EMBO reports

editorial

A European Institute of Technology?

Those who try to keep abreast of discussions on the future of science in Europe will have heard the acronym 'EIT': European Institute of Technology. The echo in this term of MIT—the Massachusetts Institute of Technology in Boston, USA—is clearly intentional, given the latter's reputation as one of the world's leading research institutes. As there is no plan at present to describe the goals or actions of the EIT, this promotion strategy is reminiscent of parasite marketing, which accrues credibility by linking to the real thing.

Although it is not yet clear what the EIT will do, its creation within the next few years is almost certain as it has the support of the European Commission (EC). Many other similarly good ideas have fallen by the wayside of reports and committees, but the EIT is different: the idea was presented by the EC President himself, José Manuel Barroso. It seems that this is sufficient to bypass any discussion on whether the EIT is needed and instead to concentrate on how to establish it. The whispered budget is approximately €400 million per annum. This is a small sum compared with each Framework Programme or the annual budget of the US National Institutes of Health. But it is more funding than EMBO has received since it was established more than 40 years ago, so I think it is relevant to look more closely at the EIT to see if it will have a 40-fold greater impact annually.

The basis for creating the EIT is reasonable: Europe must do more to address weaknesses in the 'knowledge triangle' of education, research and innovation, particularly if it wants to become the world's leading knowledge-based economy. The EC's analysis is that the continent suffers from insufficient quality and usability of its research output, gaps between the creation of knowledge and its commercial exploitation, and a general lack of concentration of resources to facilitate interdisciplinary interactions—all of which are central to developing a discovery in the laboratory into a new product or service.

The EIT is supposed to be the solution, but one persistent and unanswered question remains: what will the EIT actually do? Initially, it was suggested as a response to the problem of what to do with the European parliament building in Strasbourg, France, which, at present, is under-used. That idea was quickly quashed and, as one colleague remarked, the EIT became a solution in search of a problem.

The EC then declared that the EIT would not be created at a single site and that it should use existing resources. Then, while many universities and research institutes preened themselves for a role in this scheme, a new surprise emerged: the Commission proposed that the researchers seconded to the EIT would actually remain at their home institute. This is a bizarre idea. How would universities, which are under increasing financial pressure to support their research, hand over their best people to an outside organization and at the same time house them and provide them with expensive infrastructures? One hidden consequence of this proposal is that all those in the EIT would have different contracts, and perhaps different pay, rights to benefits from inventions, teaching workloads and committee work. Although the scheme might not cost the universities extra money, it seems that they would lose intellectual ownership in the broadest sense of the word. The latest word is that this idea of secondment will be shelved—but there will be a new proposal, because the creation of the EIT is certain.

When EMBO was founded in 1964, there was a similar move to promote a new concept: molecular biology. It worked; the EMBO Members remain at their institutions while promoting EMBO's ideals locally and internationally. Maybe this will work for the EIT too, but from our experience, clearly defined goals are necessary.

Rather than concentrating on the difficulties, I will end with a positive suggestion. Looking at the European scientific landscape, we can anticipate an increase in funding for top-class frontier research through the European Research Council. This will generate new knowledge, inevitably creating exciting prospects for commercialization. The EIT would then arrive just in time to ensure that this knowledge is exploited. At a practical level, it could fund the difficult first steps from the laboratory to the clinic. It could structure the economic assessment of the potential research findings and use speculation funds from the European Investment Bank to act as a 'business angel' until the project is safe enough to stand on its own financially. Working from that starting point, the EIT could identify gaps in the development process and help to sub-contract some of this work to appropriate groups or companies in Europe. If there were a consistently weak link in this development process, for instance in medicinal chemistry or animal cell culture, the EIT could create a transitory unit located in whichever institute is best suited to the job.

Maybe it will work; the EIT could become a novel European solution to various structural problems. Or perhaps it will just become a weak compromise to fulfil a short-term political need, without addressing the core problem. It is too soon to say, but the story will continue to evolve in the near future and the outcome will be significant. Anything that might absorb billions of Euros from the European research budget is ultimately of great importance to scientists and to society.

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doi:10.1038/sj.embor.7400738