

ISSI2009 Bibliometric Profiling of Participants of the Sixth Framework Programme for Research and Technological Development (FP6) of the European Union

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Introduction

From 2002 to 2006, the Sixth [Framework Programme for research and technological development \(FP6\)](#) stood as the major instrument of the European Union to fund and promote research at a supranational level. It aimed at strengthening the competitiveness of the European and contributing to the creation of the European Research Area (ERA) by improving integration and coordination of research in Europe. With a total budget of 17,88 billion euros, representing about 4 to 5% of the overall expenditure on RTD in the European Member states, the FP6 funded more than 10 000 projects with a total number of participants of 74 400. The evaluation of the European Added Value for such supranational programme remained tricky but it has been showed that it “has helped Europe to amend its capacity to perform internationally competitive research”. This assumption required to assess the impact of the outputs of the Framework Programme participants. Among others, the impact of the scientific outputs can be evaluated using bibliometric. In this study, the international visibility of the publications of FP6 participants was investigated and compared to that of the overall scientists’ community in the same country or field of research.

Data collection and bibliometric evaluation

The Lead scientists were identified through a peer nomination process. The coordinators of Network of Excellence, Integrated Projects and Specific Targeted Research Projects were asked to select Lead scientist(s) as “the person whose name is most likely to appear on published articles resulting directly from the Project”. A database of nearly 2000 Lead scientists was produced and their publications were collected in the Web of Science of Thomson Reuter. The collection was achieved by a semi automatic matching on scientists’ name and affiliations followed by a filtering step. Results were also manually checked to remove most of the homonyms. Over 17 000 Lead scientist publications

were identified in the Web of Science from 2002 and 2006 (0.42% of the annual world publications).

The assessment of the publications visibility of the FP6 Lead scientists was carried out using:

-impact bibliometric indicators: the **Relative observed impact index** (i.e. the ratio of the world share of 2 years citations received by the Lead scientists’ publications and their share of publications), the **Relative expected impact index** (i.e. the ratio of the expected world share of citations received by the Lead scientists’ publications equal to the averaged citations rates of the publications in the same journal and their share of publications) and the **Relative Citation Ratio** (RCR) defined as the ratio of the relative observed impact index and the relative expected impact index ;

-the distribution of FP6 Lead scientists publications by class of citation (the rate of those publications in the most cited publications classes: 1% and 5% most cited articles). Paper layout

Results

Most European countries gather FP6 Lead scientists with a visibility greater than the average of their counterparts in their national scientific community except Portugal. FP6 lead scientists from Germany, Denmark, United Kingdom, Finland, Belgium, Netherlands, Italy and France combine both a significant higher Relative observed impact index, Relative expected impact index and Relative Citation Ratio and Relative than their counterpart. This shows that they are published in higher impact factor journals and received citation rates higher than the average in the same journals. FP6 Lead scientists of most of the thematic priorities of the FP6 have a greater visibility performance than the average of their counterparts in their relevant thematic scientific community.

Table 1. Comparison of the Relative observed impact index, Relative expected impact index and Relative Citation Ratio of the publications of FP6 Lead scientists and overall scientists for the major European countries participating to the FP6 (2006)

2006	Relative observed impact index		Relative expected impact index		Relative Citation Ratio (RCR)	
Country	FP6 Lead Scientists	All Scientists together	FP6 Lead Scientists	All Scientists together	FP6 Lead Scientists	All Scientists together
Germany	1.68	1.15	1.38	1.07	1.21	1.07
United Kingdom	1.96	1.19	1.47	1.16	1.33	1.03
Italy	1.47	0.94	1.19	1.02	1.23	0.92
France	1.84	0.96	1.52	0.96	1.21	1.00
The Netherlands	1.74	1.28	1.54	1.21	1.14	1.06
Spain	0.93	0.84	0.96	0.91	0.97	0.92
Belgium	1.49	1.04	1.15	1.06	1.30	1.04
Denmark	2.12	1.25	1.46	1.12	1.46	1.12
Sweden	1.90	1.13	1.72	1.08	1.10	1.04
Greece	0.58	0.60	0.66	0.70	0.87	0.85
Finland	1.55	0.98	1.41	0.98	1.10	1.00
Portugal	0.65	0.69	0.68	0.75	0.96	0.92

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Besides, FP6 Lead scientists have greater citation performance than the world average in the Top 1% class of citation, which means a high visibility in the class of Excellence. FP6 Lead scientists have citation performance greater than the world average in the top 1% class of citation in all scientific fields (their citation performance is even three times greater than the world average in Applied biology

& Ecology, Earth & Space Sciences and Physics). All but one priority have relatively more Lead scientists in the excellence class of the top 1% more cited world scientists than their counterparts in the overall community, by relevant large field of science.

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