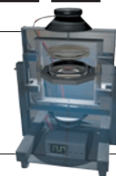


# THIS WEEK

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## Science without borders

*The idea of standardizing science and removing barriers to research mobility across Europe is simple, but putting it into practice has proved more challenging.*

The turn of the millennium was a time of optimistic ideas of change. European heads of state agreed to establish a utopian cross-border system that would allow the free exchange of ideas, technology and, most crucially, researchers themselves.

According to the official timetable, this European Research Area (ERA) should be in place by next year. Fat chance. Writing in this publication last month, Paul Boyle, the president of Science Europe, the Brussels-based organization of research councils, outlined the not inconsiderable obstacles to putting some of the apparently simple changes into practice, and argued that the timetable imposed was much too short (P. Boyle *Nature* **501**, 157–158; 2013).

This week, *Nature* spoke to Robert-Jan Smits, director-general of the research commission of the European Union (EU), which published the 2013 ERA progress report on 20 September. He thinks otherwise: implementation is way overdue. “We’ve been talking about this for 13 years!”

The idea is devilishly simple, but the devil, as always, is in the detail. According to the commission’s plan, each member state should distribute most of its national research funds competitively. Research agencies should allow some funds to be shared across borders to address grand challenges or to build research infrastructures. Recruitment should be open and merit-based. Universities and research institutes should promote gender equality. Information should be open access. The idea is for all countries to have the same standards within which their scientists can thrive, and for all the barriers to research mobility to be removed.

Not all of it is difficult, Smits says. “How hard can it be for a university to put together a gender action plan? Yet fewer than 20% have.” He reels off a list of other failures detailed in the September report. Almost half of researchers surveyed say they are unhappy with the transparency of recruitment procedures at their institutes. In some nations, barely 40% of research funds are distributed through competitive calls (in the most ERA-compliant countries the figure is closer to 80%). Countries have been slow to participate in joint research programmes that pool national money, or to make it easy for all comers to use some European scientific infrastructures.

But as an EU representative, Smits spins positive, listing the improvements that have been achieved and insisting that there is still time for the ERA process to be completed before 2014 ends.

The Nordic countries, Germany and the United Kingdom are doing well in the ERA process. Smits would not be drawn on which countries are doing badly, although it is likely that many of the former communist countries who have joined the EU since 2007 are among them.

Next year, the research commission will bring out the sticks if slow progress continues. It will name and shame non-complying countries, as well as organizations such as Science Europe and the League of European Research Universities that signed up to deliver the ERA to timetable. And if that doesn’t work, as research commissioner Máire Geoghegan-Quinn told European ministers last week, the commission will consider drafting legislation to legally require steps towards

the ERA to be taken — a particularly painful prospect for the world of academia, which likes to be self-governing.

So who is to blame for the ERA being off schedule? The commission is scientists’ favourite whipping boy, but cannot be handed the blame this time. The universities and research organizations must shoulder a large

**“Without raising the potential, the European research base will remain static.”**

share of the responsibility for not putting into practice what they signed up to do. After all, it is these organizations’ scientists who will benefit from all that the ERA stands to offer. But those organizations cannot be held responsible for the genuine difficulties in breaking through endemic corruption in countries such as Romania, which actively operates against

merit and competition (although stands to gain the most from the ERA).

Does it matter if the ERA is not fully in place next year, especially given that the research base is better than it was as a result of the exercise? In the short term, it perhaps does not. Europe will muddle through. In the long term, yes it does. Without raising the potential by spreading world-level excellence from rich countries such as Germany and the United Kingdom to the periphery, the European research base will remain static and will probably be overtaken by growing Asian economies.

The commission is right to keep up the pressure. Europe’s academic community has not found a way to govern itself into a system that gives equal opportunity to all of its scientists. Maybe it never will. It seems that the carrot — a more secure and high-flying future — is not enough. The stick of having rules enforced from above may prove more effective. ■

## Dangerous work

*Behavioural geneticists must tread carefully to prevent their research being misinterpreted.*

Intelligence tests were first devised in the early twentieth century as a way to identify children who needed extra help in school. It was only later that the growing eugenics movement began to promote use of the tests to weed out the less intelligent and eliminate them from society, sparking a debate over the appropriateness of the study of intelligence that carries on to this day. But it was not the research that was problematic: it was the intended use of the results.

As the News Feature on page 26 details, this history is never far from the minds of scientists who work in the most fraught areas of behavioural genetics. Although the ability to investigate the genetic factors that underlie the heritability of traits such as intelligence, violent