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on the Interim evaluation of the European Institute of Innovation and Technology (EIT)

{SWD(2017) 352 final}

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Glossary

Term or acronym	*Meaning or definition*
CEO	Chief Executive Officer
CLC	Co-Location Centre
COO	Chief Operating Officer
cPPP	Contractual Public-Private Partnership
DG EAC	Directorate-General Education and Culture
ECA	European Court of Auditors
EFSI	European Fund for Strategic Investments
EIT RIS	EIT Regional Innovation Scheme
EIT	European Institute of Innovation and Technology
ESIF	European Structural and Investment Fund
HORIZON 2020	Horizon 2020
HEI	Higher Education Institution
HLG	High Level Group
IPR	Intellectual Property Right
KAVA	KIC Added Value Activities
KCA	KIC Complementary Activities
KIC	Knowledge and Innovation Community
KPI	Key Performance Indicator
KTI	Knowledge Triangle Integration
MOOC	Massive open online course

MS	Member States
OPC	Open Public Consultation
PCT	Patent Cooperation Treaty
ROI agreements	Return on Investment agreements
S3	Smart Specialisation Strategy
SIA	Strategic Innovation Agenda
SME	Small and Medium-sized Enterprise
SNA	Social Network Analysis
TRL	Technology Readiness Level

1. INTRODUCTION

PURPOSE

This Staff Working Document (SWD) presents the results of the interim evaluation of the European Institute of Innovation and Technology (EIT). It is based on an independent evaluation report prepared by external experts, as well as on other sources of evidence, inter alia the Commissioner Navracsics' HLG report[1] and the ECA performance report[2]. Goal of the evaluation is to assess the work of the EIT as identified in the EIT Regulation and Horizon 2020 Regulation, and, in particular, examine how the EIT fulfils its mission. The evaluation focused on the work of the EIT, while taking into account the fact that the EIT primarily operates via the Knowledge and Innovation Communities (KICs).

The SWD summarises the main results of the evaluation and provides the Commission with evidence and data for designing the EIT's future activities and initiatives, including the next Strategic Innovation Agenda (SIA) of the EIT as well as assessing whether there is a need for a possible amendment of the EIT regulation. The SWD is based on an independent evaluation report prepared by external experts. The results of the evaluation cover the EIT review[3] as set out in the Horizon 2020 regulation and contribute to the Horizon 2020 mid-term evaluation, due by the end of 2017.

More broadly, this evaluation, also contributes to improving the work of the EIT and its KICs. The Governing Board of the EIT will take due account of the findings of the evaluations in the future programmes and operations of the EIT.

The evaluation results will also serve to inform the Member States, the innovation community (including research, higher education and business members of the community), the general public and other stakeholders about the performance of the EIT and its achievements.

A follow up action plan will be drawn up by the European Commission identifying the appropriate actions needed to put into practice the lessons learned and will feed the evaluation findings into the next steps of the decision-making cycle.

In accordance with the Commission's Better Regulation Guidelines, the evaluation exercise was structured around the following evaluation criteria:

- **Relevance:** assessment of whether the EIT model as originally designed remains relevant;
- **Effectiveness:** assessment of the effectiveness of the EIT model and the extent to which the EIT has delivered against its objectives, as set out in supporting EU Regulations;
- **Coherence:** how well or not the EIT works with other EU and national initiatives in the field of innovation;
- **EU added value:** assessment of the value resulting from EIT activities that is additional to the value that would have resulted from other initiatives at a national level.

[1] https://ec.europa.eu/education/sites/education/files/eit-hlg-final-report_en.pdf

[2] http://www.eca.europa.eu/Lists/ECADocuments/SR16_04/SR_EIT_EN.pdf

[3] Art. 32 of the Regulation No 1291/2013 establishing Horizon 2020 indicates that, by the 31st December 2017, the Commission shall carry out, with the assistance of independent experts selected on the basis of a transparent process, a review of the EIT, taking into account the evaluation provided for in Article 16 of the Regulation No 294/2008 establishing the EIT.

- **Efficiency:** assessment of the relationship between the resources used and the changes generated by the EIT´s work.

In addition, a sixth criterion was included, in order to assess the evidence on the EIT impact:

- **Impact:** assessment of the EIT's impact on innovation (including system-level impact), competitiveness and societal challenges, and whether the EIT has influenced policy design at EU and national level;

SCOPE

The evaluation covered the activities of EIT and KICs in the period 2011-2015, though evidence for the years 2010 and 2016 was included in the analysis whenever evidence was available and added value to the study. The evaluation took into account the specific EIT objectives associated with the Horizon 2020 Regulation that entered into force in December 2013. The evaluation covered the entire geographical scope of the EIT and its KICs' activities.

2. BACKGROUND TO THE EUROPEAN INSTITUTE OF INNOVATION AND TECHNOLOGY (EIT)

DESCRIPTION OF THE EIT AND ITS OBJECTIVES

The European Union established the European Institute of Innovation and Technology (EIT) in 2008 and entrusted this body with a challenge of high societal importance, i.e. to develop and implement a new approach to innovation and entrepreneurship based on the concept of Knowledge Triangle Integration. This is a systemic interaction of education, research and business, with the overriding objective of increasing sustainable growth and competitiveness in Europe by reinforcing the EU's innovation capacity.

At the time of its establishment, and as subsequently confirmed by the Horizon 2020 Impact Assessment and the 2011 EIT Impact Assessment, Europe was facing structural weaknesses in terms of innovation capacity and its ability to convert outputs from research into high value products and services, thereby hampering sustainable economic growth and job creation. Chief structural weaknesses in the EU's innovation capacity, identified at the time, were as follows:

- poor record in Europe with regards to attraction and retention of talent,
- under-exploitation of existing research strengths in terms of creating economic and/or social value,
- poor record of research results brought to the market,
- low levels of entrepreneurial mind-set and activity,
- low leverage of private investment in R&D;
- an insufficient scale of resources, including human resources, in poles of excellence to compete globally;
- an excessive number of barriers to collaboration within the knowledge triangle of higher education, research and business at a cross-border level.

Table 2.1 - Complementarity between underlying drivers of Horizon 2020 and EIT SIA

Drivers in HORIZON 2020 impact assessment	Drivers in EIT impact assessment
• Insufficient contribution of research and innovation to tackling societal challenges; • Insufficient technological leadership and innovation capability of firms; • The need to strengthen the science base; • Insufficient cross-border coordination.	• Poor record of developing, attracting and retaining talented individuals; • Fragmented innovation system; • Underutilisation of existing research strengths in terms of realising economic or social value; • Low levels of entrepreneurial activity.

Source: EIT Impact Assessment, October 2011

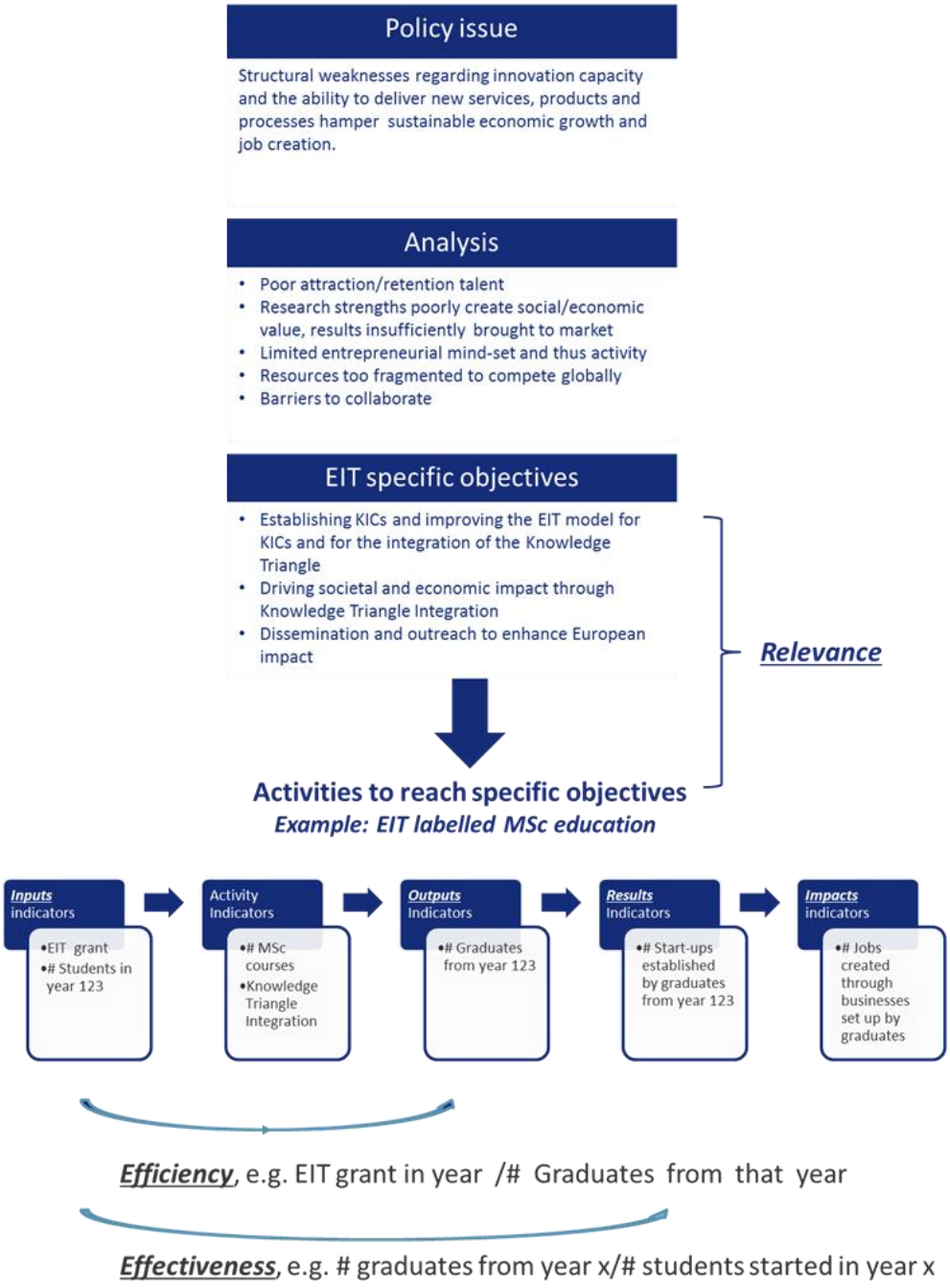
In order to tackle the abovementioned weaknesses, the EIT was given the main objective of contributing to the development of the Union's and the Member States' innovation capacity. By involving higher education, research and business activities of the highest standards, the EIT was geared to facilitate and enhance networking and co-operation, as well as to create synergies between innovation communities in Europe. The EIT was designed to achieve this goal primarily through its Knowledge and Innovation

Communities (KICs), the large-scale European partnerships that focus on specific societal challenges.

Central to the EIT are the concepts of the Knowledge Triangle and Knowledge Triangle Integration. The Knowledge Triangle is a set of partners with different backgrounds, e.g. industries, SMEs, higher education institutes, research establishments, NGO's and public bodies that work in the field of research, education and business in the innovation process. Knowledge Triangle Integration is the coordinated process by which the EIT and its Knowledge and Innovation Communities (KICs) stimulate close, effective links between research, education and innovation and inspire, facilitate and empower people with a diversity of skills and competences, to deliver new products, services and business models. This includes equipping students with the skills to become entrepreneurs, create start-ups and accelerate the scaling-up of ventures.

Figure 2.1 describes the EIT intervention logic and related framework for the performance monitoring.

Figure 2.1 - The EIT intervention logic



The specific and operational objectives underlying the activities of the EIT and its KICs are summarised in Table 2.2. Objectives are clustered into three main categories.

Table 2.2 – EIT Specific objectives[4]

Specific Objectives	Operational Details
Establishing KICs and improving the EIT model for KICs and for Knowledge Triangle Integration	Implement the integration of the knowledge triangle of higher education, research and business. Establish and grow KICs addressing identified societal challenges. Achieve European wide impact through synergies facilitated by an innovative funding model. Apply the principle of continuous quality improvement to the EIT model for KICs and for Knowledge Triangle Integration.
Driving societal and economic impact through Knowledge Triangle Integration	Transfer and apply higher education, research and innovation activities for new business creation. Conduct cutting-edge and innovation-driven research in areas of key economic and societal interest. Nurture entrepreneurial people through entrepreneurship education and training. Contribute to combatting societal challenges.
Dissemination and outreach to enhance European impact	Disseminate good practices and share knowledge and things learnt. Link regional development to European opportunities. Contribute to Europe's global competitiveness.

Each KIC is organised around a small number of co-location centres (CLCs) which are intended to act as geographical hubs for the practical integration of the knowledge triangle. The CLCs have substantial autonomy and involve partners from research, education, business and, in some cases, from local authorities. They are organised and structured according to their respective national and regional innovation context. The CLCs build on the existing labs, offices or campuses of a KICs' core partners. They bring together, at a local or regional level, the education, research and industry partnerships of the KIC, thereby allowing a face-to-face contact and geographical proximity.

Each KIC (in conjunction with its CLCs) develops and delivers a portfolio of activities in the following areas:

- **Research/ Innovation projects**: the KICs link universities/ research institutes and business through their innovation project portfolios. Innovation projects comprise demonstrators, pilots[5], proofs of concept etc. All innovation projects have to develop clearly identified products that address a specific business opportunity that is supported by a thorough market analysis.

- **Education**: a set of post-graduate (MSc/ PhD) programmes and executive/ professional development courses that involve a multidisciplinary approach, significant business involvement in the development of learning outcomes and, often, cross-border mobility.

[4] Those objectives derive from the EIT legal basis (Regulation No 1292/2013 of the European Parliament and of the Council of 11 December 2013 amending Regulation No 294/2008) and H2020 legal basis (Regulation No 1291/2013 of the European Parliament and of the Council of 11 December 2013).

[5] See as an example, the EOLOS system, developed with the support of EIT InnoEnergy: http://www.innoenergy.com/innovationproject/our-innovation-projects/neptune/

- **Business Creation and support activities:** a range of business support services, often labelled as a start-up accelerator scheme, to help entrepreneurs translate their ideas into successful businesses. These services focus on areas such as support for technology, market assessment, access to human resources and, last but not least, seed and venture capital through specific KIC innovation funds.

Additionally, the KICs and CLCs engage in a range of outreach, communication and dissemination activities such as events, promotional material and networking. More recently, the EIT has developed the EIT Regional Innovation Scheme (RIS) which is a structured outreach scheme supporting Knowledge Triangle Integration and increasing the innovation capacity in areas and regions of Europe that do not benefit directly from the KICs and their CLCs.

Each KIC builds upon and creates new ecosystems, tackling the fragmentation and duplication of efforts across borders, to generate critical mass, enhance and strengthen collaboration, optimise the use of human, financial and physical resources, and attract talented individuals from all over the world.

In the period covered by the present mid-term evaluation, the following KICs have been established:

- Climate Change (Climate-KIC, established in 2010)
- Energy (EIT InnoEnergy, established in 2010)
- Digital (EIT Digital, established in 2010)
- Health (EIT Health, established in 2015)
- Raw Materials (EIT Raw Materials, established in 2015)

A further KIC in the area of food (EIT Food) was designated in late 2016.

BASELINE AND POINTS OF COMPARISON

The first external evaluation of the EIT was completed in May 2011[6]. At the time, outputs and results for the KICs were not yet available, owing to the fact that they only started their operations during the course of 2010.

The evaluation found that the EIT has succeeded in reaching its milestones, notably: the appointment of the Governing Board, the launching of the competition for the first KICs and their selection, the establishment of the first three KICs, the completion of the EIT-KICs contractual arrangements and the preparatory work for the establishment of additional KICs. The processes to achieve those milestones had their own difficulties, in particular related to the establishment of the KICs as legal entities: the complexity and the hurdles to be overcome have been underestimated in the planning phase. The area where progress was slower than expected was in the signing of EIT-KICs contracts (i.e. Framework Partnership Agreements and Annual Grant Agreements). However, the original timetable was considered by the evaluators very ambitious, while the time taken was considered as reasonable and seen as a significant achievement,

[6] https://ec.europa.eu/education/sites/education/files/european-institute-innovation-technology-evaluation-2011_en.pdf

The evaluation also highlighted that the concept of Knowledge Triangle Integration was regarded as highly relevant by those interviewed for the study, as well as the priority sectors around which the EIT was structured.

The evaluation also endorsed the EIT model and structure, and encouraged the gradual increase of KICs, subject to a broad consultation on the themes to be tackled. At the time, only a few challenges emerged from the analysis, namely in terms of governance and operational procedures (e.g. coherence of approach between the European Commission and the EIT). It should be noted that it was during the course of 2010 that the EIT Headquarters were gradually established, at which time the roles and responsibilities for operational functions began to be transferred from DG EAC to the EIT staff and the operational procedures for the EIT-KICs interactions were tested in practice. Furthermore, in the same period, the KICs had to tackle all the issues related to the establishment of their legal entities. Nevertheless, the results of the evaluation proved very useful in spotting the key challenges in the EIT-KICs grant negotiation process and in implementing the EIT agency services in general.

3. IMPLEMENTATION / STATE OF PLAY

Expenditures

Under Horizon 2020, the EIT manages a budget of EUR 2.4 billion for the period of 2014-2020, reduced from EUR 2.7 billion following the set-up of the European Fund for Strategic Investments (EFSI)[7].

Grants to EIT KICs are allocated annually in a competitive manner on the basis of business plans and performance reports that are reviewed by the EIT and external experts. KIC business plans describe the implementation of the seven-year KICs' strategy and the planned portfolio of KIC activities for a particular period, detailing targets, deliverables and key performance indicators for each KIC's added value activity.

The EIT applies a funding model whereby the EIT's financial contribution does not exceed 25% (on average[8]) of a KIC's overall resources over the KIC's lifetime. A KIC should attract further funding beyond their partners' own revenues and resources, such as private and/or public funding at national, regional and EU level. The EIT's financial contribution to the KIC is provided in the form of a grant for action. The EIT funding rate for the specific grant may be up to 100% of the total eligible costs of KIC added-value activities (KAVA)[9]. The EIT incentivises[10] KICs to co-finance the KAVAs through other resources, supporting them on their way to financial sustainability. Other KIC activities not financed by the EIT grant, known as KIC complementary activities (KCA), must contribute to the implementation of the KIC's strategy. Such activities must be linked with added-value activities to increase impact. The KCAs deriving from national/regional sources provide evidence about the alignment between EIT funded activities (KAVA) and national/regional programmes[11]. As the amount of KIC activities grow, these complementary activities are a means of triggering further alignment between MS local programmes and KIC activities.

Figure 3.1 shows the evolution of the value of the KAVAs and KCAs, as well as of the EIT and KICs´ co-funding of KAVA activities.

[7] http://www.eib.org/efsi/index.htm

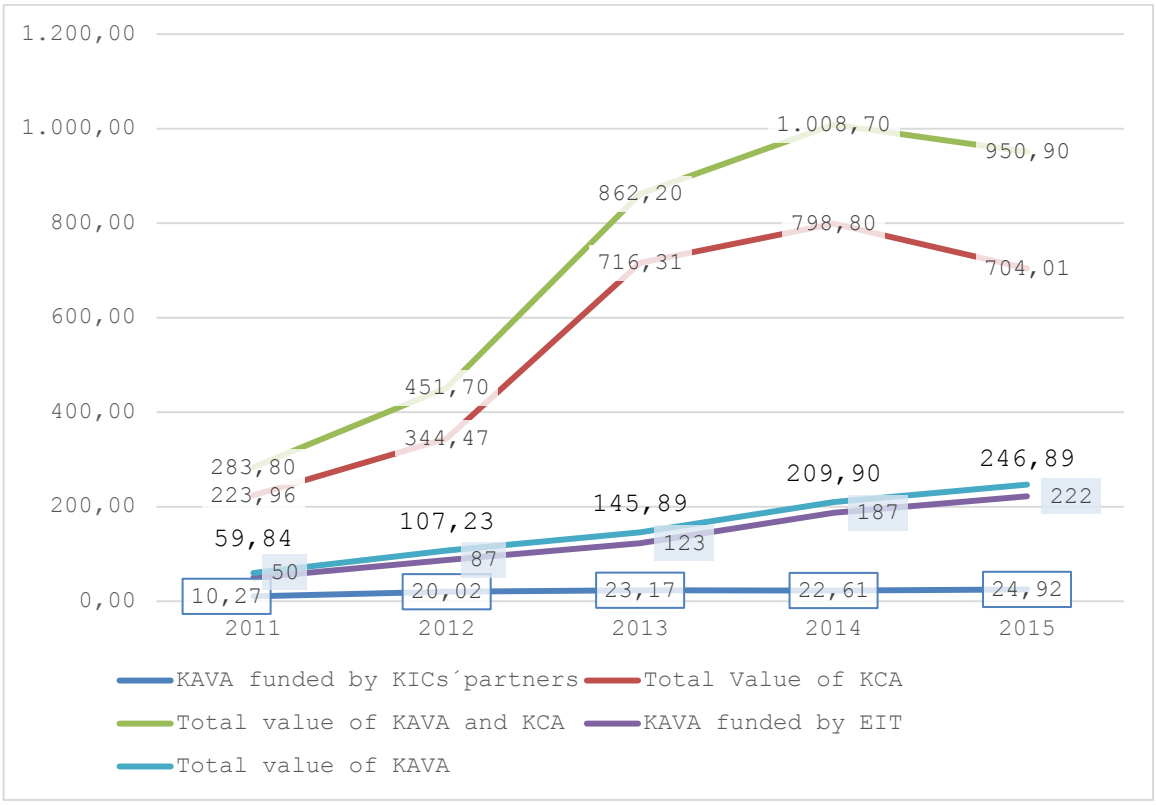
[8] Throughout the up to 15 years period of EIT funding to a KIC, the EIT funding does not cover, on average, more than 25% of a KIC's overall budget.

[9] KIC added-value activities (KAVA) consist in those activities that contribute to the integration of the knowledge triangle and the overall objectives of the EIT, including the establishment, administrative and coordination activities of the KICs.

[10] Progress of the KICs in implementing their Financial sustainability strategies are continuously monitored by the EIT and duly taken into account in the past-performance review for the award of the KIC's annual budget.

[11] On the matter please note that the Lamy report (Lamy P. & al., 2017, LAB – FAB – APP - Investing in the European future we want, Report of the Independent High Level Group on Maximising the Impact of EU Research and Innovation Programmes) include a recommendation on the need to better align EU and national R&I investment.

Figure 3.1 – Funding of KAVA and KCA[12]



Source: EIT. Data are in million EUR.

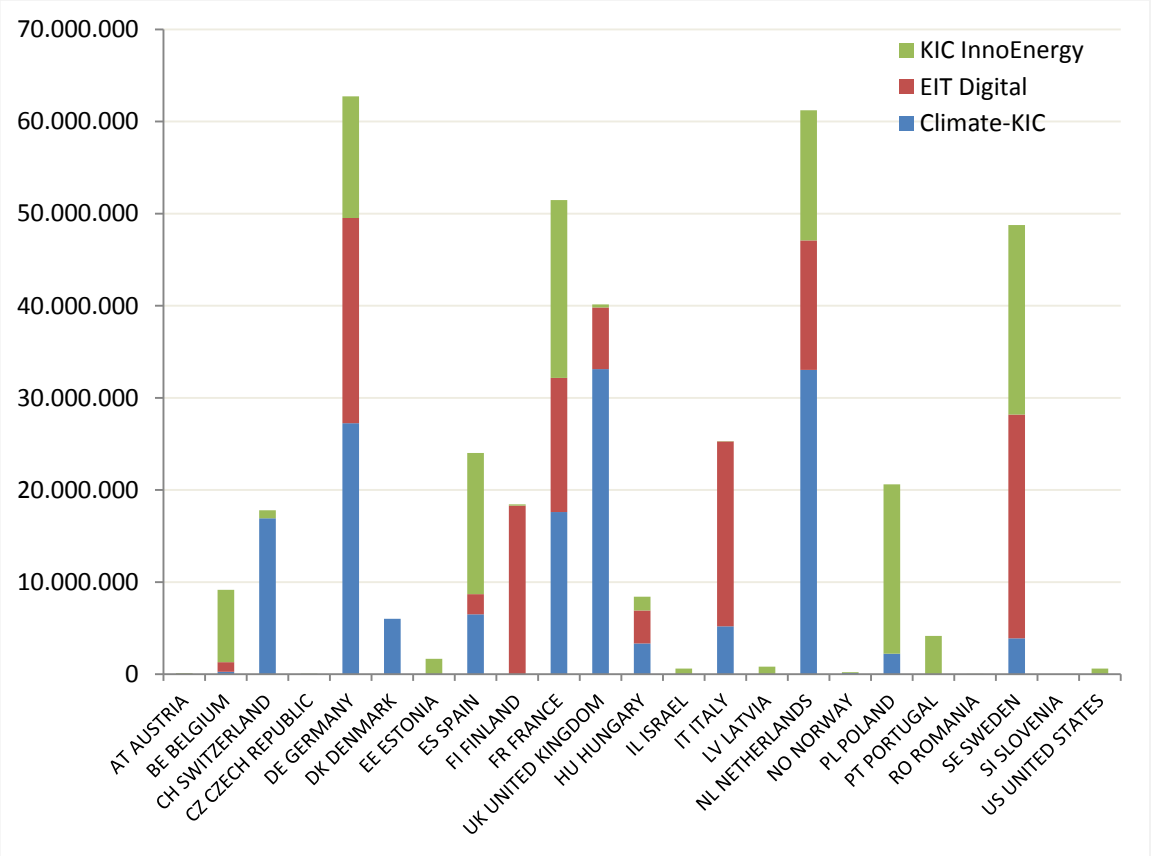
About 31% of the overall 2014-2020 budget has been spent between 2014-2016. The use of the financial resources is proceeding according to the planning and expenditure of the KICs and increasing as the second-wave of KICs ramp-up their activities and the new KICs become operational.

