

A Social Epistemology for Scientific Excellence
David Budtz Pedersen, University of Copenhagen

In many ways scientific excellence is a managerial concept used for enhancing performativity and exercising soft power in contemporary knowledge management. Excellence is the criteria used by research councils and foundations to assess grant applications and highlight the most productive and innovative researchers — often based on the assumption that it helps naming and shaming the ones not so productive. But scientific excellence has become such an integral part of contemporary knowledge management and science policy that social epistemologists should start directing their attention to the practices and definitions of research excellence.

Stimulating excellence in science and research has become a key asset for maintaining a leading position in a highly competitive knowledge economy. In recent years, the notion of excellence and its interconnectivity with the capacity to perform research at the highest international level have become exceptionally influential. New instruments for competitive funding as well as new funding bodies (like the European Research Council) have been established in order to stimulate risk-taking and re-thinking of common wisdom. Research excellence initiatives have become a major driver for achieving breakthroughs in basic research, scientific and technological development, as well as in product and service innovation (Krull et al. 2013).

There is widespread consensus among policymakers of the importance to support scientific excellence through special funding, including the provision of large-scale, long-term funding and well-equipped research infrastructures crossing established institutional and disciplinary borders. A recent OECD survey of global research excellence initiatives found 56 different funding schemes across 18 countries. Among the different schemes, five rationales for stimulating scientific excellence could be identified: (i) Improve national competitiveness in science; (ii) create an environment for improved quality of research; (iii) increase the international visibility of national research centers and universities; (iv) recruit talent and early-career scholars; and (v) support resource-intensive research and capacity-building, including interdisciplinary research and collaboration (OECD 2014).

Despite this interest worldwide in promoting scientific excellence through special instruments and funding strategies, a number of critical issues need further clarification and attention. International competition is eroding the national capacity of research institutions to deliver excellence in all disciplinary breadth. There is no substantial commitment to ensure favourable and steady career paths for the young researchers and to facilitate long-term support structures for early-career researchers that allow genuine mobility without risking personal insecurity.

Fostering competition and structural change can create friction and unintended consequences. Competitive research funding means that some fields (i.e. the humanities and social sciences) may be disproportionately disadvantaged while others may experience an overflow of support and investment (Budtz Pedersen and Hendricks 2013). There is a danger of concentrating resources excessively on too few institutions or

research topics without securing complementarity with broader institutional policies and epistemic diversity. Obstacles that may undermine drivers for excellence include international bandwagon effects (“bubbles”); simplistic benchmarking exercises that may counteract renewal and creativity; too short-term perspectives on return on investments; and the potential enforcement of hierarchical structures that may stifle innovation and the proliferation of disruptive ideas.

In short, social epistemologists should be concerned with understanding and deconstructing research excellence initiatives while at the same time contributing to a more coherent framework for promoting basic scientific knowledge. The renewed focus on research excellence, as well as the extensive funding available for excellence initiatives worldwide, promises a shift away from short-term strategic research. Instead a more modest, context-sensitive and long-term epistemology of science policy is evolving taking its point of departure in the actual research practices of frontier scientists.

This reflection is based on the recent meeting of The American Association for the Advancement of Science (AAAS). At the AAAS Annual Meeting in Chicago 14-17 February 2014, David Budtz Pedersen organised the session “Global Excellence” (read more: <https://aaas.confex.com/aaas/2014/webprogram/Session7230.html>).

Contact details: davidp@hum.ku.dk

References

- Budtz Pedersen, D. and Vincent F. Hendricks. “Science Bubbles.” *Philosophy and Technology* 2013. DOI: 10.1007/s13347-013-0142-7.
- Krull, Wilhelm, et al. *Evaluation of The Danish National Research Foundation*. Copenhagen: Danish Ministry of Science, Innovation and Higher Education, 2013.
- Organisation for Economic Cooperation and Development (OECD). *Promoting Research Excellence: New Approaches to Funding*. OECD Publishing: Working Party on Research Institutions and Human Resources, forthcoming 2014. DOI:10.1787/9789264207462-en.