



EURAB 06.033

## **Second EURAB Opinion on the European Commission proposal for an EIT**

### 1. Background – an evolving "target"

1.1 As part of the mid-term review of the Lisbon strategy, the President of the European Commission, in February 2005, briefly presented the idea of the European Institute of Technology (EIT). EURAB published an opinion on this idea in April 2005.

1.2 In this first opinion<sup>1</sup>, EURAB endorsed the view that efforts should be made to increase the competitiveness of Europe through innovation, stemming from harmonising developments of research with those of higher education. However, EURAB was of the opinion that the most pressing need was to ensure that there would be a substantial increase of funding for the FP and to move ahead with the establishment of the European Research Council. We indicated our doubts about the top-down nature of the EIT idea, which concentrated its efforts on "bricks and mortar" more than content. Any new initiative would have to be complementary to other schemes and work in harmony with them.

1.3. Following extensive consultation, the Commission has produced two Communications addressing the EIT idea. The first of these, *Implementing the renewed partnership for growth and jobs - Developing a knowledge flagship: the European Institute of Technology* (COM (2006) 77), issued on 22 February 2006, proposed the establishment of a new "flagship" for excellence in higher education, research and innovation: the European Institute of Technology (EIT). The European Council held in March 2006, generally supported the proposal and invited the Commission to consult, especially with the Scientific Council of the ERC, and to develop the proposal further.

1.4 Since that time, there has been a further round of consultation undertaken by the Commission with two "stakeholders" meetings convened in April and May 2006. In May, the Commission also issued a Communication addressing the university sector in Europe, *Delivering on the Modernisation Agenda for Universities: Education, Research and Innovation*. This followed on from a previous Communication -*Mobilising the Brainpower of Europe: enabling the universities to make their full contribution to the Lisbon Strategy* - and from discussions on the role of the universities that took place at the informal meeting of the European Council in October 2005.

<sup>1</sup> The first EURAB opinion on the EIT is available at [http://ec.europa.eu/research/eurab/pdf/eurab\\_05\\_021\\_1\\_eit.pdf](http://ec.europa.eu/research/eurab/pdf/eurab_05_021_1_eit.pdf)

1.5. The Commission has now produced a further Communication, *The European Institute of Technology: further steps towards its creation*, issued on 8 June.

1.6. EURAB shares the EC's analysis of the problems in Europe with its "innovation gap", and especially the concerns about deficiencies in the European higher education system, especially fragmentation, under-funding and often being inadequate in responding to the needs of industry and the service sector. Universities do not sufficiently develop and promote an entrepreneurial spirit and concentrate their energies on academic knowledge transfer and on more basic research. EIT is a good opportunity to create an instrument that is currently missing in a European portfolio in order to fill this gap and attempt to create a Europe that is competitive and attractive in world terms.

## 2. General Comments

2.1 EURAB notes the evolution of the initial idea for an EIT since February 2005. The recent Communication acknowledges this movement but retains the title, "EIT", as a working title for the moment. EURAB, similarly, uses this term.

2.2 It is pleased to see that the main concerns, warnings and criticism of original proposal, in the first EURAB opinion, have been taken into account in 8 June Communication. Therefore, it is appropriate that EURAB should provide a second Opinion, in order to react to the current Commission thinking and in order to help "shape" the new instrument being proposed. This further Opinion also draws on previous EURAB advisory work on other closely related topics and relevant recommendations, for example, its reports on technology transfer, regional/structural funds, etc

2.3 From the outset, EURAB has pointed out that the successful implementation of the Lisbon strategy requires the intimate linking of the three pillars of modern economy, namely: education, research and innovation. Every move towards achieving this goal has to be beneficial. However, to fill the innovation gap, other issues are as important as the EIT. In particular, reform of taxation systems, increasing the availability of venture capital in Europe, especially for science and technology based innovation, reforming the intellectual property rights system, reforming the university system, and promoting education in entrepreneurship are all essential for the success of the Lisbon process. An EIT *alone* will not solve the problem but the European Commission initiative is an important contribution to its resolution. If it is to succeed, the EIT will need to have the involvement of and full support from the business community from the outset. The business community needs the output from such an instrument, especially to produce well-trained engineers and researchers who can improve competitiveness.