The following tables show the breakdown of the EIT grants (in absolute and relative terms) per country[13]. Germany, the Netherlands, France, Sweden and the UK received the largest share of EIT grants in 2014 and 2015. In the same period, EU-13 countries received a share of 7.8% of the EIT grants.

[12] Figures from 2011 to 2014 refers only to the funds granted to the first wave KICs (Climate, InnoEnergy and Digital), while 2014 and 2015 include also EIT Health and EIT Raw Materials.

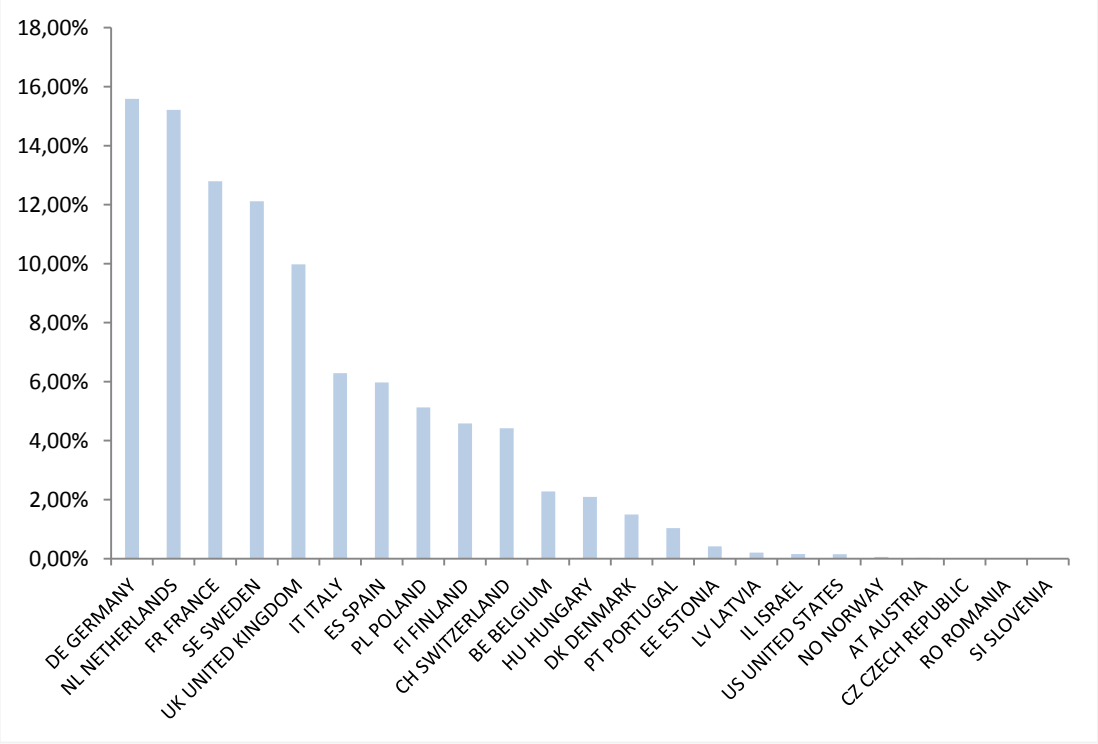
[13] Up to 2015 the EIT applied a mono-beneficiary approach, where the KIC represented by the KIC Legal Entity was considered as the beneficiary of the funds, having the responsibility to distribute funding further to KIC partners in line with internal rules. In the first years of operation, until 2013, reporting requirements were not sufficiently standardised across KICs and the reporting process was not supported by adequate IT systems, therefore no reliable data is available in terms of distribution of funds per country for the period 2010-2013.

Table 3.1 - Breakdown of the EIT grants per country (2014+2015) – in EUR



Source: EIT.

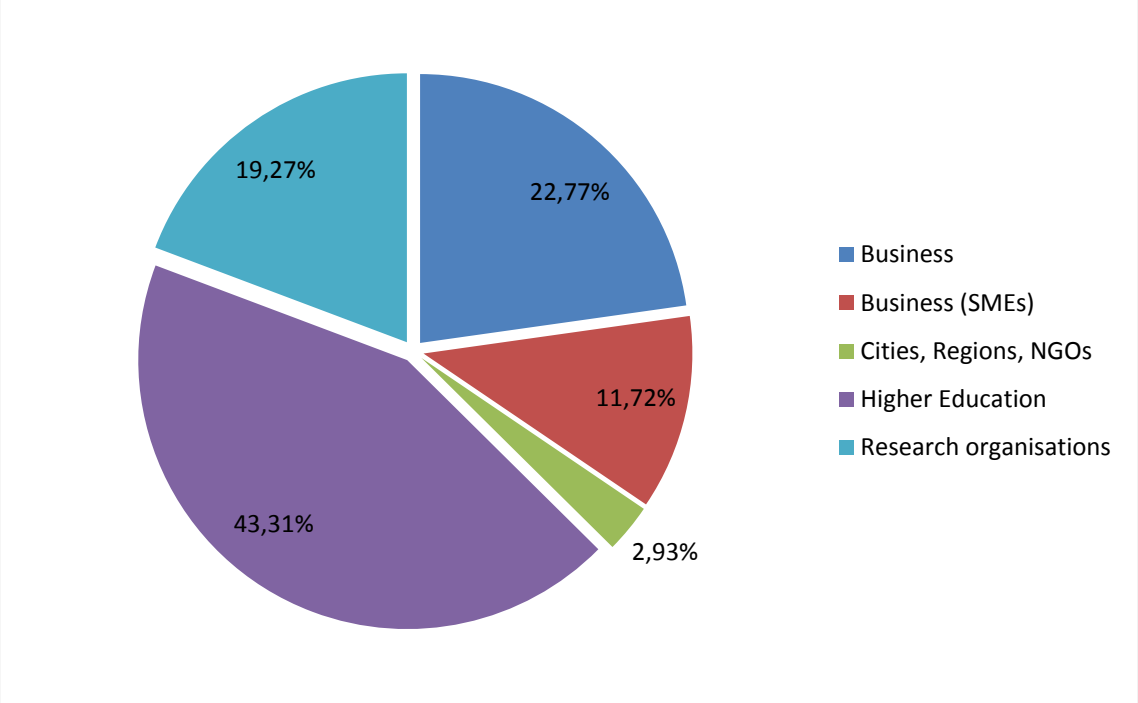
Table 3.2 - Breakdown of total EIT grants per country (2014+2015) – in %



Source: EIT.

The following figure shows the breakdown of the EIT funding according to type of beneficiary. The highest share of grants went to HEI – Higher Education Institutions (43%), while industry accounts for a total of 34% (12% of the EIT funding went to SMEs). KIC partnerships include other types of beneficiaries, in particular local administrations like cities and regions, and NGOs – Non-Governmental Organisations (they benefit all in all from around 3% of the EIT grants).

Figure 3.2 - Breakdown of the EIT funding per type of beneficiary (2014+2015) – in %



Source: EIT.

Table 3.3 shows the annual administrative costs for running the EIT. Figures concern the amounts allocated to three different expenditure items (staff, infrastructure and operating expenditure, other operational expenditure). The table also shows the incidence of the administrative expenditure on the total annual EIT funding to KICs (KICs grants).

Table 3.3 - EIT administrative costs

	2011	2012	2013	2014	2015	*2011-2015*
Title 1 - Staff Expenditure	659,353	1,321,505	1,995,894	2,200,696	2,216,916	*8,394,364*
Title 2 - Infrastructure and operating expenditure	850,319	893,720	790,676	1,051,002	807,497	*4,393,214*
Title 3 - Other operational expenditure (excluding KICs´ grants)	850,186	922,011	2,162,800	2,782,614	2,874,715	*9,592,326*
Total Administrative expenditure	3,019,343	4,430,450	5,573,140	6,503,396	6,048,826	*25,575,156*
KICs´ Grants	20,192,778	89,818,473	131,380,708	213,982,609	243,171,061	*698,545,628*
Ratio Administrative expenditure / KICs´ Grants	15.0%	4.9%	4.2%	3.0%	2.5%	*3.7%*
Ratio Administrative expenditure / Total expenditure	13.0%	4.7%	4.1%	2.9%	2.4%	3.5%

Source: EIT.

EIT has considerably improved the efficiency of its operations in the course of the years. For instance, the time-to-grant (i.e. the time between the submission of the yearly Business Plan by a KIC and the signature of the grant agreement) has been steadily decreasing (the average value is now 154 days).

Table 3.4 – Time-to-grant (*in days*)

TTG	**2014**	**2015**	**2016**	**2017**
EIT Climate KIC	140	279	212	193
EIT Digital	135	244	216	144
EIT Innoenergy	151	244	188	146
EIT Raw Materials			87	145
EIT Health			87	144
Average time-to-grant	**142**	**256**	**158**	**154**

Source: EIT.

KICs´ financial sustainability

The EIT Regulation sets out a financial sustainability obligation for both the KICs and, to a lesser extent, for the EIT. The EIT Governing Board also adopted the Principles of the KICs' Financial Sustainability[14], according to which each KIC must develop and implement a strategy for its financial sustainability and report its progress to the EIT on an annual basis. According to the EIT Strategic Innovation Agenda 2014-20206[15], KICs will not be fully financially independent from the EIT during their first years of operation, they will be encouraged to become sustainable in the medium-term i.e. gradually reduce their dependency from EIT funding for their further consolidation and further expansion. In particular, the EIT funding to a KIC over a 15 years period follows a bell-shape pattern: an increase, a peak, a plateau and a decrease to a minimum level. To this aim, it is key that KICs put in place strategies aiming at gradually reducing their dependence from the EIT funding.

Within their strategies, KICs identified a number of sources of funding and tracked the progress of each of them vis-à-vis their annual targets. First-wave KICs currently have more ambitious targets and their strategies are at a more advanced stage of development and implementation.

The main sources of income identified so far by the KICs are: membership fees, sponsorships, educational services, revenue sharing agreements, equity participation, consulting services, third party (mainly national and regional) grants. In parallel, each KIC requires partners to contribute to the co-funding of KAVAs. So far, external revenues mostly originate from membership fees within the KICs´ financial sustainability strategies.

Climate KIC strategy is currently focused on funding sources which better fit with its current organisational design: non-EIT grants, sponsorships, educational services. Opportunities have been identified in the field of services and consulting for public procurement (e.g. participation in joint consortia bids with businesses) and private sector (e.g. in the field of climate-related staff training). In the course of 2017, the KIC will also explore further options, like ROI agreements and equity participation in the supported ventures.

KIC InnoEnergy' strategy put strong emphasis on revenues coming from its activities in start-up support and innovation (up to 40% of KIC's resources are expected to come from this source in the future): these sources include equity stakes in start-ups, as well as ROI agreements with innovation project consortia and the income derived from the sale of market creator projects. So far the KIC has a portfolio of 153 ventures, which raised so far more than 70 million EUR. Participations are actively monitored in view of their liquidation (which usually requires a number of years to take place, depending on the maturity of the venture, the sector it operates, the market it serves etc.).

EIT Digital, apart from equity and ROI agreements, emphasises the contributions to KIC´s budget that will derive from education activities (including professional training) and the resources that its decentralised structure (CLCs) will be able to attract from

14 https://eit.europa.eu/sites/default/files/EIT%20GB%20Decision%20on%20principles%20on%20KIC%20Financial%20Substainability.pdf

15 Decision No 1312/2013/EU of the European Parliament and of the Council of 11 December 2013 on the Strategic Innovation Agenda of the European Institute of Innovation and Technology (EIT): the contribution of the EIT to a more innovative Europe.

public and private (national and regional) sources (the latter should cover up to 40% of the KIC's financial needs in the future).

It is still too early to draw conclusions on the KICs´ capacity to achieve financial sustainability. Each KIC identified key sources of external funding and put in place a strategy aiming at pursuing the targeted goals. Income from external sources takes time to materialise and is difficult to forecast, especially in the case of highly specialised services or illiquid assets (like equity participations and revenue-sharing agreements). EIT carefully monitors the progress of KICs in implementing their financial strategies.

Monitoring system and KPIs

The EIT monitors the KICs´ multiannual strategy and the KICs´ portfolio of activities in order to[16]:

- ensure the alignment of KIC strategies with the EIT mission and objectives and ascertain that the strategies produce the desired results and impact;
- ensure that the EIT and KICs implement their activities, deliver outputs and spend budgets according to agreed plans or adjust plans in a timely manner where necessary;
- verify that the EIT and KICs respect the basic principles of all applicable EU legislation, including principles of good governance and sound financial management;
- enable continuous quality improvement and adequate risk management;
- assess and improve the KIC model with a focus on Knowledge Triangle Integration;
- retrieve information on KICs´ impact and EU added value and related good practices to be shared with external stakeholders.

Within its monitoring approach, the EIT's Performance Measurement System pioneered a system to track performance and support a result-oriented monitoring of the implementation of the EIT's strategy. It consists of four levels, reflecting the multi-layered governance of the EIT:

- *The Horizon 2020 perspective*: the provision of information on the EIT's contribution to Horizon 2020 objectives
- *The EIT perspective*: the monitoring and assessment of the operational and organisational efficiency and effectiveness of the EIT and of outputs, results and impacts of EIT specific activities, i.e. dissemination, outreach and improvements of the EIT KIC model.
- *The Cross-KIC perspective (Core KPIs)*: standardised information on key elements of KICs including outputs, results, impact, operational efficiency and effectiveness, and aspects such as the degree of Knowledge Triangle Integration. This information is used, among others, to inform annual decisions about the allocation of funds to KICs and in the EIT Community's communication of its results to external stakeholders.
- *The KIC perspective (KIC-specific KPIs)*: KICs monitor and assess operational and organisational efficiency and effectiveness, their outputs, results and impact.

[16] The EIT has adopted a new monitoring strategy in December 2015: http://ec.europa.eu/research/participants/data/ref/h2020/other/guides_for_applicants/h2020-principles-fme-kic-eit_en.pdf

The data for these analyses is collected by the EIT through a multidimensional toolbox. This includes the KIC annual business plan reports, Key Performance Indicators (KPIs), monitoring and topical reviews.

Table 3.5 shows targets and values achieved for the cross-KIC level indicators (core KPIs) monitored by the EIT. The figures concern the outputs and results of the three first wave KICs (EIT Digital, EIT Climate and KIC InnoEnergy), over the period 2010-2015. As already mentioned, each KIC also has a set of KIC-specific KPIs that – as the core KPIs- are annually tracked, reported and audited. Green/red shading shows target achieved/not achieved. In 2016, in order to better measure outcomes and impacts, the EIT undertook a review of its arrangements for tracking performance. From 2017 onwards, the KICs will report against a revised set of core KPIs that have been designed to better monitor outputs, results and impact.

Figures show that around 60% of the targets have been achieved by KICs in the period 2013-2015. All the 3 KICs show progress in their performances, in particular as regards the growth in the number of graduates and start-ups created (the exception is the number of start-ups created by EIT Digital, as the KIC has been focusing more and more in recent times on the support to scale-ups). The innovation pillar is the most satisfactory in the terms of performance improvement: in fact, the 2 concerned indicators (# knowledge transfers/adoptions and # new/improved products/services/processes launched) are those that had the most marked growth.

Table 3.5 - Overview of performance of first-wave KICs against core KPI targets (2010-2015)

(Green/red shading shows target achieved/not achieved)

	2010-2012	2013		2014		2015	
EIT Climate-KIC	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Attractiveness of Education Programmes[17]	0.8	0.0	20.1	0.0	4.2	1.4	3.9
# new graduates	17	20	42	50	46	123	117
# business ideas incubated	72	100	133	98	216	225	276
# start-ups/spin-offs created	1	45	33	71	48	83	38
# knowledge transfers/adoptions	15	15	67	70	82	109	82
# new/improved products/services/processes launched	6	30	44	20	39	118	52
EIT Digital	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Attractiveness of Education Programmes	0	3.0	3.1	2.8	2.7	5.9	4.1
# new graduates	0	0	0	70	74	165	146
# business ideas incubated	32	90	93	218	169	134	174
# start-ups/spin-offs created	9	18	10	35	21	14	8
# knowledge transfers/adoptions	24	75	48	163	123	123	193
# new/improved products/services/processes launched	6	30	2	34	20	26	24
EIT InnoEnergy	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Attractiveness of Education Programmes	6.7	0.0	2.1	0.0	3.4	7.4	6.1
# new graduates	28	120	98	149	121	145	132
# business ideas incubated	76	59	39	98	58	54	91
# start-ups/spin-offs created	8	10	14	15	21	19	23
# knowledge transfers/adoptions	2	5	9	10	80	16	53
# new/improved products/services/processes launched	0	9	3	15	12	8	16

Source: EIT independent evaluation report 2017, with data sourced from EIT and KICs.

[17] Applicants per offered seat for education programmes.

4. METHOD

SHORT DESCRIPTION OF THE METHODOLOGY

The independent interim evaluation[18] was carried out by a consortium composed of two consultancies (ICF and Technopolis) and coordinated by Unit C.1 of the Commission's Directorate-General for Education, Youth, Sport and Culture (DG EAC), with the support of an Inter-Service Group comprised of other Commission services. The interim evaluation was conducted between September 2015 and July 2017 and was based on recognised evaluation methods and techniques of data collection and analysis. The results of the evaluation are based on the triangulation of a wide range of data sources as follows:

- *Desk research:* an analysis was conducted by unit C.1 of DG EAC and by the consultancies of the studies, reports and other documents produced by the EIT and the wider stakeholders. Notable in particular were the Special Report produced by the European Court of Auditors (2016), the Report by Commissioner Navracsics' High Level Group on the EIT (2016) and the EIT's own reviews of the KICs' performance in start-ups creation and in education.
- *An online open public consultation* (OPC): launched with the purpose of gathering information and opinions from a wide spectrum of stakeholders on the effectiveness, efficiency, relevance, coherence and added-value of the activities of the EIT and KICs. A total of 159 questionnaires were submitted; in addition, 12 submissions on paper were sent to the Commission, and analysed together with the evaluation team.
- *Online surveys of partners, graduates and businesses*: three separate online surveys have been conducted by the external evaluation team to collect evidence from KIC partners (past and present, core and associate / affiliate), graduates of EIT-label courses and businesses that had participated in KIC accelerator/business support schemes. The purpose of these surveys was to gather evidence from the individuals and organisations that had benefited from KIC support across the knowledge triangle (innovation, education and entrepreneurship), as well as, in the case of the partners, organisations that had insights into the design and delivery of the KICs.
- *Social network analysis (SNA)*: the purpose of the SNA, performed by the external evaluation team, was to assess the impact the EIT and its activities had on strengthening the EU ecosystem in the KIC fields of research and innovation, thus reducing fragmentation. Data has been gathered from the Community Research and Development Information Service (CORDIS); they refer to FP7 and Horizon 2020 calls for proposals (up to the 2015 calls).
- *Research with policy-makers and at the EIT headquarters*: purpose of this activity was to understand the rationale, governance and evolution of the EIT and its mandate, processes and procedures. Interviews run by the external evaluation team with key staff at the European Commission and the EIT headquarters addressed issues like: alignment of EIT vision with the needs of the current EU innovation system; EIT decision-making processes; EIT brand.
- *KIC-level research*: it consisted of a mix of qualitative and quantitative research (run by the evaluation team, with the support of DG EAC) on five KICs: the three first-wave KICs (EIT InnoEnergy, EIT Climate-KIC, EIT Digital), plus the two second-wave KICs (EIT Health and EIT Raw Materials). The purpose of this KIC-level

[18] Evaluation of the European Institute of Innovation and Technology (EIT), final report, 2017.

research was to establish a comprehensive evidence base of the KICs´ effectiveness and impact, and to analyse their added value in comparison with national initiatives. The following activities have been undertaken:

  - Desk research: a review of documentary material on the KICs, including Business Plans; performance reports, including KPIs; independent assessments of KICs;
  - In-depth semi-structured interviews: they targeted key KIC representatives from the Board and management (COO, CEO, Directors of education, innovation, entrepreneurship), EIT project officers, CLC team members, key partners, and regional/national stakeholders.
  - Study visits to CLCs: two CLCs (part of EIT Digital and EIT Climate-KIC) in Berlin were visited by a member of the study team. Interviews took place with CLC managers and a selection of partners/beneficiaries (e.g. businesses that received support from the CLCs).
  - Case studies: 9 (3 for each first-wave KIC) case studies were designed to analyse key aspects of the KICs´ operations. Each case study consisted of between 2-4 interviews with key stakeholders (project leads, partners, beneficiaries), together with a review of project documentation and evaluative evidence.

- *Patent landscaping case studies*: two case studies (based on businesses supported by the KICs) were designed to analyse the patenting activities stemming from KICs activities and the way these affect the impact and take-up of KICs´ results. Qualitative and quantitative analysis was performed by the CambridgeIP consultancy on industry patenting activities, on companies´ patent portfolios, and on their use of specific assets under scrutiny.
- *Comparative analysis with national programmes and initiatives*: aim of the exercise was to identify initiatives broadly comparable to the EIT, in order to provide evidence of EIT added value, as well as its effectiveness, impact and efficiency. A set of eight national innovation support initiatives were identified: they all operated on the fundamental principle of integrating at least two of the three vertices of the knowledge triangle, though none of them explicitly make use of the knowledge triangle concept in their delivery model.
- *Consultation workshop*: it was run by DG EAC and the external evaluation team right after the completion of the data collection phase in order to discuss and reflect upon the emerging, 'headline' findings of the evaluation on the following issues:
  - The role and contribution of the EIT in strengthening EU innovation capacity through Knowledge Triangle Integration;
  - EIT in EU innovation landscape: relevance, coherence and EU added value of the EIT.

  Workshop participants involved Member State representatives, industry, research organisations and academia, as well as Commission officials and EIT staff.

LIMITATIONS AND ROBUSTNESS OF FINDINGS

In order to ensure a reliable analysis, a number of measures have been taken in gathering, processing, analysing and interpreting the data:

- Surveys have been run in order to ensure an adequate representation of the whole stakeholder population;
- Conclusions have been based on triangulation of evidence from various data sources. All evaluation results have been systematically checked against input from stakeholders;
- Stakeholders' background was duly considered during the analysis in order to assess how this might have affected their responses;
- Analysis of the findings took into account multiple hypotheses, which have been individually tested in order to identify the best, most plausible explanations;
- Gaps in data availability have been identified and signalled;
- Where evidence was limited in corroborating a finding, this was taken into account in assessing the robustness of the analysis;
- External experts have been involved in the independent analysis and validation of the reasoning and related conclusions.

The main limitations concerned the availability and quality of the gathered data. In particular:

- Beyond the six core KPIs collected for the EIT as a whole, there are gaps and inconsistencies between KICs as regards KIC-specific KPIs. Information is available for some KICs but not for others. Consequently, there are missing data concerning some non-core KPIs, therefore, the evaluation could not present an aggregate picture of the overall results for the KICs.
- Some data did not allow for a consistent comparison between KICs. This is the case for expenditure data: the different categorisations used by KICs did not permit for the disaggregation of costs in a consistent manner for the different strands (innovation, entrepreneurship, education), allowing for a detailed cross-KIC analysis.
- Response rate to the partner survey was around 20-30% (with the exception of Climate KIC partners, which had a response rate of around 50%), which can be regarded as acceptable but not satisfactory. Due to the fact that the OPC took place in parallel with the partner survey, some partners might have opted to respond to the former, thus leading to a lower response rate than expected.
- Despite the good response rate, respondents to the OPC were self-selected, therefore cannot be considered representative of the stakeholder's population. A wider (and targeted) consultation of stakeholders not involved in KIC operations would have increased the amount of robust evidence available.
- The identification of good evidence to show impact was a challenging exercise. Innovation efforts take time to demonstrate their effect and impact, even though first wave KICS have been fully operational since 2013. In particular, the patent landscaping analysis provided a limited contribution in inferring the impact stemming from KICs innovation activities. Further and broader analysis is required, therefore, to better capture the short term, as well as longer term, impact of KIC activities.

Finally, a further limitation is related to the lack of suitable benchmarks for comparative analysis. The evaluation team found no other EU or Member State innovation scheme which brings together education, business, research and other stakeholders to work jointly on creating innovation. As already stated above, they identified a set of eight national innovation support initiatives across the world that are broadly similar to the EIT, though none of them explicitly make use of the knowledge triangle concept in their delivery model.

5. ANALYSIS AND ANSWERS TO THE EVALUATION QUESTIONS

RELEVANCE

Two main aspects have been analysed under this criteria, (1) the relevance of EIT objectives to tackle the innovation gap and (2) the relevance of the EIT innovation model.

The independent evaluation confirmed that **the rationale behind the establishment of the EIT and KICs is still valid.** In particular, the networked model of the EIT, aiming at contributing to the development of the Community and the Member States' innovation capacity through the integration of the Knowledge Triangle (higher education, research and innovation) is still relevant for closing the innovation gap between the EU and key competitors. According to the EU Innovation Scoreboard 2016, despite an encouraging performance over recent years, EU MS' still lag behind other major economies (USA, Japan, South Korea) in terms of innovation performance, particularly in terms of business activity (measured by R&D expenditures in the business sector), collaborative public-private knowledge creation - especially in societal challenges (measured by co-publications and PCT patents) - and educational attainment (i.e. share of population having completed tertiary education). These results indicate that further efforts are still needed to bridge the innovation gap between the EU and relevant peers.

The EIT tackles a number of obstacles hampering innovation in the EU. Multiple data sources confirm that the objectives of the EIT, including the integration of education, research and business, are relevant for overcoming the main barriers to innovation in the EU[19]. Among the main structural weaknesses addressed by the EIT and reported by stakeholders is the lack of an entrepreneurial culture, the low level of cooperation between academia and industry and poor attraction/retention of talent.

