

# Thoughts for the new Europe

When I studied history at school, one of the challenges on examination day was to remember all the international treaties that had resolved political situations in Europe. These treaties were usually the consequence of long and bitter wars between neighbours and often re-coloured the political map. Sometimes they solved conflicts, such as the Peace of Westphalia that ended the Thirty Years War in 1648. Sometimes the winning party wrote the rules and merely legalized the preceding land grab, and sometimes they carried the seeds of new conflict, such as the Treaty of Versailles that ended the First World War.

These days, most international treaties are made on the basis of an economic impetus, and it can be difficult to recognize the profound changes they carry with them because they take place peacefully. On 1 May 2004, at the stroke of a pen, 10 new countries joined the existing 15 member states of the European Union. There have been no preceding wars, and the political dividend may be as important as the economic consequences. To put it into perspective, it is akin to the expansion of the USA in the 1800s, when most of the Western states became full members of the Union. The extended period of settlement that followed saw people moving from the East Coast, lured by the promise of gold and land. This migration across the continent and the upheavals it caused ended a long time ago, and the USA is now a strong entity that has enormously benefited from its unity as a nation.

Of course, this editorial's reflections must focus on the scientific consequences of Europe's expansion to the East. EMBO's membership has for many years included scientists from beyond the EU, so we are already familiar with the situation and the state of research in many of the accession countries. From our experience, we feel confident that most of our colleagues in the new member states will not face major difficulties in applying for and receiving EU funding for their research. Within EMBO's

programmes, they have been performing at a level comparable with their colleagues in larger Western countries for many years. Instead, the expected problems are those that are common to all countries that fund science inadequately. This is not a problem only in the East; it is also found in many Mediterranean countries.

The challenge, therefore, is to raise the level of funding for science in all these countries. To do this, there must be a national will to invest in the future of the country, a message that has been well understood in countries that are focusing their efforts on knowledge-based industries. Joining the EU will not change this responsibility for the policy-makers of the accession countries, but it does create new challenges and opportunities. Although these countries have been participating for some years in the EC Framework programmes, they may not have been obvious partners for more westerly located grant applicants. That is one thing that should change; it will be interesting to see if the involvement of these 'new' groups in research will increase. Furthermore, if the EU creates a new investigator-driven grant scheme in the near future—the so-called European Research Council—without any bonus points given for location, the outcome of this direct competition will be another interesting development. I feel that those who believe that there is quality science in only a handful of European institutes will be in for a surprise.

But optimism can lead to complacency and now is not the time for that. Rather, we should consider how to stimulate research in Eastern Europe. One idea I would like to promote is the establishment of new research institutions built on the model of the European Molecular Biology Laboratory (EMBL), one of the world's top research institutes. Excellence is its sole decision-making guide and young scientists are given independence to pursue their ideas. Combined with a strong turnover policy,

these principles have made EMBL a beacon of achievement and a model for others. Its internationalism both in scientists and funding has also contributed to its success. So why not try to repeat this experiment elsewhere, now that the EMBL template has undergone 30 years of refinement? The EMBL Programmes do not cover all fields in the life sciences: an EMBL for neurobiology, an EMBL for microbiology and an EMBL for plant biology could be excellent additions. If these were located in new member states, they could have a double impact. Current EMBL funding could not accommodate such plans, but perhaps this could be funded directly as part of the European Research Area or with some of the structural funds made available to weaker economies.

Another idea might be to establish special funds for scientists who come from a less well-supported environment. The criteria and the wording of such an initiative would be delicate, but an analogy from the sport world might help. Many sports have different leagues with promotion and relegation rules, and teams competing with each other in one league are approximately at the same level. Winning at any level is a stimulus and allows a team to ascend to the next, higher league, whereas constant failure is de-motivating and relegates the team to a lower league. It follows that scientific grant schemes that are judged only by quality but that have some eligibility restrictions may be a useful stimulus for scientists who are competing internationally for the first time.

But such 'league tables' may not be necessary. We will see what happens. In the interim, we should rejoice at the profound changes taking place in Europe. Particularly as the Treaties of Nice, Maastricht, Amsterdam and Rome, which legalized these changes, were neither preceded by war nor do they carry the seeds of armed conflict, but unite Europe in a peaceful way.

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