2.4 In order to succeed, the EIT has to have a clearly defined mission. This must be to provide the institutional framework to act as the cement that connects innovation with research and higher education, the two other parts of the "Knowledge Triangle", to coordinate the required knowledge and talents and to catalyse the EIT "knowledge centres" and their individual partners. In effect, EIT will have a "networking" function. Given the complex nature of the EIT, it is important that experience gained from activities carried out under Articles 169 and 171 of the Treaty and from the Joint Technology Initiatives (JTIs) and European Technology Platforms (ETPs) should be used to guide the EIT. Similarly, the EIT should look at successful "mini-EITs" that already exist between the academic sector and industry and also look to national innovation agencies for advice.

2.5 As an experiment, the EIT system should be subject to independent periodic assessments.

2.6 Our opinion is structured to general follow that of the Commission's latest Communication.

### 3. Structure and Governance

3.1 EURAB is pleased to see that the European Commission recognises that the EIT concept is only one part of a strategy to achieve the Lisbon objectives. It has to work harmoniously with the other instruments at the disposal of the EU, including the Framework programme, the European Research Council, the Competitiveness and Innovation Programme and the use of regional and structural funds. However, it is stated that the EIT is an institution proposed to carry out this task. We advocate that this should be seen not as an "institution" but as an "instrument" to achieve these goals, in line with our first Opinion on the EIT. EURAB is pleased to note that the Commission is proposing a "light" structure with an autonomous Governing Board with limited membership and with the activities centred on the "Knowledge Communities". This is an appropriate way forward. We stress that the independent nature of the Governing Board has to be clearly established and protected.

3.2 We advocate that the ERC experience in determining membership of its Scientific Council (using a high level independent search and selection committee) can provide a template for the EIT. The Governing Board must have at least a 50% industry on both the Selection Committee and the Governing Board. The academic component, which will be in a minority, has to include Research and Technology Organisations (national publicly funded research performing organisations – RTOs) experience that is frequently closer to industry than universities. Ideally, the Board should include people with demonstrated broad experience, not only within their own specific area of expertise but in applying their knowledge and experience. They should act corporately in the interests of the EIT and not as national nor sectoral representatives.

3.3 The Board must operate on the basis of trust – having found the best "team" for Board - then this has to be backed by sufficient resources.

3.4 It is for the Board to establish guiding principles for the Knowledge Communities, and for their funding from EU, without undue rigidity in imposing rules. The Board also has to be responsible for theme selection and for the assessment and support of the Knowledge Communities.

3.5 The Board will need to be accountable to EU, including the Member States, possibly to a supervisory/trustee committee. There is a need to ensure that, in some way, the views of "end users", however defined are taken into account and this may best be achieved through such a supervisory body. Appropriate senior figures should be appointed to EIT Governance to ensure that this takes place. For example, innovation in the medical field may not only improve patient care but could also lower costs for health services. Some end user input should be represented in this process.

#### 4. Knowledge Communities/Innovation Communities

4.1 The key to the success of the EIT initiative lies with the active partnerships that will be created. EURAB believes that Knowledge Communities (KCs), or more appropriately termed Innovation Communities (ICs) - which underlines the innovation objective - are at the core of the EIT proposal. This is not just a cosmetic change of title but serves to emphasise the mission of the EIT to promote innovation.

4.2 In order to harness the benefit of local and regional dynamics for innovation, the KC/ICs need to bring in support from their local regions, drawing on, where appropriate, both national regional funds and also EU regional/structural funds, within the innovation objective to enlarge and develop the KC/IC partnership. Ideally, KC/ICs should involve both universities and RTOs, especially as the latter are frequently closer to strategic and applied research and to industry. There may be a case for considering departments and research groups as KC/IC partners rather than the institutions themselves. Furthermore, regional/local authorities/structures may be involved, as appropriate, in the KC/ICs partnership, especially in relation to regional networks.

4.3 The KC/ICs should either have proven track records within the partnership (e.g. a well known top ranking university) or should be able to demonstrate potential (e.g. a region without current reputation but with the capability).

4.4 The KC/ICs should show potential to generate high-tech and sustainable SMEs (potential start-ups, spin-offs, those with potential for continuing innovation, etc) and this should be one of the aims of these communities.

4.5 The KC/ICs need to have a degree of freedom for self organisation in each KC/IC to reflect the nature of the theme/innovation area and characteristics of the partners. This extends to these partnerships having different time periods, depending on specific themes. It should be noted that some "KC/IC -like" arrangements already exist across and the EIT should build on this experience and adopt successful best practice. Examples include Minetec in Grenoble and, at a European level, the EuroBioFund.