The EIT has objectives in line with Horizon 2020 priorities and goals and showed flexibility in addressing additional objectives which reflect a number of policy developments in the years following EIT´s establishment. The EIT has objectives related to innovation capacity and changing mind-set, while contributing at the same time to the societal challenge objective, as well as to the industrial leadership one, by stimulating the start-up and scale-up of promising innovative ventures. In particular, KICs have structured their activity lines along 'sub-themes' centred on specific societal challenges that they have identified. Table 5.1 provides an overview of the challenges being tackled and the related KICs´ activity lines.

[19] 66% of the respondents to a survey run by the European Court of Auditors (ECA), 67% of the respondents in the EIT Evaluation Open Public Consultation, and 66% of respondents in the Open Public Consultation on the Start-up and Scale-up Initiative.

Table 5.1 Overview of the societal missions of the KICs

KIC	Societal mission / goal	KIC Activity lines
EIT InnoEnergy	Pioneering change in sustainable energy	▪ Clean coal and gas technologies ▪ Energy storage ▪ Energy efficiency ▪ Energy from chemical fuels ▪ Renewable energies ▪ Smart and efficient buildings and cities ▪ Smart electric grid ▪ Nuclear instrumentation
EIT Climate-KIC	Build a zero carbon economy and climate resilient society	▪ Urban Transitions ▪ Sustainable Production Systems ▪ Decision Metrics and finance ▪ Sustainable Land Use
EIT Digital	Driving Europe's digital transformation	▪ Digital Industry ▪ Digital Wellbeing ▪ Digital Cities ▪ Digital Infrastructure
EIT Health	Promoting entrepreneurship and innovation in healthy living and active ageing	▪ Promote healthy living ▪ Support active ageing ▪ Improve healthcare
EIT Raw Materials	A cost-efficient, secure, sustainable supply and use of raw materials	▪ Exploration and raw materials resource assessment ▪ Mining in challenging environments ▪ Increased resource efficiency in mineral and metallurgical processes ▪ Recycling and material chain optimisation for End-of-Life products ▪ Substitution of critical and toxic materials in products and for optimised performance ▪ Design of products and services for the circular economy

Source: ICF review of KIC Business Plans

At the same time, the EIT promoted activities aimed at widening the participation in Horizon 2020 of those countries where innovation capacity is moderate or modest. In particular, the EIT Regional Innovation Scheme (EIT RIS)[20] was set up to help disseminate the knowledge and know-how of the EIT Community and broaden participation in the KICs' across Europe.

Evidence collected through an Open Public Consultation (OPC) shows that, among the most relevant aspects of the EIT objectives, the following ones scored the highest: the creation of EU innovation communities, a new model for knowledge sharing, cutting-edge research in areas of economic and societal interest and improvement of academia-industry knowledge transfer. Those are clearly underlying aspects of the integration of the Knowledge Triangle and imply a vision of the innovation process that relies strongly on a systemic approach, collaboration, and on mobilising resources on an adequate scale.

The EIT innovation model is based on Knowledge Triangle Integration (KTI) and on **geographical hubs (Co-Location Centres - CLCs) for the practical integration of the Knowledge Triangle.** CLCs bring together, at a local or regional level, the education, research and industry partnerships of the KIC, thus permitting face-to-face contact and

[20] EIT RIS webpage: https://eit.europa.eu/activities/outreac/eit-regional-innovation-scheme-ris

geographical proximity. CLCs provide for cross-border collaboration and are well placed to capitalise on various funding schemes from their respective regions to support their core activities. As confirmed by the High-Level Group report[21], as well as by the OPC, CLCs represent a key aspect of the KICs´ business model in order to deliver concrete results and have an impact on local ecosystems.

Knowledge Triangle Integration (KTI) is, in the EIT/KIC context, a means of raising Europe's capability to innovate in the long term. In particular, KTI implies linking education with knowledge production and its exploitation. The EIT[22] and Horizon 2020[23] Regulations do not provide a definition for KTI as the concept has been left open on purpose, in order to let the EIT and KICs articulate and adapt the model according to the specific needs of their sectors. As also resulting from the preliminary findings of a study on the EIT KTI[24], all those variations represent a good base to be used by the EIT to further articulate the KTI concept, foster learning about KTI best practices and improve the EIT-KICs-CLCs coordination of efforts in implementing and monitoring KTI activities.

EFFECTIVENESS

Results stemming from the KICs´ activities are starting to be visible. This is especially true of the first wave of KICs which already has a 7 year track record. Indicators showed a steady increase in the number of results achieved. An overview of the results for the period 2010-2015 is presented in Table 5.2.

Table 5.2 - Performance of the three first-wave KICs against core performance KPIs, 2010-2015. Green/red shading shows target achieved/not achieved

	EIT Climate-KIC		EIT Digital		EIT InnoEnergy	
KPI	Target	Achieved	Target	Achieved	Target	Achieved
# applicants per offered seat for education programmes (attractiveness)	0.48	7.24	3.92	3.27	2.48	4.55
# new graduates	193	222	235	220	414	379
# business ideas incubated	423	697	442	468	211	264
# start-ups/spin-offs created	199	120	67	48	44	76
# knowledge transfers/adoptions	194	246	361	388	31	142
# new/improved products/services/processes launched	168	141	90	52	32	31

Source: EIT independent evaluation report, with data sourced from EIT and KICs.

As regards acceleration services, **KICs succeeded in creating a portfolio of supported start-ups and scale-ups.** In particular, 234 start-ups were created by KICs since their inception in 2010 to 2015. Of these the 168 generated by EIT Digital and Climate-KIC were able to raise more than 270 million EUR altogether (and more rounds of equity

[21] https://ec.europa.eu/education/sites/education/files/eit-hlg-final-report_en.pdf
[22] Regulation (EC) No 294/2008 as amended by the Regulation (EU) No 1292/2013 establishing the European Institute of Innovation and Technology.
[23] Regulation (EC) No 1291/2013.
[24] Durst, S., Horvat, M., Kroll, H., van der Meulen, B. (2017) Assessment of EIT Implementation of Knowledge Triangle Integration and Co-Location Centres, 3 January 2017

investment are expected in the KIC-backed start-ups, thanks to the links established with equity investors). The start-ups and scale-ups being supported originated from around 5,100 business ideas screened by the KICs, out of which only 1,429 went through the incubation scheme through which entrepreneurs are coached and accompanied in the development of their business. It is important to look at how each KIC developed and pursued its own support strategy in delivering acceleration services. For instance EIT Digital has a stronger focus on scale-ups, while InnoEnergy uses to retain a minority equity stake in the supported start-ups (other KICs are considering using similar approaches).

Activities falling under innovation achieved **good results in terms of new/improved products/processes launched onto the market and knowledge transfer/adoption**. Results showed a steady increase over time, both in terms of knowledge transfer adoption and the launch of new or improved products/services/processes (even though the contribution to results by the KICs was uneven). In the period 2010-2015, the three first-wave KICs launched a total of 224 new products, services or processes onto the market, while generating 778 knowledge transfers or adoptions.

Innovation-related activities shared key traits (like the focus on the exploitation of results and close-to-market activities, short time-to-grant, continuous project monitoring and coaching) and are subject to periodical evaluation by an expert panel in order to assess progress, relevance and potential contributions to financial sustainability. The assessment serves as basis for a decision on whether to stop the KIC´s support or maintain it (with or without adjustments). For instance, in the case of EIT Digital, 4 out of 15 projects active in 2015 have been stopped in 2016.

Nevertheless, the partners´ survey revealed that there is still a need to improve the selection process of innovation projects, in particular to make the evaluation process more transparent, provide adequate feedback and ensure a more efficient communication of the results of the selection process to the wider KIC community. Furthermore, the independent evaluation report suggests that KICs share good practices and insights on how to manage their project portfolio in a more effective way, in order to better adopt funding decisions and maximise the value created out of the funded projects. For instance, InnoEnergy adopted a Portfolio Management approach to all its business lines and uses portfolio management techniques to monitor key features of the ongoing projects like IRR, CAPEX required to commercialization, different risk factors (technological, market, regulatory, etc.).

At the education level, **EIT-labelled courses are attractive to potential students** (on average between 3 and 5 applicants per seat). The training of graduates in application-oriented education programmes provides a foundation for future KTI to thrive upon. The results of the survey showed that students (74% of respondents) particularly appreciate the multidisciplinary nature of the programme, combining technical knowledge with entrepreneurial and innovation education. It should be noted that, during the process, from the application to the enrolment to a KIC education programme, there is a high number of students dropping out. This is due, *inter alia*, to a number of internal factors (e.g. scholarships, the Master School's application process and misalignment of expectations of stakeholders). However, once students are enrolled, the drop-out rate of the KIC education programmes is well below the world average drop-out rate for graduate school studies.

Despite providing graduates with entrepreneurial skills, this has not yet generated a corresponding cohort of student-led start-ups. This can be due to several factors. There is usually a lag factor to consider before the full impact in terms of business creation can be

achieved. Furthermore, it is much harder to create new businesses in some sectors (like the energy field[25]), due to high barriers to entry and the scale of the minimum investment required. Nevertheless, while acknowledging that further efforts are needed to help students to "cross the chasm", possibly through a greater exposure to KICs´ accelerator and innovation-support services, it should be borne in mind that EIT-labelled courses aim at providing graduates with both hard and soft skills. In particular, the goal is to trigger a change in the graduate's mind set, in order to foster an entrepreneurial and risk-taking attitude beneficial for any type of career. Results are encouraging: InnoEnergy declared that, in the period 2011-2015, 96% of the cumulated graduates from their courses found a job within 6 months, with an average salary 14% higher than their peers.

Graduates from EIT-label Master programmes report receiving stronger entrepreneurial skills than in some comparable schemes. The self-reported rate of adoption of entrepreneurial skills is higher in the EIT-KICs, at 83%, compared to around 69% for Erasmus mobile students[26]. However, as already stated above, this does not immediately translate into the foundation rate for new start-ups as in EIT-KICs the figure is 6% and in Erasmus 7%[27]. Nevertheless, there are very strong variations in business creation in KICs: while start-up rates are very low in the field of energy (3%), EIT graduates in the field of climate created more than double the start-ups than the EIT or Erasmus average (16%). 82% of EIT graduates report that entrepreneurship was either moderately or, to a (very) large extent, embedded into their programme.

MOOCs and professional development courses have been developed within the KICs´ education and training portfolio. In particular, InnoEnergy developed four MOOCs (2015) which have been subscribed by around 25,000 users; Climate-KIC online education offering had 295 subscribers in 2015 and, in the same year, the two executive training courses run by the KIC have been attended by more than 300 users.

There is evidence of the integration of the Knowledge Triangle (KT) at the strategic, organisational and operative levels of the KICs´. Each KIC has its own approach to favour this integration but they share some commonalities, such as that strategies are structured along themes, each of them spanning the main three pillars of activities (innovation, education, entrepreneurship), while operations rely on the physical proximity effect through the CLCs to promote the integration of the KT. **Interfaces between KT activities hardly emerge spontaneously. KICs put a lot of effort into building better linkages which serve as the basis for the emergence of self-organised ecosystems[28].** Results are promising and show that linkages are starting to bear fruit. This is the case, for instance, with the involvement of industry in the design and delivery of education programmes, as well as in the links between innovation-support and business creation activities. Some linkages still look underexploited, e.g. those between education and innovation-support activities, and will require further efforts in the coming future.

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[25] On this matter see, for instance, Jenkins and Mansur, "Bridging the clean energy valleys of death", 2011: https://thebreakthrough.org/blog/Valleys_of_Death.pdf

[26] The Erasmus Impact Study (EIS) asked about self-perception of actual improvement in "innovative potential and entrepreneurial skills", while EIT evaluation asked about ability to "transform ideas into viable business propositions" and "to use knowledge, ideas or technologies to create new or significantly improved goods, services, processes or policies or business models"

[27] Erasmus Impact Study (2014): http://ec.europa.eu/dgs/education_culture/repository/education/library/study/2014/erasmus-impact_en.pdf

[28] The relevance of the ecosystem approach in order make innovation thrive has also been underlined by the recently issued Lamy report (Lamy P. & al., 2017, LAB – FAB – APP - Investing in the European future we want, Report of the Independent High Level Group on Maximising the Impact of EU Research and Innovation Programmes).

Example: Integration of the Knowledge Triangle within the EIT Climate-KIC's business creation activities - the case of Green City Solutions

In 2014, the Berlin based start-up Green City Solutions received support from the EIT's Climate-KIC Accelerator to develop and commercialise their idea: "CityTree", a new means of outdoor advertising. The CityTree is a customised solution for urban spaces. It combines a vertical plant display with air purification. The plants can be arranged freely on the CityTree to display visual information like coloured logos or a QR-Code, which links to additional digital content.

EIT Climate-KIC Berlin provided Green City Solutions with matchmaking help. Green City needed a research institute and a municipality to take their idea forward. EIT Climate-KIC helped them find both and put the idea together as a project. Additionally, Green City took on interns from the EIT's Climate-KIC education courses.

The business is now in the scale-up phase. In December 2016, Green City Solutions was awarded first place in the Digital Cities category of the EIT Digital Challenge (designed to help start-ups scale their ideas) for their innovation. In February 2017, the start-up successfully achieved a seven figure institutional fund raising deal.

KICs have been very successful in integrating new partners over time and reducing the fragmentation of innovation communities in their respective fields. First wave KICs experienced a remarkable increase in partners after their establishment. This also affected the composition of the KICs´ partnerships. Partners' perceptions on the partnership mix are largely positive: KICs are in fact communities with a fairly balanced representation of all KT actors, with few exceptions. For instance, the InnoEnergy partnership is skewed towards businesses, which represent around 70% of all the KIC´s partners. KICs have also managed to integrate actors who do not belong to the "classical" KT, in particular, public authorities – mainly cities and regions (Climate) and civil society organisations (Health). EIT funding breakdown (Figure 3.2) shows that industry accounts for a total of 34% (out of which 12% is represented by SMEs), while HEI and Research organisations account accounts for 43% and 19% respectively. KICs have flexible membership options which managed to attract organisations with different needs and expertise (including SMEs).

KIC partnerships bring together the most relevant European actors in their respective fields[29]. Over 85% of partners think that the KICs include leading European universities and research organisations. This figure is lower when it comes to the assessment of the involvement of top innovative businesses, where 64% of partners either agree or strongly agree. Partnerships are open to other types of partners, in particular local administrations such as cities and regions. As also claimed by the Lamy HLG report, their involvement is crucial for the concrete testing of innovative solutions, the involvement of citizens in the innovation process and, finally, for helping KICs in building solid financially sustainable business models. The major factors in this have been the KICs' long-term time outlook, a clear thematic focus and openness to new partners. Results of the Social Network Analysis show that FP7/Horizon 2020 projects

[29] The ECA Special Report found that the KICs have brought together major European actors in their respective fields – a finding supported by the EIT independent evaluation, KIC accelerator surveys, partner surveys and the Open Public Consultation.

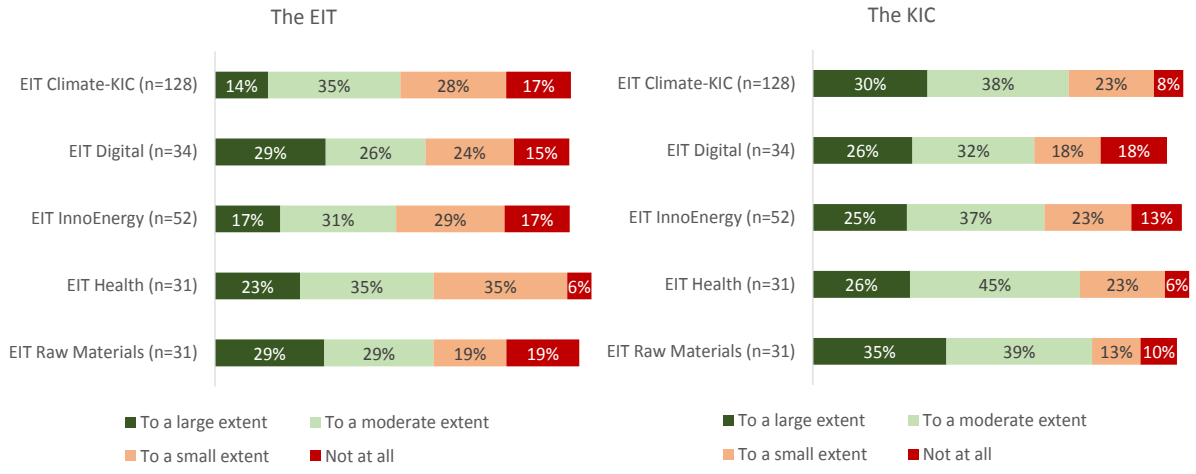
that involve KICs are more likely to involve different types of organisations (higher education, research, governmental, for profit ones)[30] and to foster cooperation with organisations approaching for the first time FP7 and Horizon 2020 programmes.

The EIT's KICs' Co-Location Centres broaden the EIT's innovation support to reach some of the EU's moderate innovation performers[31]. The KICs' Co-Location Centre model, which brings EIT support to specific geographic locations, has resulted in an increased use of the EIT innovation grants in those countries[32]. Nevertheless, the KICs' support to EU-13 organisations, while better than the average of Horizon 2020, remains limited to organisations belonging to a small number of Member States (e.g. Poland, Hungary, Estonia, Latvia). In 2014-2015 EU-13 partners received 7.8% of the overall EIT funding.

Partners recognise reputational benefits linked to the KICs and the EIT. In the partner survey, the respondents were asked to indicate whether reputational benefits from association with the EIT and the KICs played a role in their motivation to join a KIC. The reputational benefits from association with the EIT range from 48-58% for "moderate or large extent". They are perceived as slightly higher for the newer KICs, perhaps indicating that the reputation is growing over time. The reputational benefits of being associated with the KICs range from 62-74% for "moderate or large extent" with the new KICs having once again the highest scores.

Figure 5.1 - Partner survey: Whether reputational benefits from association with the EIT / KICs were motivations to become a KIC partner

Question: To what extent were the following motivations reasons why your organisation became a KIC partner: Reputational benefits from association with the EIT / KIC?



Base: all respondents; note: excludes no response so does not sum to 100%

[30] According to the independent evaluation, collaboration between the private sector, research organisations and higher education accounts for more than 80% of all links in the FP/H2020 research networks of KIC partners.

[31] According to the European Innovation Scoreboard (2017), moderate innovators include Member States where innovation performance is between 50% and 90% of the EU average. Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Slovakia, and Spain belong to this group.

[32] CLCs allow Member States to attract significantly more EIT innovation support than their Innovation Union Scoreboard peers, and even to outperform some better-ranked Member States.

Despite the EIT and the KICs efforts in the communication and dissemination of their activities and achievements, there is still a low level of awareness of the EIT and its brand. This is confirmed by the public consultation, where more than 50% of respondents (involved or not in KICs) indicated that the EIT brand is not well recognised. Qualitative responses added some further elements: for instance, some respondents indicated that KICs are key in the communication of results because they run the operations (however, they promote their own results, not the overall EIT community ones). Therefore, according to the external evaluation, there is a need for a revised EIT-KIC communication strategy, with the common goals of informing stakeholders, sharing results and good practices – in particular those pertaining to education - the underlying aim being to improve the robustness of the EIT brand.

The KPIs used so far by the EIT mainly captured the output generated by the KICs. The revised KPI system, which will be implemented from 2017 onwards, is more focused on results and will be able to provide a clearer picture of the KICs´ performances. At the same time, the EIT is developing an "Impact Framework", i.e. an overall approach including additional indicators, a monitoring strategy and analytical tools to assess the impact of the KICs´ activities.

IMPACT

The EIT and the KICs' systemic impact is limited by the resources available to them. Even though evidence showed EIT´s impact on innovation, start-ups, graduates and knowledge triangle integration, the complexity of EIT and KICs mission, coupled with their limited resources, have limited their systemic impact. In particular, the EIT operates with a small number of staff. As found by the ECA Special Report, the EIT was under-resourced until 2015: the number of project officers compared to the grant budget was much lower than for most other EU research grant programmes. This independent evaluation has found that the KICs' relative size compared to their mission, and the EIT's lean management, limit their potential impact. As a consequence, given the limited resources available, to date EIT focused primarily on providing specific support to each KIC, rather than seeking to facilitate a more systemic impact. As KICs mature and more evidence on what works and what does not emerge, the need to focus more on systemic impacts will become stronger. This would imply for the EIT, if its budget remains the same, to work less on KIC-specific topics, with the risk that its activities lose focus.

The KICs have a high potential for contribution to policy discussions, although both the potential and the actual performance varies. In terms of wider policy discussions, EIT Climate-KIC is taking part in EU and global climate summits and runs a number of global innovation awareness initiatives. EIT InnoEnergy has developed a strong collaboration with the European Commission's Directorate-General for Energy, contributed to the development of the Strategic Energy Technology Plan and is an observer in the Executive Board of the European Energy Research Alliance. The other KICs also contribute to EU-level policy discussions, but both the independent evaluators and the European Court of Auditors Special Report have found scope for a stronger role. EIT and the KICs are also cooperating with the Joint Research Centre (JRC) of the European Commission. While some evidence exists of the KICs' Co-location Centres building links with cities and regional policy-makers, the independent evaluation found no evidence of significant influence on national policy. At the same time, as also maintained by the Commissioner Navracsics' High Level Group, **the EIT needs to develop its own capacity for comparative (cross national, cross regional and cross**

programme) innovation analysis and for communicating the lessons learned in various contexts and to different stakeholders.

The KICs increased the innovative capacity of their research-focused partners and built a culture of knowledge transfer. The KICs' operation through Knowledge Triangle Integration brings together partners with different levels of market awareness. Participating in KICs has encouraged partners with a larger research focus to consider the commercial potential of their work. At the same time, KIC partners who are already innovative have seen less impact on their innovation capacities from EIT support; in these cases EIT funding was supporting their ongoing innovation efforts and their integration with the activities run by the other KICs´ partners. In this manner, the EIT support achieved the dual goals of (1) spreading the culture of market-focused innovation, and (2) supporting more advanced and collaborative specific innovation projects.

The KICs accelerator programmes have a positive impact on the businesses they support. The survey of the business beneficiaries of KIC accelerator programmes shows that most saw benefits from taking part. There is a difference among the KICs: while 83% and 78% of participants saw a moderate or large impact of the EIT InnoEnergy and EIT Climate-KIC respectively, only 57% of those participating in the EIT Digital accelerator did. Specifically, 50-75% of accelerator survey respondents said that the accelerator helped them access investment from another source after receiving support from the KIC, which translated into 39-46% of investments actually realised after taking part in the accelerator programme.

EIT-label courses provide graduates with entrepreneurial skills. The survey of graduates confirmed that the EIT-label courses have provided them with the entrepreneurial and innovation-focussed skills they needed and which motivated them to choose an EIT-label course in the first place. Most graduates were in employment following their EIT-label course and a small part of them had started a business.

The KICs' systemic impact is focused on their specific fields of innovation and networks rather than the wider innovation systems. The majority of the external stakeholder respondents to the Open Public Consultation reported that the EIT and the KICs had had little or no systemic impact on local, regional or national innovation systems – although a better performance was reported on the EU-level innovation system. However, the EIT's independent evaluation has found that the KICs' impact is focused on their respective sectors rather than wider innovation systems. For each KIC, a majority of surveyed partners (from 53% of EIT Digital partners to 81% of EIT Raw materials ones) indicated that they thought the KIC had had, or would have, a 'moderate' or 'large' impact on innovation within their sector. The partner survey also explored whether respondents believed that the KIC approach was effectively supporting the development of knowledge communities: the majority of survey respondents (71%-87%) across each of the KICs reported that they believed the KICs were 'effective' or 'very effective' in building such communities.

The evidence for the KICs' impact on job creation and economic growth is limited. However according to self-reported data by the KICs, the KIC-supported start-ups established between 2011 and 2015 employed over 5500 people and raised over €300m in private-sector equity funding; those data look promising especially when compared to

the Horizon 2020 expected impact[3334]. The KIC partners expressed conservative assessments of the KICs' current or future impact on job creation and economic growth, rating them as "moderate". Some of the partners explained that the KICs' available resources and size limit their potential for job creation and economic impact; in particular, a partner noted that *"To have any meaningful impact on job creation and economic growth in Europe, the KIC model is really still too small and within the hands of too few institutions."*

According to the preliminary findings of the EIT Impact Study[35], the main impact of the EIT and the KICs on innovation is likely to come via spillovers and the indirect impacts - e.g. through the economic activities of their graduates and networks - on the national and regional innovation systems that enable innovation. The "Impact Framework", currently under development, will help track the impact of KICs´ activities better in future.

COHERENCE

From an internal coherence perspective, the portfolio of KICs and related activities they run is generally seen as consistent. As regards themes, each KIC tackle a specific challenge (see Table 5.1), thus the risks of overlapping activities are very limited. The internal coherence is reinforced by a number of initiatives aiming at strengthening the ties and further foster the collaboration between KICs: for example, from 2016 KICs runs a number of cross-KIC activities (which are part of their Business Plans) aiming at synergize KICs´ efforts on cross-cutting topics like education and RIS.

Overall, the EIT fits well within the EU innovation policy landscape and operates in line with the overarching innovation objectives set out by EU policies. Through innovative and entrepreneurial education, the EIT plays an important bridging role between the Research and Innovation Framework and education policies and programmes, and provides the continuity and longer term institutional commitment needed to deliver sustainable change in higher education.

The EIT is a strong contributor to the objectives set out in Horizon 2020, in particular by addressing societal challenges in a manner that is complementary to the other Horizon 2020 programmes. However, as noted by the independent evaluation, **whereas there is increasing coherence between EIT and a number of EU innovation policy initiatives and instruments at implementation level, this is not the case at programming level.** In particular, a number of innovation-supporting policies issued in recent years, while not conflicting with the EIT mission and operations, did not fully reflect on the EIT's existing activities, thus limiting the extent to which the EIT can mutually reinforce the effects of other European instruments for supporting innovation. Nevertheless, KICs managed to establish complementary links (e.g. with Horizon 2020 specific programmes), through which they have been able to support relevant policy initiatives, thereby contributing to the achievement of wider policy objectives. For example, EIT

[33] According to the outcome of the Nemesis model described in the Commission Staff Working Document on Horizon 2020 interim evaluation, in terms of employment creation, on average, during the period 2014-2030, the EU contribution through Horizon 2020 would have increased the level of employment by 137,000 units, including 54,000 in research.

