in each country was selected. The below table, however, takes a pan-European perspective and lists all the universities that achieve citation impact scores that rank above the world average. In Europe, there are **22 universities** that accomplish this feat, representing the UK, the Netherlands, Germany, France, Belgium, Finland, Denmark, and Sweden.

### European Universities with the highest impacts



Source Third European Report on S&T Indicators, 2003

??? A complete performance list in terms of publications and citations for several universities per EU country is available upon request from: Michel Claessens  
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