

From our readers

LARGE RESEARCH CONSORTIA NOT THE ANSWER TO EUROPEAN FRAGMENTATION

To the editor—There is an urgent need for Europe to develop an open, flexible and responsive system to foster the best research in an intensely competitive, and fast moving international environment. However, I would like to take issue with the thrust of the arguments put forward by Reiter *et al.* (*Nature Mater.* 2, 67–69; 2003), who advocate large consortia of researchers (up to 500) as an effective means to counter the fragmentation of research resulting from the concentration of funding at a national level. First, the issue of interdisciplinary collaborations (often very fruitful) must be decoupled from the size of the research network. Second, as the authors mention, the Materials Research Science and Engineering Centers (MRSECs) in the US provide a model for establishing physical centres for interdisciplinary research, which should be the focus of any European efforts to address fragmentation of research, and to encourage interdisciplinary work.

The MRSECs work extremely effectively in a competitive environment, not by forcing large numbers of research teams into artificial collaborations, but by bringing together small teams with strong interests in working together. What is needed is a European version of the US National Science Foundation, to which teams can apply for funding for focused research projects, with a minimum of bureaucracy. There is no need to specify in advance that such projects must involve large consortia, although in many cases medium-sized teams may come together to tackle 'visionary' problems. Large research consortia are usually assembled by a combination of 'box ticking' against political and social criteria, and through established collaborations. This is certainly not the open, competitive system needed to hone the best

research, and to ensure that young researchers have the strongest chance to participate. I can think of no other field in which centrally planned large collectives lead to productive work—be it political, academic or commercial.

A more open system will enable collaborations across Europe to develop where they are driven by the ideas and enthusiasms of individual research teams. The best research teams are already reaching out across Europe and establishing links that may be interdisciplinary, or may simply reflect closely related mutual interests, or the need to access particular facilities. This activity is driven from the bottom up, rather than as part of a top-down planned system (to borrow some terminology from nanotechnology). They need a means to support this research that transcends national boundaries.

Reiter *et al.* comment in detail about difficulties in reviewing large consortia, this is hardly surprising—such lumbering beasts are impossible to assess, to co-ordinate or ultimately to evaluate. Experience with a previous European Union network fills me with trepidation about the possibility of even larger collectives, although they can work well on a bi- or tri-lateral basis. It is inevitably the case that some participants will not behave as good team players, and simply continue in the same old line of research, interacting with no-one. By being part of a tangled web of collaboration, this type of game can continue unnoticed. Even when individuals are well motivated, their focus may be lost in a desire to cover too many bases and to include too many fashionable themes. Large consortia will never deliver the highest standard of excellence, which has ultimately to come from creative individuals.

Ian W. Hamley

Department of Chemistry, University of Leeds, Leeds LS2 9JT, UK.

e-mail: I.W.Hamley@chemistry.leeds.ac.uk

nature materials Call for correspondence

Nature Materials would like to give our readers the opportunity to discuss subjects that are of broad interest in the materials science and engineering community. We are therefore pleased to welcome contributions to our Correspondence section. This section will publish letters that can be either linked to primary research articles, editorials, commentaries and News and Views published in *Nature Materials*, or discuss other topics of widespread interest to the community. The emphasis is on brevity (less than 400 words), topicality and widespread interest, and the journal reserves the right to edit letters to highlight the most interesting aspects. References, if absolutely necessary, should be restricted to five or fewer. *Nature Materials* seeks to promote discussion of issues relevant to materials science research and invites insightful, provocative and polemical correspondence.

Correspondence should be addressed to the Editor at materials@nature.com

Please see our website for further details (<http://www.nature.com/naturematerials/authors/types.html>)