[34] The EIT introduced new key performance indicators which will systematically measure the indirect leverage starting from 2017 operations.

[35] Global and European Impact of the EIT and its KICs from 2010 to 2016 (2017). The study was carried out for the European Institute of Innovation and Technology (EIT) by PricewaterhouseCoopers EU Services EESV.

Digital collaborates with a number of PPPs (like the Future Internet and the Big Data ones); EIT Raw Materials is a formal member of the SPIRE (Sustainable Process Industry) PPP and is represented in the High Level Steering Group of the European Innovation Partnership on Raw Materials; Climate KIC collaborates with the JTI BBI (Bio-Based Industries) in the Forestry program and collaborated with EASME for inviting young Seal of Excellence start-ups to apply for the German Climate-KIC accelerator support; KIC InnoEnergy is one of the key stakeholders of the EC SET Plan initiative and, as formal member of the Coordination group (as well as of 3 working groups), participated in the preparation of the SET Plan Integrated Roadmap; the KIC also contributed to other key initiatives within the Energy Union (e.g. the Communication "Accelerating Clean Energy Innovation[36]").

Example: Copernicus building skills actions

Climate KIC recently established a collaborative programme to accelerate the use of Copernicus satellite data and information by entrepreneurs, universities, cities, regions and other stakeholders. As a result, in 2016 Climate-KIC was awarded a 12 month project to deliver: 24 hours non-stop education programme on ideation in 10 European cities and a 5-week summer school in 3 European locations.

In 2017 DG GROW published a call restricted to KICs aiming at promoting skills development in the Copernicus downstream sector ('Copernicus Skills Programme'). This call has two main objectives, i.e. (1) to increase the number of people able to access and use Copernicus data and information, including basic users and/or advanced/innovative users of Copernicus, and (2) to increase the supply of skills to stimulate the growth of geospatial-related jobs in Europe (thus addressing current and forthcoming labour market skill gaps).

The EIT model complements the national and subnational innovation landscape well, with a view to contributing to the strengthening of EU innovation capacities. The independent report analysed the complementarity and coherence of the EIT model in relation to six European national innovation initiatives, concluding that there are common aspects to the different approaches which offer opportunities for complementarity, in particular with regards to cross-border aspects. In fact, thanks to their decentralised - though networked – structures, the KICs offer opportunities for cross-border collaboration between people and organisations located in different local systems, empowering them to create, educate and innovate. Co-operation efforts also address national and regional administrations and authorities, particularly those involved in designing and delivering Smart Specialisation Strategies (S3). On this matter, the EIT RIS (Regional Innovation Scheme) builds on the results achieved by the S3 in defining regional priority sectors for investments in research and innovation and, even if the evaluation considers that it is too early to draw conclusions on its impact, EIT RIS operates in complementarity with key EU initiatives (like the Horizon 2020 "Spreading Excellence and Widening Participation" Programme), offering concrete opportunities to establish synergies with the use of (European Structural and Investment Funds) ESIF, and better interactions with national and regional authorities. After the first two years of implementation of the scheme (2015 and 2016), all five KICs explored opportunities in

[36] https://ec.europa.eu/energy/sites/ener/files/documents/1_en_act_part1_v6_0.pdf

17 out of 26 EIT RIS eligible countries. EIT recently published a new EIT RIS Guidance Note covering the implementation of EIT RIS activities for the period 2018-2020. The new guidance note has a stronger focus on the expected impact/ results, provides an implementation framework of EIT RIS activities (requiring a 3-year RIS Strategy per each KIC) with an emphasis on KTI approach and transfer of good KTI practice. Furthermore, stronger emphasis has been put on synergies with smart specialisation strategies and use of structural funds, interaction with national/ regional authorities and visibility.

Example: KIC InnoEnergy collaboration with Malopolskie region

The Malopolskie Voivodeship and KIC InnoEnergy concluded an Agreement to jointly cooperate in supporting research, technological development and innovation in the field of sustainable energy. The aim of this collaboration is to strengthen the economic specialization of Malopolska in the field of sustainable energy and achieve synergies between the activities supported by the European Regional Development Fund (within the Malopolskie Voivodeship Regional Operational Program 2014-2020) and those supported by Horizon 2020. Specifically, the KIC shall:

- Provide support and advice to the regional authority in developing its project pipeline in the energy sector, consistent with the desired energy mix (e.g. support in preparing the Call Guidelines);
- Provide support to enable local actors to access to EIT services and EU funding instruments
- Provide networking, risk assessment, business analysis, mentoring/coaching and match–making services etc. for local stakeholders.

As also highlighted in the High Level Group report, **efforts are still needed for the KICs to become fully integrated into the local innovation ecosystems[37].** However, the first results are visible. For example, KIC InnoEnergy's Swedish CLC is well integrated within the local system and recognised as an added-value service provider bridging a relevant gap in the local economy; the CLC established a strong collaboration with the Swedish Energy Agency, Vinnova, and IVA (the Royal Swedish Academy of Engineering Sciences). Similarly, in France, cooperation is ongoing between the KIC´s local CLC and the "poles de competitivite´" located in the Ile de France and Rhone–Alpes regions. EIT Digital signed an agreement with the French Ministry of Higher Education and Research and ANRT – the French National Association for Research and Technology: the agreement sets up a joint Digital program allowing doctoral students to take advantage of the Innovation and Entrepreneurship education offered by the EIT Digital Doctoral School.

KIC initiatives showed coherence with a number of initiatives at an international level. For instance, Climate KIC contributes to a number of UN initiatives (like the Global Alliance for Buildings and Construction, the Climate Technology Centre & Network and the Cities Climate Finance Leadership Alliance) and is an official observer organisation for the UN Framework Convention on Climate Change. KIC InnoEnergy is

[37] As also mentioned in the Communication "*Strengthening Innovation in Europe' Regions: synergies for resilient, inclusive and sustainable growth*" better linkages between EU regional and thematic policies and instruments is needed to increase their impact in delivering on key EU priorities and to activate the potential for innovation in EU Member States and regions.

involved in the IEA (International Energy Agency) Working Party on Education and Training for Capacity Building in the Energy Sector and run projects born under the auspices of the UN Convention to Combat Desertification (in collaboration with IRESEN - Institut de Recherche en Energie Solaire et Energies Nouvelles).

International aspects are an integral part of the KICs´ strategies. For example, EIT Raw Materials internationalisation strategy targets the following areas: Resource-rich developing economies (e.g. DR Congo, Bolivia, Peru, Liberia); Resource-rich emerging economies with strong activities in the Raw Material sector (e.g. Brazil, Chile, South Africa, India, China); developed economies leading in the Raw Material sector (e.g. Australia, Canada, USA, South Korea, Japan); Arctic regions, for sustainable raw materials exploration and extraction. Six internationalisation projects have recently been launched in support of such a strategy.

EIT Digital established a hub in Silicon Valley to reinforce the connections between Europe and the USA through two-way talent mobility, collaboration on research and innovation initiatives, and boosting the growth of EIT Digital accelerated businesses. The KIC is now evaluating collaboration opportunities with other key global innovation hotspots such as Singapore, Tel Aviv and Tokyo.

EU ADDED VALUE

The EIT is unique in the EU and Member States innovation support initiatives. The independent external evaluation compared the EIT to 8 national innovation interventions across the world[38] and found no other EU or Member State innovation scheme which brings together education, business, research and other stakeholders to work jointly on creating innovation.

KICs created innovation networks of a size and diversity not present elsewhere in the EU or Member States. While comparable national innovation schemes support and facilitate university-business linkages, none have grown networks comparable to the KICs in their size and diversity. At the EU level this has been confirmed by the ECA Special Report that found no other EU programme with a pan-European network comparable to that of the KICs. As a result, the KICs' provide a unique kind of innovation support.

The EIT fills a gap in the system of innovation support provided by the Member States. Start-ups supported by KICs saw the KICs' thematic focus as a benefit compared to the national schemes which were fully bottom-up. More broadly, 67% of the EIT evaluation Open Public Consultation respondents agree that the innovation challenges the EIT and KICs are tackling can be addressed most effectively at the EU level. This increases when organisations join the KICs – 71% of KIC partners think the KICs add value to existing national initiatives that support innovation.

Specifically, the EIT and the KICs allow innovation to cross legal and geographical borders in a way national initiatives do not. Both the KICs' partners and the beneficiaries of the KICs' accelerator programmes emphasized access to cross-border

[38] COMET - Competence Centres for Excellent Technologies, Austria; Leading-Edge Clusters, Germany; Networks of Centres of Excellence (NCE) Program, Canada; Nordic Centres of Excellence, Norway; Cooperative Research Centres (CRCs) Programme, Australia; Pôles des Compétitivité, France; SHOK – Strategic Centres for Science, Technology and Innovation, Finland; VINN Excellence Centres – Centres of Excellence in Research and Innovation, Sweden. Finland's government has since discontinued funding for SHOK funding instrument.

support. Accelerator participants emphasized that national innovation support schemes cannot offer comparable support in establishing them in other EU member states.

KIC accelerator programmes fill a gap in national innovation support measures, even when alternatives exist. Around a third of the beneficiaries of KICs' accelerator programmes who took part in the evaluation survey think they could have accessed a similar kind of support from elsewhere[39]. For 70% of beneficiaries, however, similar support was not available. The unique EU added value included the pan-EU reach of the KIC accelerator programmes, access to markets unavailable through a national scheme, and access to a set of partners – including multinational businesses and leading European universities – provided by the KICs. The thematic focus of a KIC was seen as an additional benefit.

Example: partners' opinions on unique aspects of KICs' innovation support

"[The] *main difference is the very open public-private partnership, where representatives from academia and business cooperate as full partners. This is unique and in my view extremely effective".*

"In my opinion the KIC, if compared to national or sub-national innovation initiatives / activities, matches better interests and skills of research centres and of business organisations (including both large and small-medium companies)".

The public awareness of the EIT's added value could be stronger. Even though 34% of the OPC respondents who were not involved in the EIT/KICs think the EIT is strongly (an additional 32% moderately), distinctive from national initiatives that support innovation, 14% of respondents indicated that they had "no opinion".

The EIT's education programmes add EU value similar to other EU education programmes such as Erasmus+, but with an innovation dimension. Similar to Erasmus+ student mobility, the EIT programme graduates list the mobility of students and university cooperation among the main added value of their studies. This is, however, complemented by the thematic focus of EIT-label courses.

EFFICIENCY

The EIT administrative costs are low and in line with those of the Horizon 2020 Executive Agencies. The EIT spent 2.4% of its 2015 annual budget on administrative costs, which is significantly below the 5% threshold set out in the Horizon 2020 legal base. The administrative expenditure of Horizon 2020 Executive agencies is so far 2.75% for ERCEA, 2.6% for REA, 0.77% for INEA and 2.7% for EASME[40]. It should also be noted that the incidence of administrative expenditure on the overall EIT budget has been steadily decreasing over time, thanks to falling overhead costs and a higher productivity of EIT officers (see for example Figure 5.2).

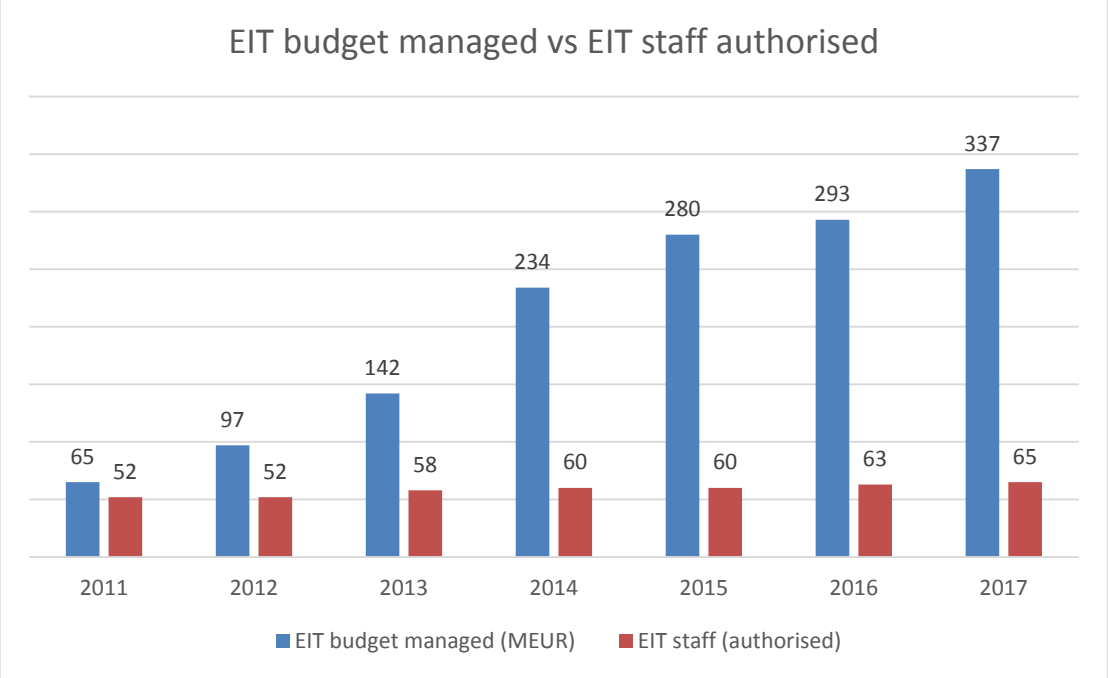
Until 2014, the EIT faced weakness in its staff and general management, with a negative effect on its impact. According to the EIT evaluation and the ECA Special Report, before mid-2014, the EIT faced high staff turnover and uncertainties in operational management. Until 2014, the EIT was subject to high management turnover: five different Executive Directors managed the EIT between its creation and 2014. The

[39] National alternatives were most often mentioned, such as Rockstart; Hightech XL; InnovateUK; Réseau Entreprendre Paris; ESA BIC Noordwijk; Ashoka; YES!Delft; Fundación Repsol; Barcelona Activa.
[40] Horizon 2020 Evaluation In-Depth Staff Working Document, page 53.

average staff turnover rate in the period of 2010-2014 was 20.7%. Additionally, until the end of 2014 and 2015, the EIT was facing structural vacancy weaknesses, with 20% of available positions unfilled (12 out of 60 in 2014 and 10 out of 60 in 2015).

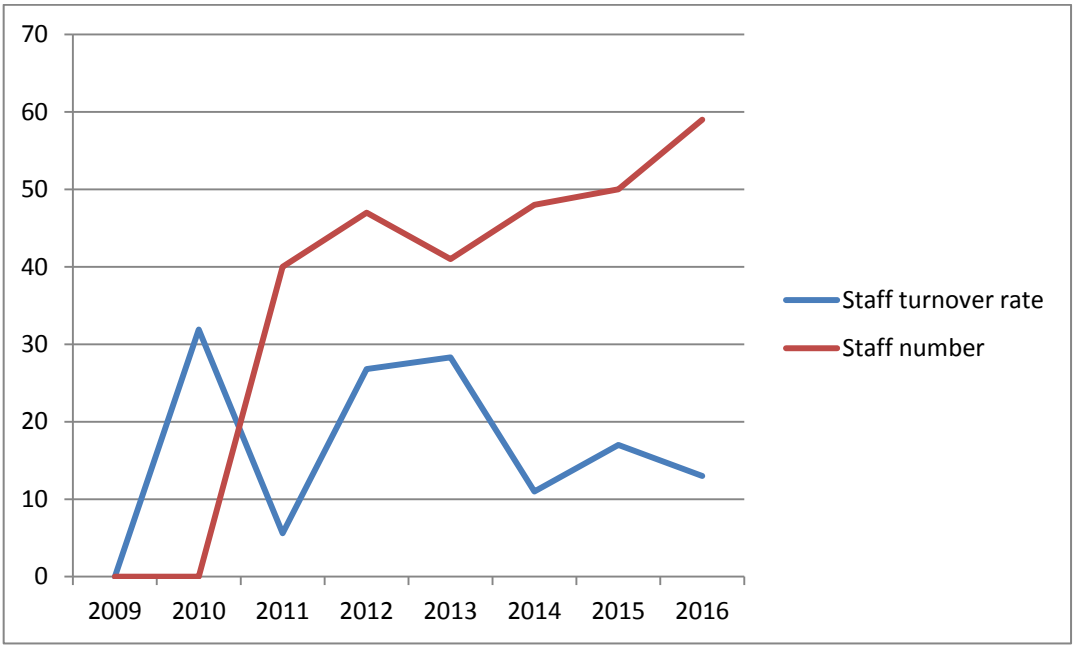
A marked improvement in the EIT operations is apparent since 2014. A significant level of change has been observed since 2014, the year in which the EIT became part of the Horizon 2020 programme and the current Director took over the post. The EIT vacancy rates fell to 7% by the end of 2016 and the staff turnover rate to 13%. While a number of senior management positions have yet to be filled – the current Director still holds an Interim position – the stability in staff and general management since 2014 has allowed the EIT to improve its performance. In addition, the EIT independent evaluation has found that the Governing Board has re-focused its efforts on strategic issues.

Figure 5.2 - EIT budget managed and EIT staff



Source: EIT 2016 Annual Activity Report (2017 figures are planned)

Figure 5.3 - EIT Staff Resources 2009 – 2016



Source: EIT independent evaluation and EIT 2016 Annual Activity Report

Table 5.3 - Staff turnover rates and staff numbers at the EIT headquarters, 2009-2016

Year	2009	2010	2011	2012	2013	2014	2015	2016
Turnover rate	0%	31.9%	5.6%	26.8%	28.3%	11%	17%	13%
Staff number	NA	NA	40	47	41	48	50	59

Source: EIT independent evaluation and EIT 2016 Annual Activity Report

KICs expenditure over the period 2010-2014 grew rapidly, as their operations were ramping up, and right after became more stable as consolidation started to take place. Table 5.4 summarizes KICs expenditure for the period 2010-2015 (only the first KIC wave is concerned).

Table 5.4 Total KIC expenditure by source (2011-2015)

KIC	Spend category	2011	2012	2013	2014	2015
EIT Digital	**Total (EUR m)**	**82.1**	**112.1**	**187.4**	**272.0**	**270.5**
	...EIT funding (%)	*20.2%*	*21.7%*	*20.9%*	*22.5%*	*24.7%*
	…other KAVA (%)	*3.9%*	*6.2%*	*3.6%*	*2.9%*	*4.5%*
	...KCA (%)	*75.9%*	*72.1%*	*75.5%*	*74.6%*	*70.8%*
EIT Climate-KIC	**Total (EUR m)**	**117.5**	**176.0**	**440.2**	**363.1**	**348.3**
	...EIT funding (%)	*7.8%*	*16.3%*	*9.6%*	*19.6%*	*25.0%*
	…other KAVA (%)	*2.0%*	*1.2%*	*1.6%*	*2.1%*	*0.8%*
	...KCA (%)	*90.1%*	*82.5%*	*88.8%*	*78.3%*	*74.2%*

KIC	Spend category	2011	2012	2013	2014	2015
EIT InnoEnergy	**Total (EUR m)**	**84.2**	**163.6**	**234.6**	**373.6**	**332.1**
	...EIT funding (%)	*28.3%*	*20.9%*	*17.6%*	*14.7%*	*20.5%*
	…other KAVA (%)	*5.6%*	*6.7%*	*4.0%*	*1.9%*	*3.0%*
	...KCA (%)	*66.1%*	*72.4%*	*78.5%*	*83.4%*	*76.6%*

Source: Analysis of KIC Summary Financial Reports; Note: Other KAVA consists of co-funding (e.g. by partners), and KCA consists of complementary funding (including other EU)

Second wave KICs made use of seed funds granted by the EIT, in order to run their start-up phase in 2015. Both KICs successfully completed the start-up phase and used the funds for the following activities:

- establishment of legal entities (at Headquarter and CLC levels);

- conclusion of partnership agreements between the KIC legal entity and partners;

- recruitment and appointment of management team and core staff such as CEO, CFO, COO, thematic/ CLC Directors or Managers;

- establishment of KIC Headquarter with facilities and IT infrastructure;

- launch of branding and communication activities;

- development of 2016 Business Plans including preparation of the first set of KIC projects, activities and service offerings to be deployed during 2016;

- other activities, such as: implementation of IT systems, development of IP policy, financial sustainability strategies and monitoring strategies.

Table 5.5 summarizes how the seed funds have been used by the second wave of KICs during their first year of operation (2015). For both KICs, the actual costs exceeded the planned costs: by 5% in the case of EIT Raw Materials and by 12% in the case of EIT Health. Those additional costs have been covered by KICs' partners own means.

Table 5.5 Use of start-up funds by EIT Raw Materials and EIT Health (2015)

Activity	EIT Raw Materials			EIT Health		
	Planned (EUR)	Actual (EUR)	Actual as % total	Planned (EUR)	Actual (EUR)	Actual as % total
Legal readiness	**313,993**	**559,490**	**178%**	**715,081**	**606,167**	**85%**
…Set-up of KIC legal structure	*177,069*	*217,899*	123%	*358,812*	*403,380*	112%
…KIC Partnership Agreements	*136,924*	*341,591*	249%	*356,269*	*202,787*	57%
Operational Readiness	**1,667,389**	**1,917,264**	**115%**	**987,517**	**1,318,623**	**134%**
…Recruitment of core KIC staff including CEO	*242,282*	*290,427*	120%	*329,060*	*390,377*	119%
…Set-up of operational functions at KIC LE level	*700,520*	*982,951*	140%	*185,203*	*518,114*	280%
…Development of first business plan	*724,587*	*643,885*	89%	*473,254*	*410,132*	87%
Fostering EIT identity (communication plan)	**521,205**	**580,636**	**111%**	**234,522**	**228,833**	**98%**
Other activities	**1,299,488**	**927,222**	**71%**	**1,361,867**	**1,537,075**	**113%**

Activity	EIT Raw Materials			EIT Health		
	Planned (EUR)	Actual (EUR)	Actual as % total	Planned (EUR)	Actual (EUR)	Actual as % total
Total	**3,802,075**	**3,984,612**	**105%**	**3,298,987**	**3,690,698**	**112%**
EIT Funding	**3,822,040**	**3,814,060**	**99%**	**3,298,986**	**3,298,912**	**99%**

Source: 2015 KIC SUGA Final Report for EIT Raw Materials and EIT Health

The focus of the KICs' business model on the integration of the Knowledge Triangle limits the possibility of an analysis of the KICs' expenditure per unit of output. In fact, the KICs' cost categorisation reflects the KICs' lines of activities which, in their turn, combine activities from the different strands (innovation, entrepreneurship, education). Furthermore, each KIC has its own approach to combining activities and implementing KT integration, thus making inter-KIC comparisons challenging. It can be expected that the more the KICs successfully integrate KT activities, the harder it will be for them to allocate expenditure to each type of activity. This makes the adoption of an approach and a cost categorisation able to assess the cost effectiveness with which KICs achieve their results desirable. This would also allow the benchmarking of KICs with other, comparable, initiatives.

Data shows that education and entrepreneurship related activities use a smaller proportion of the budget than the innovation support ones. This is due to the fact that innovation-support activities include the granting of cascade funding to innovation projects (focused on high TRL activities) submitted and run by the KICs' partners.

The KICs' management costs were high and have improved significantly following the EIT's efforts to limit their weight in the KICs' accounts. Management costs tended to increase as the KICs scaled up their activities. In line with the ECA recommendations, the guidelines issued by the EIT capped the weight of management costs within the overall expenses of the KICs'. First wave KICs started to comply with the requirement in 2016, second wave ones started in 2017.

The KICs' governance and management activities had to catch up with the rapid expansion of the KICs´ partnerships and operations. Furthermore, the decentralised KICs' delivery model (through CLCs located in different parts of Europe) adds an additional layer of complexity that the KICs have to cope with. **Strong improvements have been undertaken so far in the central management of the KICs´ partnerships and there is still some room for improving its efficiency. On this matter, cross-KICs interactions contributed to mutual learning and to a sound evolution of the KICs' governance and management model**. There are strong expectations that the KICs will be able to reap more and more benefits from such collaboration as their consolidation process evolves.

Among other factors affecting efficiency, the KICs partners indicated the annual funding agreement as one of the most prominent ones. As also claimed by the ECA report, the annual grant process is a major obstacle for the planning and the coordination of multiannual innovation projects under the different action lines. Instead, a multi-annual funding agreement would not only provide a greater legal and financial security for KICs' partners, but would also better align the KICs' operations with their multiannual strategies. In the view of KIC partners, a multi-annual grant agreement would significantly improve efficiency whilst achieving greater flexibility. The current legal framework does not allow the EIT to fully implement multi-annual financing, but in

collaboration with the KICs a pilot action, including some multiannual funding aspects, is planned in the period of 2019-2020.

The relatively long time span of the KICs encourages commitment to a KIC's mission. Because the KICs are designed to last longer than any single framework programme, partners' upfront costs of joining a partnership smooth themselves out during the KIC's lifetime. This increases the overall efficiency of the operation in comparison to traditional consortia which are assembled to implement shorter-term projects. The ECA report also highlighted that the long-term perspective of the EIT's financial support for the KIC partnership is a unique feature appreciated by the beneficiaries: the EIT instrument allows mid- to long-term planning of innovation activities which no other public scheme can offer.

The EIT-KIC Forum, bringing together EIT leadership and KIC CEOs, is a successful model for innovation governance. The Forum brings together all the EIT's beneficiaries – 5 KICs at the end of 2016 – to discuss strategic and governance issues. For example, the Forum has passed decisions on grant management simplification and on the coordination of cross-KIC activities. The EIT-KIC Forum allows the EIT flexibility and increases the efficiency of its operations.

6. CONCLUSIONS

This section summarises the key findings and outlines issues for future consideration.