4.6 Each KC/IC within the EIT should have "sunset" clauses for review by Governing Board and close-down options.

#### 5. Staffing

5.1 This has proved to be a contentious issue as a result of the earlier proposals. However, EURAB considers that there should be no prescription as to how the KC/ICs should organise themselves. This is best left to each "community" in order to recognise the characteristics of each theme and each KC/IC and which may show strong variations across Europe as a whole. Normally, one would expect staff to remain within their institution but working within the close networks represented by the KC/ICs and the EIT itself. There are already examples of KC/IC arrangements in Europe that can provide appropriate models, build on this experience and adopt successful best practice.

5.2 The EIT will only need a small and efficient central administration to support the Governing Board and its activities.

## 6. Selection

6.1 While ideas may emerge bottom-up, in our view, one of the keys to the success of the EIT will be in the selection of the Europe-wide topics to be addressed. They will need to be selected top-down by the Governing Board which will need to take into account such criteria as dimension, uniqueness, critical mass, etc. Themes should be European in dimension, high risk, inter- or multi-disciplinary areas needing critical mass to be developed and which also take account of European industrial initiatives and strengths.

6.2 Such themes have to take into account the "innovation demand" (Aho report on "Creating an Innovative Europe" – January 2006). They will also need to clarify the relationship between EIT themes and JTIs and ETPs. The topics being dealt with under these arrangements may be helpful in defining EIT themes and there will be a need to avoid unnecessary duplication.

6.3 It may be advisable to start with limited number of themes and then build up on experience and success rather than start with a "big bang". Ideally, themes should link to key EU policy areas.

6.4 A second aspect of selection is that of the KC/ICs which has to be based on open competition with assessment of excellence and other criteria relating to potential and innovation ("Peer and Merit Review") as well as being at the "cutting edge" of research. This is the essential bottom-up part of the process.

## 7. Degrees

7.1 Postgraduate education is the primary concern of the EIT and the KC/ICs. This has to be coupled with training in areas of entrepreneurship (in order to develop the right culture and spirit). Experience of such training already exists at a variety of levels in some Member States e.g. there is a competition for entrepreneurship at both pre-graduate and post-graduate level in the life sciences in the UK.

7.2 All the partners in KC/ICs should be responsible for education (industry has to play its part) with academic partners responsible for degree awarding. It is difficult to see how the EIT structure itself can be a degree-awarding entity with the correct quality control. Ideally, each KC/IC should have at least one strong academic partner, the degrees of which are recognized in all Member States (or better, worldwide). This partner should (by contract) set up one or several study programmes in the area of the KC/IC and provide options, that students from the KC/IC may achieve an academic degree from that institution.

7.3 EURAB recognises the difficulty of setting up and awarding degrees across frontiers and institutions (even in one country). The Bologna Process addresses this but progress is necessarily slow. The EIT may be able to provide some "extra-territoriality" which can provide test bed for new models for common degrees/recognition and which can assist the Bologna Process for European universities.

7.4 The key role for the Governing Board will be to develop policies across the KC/ICs for education and training and in providing a European dimension.

## 8. Other Issues

8.1 IPR is a complex issue and involves custom and practice in particular economic sectors in terms of IP exploitation. Ownership and revenue generation/sharing have to be formalised within the KC/IC but its form should be left to the KC/ICs' stakeholders (self-organisation). Ideally, these should remain within the KC/IC to be established in a real self-sustaining and long-term partnership.

## 9. Funding and Links to other EU programmes

9.1 We are pleased to see that the EIT initiative will receive "new" resources from outside existing programmes, including the recently agreed Competitiveness and Innovation Programme (CIP), ERASMUS and other relevant programmes. This is important. It should not draw from FP7 or other relevant programmes. However, we see no problem for KC/ICs or their constituent partners applying to such programmes for support for linked activity but without any preference compared to other applicants.

9.2 It should be noted that the academic part of the KC/ICs will be funded from various national and regional sources. Additional funding from these sources will be needed to develop the KC/ICs and a dialogue between the EIT structure and national funding agencies will be necessary.

9.3 However, for the EIT to succeed it not only needs to have a light "guiding hand" from the Governing Board to encourage the KC/ICs to develop freely but it also has to be able to deploy sufficient financial resources to incentivise the system and to make the EIT instrument attractive for all the partners.

## 10. Future Advice

10.1 Given the nature of the EIT, a balanced partnership between academics and industrialists is a prerequisite for success for its success. EURAB is composed of such a balance (half the members originate from the academic sector – both universities and RTOs – and half from the industrial sector – both multinational companies and SMEs), which represents a high knowledge level, working at a European level and with experience of and links to national systems. We believe that we represent an important example of the academic/industrial partnership in action and we take the liberty to offer our continuing advice to the Commission in the development of the EIT.

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