A Question of Tuning

The authors of a study of physics in the European Union plus Sweden and Hungary in the 1980s [*] rightly claimed that scientometric indicators, if properly used, are powerful measures of national research performance. They also spoke of the limitations. Publication activity varies greatly between subfields (theorists, for instance, tend to publish infrequently), so comparisons between subfields of publication counts to measure scientific productivity may lead to the wrong conclusions. Errors are magnified if one introduces the second basic indicator, namely the citation count that estimates quality, because citations represent only one measure of the use of scientific information. Moreover, citation patterns in different subfields vary even more than publication activity.

It is therefore of some concern to hear about reports from east and central Europe that scientometric indicators are being used to offer efficient, finely tuned searches by database operators probably hope that producers of the major classification schemes will collaborate to some extent, notably in “hot” areas such as high-temperature superconductivity and optics.

Finally, it would be unjust not to point out that the survey for the European Union found that Denmark had the highest citation impact from among the 13 countries evaluated, by virtue of excellent citation rates in all subfields except fundamental areas of phenomenology (it was indeed number one in most of the reviewed aspects).

P.G. Boswell