RELEVANCE

Key findings

- The EIT remains strongly relevant through its focus on societal challenges and innovation. Its work on the integration of education, business and research – so called Knowledge Triangle Integration – is showing good results in the form of increased flows of knowledge, new types of co-operation, and reduced fragmentation between sectors.
- CLCs represent a key aspect of the KICs´ business model needed to deliver concrete results and have an impact on local innovation ecosystems.

Areas for improvement

- There is scope to strengthen the integration at the activity level, both within the KICs and beyond, through the dissemination of 'what works', in order to foster learning about KTI best practices.
- The KTI concept needs further articulation, in order to make it better understood and foster the sharing of best practices with stakeholders. In parallel, further coordination of efforts between EIT, KICs and CLCs are needed in implementing and monitoring KTI activities.

EFFECTIVENESS

Key findings

- The EIT has successfully supported innovation through entrepreneurship, by supporting hundreds of start-ups across Europe, providing access to cross-border networks and to seed and growth funding. The independent evaluation acknowledges that the three first wave KICs are starting to deliver a wide range of tangible results through their activities in the areas of innovation, entrepreneurship and education, even though in some cases results are below the targets.
- The KICs have been successful in integrating new partners over time and in bringing together the most relevant European actors in their respective fields.
- The EIT KICs' Co-Location Centres broaden the EIT innovation support to reach some of EU's moderate innovation performers. Nevertheless, the KICs' EU-13 support remains limited to a smaller number of Member States. The new KICs´ RIS strategy (for the period 2018-2020) is expected to strongly contribute to improve the involvement of partners from a wider number of EU-13 countries.
- At education level, EIT-label courses provide graduates with hard and soft entrepreneurial skills. Graduates have pointed out to the evaluators a unique access to businesses and a stronger level of competence in delivering innovation.
- Activities falling under the innovation pillar achieved good results in terms of new/improved products/processes launched onto the market and knowledge transfer/adoption, both of which showed a steady increase over time.

- There is evidence of the integration of the Knowledge Triangle (KT) at the strategic, organisational and operational levels of the KICs. Results are promising and show that linkages are starting to bear fruit.
- Despite the efforts made by the EIT and the KICs in communicating and disseminating their activities and achievements, there is still a low level of knowledge and awareness about the EIT and its brand.
- There is an acknowledged need for an improved system of KPIs that measures the impacts of the KICs and demonstrates the aggregate effects of the EIT. Changes introduced from 2016 onwards, following the EIT's review of KPIs, together with the development of an "Impact Framework" by the EIT, are expected to improve the consistency of KPI measurement and the use of the data.

Areas for improvement

- Some linkages in KICs´ KT activities are still underexploited, e.g. those between education and innovation-support and acceleration services, and require further efforts in the future.
- KICs´ should better monitor their education offer, in view of improving their recruitment procedure and ensuring a high quality, with the goal of increasing their outreach and reduce the drop-out rate at the application stage.
- There is a need to make the selection process (through which KICs provide support to innovation projects) more transparent and communicate the selection results to the wider KIC community more efficiently.
- The EIT-KICs communication strategy needs to be reviewed, bearing in mind the goals of informing stakeholders, sharing results and good practices, in particular those originating from education activities, thereby improving the strength of the EIT brand.

IMPACT

Key findings

- The KICs have reduced fragmentation within innovation communities in their respective fields. They successfully built open, pan-European networks of major education, research, business and other players.
- The KICs increased the innovative capacity of their research-focused partners and built a culture of knowledge transfer.
- The KICs' systemic impact is focused on their specific fields of innovation and networks. When looking to extend the analysis to the systemic impacts of the EIT, the evidence is less clear.
- The evidence of KICs' impact on job creation and economic growth is limited. The available evidence (from the start-ups supported) indicates that KICs' activities do have an impact on job creation. Stronger impact is expected from education activities.
- The EIT and KICs have a high unexploited potential for contribution to EU wider policy priorities and the overall policy shaping in the respective policy domains.

Areas for improvement

- EIT needs to improve the system of keeping track of the impact of KICs' activities.
- EIT and KICs should strive to improve and increase their inputs to policy-making based on their knowledge and experience in their respective fields.

COHERENCE

Key findings

- The EIT fills a gap and fits well within the European innovation landscape, operating in line with the overarching innovation objectives set out by EU policies.
- Coherence with other Horizon 2020 programmes seems limited to the implementation aspects, and is not sufficiently backed up at the programming level.
- The EIT model can complement the national and regional innovation landscape, contributing to strengthening EU innovation capacities. CLCs can play an important role for the practical integration of the knowledge triangle within regional innovation ecosystems. The KICs´ co-operation efforts also address national and regional administrations and authorities, in particular those involved in designing and delivering Research and Innovation Strategies for Smart Specialisation (S3).
- The KIC initiatives showed coherence with a number of initiatives at international level.

Areas for improvement

- Efforts are still needed for the KICs to become fully integrated within the different local innovation ecosystems.
- There is a need to further develop synergies (at programming and implementation levels) with other EU policies and funding instruments and programmes such as Horizon 2020 and Thematic Smart Specialisation Platforms (TSSP)[41].

EUROPEAN ADDED VALUE

Key findings

- The EIT is unique in the EU and Member States' innovation support initiatives. Not a single other EU or MS innovation support mechanism integrates education, research and business. Furthermore, no other EU or Member State innovation network has the size and diversity of the KICs' partnerships.
- The KICs add EU value in reducing fragmentation, building stronger cooperation links and operating across borders, while delivering innovation outputs similar to the more focused national innovation initiatives.

[41] http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms

- The EIT fills a gap in the system of support for innovation provided by the Member States: the KICs help innovation to cross legal and geographical borders in a way national initiatives do not and bring unique perspectives to education programmes.
- The KIC accelerator programmes also fill a gap in national innovation support measures, even when alternatives exist. The KICs' thematic focus was seen as a benefit compared to the national schemes which were fully bottom-up.

Areas for improvement

- The overall public knowledge and awareness of the EIT's added value should be further strengthened.

EFFICIENCY

Key findings

- The focus of the KICs' business model on the integration of the Knowledge Triangle limits the possibility of an analysis of the KICs' expenditure per unit of output.
- The KICs' management costs have improved over time following the EIT's efforts to limit their weight within the KICs' accounts.
- Cross-KICs interactions contributed to mutual learning and to a sound evolution of the KICs' governance and management model.
- Among other factors affecting efficiency, the KICs partners indicated the annual funding agreement as a prominent one.
- It is still too early to draw conclusions on the KICs´ capacity to achieve financial sustainability. A number of sources of income have identified so far, however more time is still needed to generate a steady flow of external financial resources. EIT carefully monitors the progress of KICs in implementing their financial strategies.

Areas for improvement

- There is still room for KICs to improve the efficiency of the central management of their partnerships.
- The adoption of an approach and a cost categorisation able to assess the cost effectiveness with which KICs achieve their results is desirable.
- A shift to a multi-annual financing arrangement between the EIT and the KICs, by granting a higher degree of flexibility, would have a positive impact on the KICs´ efficiency.

ANNEX 1: PROCEDURAL INFORMATION

Lead DG: Directorate General Education, Youth, Sport and Culture (DG EAC)

Decide planning reference: 2015/EAC/013

The independent external evaluation of the EIT is a mandatory requirement stemming from Article 16 of the Regulation (EC) No 294/2008 as amended by the Regulation (EU) No 1292/2013 establishing the European Institute of Innovation and Technology (EIT Regulation). It shall cover all activities of the EIT and the KICs and shall assess the added value of the EIT, the impact, effectiveness, sustainability, efficiency and relevance of the activities pursued and their relationship and/or complementarity with existing national and Community policies, to support higher education, research and innovation. It shall take into account the views of stakeholders, at both European and national level.

Furthermore, the EIT review is a mandatory requirement of the Regulation (EC) No 1291/2013 on establishing the Horizon 2020 Programme (Horizon 2020 Regulation). Article 32 stipulates that by 31 December 2017, the Commission shall carry out, with the assistance of independent experts selected on the basis of a transparent process, a review of the EIT, taking into account the evaluation provided for in Article 16 of Regulation (EC) No 294/2008.

The interim evaluation of the EIT was launched in September 2015 and has been guided by an Inter-Service Steering Group (ISG) composed of the representatives of Directorates General EAC, SG, BUDG, JRC, RTD, GROW, CLIMA, CNECT, SANTE and ENER. A roadmap summarising the design, purpose and scope of the interim evaluation, was published in October 2015[42]. In the course of the evaluation process the ISSG met six times and the main task of the group was to ensure the overall quality of the independent evaluation work that was entrusted to ICF Consulting Services in association with Technopolis. The last ISG meeting took place in April 2017 and the final report of the external contractor was approved by the ISG in July 2017.

The evaluation is based on a wide range of evidence and sources comprising internal assessments by Commission services as well as independent external report or other thematic reports and studies outlined below. An open public consultation has been carried out in the period from 26 August 2016 until 20 November[43].

EVIDENCE AND SOURCES

1. 2017 and 2016 Innovation Union Scoreboard
2. European Court of Auditors Special Report (2016)[44]
3. Public consultation under the Start-up Initiative (2016)[45]
4. High Level Group Report on EIT (Navracsics Report)[46]

[42] http://ec.europa.eu/smart-regulation/roadmaps/docs/2015_eac_013_evaluation_eit_en.pdf
[43] http://ec.europa.eu/dgs/education_culture/more_info/consultations/european-institute-innovation-technology_en.htm
[44] http://www.eca.europa.eu/Lists/ECADocuments/SR16_04/SR_EIT_EN.pdf
[45] http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8723
[46] https://ec.europa.eu/education/sites/education/files/eit-hlg-final-report_en.pdf

5. High Level Group Report on maximising impact of EU Research and Innovation Programmes (Lamy Report)[47]
6. EIT Education Review
7. Study and an analysis on the Global and European Impact of the EIT and its KICs from 2010 to 2016 – forthcoming
8. Assessment of EIT Implementation of Knowledge Triangle Integration and Co-Location Centres - forthcoming
9. EIT Annual Activity Report 2016
10. EIT evaluation independent evaluation report
11. Horizon 2020 Evaluation Staff Working Document[48]

[47] http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/hlg_2017_report.pdf#view=fit&pagemode=none

[48] http://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd(2017)220-in-depth-interim_evaluation-h2020.pdf#view=fit&pagemode=none

ANNEX 2: STAKEHOLDER CONSULTATION

This section summarises the results of the stakeholders´ consultations and it is structured into 3 main subsections:

1) Open Public Consultation

2) Online surveys of partners, graduates and businesses

3) Consultation workshop.

1. Open Public Consultation

Introduction

This sub-section of the report is a synopsis of the results of the Open Public Consultation (OPC) on the EIT that was run as a component of the wider interim evaluation. The purpose of the OPC was to gather information (data, facts, knowledge) and opinions and views from a wide spectrum of stakeholders on the effectiveness, efficiency, relevance, coherence and added-value of the activities of the EIT and KICs. Whereas most of the research conducted as part of the interim evaluation involved participants and beneficiaries of the EIT, the OPC provided an opportunity to 'open up' the data collection exercise to a wider community of individuals and organisations and enable them to input into the evaluation.

Overview of OPC methodology

The OPC was managed by the evaluation team in line with the principles for consultations set out by the Commission's Better Regulation Guidelines – participation, openness and accountability, effectiveness and coherence.

Consultation questionnaire design

The OPC consisted of a structured questionnaire that was designed to be completed online (using SurveyGizmo). In addition or instead, respondents were given the opportunity to submit written responses. The questionnaire was designed by the evaluation team and reviewed by Commission Services prior to deployment. Questions were largely closed-ended, with a number of opportunities for respondents to provide more detailed open-ended comments. To encourage a good response rate, the questionnaire was kept as short as was feasible, and consisted of 24 questions.

Sample design and questionnaire distribution

As an *open* consultation exercise, the OPC was accessible to anybody who chose to respond. However, it was expected to be most relevant to individual citizens, public and private bodies, local/regional authorities, ministries and relevant stakeholders working in the field of innovation, whether or not they were or had been involved with the EIT.

The OPC was launched on 26 August 2016, and closed on 20 November 2016. It was primarily accessible via DG EAC's dedicated public consultation webpage, and was promoted via the European Commission's standard procedures for running a public consultation. The evaluation team was not involved in raising awareness of the OPC, or in encouraging specific organisations to respond.

The OPC received the following responses:

- A total of 159 questionnaires were submitted;

- In addition, 12 written submissions were sent to the Commission, and passed on to the evaluation team.

Broadly, this response rate is consistent with what would be expected of an OPC carried out as part of an evaluation exercise. The limitations of the data generated from the OPC are considered below.

Data analysis

Quantitative and qualitative data were analysed by the evaluation team, and the results are presented in this synopsis report.

The results of the OPC are presented below based on the following considerations and analytical protocols:

- OPC respondents were asked whether they consented to having their contributions published under their name, or whether they wanted to remain anonymous. In total, 30% of questionnaire submissions consented to having their identity made public, and 67% wanted to remain anonymous (the remaining 3% did not indicate their preference either way). Qualitative and open-ended responses are, therefore, only attributed to specific individuals or organisations where explicit permission was given; in other all cases we only indicate the key characteristics of the respondent (organisation type and whether they were involved in the EIT/KICs).
- Consultation participants who submitted written responses (as opposed to completing the online survey instrument) have been excluded from quantitative analysis, since they did not respond using the standard closed-ended answer codes, and could not be back-coded based on their answers. Their opinions have been included within the *qualitative* data analysis.
- Where relevant, quantitative data are disaggregated between: i) respondents that indicated that they were involved with the EIT/KICs; and ii) respondents that indicated that they were not involved with the EIT/KICs. This distinction is significant since it might be expected to influence their answers (e.g. due to their levels of knowledge/awareness of the EIT/KICs).
- Small sample sizes mean that we have not been able to undertake any other quantitative sub-group analysis (e.g. disaggregation depending on the type of organisation that responded, which KIC (if any) respondents were involved with).

Limitations of the OPC

It should be stressed that the achieved sample of respondents is not representative of the 'population' of stakeholders from the field of innovation. By its nature, an *open* public consultation is a self-selected sample, and so suffers from selection biases that mean we cannot extrapolate the results to represent everybody with expertise in innovation policy. The quantitative data presented in this synopsis report must therefore be treated with some caution, and not taken to represent a statistically valid assessment of the EIT.

Just over half of OPC respondents (52%) indicated that they were involved in the EIT and/or KIC(s) in some capacity. This can be seen as both a potentially positive feature (since these respondents would presumably be well-informed about the EIT and its operations) and a potentially negative feature (since as beneficiaries they may have an interest in the continuation of the EIT in its current form, and respond accordingly). As noted above, where relevant we have disaggregated data between respondents who were or were not involved with the EIT, so responses can be compared.

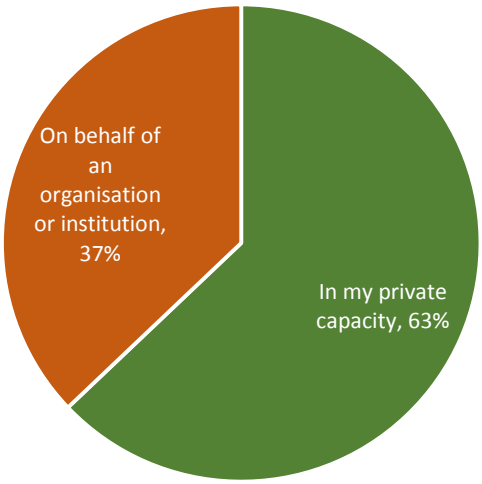
Results of the OPC

Participant type

As Figure A1.1 shows, most OPC participants (63% of all respondents) responded in their private capacity.

Figure A1.1 Whether OPC participants were responding on behalf of an organisation or as an individual

Q.1 In what capacity are you responding to this consultation?



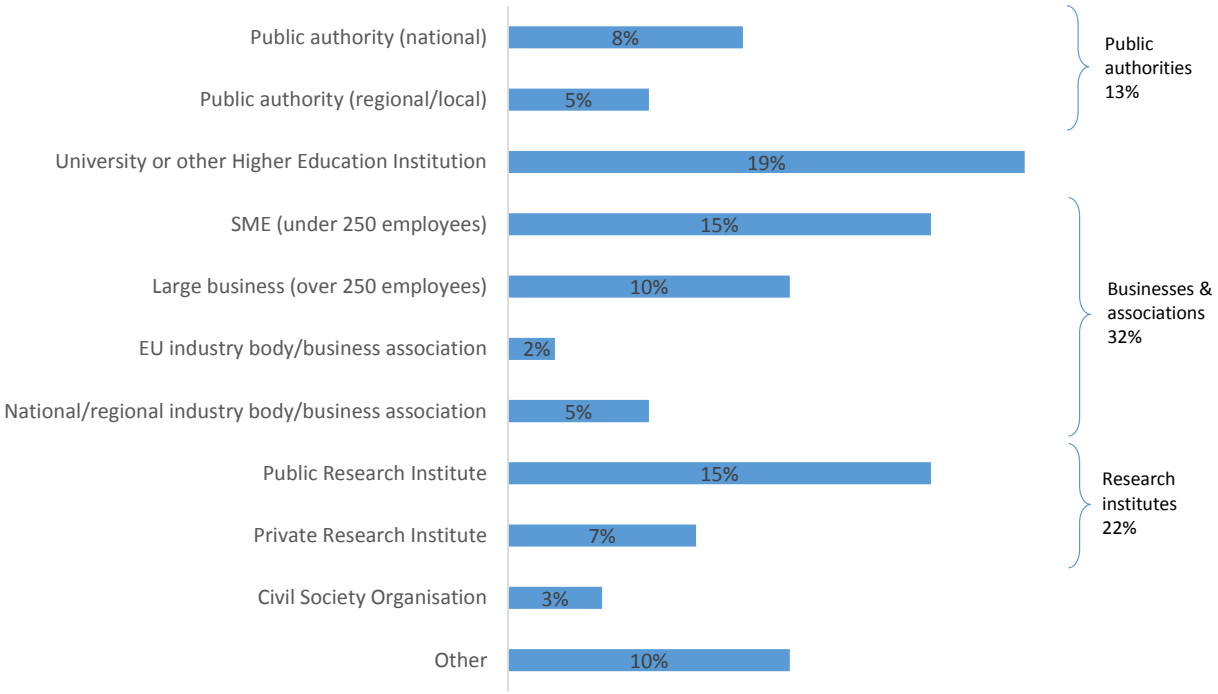
Base: all respondents (n=159)

Type of organisation or institution

Figure A1.2 shows the type of organisation that respondents represented. Around a third (32%) of respondents represented either a business or a business association, including 15% that were SMEs. Respondents from universities made up another 19% of respondents, whilst 22% came from research institutes.

Figure A1.2 The type of organisation that respondents represented

Q.2 What type of organisation are you representing?



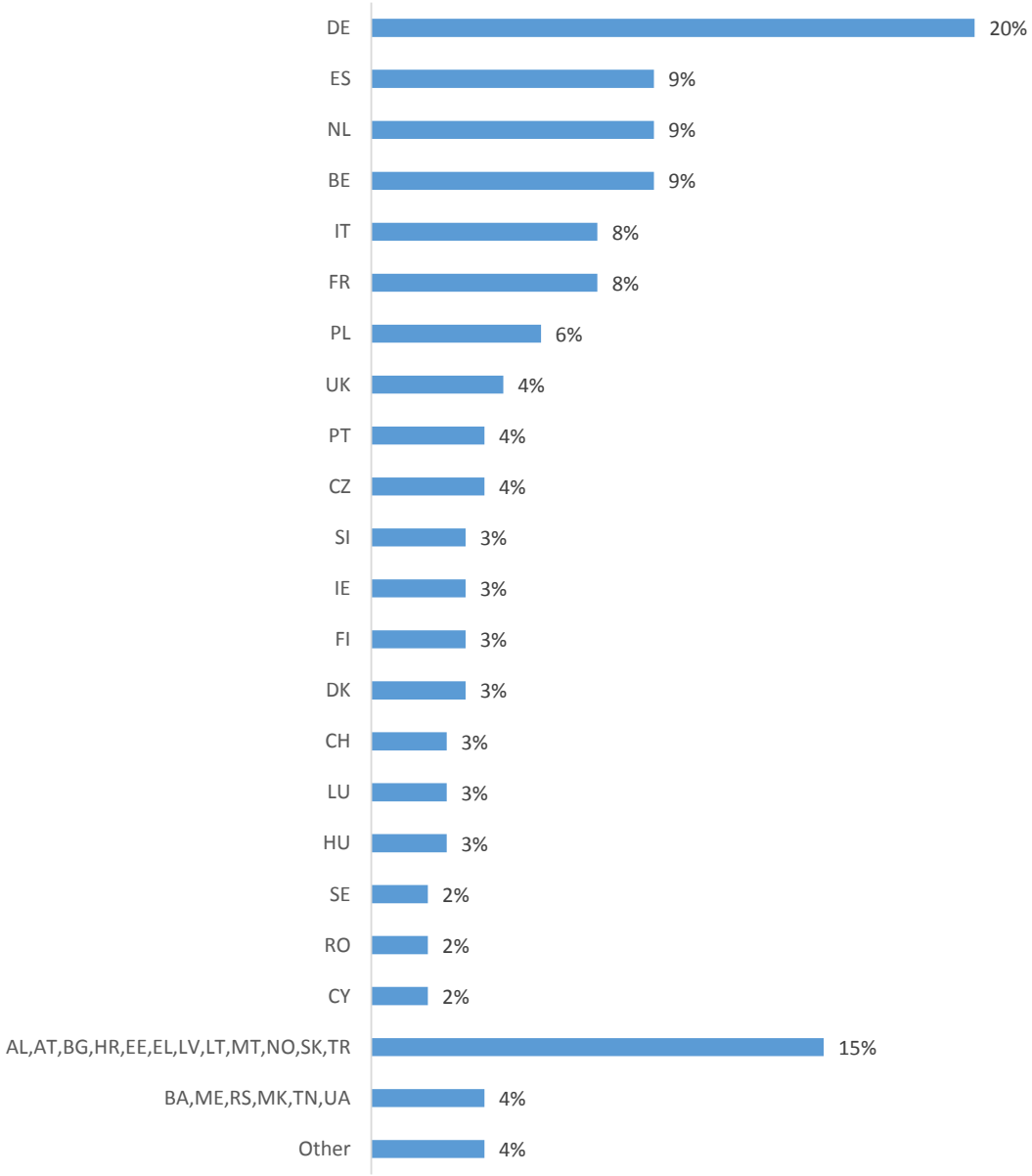
Base: all who responded on behalf of an organisation / institution (n=59)

Country of respondents

Figure A1.3 shows the country that respondents were located in. The most common country of location was Germany, which accounted for 20% of respondents. After this came Spain, the Netherlands, Belgium, Italy and France, each accounting for 8-9% of respondents.

Figure A1.3 The location of respondents

Q.4 In which country are you located?



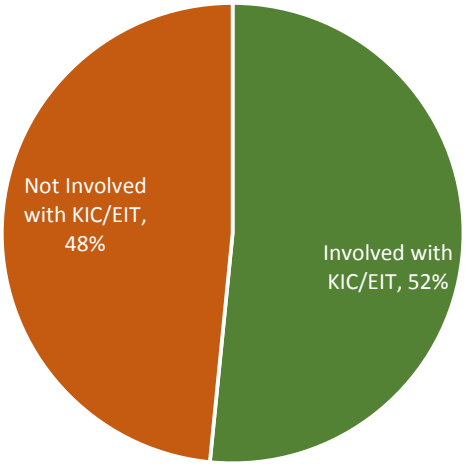
Base: all respondents (n=159); note: countries with 1.3% of respondents have been grouped (AL,AT,BG,HR,EE,EL,LV,LT,MT,NO,SK,TR), as have countries with 0.6% of respondents (BA,ME,RS,MK,TN,UA)

Involvement with the EIT / KICs

As Figure A1.4 shows, OPC responses were split almost half and half (52% to 48%) between organisations / individuals who were involved with the EIT/KICs, and those who were not. As noted above, in the remainder of this synopsis report we present data for both of these sub-categories.

Figure A1.4 Whether OPC participants were involved with the EIT and/or KICs

Q.5 Are you or your organisation involved with the EIT/ KICs in any way?



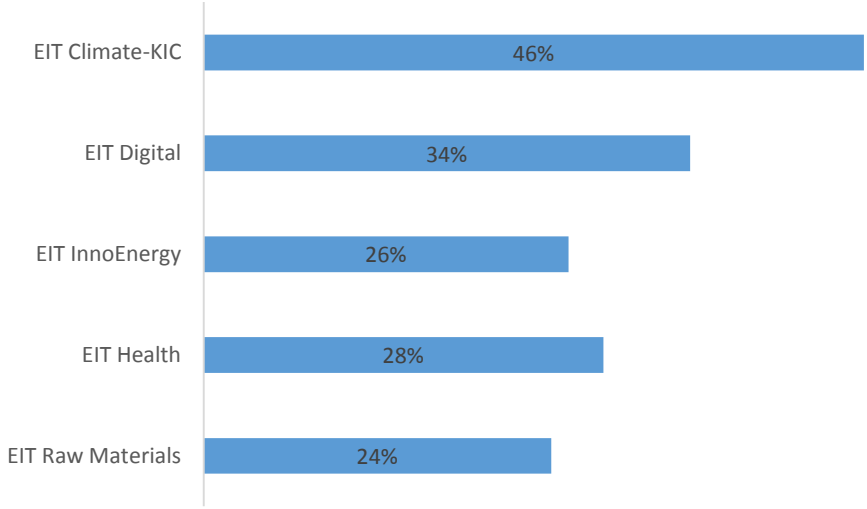
Base: all respondents (n=159)

Which KIC participants were involved with

The sub-group of OPC respondents who indicated that they were involved with the EIT/KICs were asked which KIC(s) they were involved with (Figure A1.5). All KICs were well 'represented' by respondents. Just under half (46%) of organisations/individuals were involved with the EIT Climate-KIC in some capacity, the most common KIC identified amongst respondents.

