

Fraunhofer, RISE, TNO and VTT Response to EC Consultation on the European Institute of Innovation and Technology Interim Evaluation

25 November 2016

As part of an independent external evaluation of the EIT launched by the European Commission (DG EAC) covering the period January 2011 until December 2015, a public consultation to collect the views of stakeholders was launched. This paper represents the [Fraunhofer](#), [RISE](#), [TNO](#), [VTT](#), joint response to this consultation.

The EIT was launched as an innovative tool to address the 'European paradox', defined in 1995 as Europe's limited capacity to turn research results into commercial opportunities. It was set to be an EU-level model and flagship for managing innovation. As described in the 2016 EIT [report](#) by the European Court of Auditors: "the EIT aims to bridge the gap between research-focused universities and market-oriented companies".

Research and Technology Organisations (RTOs) occupy nodal positions within innovation ecosystems, bringing together key players across the whole innovation chain, from fundamental to technological research, from product and process development to prototyping and demonstration, and on to full-scale implementation in the public and private sectors. This makes RTOs natural and critical stakeholders within the EIT KICs. The KICs' mission is a perfect match to RTOs' mission as RTOs focus on business applications and closer to market activities.

RTOs are present in all KICs where they play various roles being active in a wide range of KICs' activities. They have contributed significantly to the development of the existing KICs especially during the start-up phase (activation of different actors, consortia building, proposal writing, etc.). Innovation projects are most often the focus of RTOs, where they take the role of innovation partner providing technology solutions, technical development support, technology demonstration and verification services, etc. Business creation (e.g spin-offs) and education (e.g. professional, PHD hosting, etc.) are also part of RTOs activities within the KICs.

In April 2016, the European Court of Auditors (ECA) issued a special report in which it claimed that the EIT should modify its delivery mechanisms in order to achieve the expected impact. Fraunhofer, RISE, TNO, VTT agreed with some of ECA's conclusions and are happy to answer to this consultation in order to ensure further impact creation by the KICs. Being strong supporter of the EIT KICs, Fraunhofer, RISE, TNO, VTT are glad to put forward practical recommendations in 4 areas where its member active in the KICs see the great potential for further impact creation.

Area 1: Optimizing KICs Performance

To start with, the KICs should be recognized as an heterogeneous group: there are clear differences between the existing KICs. First, taking some time to start, the InnoEnergy and the Climate KIC are now performing well, with a stronger focus on the higher TRLs and business creation. They both have shown a fast bottom-up response to changing conditions. They are active at a strategic level and generate several real innovations at product level. Second, the Digital KIC has now significant issues to scale up results after its successful first years. Discussions seem to be centered especially on the Intellectual Property Rights (IPR) aspects, such as the ownership of the results and the financial support. Third, EIT Health and EIT Raw Materials had a good start. It is at present too early for a real assessment of their results. Accordingly, looking at KICs' performance will require adapting the valuation to the different stage of development of each KIC.

However, using experiences so far, recommendations can be put forward to optimize KICs' performance as follows:

- The many lessons learned by the first-established KICs should be transferred to the new KICs in a more organized fashioned while ensuring: 1) streamlined administrative procedures for all KICs and 2) the programmatic autonomy of each KIC.
- The differences between the performances of the KICs should be further analyzed. The KICs addressing Societal Challenges seem to perform better in integrating education, research and business development than the Digital KIC which is more related to the Industrial Leadership Pillar of H2020. This should be one way to look at what new topics are best suited for the KIC instrument (however, it should not be the only way).
- New KICs need time to become effective. Decisions on the funding mechanism should take this into consideration and funding could be differentiated over the years to adapt to the KICs' maturity need.
- The sustainability rationale needs to be revisited. Sustainability needs reinvestments from companies upfront and revolving funds (pay back mechanism, see also point 2) from companies applying the research results. Sufficient and continuous public investment in the EIT KICs will keep to be an essential part of their sustainability.

Area 2: Stronger Focus on Higher TRLs Needed & Require Additional Support Mechanisms

Experience within the existing KICs has shown that the focus on higher Technology Readiness Levels (TRLs) has stimulated KICs' business creation. However, the creation of seamless innovation chains from education, research, via applied research to business, is a complex task. It needs entrepreneurship capacity as well as the right supporting mechanisms coming in at the right moment in order to successfully manage the risks.

In order to stimulate further business creation by the various KICs, a broader range of mechanisms could be considered besides the creation of start-ups:

- For example, more effective technology transfer to existing (large and small) companies is important. In this context, the creation (and access to) of innovation hubs/filed labs could be further emphasized. RTOs play a key role in such developments and could be further utilized in this respect.
- Another example for the EIT Health, a mechanism could be created in order to facilitate the performance of clinical trials, which is in line with this KIC's goals and require considerable support by industry partners and close collaboration among actors.
- Revolving funds (i.e. risk free loans which are returned when the new product is brought successfully to the market) as a tool that could be further looked at for part of the KICs' activities.
- In addition, stronger links between KICs newly created businesses and the KICs could be promoted: the KIC's network are a source of potential customers for those new businesses as well as will provide them access to the latest technologies over time.

Area 3: Reducing the Administrative Burden & Revising the Financial Set-up

The administrative work load required by the KICs is considerable. This significantly discourages new comers, especially if they do not play (yet) a major role in the KIC. A continuous effort to simplify the administrative processes is strongly needed.

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In regards to the control processes: a certain level of freedom-to-act is needed to improve effectiveness. Currently, several KICs work with stage gate methodology which creates a higher level of quality and which should be further respected. The EIT can be more effective in focusing on lessons learned from different KICs, focus on synergies with other programmes and the identification of new opportunities.

In regards to the complementary funding requirement, which could also be abolished: there is currently no leverage effect as also stated in the Court of Auditors' 2016 EIT report. In addition, the requirement that funding be awarded for one year at a time should also be abolished because it inhibits planning activities and collaborations over the medium to long. The approach and funding models should be as close as possible to the H2020 models; it is not well-founded to have a new funding model for every KIC. In other words, commonly well-known and established funding and reporting mechanisms, tools and practices should be applied to serve the EIT KIC administration purposes.

Area 4: Enhancing KICs Integrated Approach

Integrated approach is a key asset for the KICs. Partners active in different parts of the innovation chain work together (triple helix) by bringing a variety of expertise and know-how. Stronger relations can optimize the whole innovation chain in a KIC. In order to further stimulate this aspect a number of recommendations can be outlined:

- Partners should work closely together around a common focus which should be innovation and when new ideas are created and roadmaps are drafted. A KIC should be active to exchange experiences and stimulate further cooperation with running programmes of the partners. For example, KIC personnel and partner organisations can exchange information to achieve powerful roadmaps with a clear European basis and a relevant connection to key businesses.
- Links between parts of Horizon 2020 and the KICs should be strengthened. There are different instruments within H2020 for enhancing cooperation in Europe. Currently, the relation between KICs and other instruments is relatively small.
- Experiments with models that allow for more flexibility in project performance, e.g. output based projects and partner flexibility in running projects, are needed.
- A cross-KIC infrastructure to exploit full synergy potential should be stimulated. Advantages of this cross infrastructure are mainly expected for (professional) education, access to finance capital and start-up support.
- A realistic set of output-based KPIs that give an overview of the impact in the areas of technology/knowledge transfer and business creation should be further identified. The definition of the KPIs needs careful consideration to avoid room for interpretation and to make it possible to compare the performance of the individual KICs.