Figure A1.5 Which KIC(s) respondents were involved with

Q.6 Please indicate the KIC(s) that you are involved with.



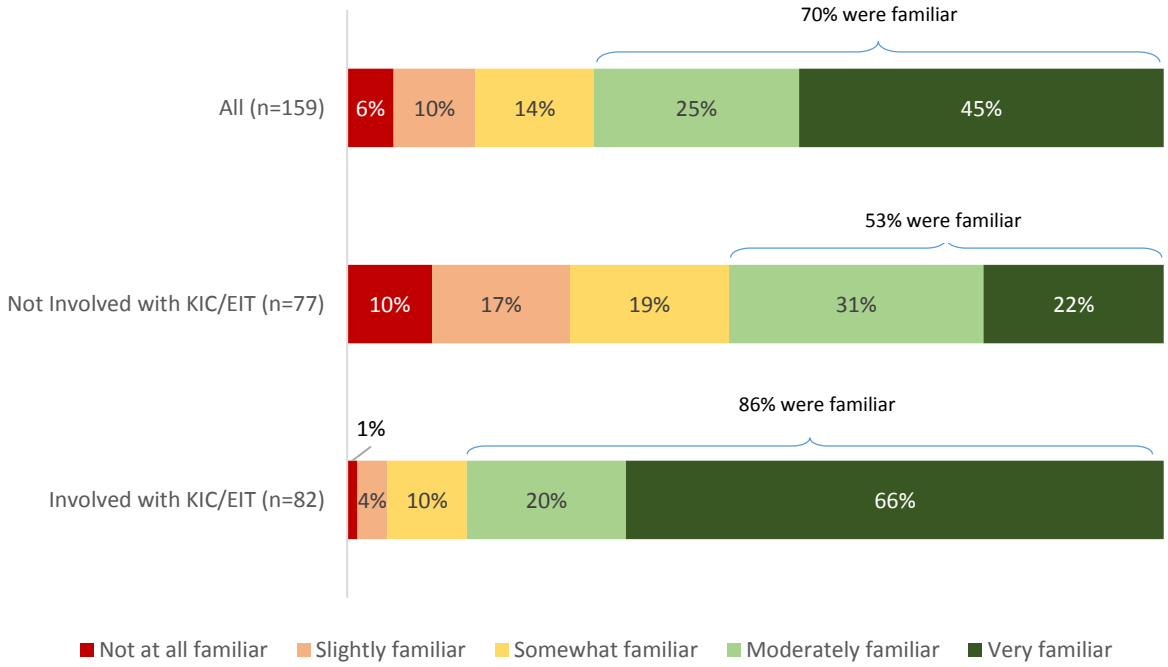
Base: all respondents who indicated that they were involved with the EIT/KICs (n=82).
Note: respondents could select more than one KIC, so data sums to more than 100%

Familiarity with the EIT/KIC

Figure A1.6 shows how familiar OPC respondents indicated they were with the EIT and the KICs. We have presented data for all respondents, together with those respondents who indicated they were or were not involved with the EIT/KICs. Overall, 70% of respondents indicated that they were either 'moderately' or 'very' familiar with the EIT and the KICs. As can be seen, whether or not respondents were involved with the EIT/KICs had an impact on their familiarity. Some 86% of those who were involved in the EIT/KICs described themselves as 'moderately' or 'very' familiar with the EIT and the KICs.

Figure A1.6 Respondents' familiarity with the EIT/KICs

Q.8 How familiar are you with the activities of the EIT and the KICs?



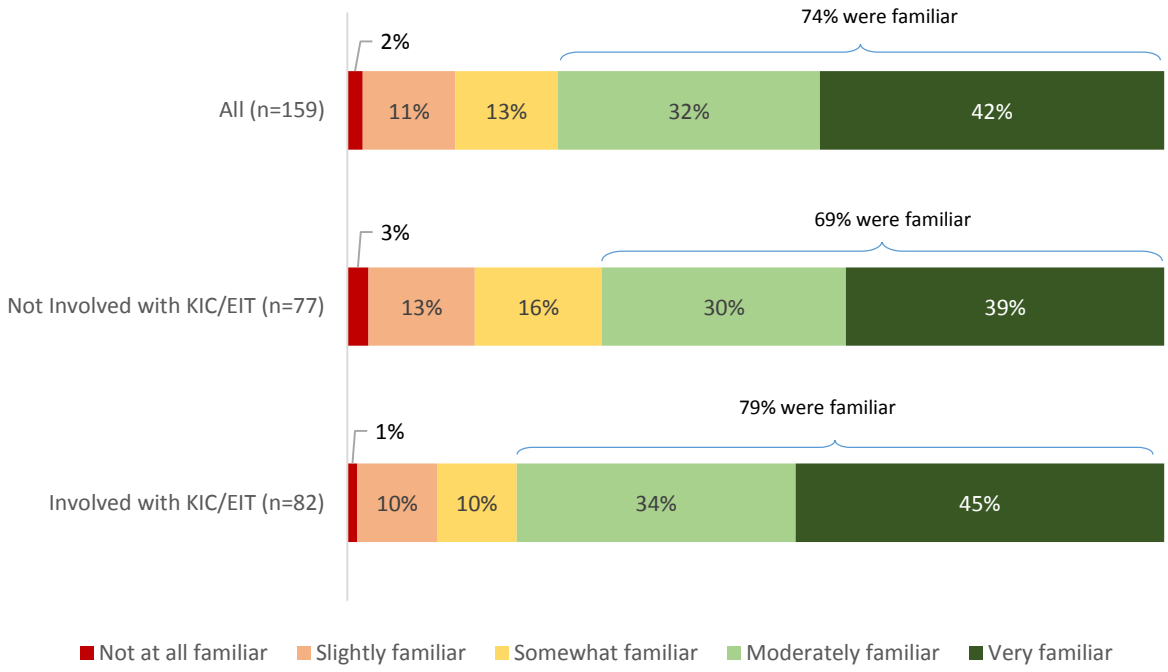
Base: all respondents

Familiarity with other EU innovation and knowledge triangle initiatives

The OPC also asked respondents how familiar they were with other EU activities in the field of innovation or knowledge triangle integration (Figure A1.7). Overall, OPC respondents described themselves as reasonably well-informed. Some 74% of respondents believed they were either 'moderately' or 'very' familiar with other EU innovation and knowledge triangle initiatives. Respondents may thus be characterised as reasonably well-informed about comparable initiatives and activities underway at an EU level (they were not asked about their familiarity with initiatives underway at a national or sub-national level).

Figure A1.7 Respondents' familiarity with other EU innovation or knowledge triangle initiatives

Q.9 How familiar are you with the EU's other activities in the field of innovation or the field of integration of education, research and business?



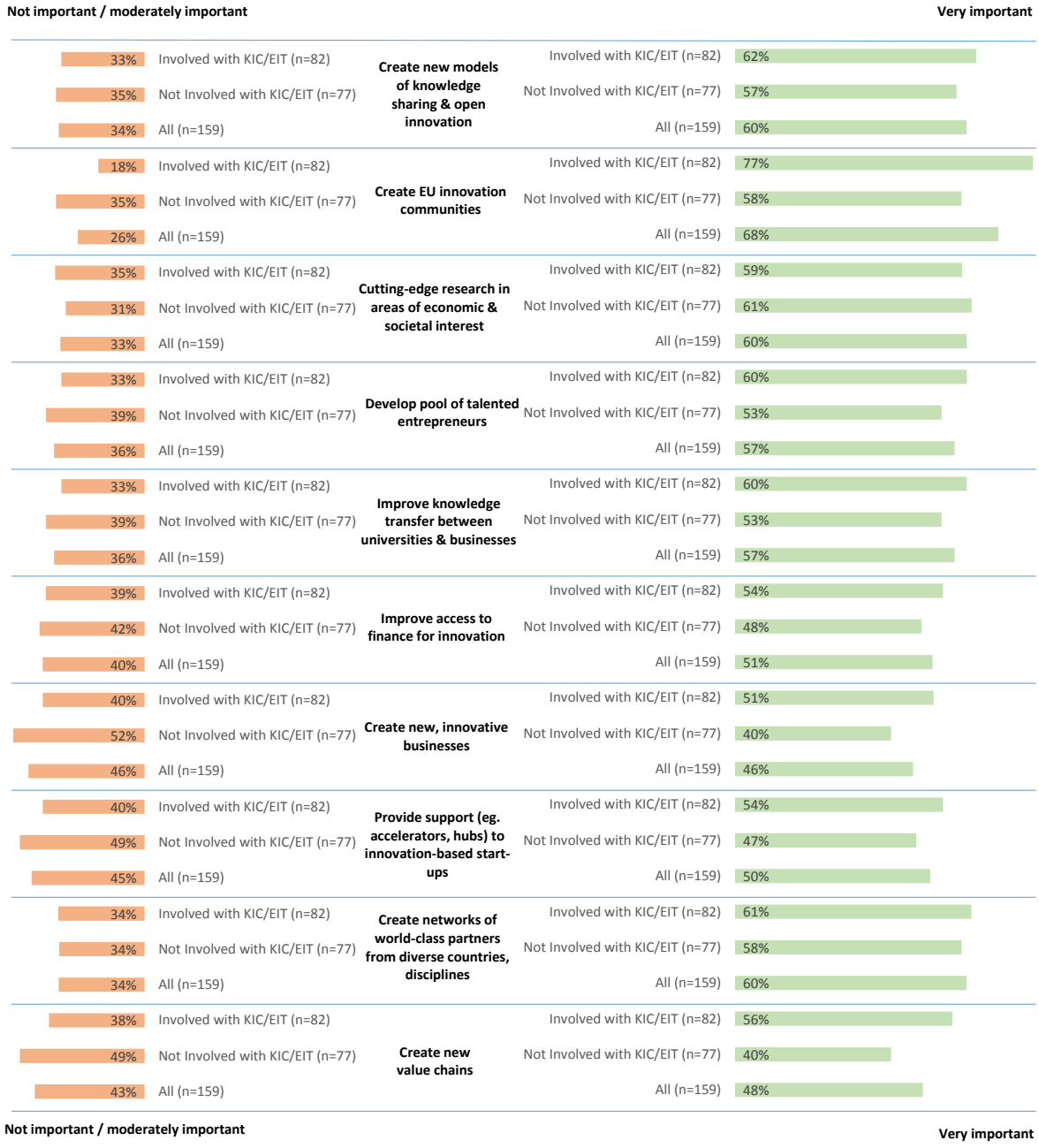
Base: all respondents

The importance of selected innovation goals to the EIT

The OPC asked respondents to rate the importance of a selection of innovation-related goals to the EIT (Figure A1.8). These are not the EIT's objectives; rather these are a general set of goals that devised by the evaluation team to test whether OPC respondents believed that the EIT was addressing the correct objectives in order to accomplish its overall mission to boost Europe's innovation capacity. Answers were broadly similar regardless of whether or not OPC respondents were involved with the EIT. Overall, the highest proportions of OPC respondents rated as 'very important' the following goals: creating EU innovation communities (68%), creating new models of knowledge sharing / open innovation, cutting-edge research, and creating diverse networks (all 60%).

Figure A1.8 Respondents' views on the importance of various innovation-related goals

Q.10 In order for it to achieve its mission (i.e. to enhance Europe's innovation capacity), how important is it for the EIT to deliver on the following?



Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

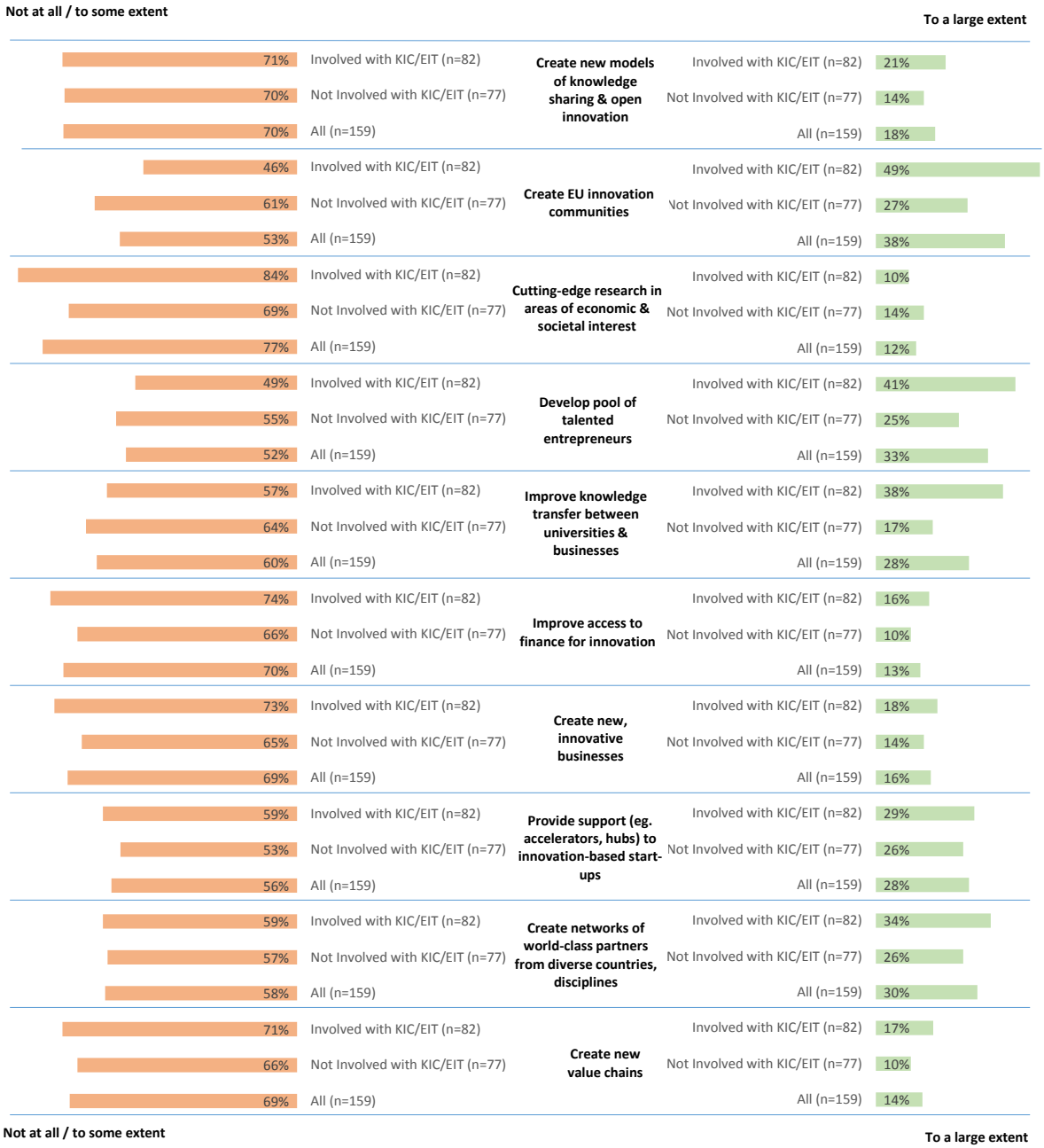
Whether the EIT actually delivers against selected innovation goals

Following on from Figure A1.9, as part of the OPC, respondents were asked whether they believed that the EIT was actually delivering against the selected innovation goals (Figure A1.9). Again, it should be noted that these are not the actual objectives of the EIT as set out in the Regulation; rather a set of goals devised by the evaluation team to explore with OPC respondents where they believe the EIT is delivering. We see a

difference in response between respondents who were involved in the EIT and those that were not, which may suggest a communication / profile issue for the EIT. Areas where high proportions of respondents who were involved in the EIT believed that it was contributing 'to a large extent' included: creating EU innovation communities (49%),developing a pool of talented entrepreneurs (41%) and improving knowledge transfer (38%).

Figure A1.9 Respondents' views on whether the EIT contributes to various innovation-related goals

Q11. To what extent is the EIT actually contributing to the following?



Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

The design and delivery of the EIT and the KICs

OPC respondents were asked whether they agreed with a series of statements concerning features of the design and delivery of the EIT and KICs (Figure A1.10). Broadly, OPC respondents – particularly those who were involved in the EIT/KICs – agreed with the rationale for the EIT/KICs (e.g. that innovation challenges should be dealt with at EU level). There was support for the idea that the EIT/KICs should foster a culture of innovation at higher education institutions (74% of all respondents 'strongly agreed' or 'agreed' with this statement). There was a lack of agreement that the results of the EIT/KICs are well known, and mixed views about whether the EIT/KICs are working well.

Figure A1.10 Respondents' views on various features of EIT and KIC design and delivery

Q12. To what extent do you agree with the statements below?

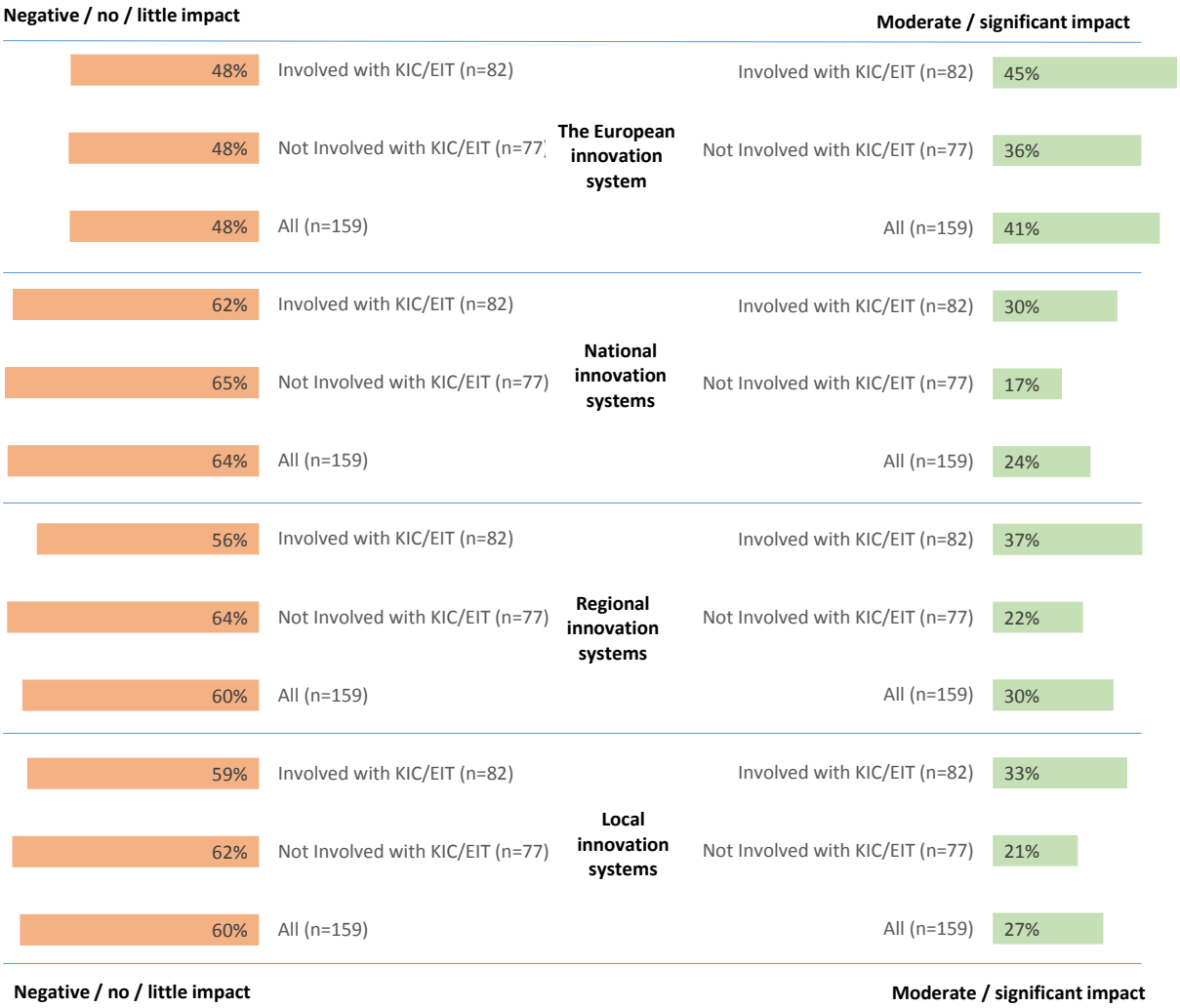
Base: all respondents; note: excludes 'neutral', 'no opinion' and no response, so does not sum to 100%

The impacts of the EIT on innovation systems

OPC respondents were asked to assess the impact of the EIT on various levels of innovation systems within Europe (Figure A1.11). Opinions were mixed, with the majority of OPC respondents considering that the EIT had had a 'negative', 'no' or 'little' impact on national, regional and local innovation systems. Indeed, the largest impact seemed to be at a European level, though still only 41% of OPC respondents considered that the EIT had had a 'moderate' or 'significant' impact. At each level of innovation system, a higher proportion of those respondents who were involved with the EIT/KIC rated the impact as 'moderate' or 'significant', than those respondents who were not involved with the EIT/KIC.

Figure A1.11 Respondents' views on selected impacts of the EIT on innovation systems

Q.14 In your view, what has been the impact of the EIT on?



Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

Following on from this question, OPC respondents were asked to provide an explanation for their answer. Responses covered both positive and negative explanations for the impacts of the EIT/KIC. Key points raised by respondents were as follows:

- *The extent to which the EIT/KICs influence innovation systems is determined by how well they engage and communicate externally:* the views of respondents here were mixed. For some respondents, the KICs have successfully engaged with stakeholders outside of their immediate circle of participants and beneficiaries, particularly in countries or regions that lag behind in terms of innovation performance (linked with the EIT RIS activities of the KICs). However, for many other OPC respondents, the EIT and the KICs have been much less effective at external engagement than they should have been, which has negatively affected their ability to influence innovation systems. This issue was variously attributed to: a lack of profile or visibility, meaning that external stakeholders are unaware of the achievements and good practice models of the KICs; and a view amongst some that KICs are too much a 'closed shop' made up of a small number of partners and beneficiaries, with limited engagement with non-participants. Some OPC respondents observed that there was little evidence of KIC/EIT involvement and engagement at a *national* level, where there is significant opportunity to influence innovation systems and the framework conditions that enable and support innovation. According to one OPC respondent:

> *"Although 4 out of 5 existing KICs have a CLC based in the Netherlands and Dutch participants are receiving more EIT funding than any other country, these CLCs are not getting much policy attention and have not really been embedded in the NL innovation system"*

Philips, KIC partner

- *CLCs are a key mechanism for influencing local and regional innovation systems*: several OPC respondents noted the importance of the *physical* presence in a locality that CLCs provide, which was important in influencing on the local or regional innovation system. As one respondent noted (the identity of the KIC and the region/country have been removed to protect anonymity):

> *"The impacts are focussed on the specific regions where the EIT and KICs work. In [ ] KIC, for example, the area of [ ] in [ ], here the KIC had a great impact on the regional and local innovation system. But it is difficult to generalise this, as many other regions in Europe do not benefit from the KIC activities"*

Individual, former employee of KIC partner and graduate of EIT-label course

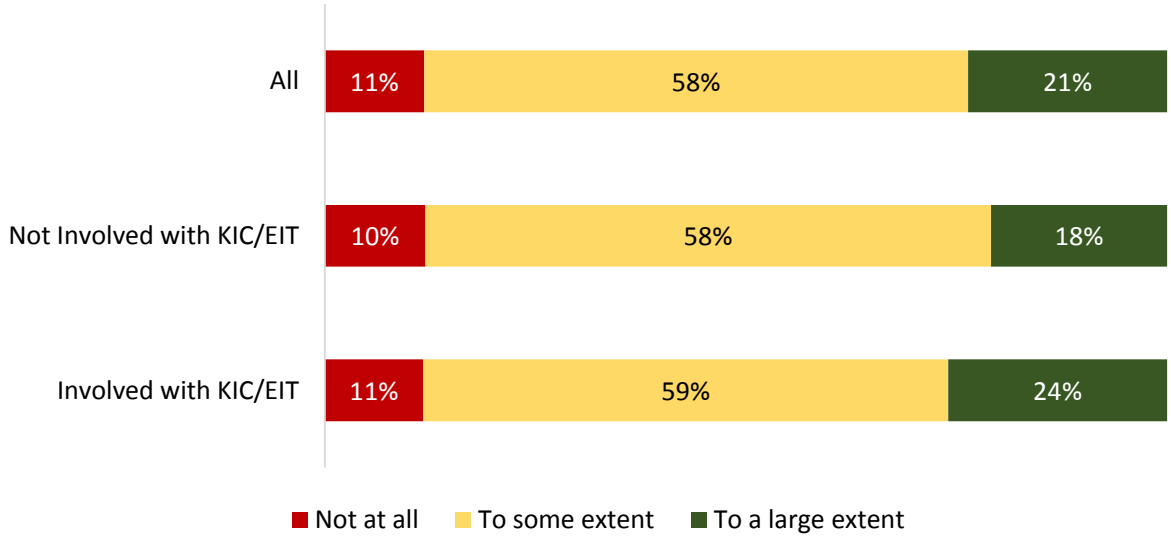
- *Affecting an innovation system takes time and resource, and the KICs are mostly too young to have achieved this*: some respondents argued that KICs – particularly the second wave of KICs – have not been in place long enough to have a noteworthy impact on innovation systems. Relatedly, it was argued that the annual budgets of the KICs are also too small to expect system-level changes at a national and even possibly regional level. These OPC respondents believed that any changes were likely to take place at a local level.

Impacts of the EIT on Europe's innovation capacity

Figure A1.12 shows OPC respondents' views on whether the EIT contributes to strengthening Europe's innovation capacity. As these data show, opinion was fairly consistent regardless of whether or not OPC respondents were involved with the EIT/KICs. A majority of all respondents (58%) believed that the EIT had contributed to strengthening Europe's innovation capacity 'to some extent'; just 21% of all respondents believed the EIT had contributed 'to a large extent'.

Figure A1.12 Respondents' views on whether the EIT contributes to strengthening Europe's innovation capacity

Q.15 To what extent does the EIT contribute to strengthening Europe's innovation capacity?



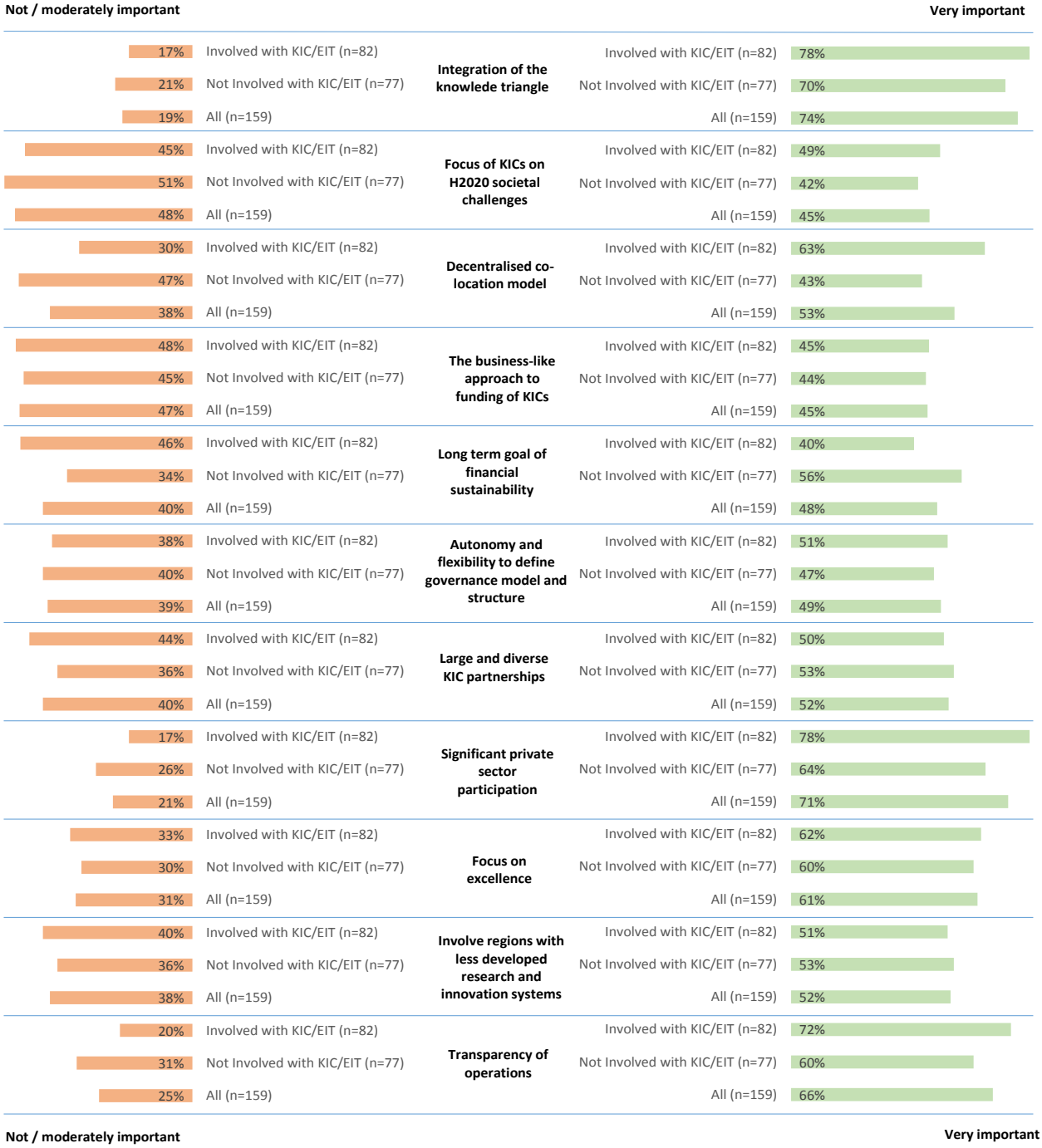
Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

Key features of the KIC model

OPC respondents were asked to identify the features of the KIC model that were most important to the achievement of the EIT's mission (Figure A1.13). Features that were had the highest proportion of 'very important' ratings included: the integration of the knowledge triangle (74% of all respondents), private sector participation (71%) and transparency of operations (66%).

Figure A1.13 Respondents' views on key features of the KIC model

Q.17 How important are the following characteristics of the KICs in order for the EIT to achieve its mission of enhancing Europe's innovation capacity?



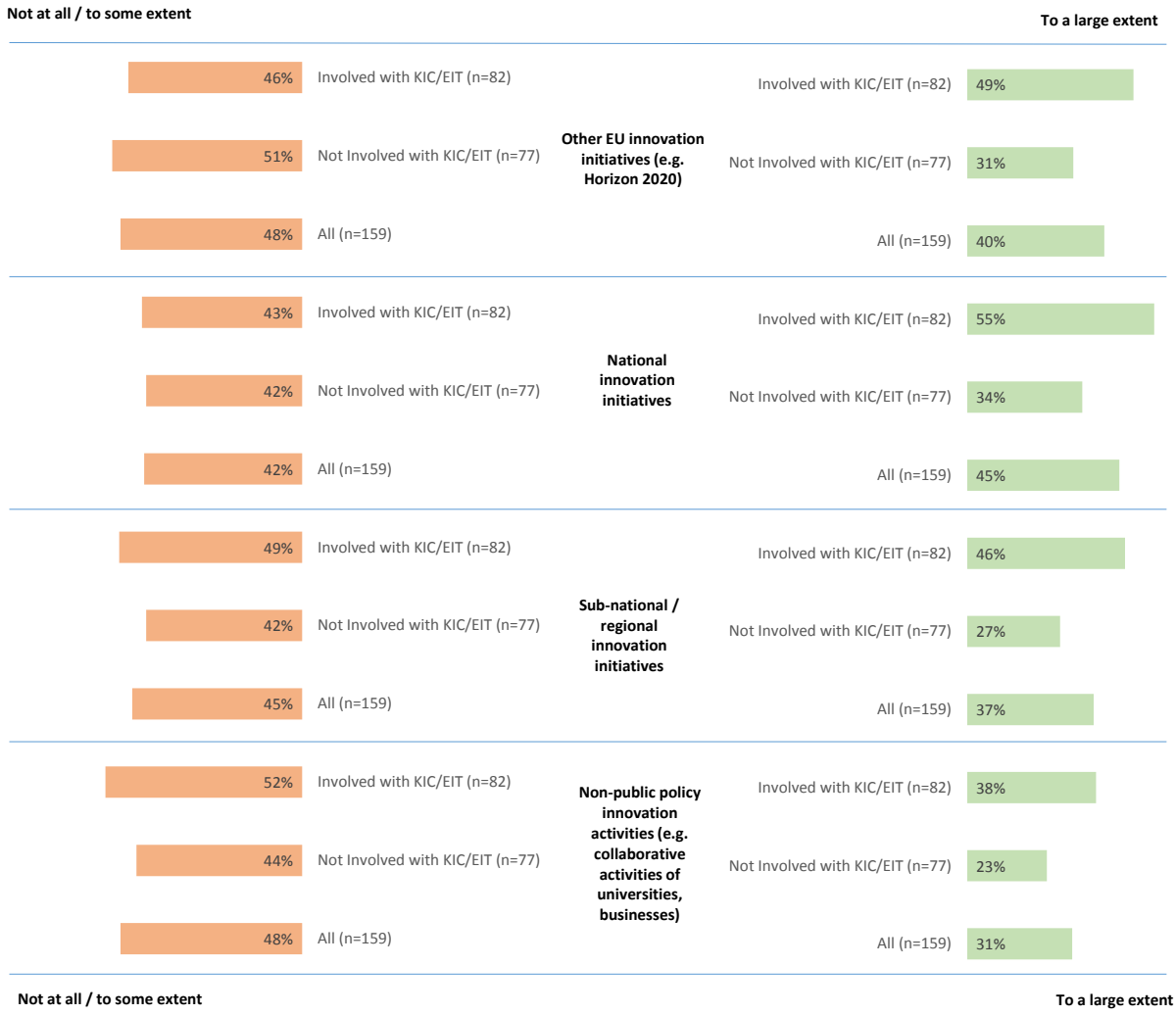
Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

The distinctiveness of the EIT/KICs

Figure A1.14 shows OPC respondents' views on the extent to which the EIT is distinctive from other innovation initiatives, including those at a European, national and sub-national level, as well as innovation activity that takes place outside of public policy. Views were mixed, and overall it is clear that OPC respondents did not perceive the EIT/KICs to be markedly different from other innovation activities, whether public policy or non-public. Under half of all respondents believed the EIT was distinct 'to a large extent' from other EU innovation initiatives (40% of respondents), or national innovation initiatives (45%). Proportions were lower when the subject of comparison was sub-national innovation initiatives (37%) or non-public policy initiatives (30%). Respondents who were involved with the EIT/KICs were slightly more likely to indicate that the EIT was distinct 'to a large extent' than respondents who were not involved with the EIT/KICs.

Figure A1.14 Respondents' views on whether the EIT is distinctive from other innovation initiatives

Q.18 To what extent is the EIT distinctive from existing initiatives that support innovation?



Base: all respondents; note: excludes 'no opinion' and no response, so does not sum to 100%

The added value of the EIT / KICs

OPC respondents were asked to identify what they saw as the key added value of the EIT/KICs, and to explain their answer(s). The following points were made:

- *The EIT's grounding in the knowledge triangle model was seen to provide a holistic approach to innovation*: many OPC respondents (whether explicitly or implicitly) noted the value of the knowledge triangle model, in the sense that it brought together partners from business, higher education, and the public sector, and also in the sense that the KIC model encompasses innovation support, training and education, and entrepreneurship support. It was suggested by some OPC respondents that this was a new way of working that facilitated open innovation and brought new ideas and perspectives to the innovation process. According to one respondent:

> *"The key added value [of the EIT/KICs] is the integration of the three sides of the knowledge triangle, i.e. education, innovation and research. No other EU instrument integrates education into research and innovation activities which is a stronghold and is expected to deliver on improved entrepreneurship and innovation capacities"*

DIGITALEUROPE, KIC partner

- *The entrepreneurship education element of the EIT/KICs was seen as a key differentiator compared to other innovation activities*: entrepreneurship education – working with graduates to inspire and support them to start their own businesses – was often identified by respondents as one of the most important ways in which the EIT added value. Similarly, embedding innovation and innovation-related soft skills such as problem solving, was highlighted as an added value of the EIT-label courses, as one respondent explained:

> *"The integration of innovation and entrepreneurship into education is a clear success story [of the EIT]. Some Masters [courses] include an "engineering business case" where some companies are directly involved by posing a "from idea to market" real engineering problem to the students. Students work on this problem and contrast their solutions with the solutions adopted by the companies. All the students consider very positive such approach".*

Universitat Politecnica de Catalunya, KIC partner

- *KICs were seen to be favourable to small businesses and start-ups: i*t was also noted that the importance that KICs place on start-ups and the role of start-ups in innovation was an important way in which the EIT differentiated itself from other innovation initiatives (whether EU or national), which could often come to be dominated by large businesses and universities.
- *KICs bring together partners from different fields and a range of countries*: the pan-EU (and international) scope of the KICs brings together organisations from multiple countries, which makes them distinct from national innovation initiatives. This provides KIC partners and beneficiaries with links to expertise and markets that they might otherwise find it difficult to access. It was also suggested by OPC respondents that the KICs operationalise public-private partnerships in a way that other public innovation support initiatives often do not. Other respondents broadened this perspective to note the added value from the diversity of organisations that are involved in KICs, and the way in which KICs have brought together these partners to focus on a specific sector and/or societal challenge.

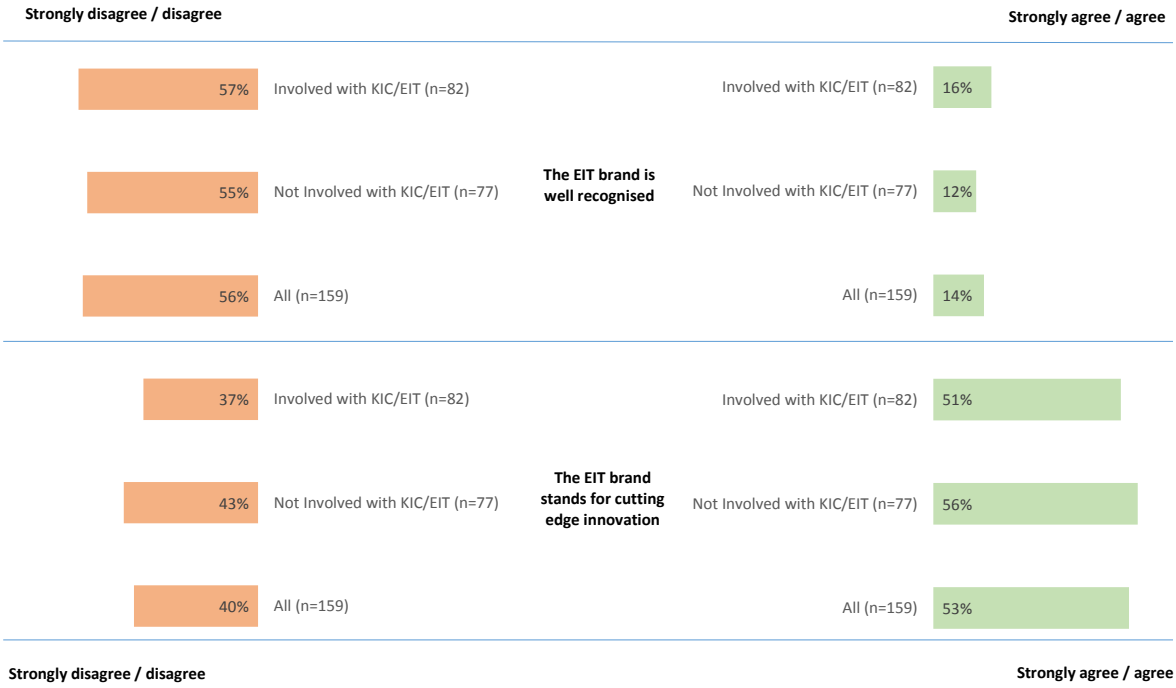
- *Compared to many other research and innovation initiatives, KIC-backed innovation projects are often smaller and quicker:* some respondents contrasted the innovation projects funded by KICs with other research and innovation initiatives (such as those funded via the Framework Programmes), and noted that the KIC-backed projects tend to be smaller in size, shorter, more collaborative, and more focussed (e.g. on a specific issue or product). This makes KIC-backed projects better suited to addressing innovation challenges in a fast-moving market than would be the case if other public (primarily EU) funding programmes were used. Moreover, KIC-backed projects were also – in principle – closer to market than is often the case with public research and innovation support schemes, which, respondents suggested, differentiated the EIT and made it more likely that the initiative could support significant change.

The EIT brand

OPC respondents were asked about their views on the strength of the EIT brand (Figure A1.15). Just over half (56%) of all OPC respondents disagreed that the EIT brand is well recognised, a proportion that was similar regardless of whether respondents were involved with the EIT/KICs, which suggests that this opinion is not based on familiarity (or lack thereof) with the EIT. There was slightly more support for the view that the EIT brand stands for cutting edge innovation (supported by 53% of all OPC respondents, though disputed by another 40%). Interestingly there was relatively little difference in opinion on the EIT brand depending on whether or not the respondent was involved with the EIT/KIC(s).

Figure A1.15 Respondents' views on the EIT brand

Q.20 To what extent do you agree or disagree with the following statements?



Base: all respondents; note: excludes 'neutral', 'no opinion' and no response, so does not sum to 100%

OPC respondents were invited to explain their answer as regards the EIT brand, though most used this opportunity to talk more generally about the profile of the EIT. Respondents made the following observations about the brand and profile of the EIT:

- *Awareness and understanding of the EIT/KICs is largely restricted to the individuals and organisations directly involved in delivery*: several respondents expressed a view that KIC partners and other organisations with direct involvement with the EIT were knowledgeable about what organisation's purpose and achievements, but beyond this, awareness and understanding was more limited. Many respondents noted that awareness amongst the general public was negligible, but some did not see this as a major issue at present, as the EIT needed to establish itself first. However, notably, some OPC respondents argued that awareness of the EIT amongst two core sets of stakeholders – universities and businesses – was also not yet widespread. It was also suggested that the EIT did not have a profile amongst the venture capital community. There was also seen to be limited awareness of the EIT at Member State level (i.e. within national government). Summing up, one respondent noted that:

  > *"EIT does excellent things but is not well known outside partners. It is Europe's best kept secret"*

Individual, not directly involved with EIT/KIC

- *Awareness and profile might be linked to the geography of EIT delivery*: various respondents from countries where the EIT was not active (i.e. there were no Co-Location Centres – CLCs) argued that the limited awareness of the EIT amongst the wider research and innovation community was due to its lack of presence in some countries. The EIT RIS activities were not seen as a sufficient way in which the EIT could build its profile: a physical presence in countries was seen as a requisite. According to one respondent:

  > *"[The EIT is] not known in Greece, except those who have specific interest to get informed about. For example, less people know about the EIT label or how to actively participate in synergies, clusters and open innovation. EIT brand is known to some extent only in countries where there are KICs. EIT Headquarters very rarely contact with other organisations, consumers, citizens, etc.*

Individual, not directly involved with EIT/KIC

- *There is some confusion about the difference between the EIT and the KICs, though the latter have a higher profile*: several respondents noted a lack of awareness of the relative roles of the EIT and the KICs. The KICs – which through their activities have a greater public presence – were seen by some respondents to have a more recognised brand and profile. For one respondent, it was the KICs that were key to the brand:

  > *"It is the different KICs which are implementing the mission of the EIT. Hence, it is important that they are recognized in the first place. The EIT as host and guiding institution does not have to be recognized to such an extent since it is not market / partner-facing"*

Public Research Institute, KIC Partner

- *The EIT has yet to establish its brand as a source and enabler of innovation*: Opinions were mixed on the EIT's brand in terms of innovation. For some respondents, the EIT had yet to establish itself as a leader the field of innovation specifically, as opposed to a funder of research. Part of the problem, it was suggested by some respondents, was that the EIT has struggled to position itself as distinct from the Framework Programmes, and that whilst the research and innovation community in Europe knows about Horizon 2020, this is not the case for the EIT. Relatedly, even when the EIT is connected with innovation support, it was suggested it was simply seen as another public funding agency:

> *"The EIT and KIC brands remain insufficiently known. When their name is known, it is often reduced to yet another funding mechanism, ignoring their role in boosting cross-boundary innovation capacity and actually working with partners and stakeholders on co-constructing solutions. Those who know the brand do understand that it aims at cutting edge innovation, although the level of ambition may still vary across themes and geographies"*

Individual, involved with a KIC

- *Brand-awareness and reputation building will take time, but more can be done*: some respondents stressed that the EIT is a relatively new institution, and that it will take time and a track record of success before a brand and reputation can be developed. Relatedly, some OPC respondents questioned how well the EIT and the KICs are promoting its achievements, particularly in terms of the products and businesses that have made use of the support offered by the KICs. It was noted that good news is essential in building the brand of the EIT.

Improvements to the EIT/KICs

OPC respondents were asked to complete an open-ended question that asked them: "What could the EIT / KICs do differently to have a larger beneficial impact?" The following improvements were suggested by respondents (note that this list includes contradictory suggestions, but that we have included all of the points made by OPC respondents):

- *Promote the achievements of the EIT and KICs more effectively and more widely*: the visibility of the KICs in particular was raised by respondents several times in their responses to the OPC, and a common recommendation was that the EIT and KICs look to do more to promote their successes and achievements. One suggestion was more EIT activity to build networks, and the alumni networks were cited as a way in which a community of EIT beneficiaries can be developed who will then disseminate information on what the EIT is and can achieve. It was also suggested that the evidence that KICs do promote on their websites is too focussed on outputs and measures of expenditure. It was suggested that a more compelling case for the EIT could be made with greater promotion of success stories and measures of impact, which would help attract partners – particularly SMEs – for whom the benefit of participating in the EIT is not presently clear. According to one individual who responded to the OPC:

> *"Publish and talk numbers, products, solutions which succeeded on the market. Don't talk about innovation and technology in general. We don't care much how much money has been spent, how much engineers and researchers involved, talk about the impacts and benefits. Be part of everyday life, not just people from science, research etc."*

Individual, not involved in EIT/KICs

- *Improve transparency in KIC decision-making and processes*: several OPC respondents believed that the KICs should be more open as regards how their allocate resources and the reasons behind the strategic decisions that they take (e.g. which innovation projects to support). According to one OPC participant:

> *"EIT and KICs must be as professional in handling their rules and timelines as they demand it from partners and stakeholders, and their decisions need to be*

consistent over time and based on high quality assessments, if they want to keep the trust of stakeholders"

Individual, involved with EIT/KIC

- *Improve EIT linkages with other networks and programmes, whether at EU or national level*: some respondents argued that the EIT and the KICs are insufficiently connected to other, related activities and networks, and that this hampered information sharing and alignment. Examples included: incubation and business accelerator networks; venture capital networks; business angels. Some OPC respondents wished to see greater involvement of representatives from these networks in KICs.
- *Encourage greater amounts of cross-KIC working*: given the importance of a multi-disciplinary approach to innovation, various respondents argued that this should be better integrated into the KICs' operating models. One respondent suggested the use of joint calls for innovation projects involving multiple KICs, where technologies and products spanned more than one KIC (e.g. around digitalisation).
- *Develop national-level linkages*: in their response to this question and other parts of the OPC, various respondents queried whether the EIT/KICs had sufficient visibility or enough of a presence at a national level, as opposed to a EU or sub-national level (where the CLCs may be very visible). Suggestions included: greater promotion and KIC involvement in national-level policy discussions, and some form of 'national contact point' model whereby advice and support was available to any organisation that wished to get involved with a KIC (regardless of whether there was a CLC in their country).
- *Widen participation in the EIT and KICs*: whilst acknowledging the impact that the introduction of the EIT RIS had had in increasing participation in the EIT from countries and regions with weaker innovation performance, some OPC participants still perceived the EIT as an initiative that focussed on the traditional centres of innovation excellence. Respondents to the OPC described the KICs as 'closed shops' that replicated and built on pre-existing networks involving the 'usual suspects'. These respondents argued that more should be done to encourage and enable the participation of partners from countries where there were no CLCs and little KIC activity.
- *Extend KIC activity into schools*: some respondents believed that entrepreneurial and innovation education should be brought into schools, rather than restricted to graduates or working age adults, since this would ensure that the next generation of individuals was more entrepreneurially-minded.
- *Simplify the administrative burden associated with participation in a KIC*: several OPC respondents raised a concern about the administrative burden associated with involvement in a KIC, though many did not provide specific examples of what they believed needed to be changed. It was noted by some respondents that KIC autonomy – whilst it made them more adaptable and flexible – resulted in variable administrative requirements and delivery models and made working across KICs more difficult, as they had to familiarise themselves with how each KIC operated. Broadly, moving the EIT into Horizon 2020 was seen by some respondents as a move with negative impacts, as the framework programme structure was not seen to suit the KICs, with their autonomy and need to operate with agility. Specifically, some respondents highlighted increased financial and reporting requirements of

participation in the KICs as a result of closer alignment with Horizon 2020. One respondent made the case as follows:

> *"If the EIT is supposed to foster an innovative way of working that is really different from the traditional instruments in Horizon 2020, it should be granted more regulatory leeway to do so, without being forced into every element of the Horizon 2020 straightjacket, e.g. applying its ill-fitting framework partnership agreements to the EIT, its KICs and their partners. EIT should define upfront the framework in which new KICs should fit, in order to prevent new negotiations and constructions varying from KIC to KIC"*

Large business, KIC partner

- *Abolish the single year grant agreements and move to a more long-term model of KIC funding*: various respondents queried the value of having grant agreements that only lasted for a single year, and called for the introduction of a multi-annual grant agreement. This would, for example, align better with the timeframe for innovation projects, which may take several years to set up and generate outcomes.
- *Amend governance arrangements*: some OPC respondents called for even more autonomy at the level of the KIC, which they believed should be given greater freedom to design and manage its activities. Relatedly, respondents also suggested that the EIT headquarters should take more of a strategic support and leadership role, with a Governing Board that takes a more involved role in the KICs, by visiting them more and providing advice and guidance.
- *Revisit the requirement that KICs move towards financial sustainability*: several respondents questioned whether sustainability was desirable or feasible. In particular it was argued that this has led KICs to seek to maximise income streams that go against how some OPC participants believed the KICs should operate. Notably this included: i) the size of the fees charged, which some respondents believed were prohibitively high and excluded SMEs and other resource constrained organisations; and ii) the role of IP as a source of income for the KICs, with some respondents arguing that IP should remain exclusively with the partners within an innovation project. One respondent explained their thinking thus:

> *"We are worried about the direction in which discussions on the sustainability are developing. The KICs are facilitators, supporters, promotors of new solutions, products and business. But the intellectual property and benefits should remain the properties of the organisations which developed it. The return on investment for the EIT and the KICs is in the achievement of their objectives of competiveness of Europe, sustainable economic growth and job creation"*

2. Online surveys of partners, graduates and businesses

Three separate online surveys were designed to collect evidence from KIC partners (past and present, core and associate / affiliate[49]), graduates of EIT-label courses and businesses that had participated in KIC accelerator / business support schemes.

Looking across the surveys, response rates for the partner survey were mixed, ranging from around 20% up to 54%. This may reflect research fatigue given the recent partner survey carried out for the European Court of Auditors (ECA) Report, and the parallel OPC (which many partners responded to). Response rates for the graduate survey were around 45-55% which is positive, and were around 40-95% for the business survey, which is very high (excluding the EIT Health survey, for which the population was small, given how recent the KIC started its operations).

Table A2.1 Summary of the results of the surveys, disaggregated by KIC

Survey type	KIC	Population	# Responses	Response rate	Delivery mode
Partner survey	EIT Climate-KIC	239*	128	53.6%	Sent by ICF
	EIT InnoEnergy	250^	52	20.8%	Sent by KIC
	EIT Digital	103^	34	33.0%	Sent by KIC
	EIT Health	157*	31	19.7%	Sent by ICF
	EIT Raw Materials	100^	31	31.0%	Sent by KIC
Graduate survey	EIT Climate-KIC	205*	97	47.3%	Sent by ICF
	EIT InnoEnergy	300^	160	53.3%	Sent by KIC
	EIT Digital	153^	85	55.6%	Sent by KIC
Business survey	EIT Climate-KIC	224*	219	97.8%	Sent by ICF
	EIT InnoEnergy	75^	54	72.0%	Sent by KIC
	EIT Digital	100^	41	41.0%	Sent by KIC
	EIT Health	51*	15[##]	29.4%	Sent by ICF

*Note: * Counts from contact database provided by KIC;*

^ numbers provided to ICF by KIC'; [##] Sample too small (n<30) to analyse quantitatively

Quantitative and qualitative data from the three surveys were analysed by the evaluation team, and the results of this analysis have been used throughout the independent evaluation report.

Partner survey

8 To what extent were the following motivations

[49] Note that the partner survey population does not match the analysis of the number of partners per KIC, because the partner survey was opened up to all partners, past and present, whereas partner data are presented on a per-year basis.

reasons why your organisation became a KIC partner?:

Reputational benefits from association with the EIT	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	14%	35%	28%	17%	5%	100%
EIT Digital	29%	26%	24%	15%	6%	100%
KIC InnoEnergy	17%	31%	29%	17%	6%	100%
EIT Health	23%	35%	35%	6%		100%
EIT Raw Materials	29%	29%	19%	19%	3%	100%
Total	19%	33%	28%	16%	5%	100%

Reputational benefits from association with KIC	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	30%	38%	23%	8%	2%	100%
EIT Digital	26%	32%	18%	18%	6%	100%
KIC InnoEnergy	25%	37%	23%	13%	2%	100%
EIT Health	26%	45%	23%	6%		100%
EIT Raw Materials	35%	39%	13%	10%	3%	100%
Total	29%	38%	21%	10%	2%	100%

Opportunities to work with leading businesses in your sector	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	44%	34%	16%	4%	2%	100%
EIT Digital	71%	21%		3%	6%	100%
KIC InnoEnergy	42%	33%	15%	4%	6%	100%
EIT Health	74%	23%	3%			100%
EIT Raw Materials	74%	23%			3%	100%
Total	29%	38%	21%	10%	2%	100%

Opportunities to work with leading universities and/or research institutions in your sector	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total

Climate-KIC	53%	33%	9%	4%	1%	100%
EIT Digital	62%	26%	3%	3%	6%	100%
KIC InnoEnergy	40%	38%	13%	4%	4%	100%
EIT Health	55%	42%	3%			100%
EIT Raw Materials	68%	26%	3%		3%	100%
Total	54%	33%	8%	3%	2%	100%

General networking opportunities						
	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	52%	34%	12%	1%	2%	100%
EIT Digital	50%	32%	9%	3%	6%	100%
KIC InnoEnergy	33%	40%	21%	2%	4%	100%
EIT Health	58%	42%				100%
EIT Raw Materials	68%	29%			3%	100%
Total	52%	34%	12%	1%	2%	100%

Access to grant-funding						
	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	55%	28%	9%	5%	2%	100%
EIT Digital	44%	47%	3%		6%	100%
KIC InnoEnergy	71%	17%	6%	4%	2%	100%
EIT Health	45%	39%	16%			100%
EIT Raw Materials	52%	32%	13%		3%	100%
Total	55%	30%	9%	3%	3%	100%

Access to investment (e.g. venture capital)						
	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	11%	16%	35%	31%	6%	100%
EIT Digital	3%	12%	29%	47%	9%	100%
KIC InnoEnergy	35%	15%	23%	23%	4%	100%
EIT Health	10%	16%	52%	23%		100%
EIT Raw Materials	10%	23%	42%	23%	3%	100%

Total	14%	16%	35%	30%	5%	100%

To keep abreast of technological developments in your sector						
	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	27%	32%	26%	10%	5%	100%
EIT Digital	44%	26%	18%	6%	6%	100%
KIC InnoEnergy	27%	31%	29%	10%	4%	100%
EIT Health	26%	55%	16%	3%		100%
EIT Raw Materials	26%	42%	29%		3%	100%
Total	29%	35%	25%	8%	4%	100%

To recruit skilled graduates and/or post-graduates						
	To a large extent	To a moderate extent	To a small extent	Not at all	No response	Total
Climate-KIC	11%	23%	28%	34%	5%	100%
EIT Digital	6%	32%	32%	24%	6%	100%
KIC InnoEnergy	6%	21%	38%	31%	4%	100%
EIT Health	10%	23%	48%	19%		100%
EIT Raw Materials	16%	19%	48%	13%	3%	100%
Total	10%	23%	35%	28%	4%	100%

9 To what extent do you agree with the following statements about the organisations that are currently KIC partners:

There is a good balance of types of organisation (universities, large businesses, SMEs, research organisations)							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total
Climate-KIC	1%	22%	59%	12%	6%		100%
EIT Digital	6%	6%	53%	24%	6%	6%	100%
KIC InnoEnergy	4%	6%	42%	21%	23%	4%	100%
EIT Health	3%	16%	48%	32%			100%
EIT Raw Materials	3%	23%	48%	23%		3%	100%
Total	3%	16%	53%	18%	8%	2%	100%

There is a good balance of partners from different countries							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total

Climate-KIC	1%	9%	64%	15%	11%		100%
EIT Digital	3%	9%	50%	21%	12%	6%	100%
KIC InnoEnergy		6%	62%	13%	17%	2%	100%
EIT Health		6%	58%	35%			100%
EIT Raw Materials		6%	48%	42%		3%	100%
Total	1%	8%	59%	21%	10%	1%	100%

Partners include the leading research universities							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total
Climate-KIC	1%	3%	48%	39%	7%	2%	100%
EIT Digital	3%		44%	44%	6%	3%	100%
KIC InnoEnergy			65%	23%	8%	4%	100%
EIT Health	3%	3%	39%	52%	3%		100%
EIT Raw Materials			32%	61%	3%	3%	100%
Total	1%	2%	48%	41%	6%	2%	100%

Partners include the most innovative businesses							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total
Climate-KIC	2%	24%	45%	9%	20%	1%	100%
EIT Digital	3%	15%	53%	24%	3%	3%	100%
KIC InnoEnergy	2%	12%	46%	23%	15%	2%	100%
EIT Health		19%	45%	29%	6%		100%
EIT Raw Materials		23%	52%	16%	6%	3%	100%
Total	2%	20%	47%	16%	14%	1%	100%

Partners include top-class research organisations							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total
Climate-KIC	1%	2%	57%	25%	16%		100%
EIT Digital	3%	3%	38%	50%	3%	3%	100%
KIC InnoEnergy		4%	52%	27%	13%	4%	100%
EIT Health		3%	35%	52%	3%	6%	100%
EIT Raw Materials			32%	61%	3%	3%	100%
Total	1%	2%	49%	36%	11%	2%	100%

The number of partners is about right							
	Strongly disagree	Disagree	Agree	Strongly agree	Don't know	No response	Total
Climate-KIC	2%	20%	51%	3%	25%		100%
EIT Digital	6%	6%	50%	15%	21%	3%	100%
KIC InnoEnergy	2%	4%	48%	10%	35%	2%	100%
EIT Health	3%	13%	55%	23%	6%		100%

EIT Raw Materials		16%	45%	26%	6%	6%	100%
Total	2%	14%	50%	11%	22%	1%	100%

11 To what extent do you think that the following are strong brands in terms of supporting innovation within your sector?:

The KIC

	To a large extent	To a moderate extent	To a small extent	Not at all	Don't know	No response	Total
Climate-KIC	27%	42%	24%	5%	2%		100%
EIT Digital	26%	38%	21%	6%	6%	3%	100%
KIC InnoEnergy	27%	42%	10%	4%	15%	2%	100%
EIT Health	19%	45%	19%	10%	3%	3%	100%
EIT Raw Materials	29%	45%	16%		6%	3%	100%
Total	26%	42%	20%	5%	5%	1%	100%

The EIT as a whole

	To a large extent	To a moderate extent	To a small extent	Not at all	Don't know	No response	Total
Climate-KIC	11%	36%	28%	12%	11%	2%	100%
EIT Digital	21%	38%	24%	6%	9%	3%	100%
KIC InnoEnergy	21%	25%	23%	10%	19%	2%	100%
EIT Health	6%	42%	32%	16%	3%		100%
EIT Raw Materials	23%	35%	26%	3%	10%	3%	100%
Total	15%	35%	27%	10%	11%	2%	100%

12 How effective do you think that the KIC is in communicating its activities and achievements with its partners?:

	Very ineffective	Ineffective	Effective	Very effective	Don't know	No response	Total
Climate-KIC	4%	29%	52%	11%	4%		100%
EIT Digital		35%	47%	12%	3%	3%	100%
KIC InnoEnergy	4%	21%	46%	23%	6%		100%
EIT Health	6%	29%	42%	16%	3%	3%	100%
EIT Raw Materials		26%	58%	13%		3%	100%
Total	3%	28%	50%	14%	4%	1%	100%

13 How effective do you think that the KIC is in communicating its activities and achievements with organisations that are not part of the KIC?:

	Very ineffective	Ineffective	Effective	Very effective	Don't know	No response	Total
Climate-KIC	6%	38%	32%	2%	21%	1%	100%

EIT Digital	9%	32%	32%		24%	3%	100%
KIC InnoEnergy	2%	19%	33%	4%	42%		100%
EIT Health	19%	42%	19%	3%	16%		100%
EIT Raw Materials	3%	45%	19%		29%	3%	100%
Total	7%	35%	29%	2%	26%	1%	100%

16 How effectively do you think that the KIC is delivering activities in the following areas:

Creation of knowledge communities to support innovation						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	3%	16%	70%	8%	2%	100%
EIT Digital		15%	56%	18%	12%	100%
KIC InnoEnergy		19%	58%	13%	10%	100%
EIT Health		19%	58%	19%	3%	100%
EIT Raw Materials		10%	71%	16%	3%	100%
Total	1%	16%	65%	12%	5%	100%

Improved access to finance to support innovation						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	3%	28%	55%	13%	1%	100%
EIT Digital	3%	24%	53%	12%	9%	100%
KIC InnoEnergy	4%	10%	56%	27%	4%	100%
EIT Health	6%	23%	55%	13%	3%	100%
EIT Raw Materials		26%	55%	13%	6%	100%
Total	3%	23%	55%	15%	3%	100%

Supporting innovation-driven research						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	2%	12%	66%	16%	3%	100%
EIT Digital	12%	9%	50%	21%	9%	100%
KIC InnoEnergy	6%	10%	60%	19%	6%	100%
EIT Health	10%	16%	58%	10%	6%	100%
EIT Raw Materials	3%	23%	58%	13%	3%	100%
Total	5%	13%	61%	16%	5%	100%

Supporting knowledge transfer between businesses and universities / research organisations						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	2%	22%	57%	15%	4%	100%
EIT Digital		26%	50%	15%	9%	100%

KIC InnoEnergy	2%	23%	42%	27%	6%	100%
EIT Health		19%	58%	16%	6%	100%
EIT Raw Materials		23%	58%	13%	6%	100%
Total	1%	22%	54%	17%	5%	100%

Supporting the creation of a pool of talented graduates to enable innovation						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	1%	17%	62%	18%	2%	100%
EIT Digital	3%	12%	62%	9%	15%	100%
KIC InnoEnergy		19%	56%	17%	8%	100%
EIT Health		26%	55%	10%	10%	100%
EIT Raw Materials		23%	55%	13%	10%	100%
Total	1%	18%	59%	15%	7%	100%

Supporting workforce training to enable innovation						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	1%	39%	48%	7%	5%	100%
EIT Digital	6%	38%	38%		18%	100%
KIC InnoEnergy		31%	52%	6%	12%	100%
EIT Health	3%	35%	42%	13%	6%	100%
EIT Raw Materials		35%	48%	6%	10%	100%
Total	1%	37%	47%	7%	8%	100%

Support to entrepreneurs to start new innovative businesses						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	2%	16%	54%	25%	3%	100%
EIT Digital	6%	18%	47%	9%	21%	100%
KIC InnoEnergy		15%	52%	21%	12%	100%
EIT Health	6%	13%	65%	13%	3%	100%
EIT Raw Materials		32%	58%	6%	3%	100%
Total	3%	17%	54%	19%	7%	100%

Support to entrepreneurs to scale innovations developed with assistance from the KIC						
	Very ineffective	Ineffective	Effective	Very effective	No response	Total
Climate-KIC	4%	23%	52%	17%	4%	100%
EIT Digital	6%	21%	41%	12%	21%	100%
KIC InnoEnergy	2%	15%	56%	19%	8%	100%
EIT Health	3%	26%	52%	13%	6%	100%
EIT Raw Materials		39%	52%	6%	3%	100%
Total	3%	24%	51%	15%	7%	100%

19 To what extent does the KIC add value to existing initiatives and activities within your sector that support innovation? Please consider how the KIC differs from other existing initiatives and activities

Other EU innovation initiatives / activities (e.g. other areas of Horizon 2020)

	Not at all	To a small extent	To a moderate extent	To a large extent	No response	Total
Climate-KIC	5%	26%	43%	23%	4%	100%
EIT Digital	3%	15%	47%	29%	6%	100%
KIC InnoEnergy	8%	13%	40%	29%	10%	100%
EIT Health	10%	16%	58%	16%		100%
EIT Raw Materials		16%	26%	55%	3%	100%
Total	5%	20%	43%	28%	5%	100%

National innovation initiatives / activities

	Not at all	To a small extent	To a moderate extent	To a large extent	No response	Total
Climate-KIC	5%	28%	42%	20%	5%	100%
EIT Digital	6%	15%	44%	29%	6%	100%
KIC InnoEnergy	2%	15%	35%	38%	10%	100%
EIT Health	10%	23%	29%	39%		100%
EIT Raw Materials		23%	48%	26%	3%	100%
Total	4%	23%	40%	28%	5%	100%

Sub-national / regional innovation initiatives / activities

	Not at all	To a small extent	To a moderate extent	To a large extent	No response	Total
Climate-KIC	8%	24%	38%	25%	5%	100%
EIT Digital	9%	21%	35%	18%	18%	100%
KIC InnoEnergy	10%	12%	38%	29%	12%	100%
EIT Health	10%	19%	35%	32%	3%	100%
EIT Raw Materials	6%	26%	42%	23%	3%	100%
Total	8%	21%	38%	25%	7%	100%

Non-public policy innovation activities (e.g. collaborative activities of universities, businesses)

	Not at all	To a small extent	To a moderate extent	To a large extent	No response	Total
Climate-KIC	5%	24%	43%	21%	6%	100%
EIT Digital	12%	12%	35%	21%	21%	100%
KIC InnoEnergy	4%	23%	42%	17%	13%	100%
EIT Health	10%	13%	45%	32%		100%
EIT Raw Materials	13%	32%	39%	16%		100%

Total	7%	22%	42%	21%	8%	100%

21 Overall, what impact has being a KIC partner had, or do you expect it to have, on the innovation capacity of your organisation?

	No impact	Small impact	Moderate impact	Large impact	Don't know	No response	Total
Climate-KIC	9%	20%	36%	31%	4%	1%	100%
EIT Digital	3%	18%	32%	29%	15%	3%	100%
KIC InnoEnergy	10%	21%	33%	35%	2%		100%
EIT Health	19%	26%	19%	35%			100%
EIT Raw Materials	10%	26%	23%	35%	6%		100%
Total	9%	21%	32%	33%	5%	1%	100%

23 Has the KIC met your expectations in terms of the benefits of being a KIC partner?

	Not met expectations	Partly met expectations	Met expectations	Exceeded expectations	Don't know	No response	Total
Climate-KIC	14%	34%	42%	6%	3%	1%	100%
EIT Digital	3%	38%	44%	6%	3%	6%	100%
KIC InnoEnergy	15%	23%	40%	17%	4%		100%
EIT Health	23%	42%	29%	6%			100%
EIT Raw Materials	13%	39%	42%	6%			100%
Total	14%	34%	41%	8%	3%	1%	100%

24 Thinking beyond your organisation, what impacts has the KIC had, or do you expect it to have, on innovation within your sector?

	No impact	Small impact	Moderate impact	Large impact	Don't know	No response	Total
Climate-KIC	5%	26%	34%	25%	10%		100%
EIT Digital		24%	35%	18%	21%	3%	100%
KIC InnoEnergy	2%	15%	38%	21%	23%		100%
EIT Health	3%	32%	35%	29%			100%
EIT Raw Materials		16%	39%	42%	3%		100%
Total	3%	23%	36%	26%	12%	0%	100%

Graduate survey

10 To what extent did the following aspects influence your decisions to apply for this postgraduate programme as opposed to other?

The multidisciplinary nature of the programme combining technical knowledge (e.g. energy, climate change, digital) with entrepreneurial and innovation education				
	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	3%	4%	3%
To a small extent	2%	9%	6%	6%
To a moderate extent	6%	15%	20%	14%
To a large extent	34%	43%	27%	37%
To a very large extent	51%	28%	38%	37%
No response	4%	3%	6%	4%
Column Total	100%	100%	100%	100%

International mobility offered by the programme				
	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	1%	1%	1%
To a small extent	4%	4%	5%	4%
To a moderate extent	13%	8%	8%	9%
To a large extent	31%	38%	25%	32%
To a very large extent	45%	48%	55%	49%
No response	3%	3%	6%	4%
Column Total	100%	100%	100%	100%

The opportunity to study at one or more top European university				
	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	12%	1%	1%	4%
To a small extent	10%	3%	4%	5%
To a moderate extent	23%	12%	6%	13%
To a large extent	27%	29%	33%	30%
To a very large extent	25%	53%	51%	44%
No response	3%	3%	6%	4%
Column Total	100%	100%	100%	100%

Hands-on approach to innovation and entrepreneurship education i.e. learning based on exposure to real life issues

	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	3%	4%	3%
To a small extent	4%	14%	9%	10%
To a moderate extent	19%	32%	27%	27%
To a large extent	37%	31%	35%	34%
To a very large extent	33%	18%	19%	22%
No response	4%	4%	6%	4%
Column Total	100%	100%	100%	100%

The international recognition of the KIC / EIT brand

	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	12%	18%	21%	17%
To a small extent	27%	25%	33%	27%
To a moderate extent	33%	26%	20%	26%
To a large extent	16%	19%	14%	17%
To a very large extent	8%	9%	6%	8%
No response	3%	3%	6%	4%
Column Total	100%	100%	100%	100%

Focus on entrepreneurship and innovation

	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	4%	6%	4%	5%
To a small extent	6%	11%	15%	11%
To a moderate extent	15%	29%	28%	25%
To a large extent	35%	31%	22%	30%
To a very large extent	36%	20%	24%	25%
No response	3%	3%	7%	4%
Column Total	100%	100%	100%	100%

'Added value' activities such as summer schools, study visits, guest lectures and internships with leading companies

	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	2%	4%	3%
To a small extent	2%	7%	2%	4%
To a moderate extent	14%	16%	22%	17%
To a large extent	30%	33%	27%	30%
To a very large extent	46%	35%	35%	38%
No response	4%	8%	9%	7%
Column Total	100%	100%	100%	100%

11 To what extent do you agree with the following statements? The programme I completed…

Embedded entrepreneurship throughout the programme	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	4%	1%	3%
To a small extent	9%	15%	6%	11%
To a moderate extent	15%	33%	27%	26%
To a large extent	42%	30%	45%	37%
To a very large extent	26%	14%	14%	18%
No response	4%	4%	7%	5%
Column Total	100%	100%	100%	100%

Embedded social responsibility throughout the programme	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	6%	7%	5%
To a small extent	12%	18%	28%	19%
To a moderate extent	29%	41%	40%	37%
To a large extent	35%	21%	16%	24%
To a very large extent	16%	9%	1%	9%
No response	4%	5%	7%	5%
Column Total	100%	100%	100%	100%

Gave me an opportunity to interact with renowned researchers in the field	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	2%	2%	7%	3%
To a small extent	9%	18%	9%	13%
To a moderate extent	28%	29%	29%	29%
To a large extent	36%	34%	35%	35%
To a very large extent	21%	14%	12%	15%
No response	4%	4%	7%	5%
Column Total	100%	100%	100%	100%

Gave me an opportunity to engage with real businesses and entrepreneurs	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	2%	7%	4%	5%
To a small extent	9%	21%	6%	14%
To a moderate extent	23%	32%	19%	26%
To a large extent	32%	24%	45%	32%
To a very large extent	29%	12%	20%	19%
No response	5%	4%	7%	5%

Column Total	100%	100%	100%	100%

Gave me the skills and confidence to develop viable solutions to societal challenges	KIC Climate	KIC Innoenergy	EIT Digital	Total
Not at all	2%	2%	5%	3%
To a small extent	5%	12%	9%	9%
To a moderate extent	31%	38%	31%	34%
To a large extent	40%	30%	36%	35%
To a very large extent	18%	14%	12%	14%
No response	4%	4%	7%	5%
Column Total	100%	100%	100%	100%

Empowered me to start a business	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	5%	11%	7%	8%
To a small extent	13%	28%	14%	20%
To a moderate extent	30%	25%	33%	28%
To a large extent	26%	29%	29%	28%
To a very large extent	22%	4%	8%	10%
No response	4%	4%	8%	5%
Column Total	100%	100%	100%	100%

Provided insight from other disciplines which improved my understanding of the primary field of study	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	5%	3%	5%	4%
To a small extent	7%	8%	14%	9%
To a moderate extent	19%	31%	20%	25%
To a large extent	40%	39%	38%	39%
To a very large extent	25%	16%	16%	19%
No response	4%	4%	7%	5%
Column Total	100%	100%	100%	100%

Used active and student-centred learning methods including innovative tools and delivery mechanisms which improved my learning experience	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	5%	6%	5%	6%
To a small extent	9%	16%	11%	13%
To a moderate extent	33%	42%	26%	35%
To a large extent	29%	19%	36%	26%
To a very large extent	19%	13%	15%	15%

No response	5%	4%	7%	5%
Column Total	100%	100%	100%	100%

Satisfied me so that I would recommend it to friends and acquaintances	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all		1%	1%	1%
To a small extent	2%	3%	4%	3%
To a moderate extent	15%	25%	11%	19%
To a large extent	31%	31%	34%	32%
To a very large extent	46%	36%	44%	41%
No response	5%	4%	7%	5%
Column Total	100%	100%	100%	100%

12 To what extent have you developed the following skills as a consequence of the EIT labelled programme?

The ability to think beyond boundaries and explore and generate new ideas	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	1%	1%	1%	1%
To a small extent	5%	6%	6%	6%
To a moderate extent	19%	27%	21%	23%
To a large extent	45%	40%	41%	42%
To a very large extent	27%	21%	22%	23%
No response	3%	6%	8%	6%
Column Total	100%	100%	100%	100%

The ability to inspire and support others in the process of ideas generation	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	1%	2%	1%	1%
To a small extent	2%	4%	11%	5%
To a moderate extent	19%	26%	21%	23%
To a large extent	48%	46%	35%	44%
To a very large extent	27%	16%	24%	21%
No response	3%	6%	8%	6%
Column Total	100%	100%	100%	100%

The ability to transform ideas into viable business propositions	Climate-KIC	KIC InnoEnergy	EIT Digital	Total

Not at all	1%	4%	2%	3%
To a small extent	6%	14%	5%	10%
To a moderate extent	24%	34%	24%	28%
To a large extent	36%	33%	38%	35%
To a very large extent	30%	10%	24%	19%
No response	3%	5%	8%	5%
Column Total	100%	100%	100%	100%

The ability to use knowledge, ideas or technologies to create new or significantly improved goods, services, processes or policies or new business models				
	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	1%	4%	4%	3%
To a small extent	7%	11%	5%	8%
To a moderate extent	33%	37%	34%	35%
To a large extent	40%	35%	28%	35%
To a very large extent	15%	8%	20%	13%
No response	3%	5%	9%	6%
Column Total	100%	100%	100%	100%

17 In your view, what are the key distinguishing factors of the EIT labelled postgraduate programmes as compared to other similar programmes?

International mobility	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	39%	46%	53%	46%
Better than other programmes	39%	28%	19%	29%
As good as other programmes	5%	15%	14%	12%
Not as good as other programmes		2%	1%	1%
No comment	11%	2%	5%	5%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

The multidisciplinary nature of the programme combining technical knowledge (e.g. energy, climate change, digital) with entrepreneurial and innovation education	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	37%	28%	28%	31%
Better than other programmes	36%	37%	44%	38%
As good as other programmes	10%	22%	11%	16%
Not as good as other programmes		3%	1%	1%

No comment	10%	3%	8%	6%
No response	6%	8%	8%	8%
Column Total	100%	100%	100%	100%

Focus on entrepreneurship and innovation	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	35%	26%	26%	28%
Better than other programmes	40%	43%	40%	41%
As good as other programmes	9%	18%	16%	15%
Not as good as other programmes	1%	4%	4%	3%
No comment	9%	3%	6%	6%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

Focus on societal challenges	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	16%	11%	8%	12%
Better than other programmes	35%	35%	26%	33%
As good as other programmes	21%	37%	33%	31%
Not as good as other programmes	9%	6%	7%	7%
No comment	13%	4%	18%	10%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

Innovative approaches to programme delivery	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	9%	13%	7%	11%
Better than other programmes	31%	28%	32%	30%
As good as other programmes	35%	38%	32%	36%
Not as good as other programmes	1%	8%	7%	6%
No comment	18%	4%	12%	10%
No response	6%	9%	11%	8%
Column Total	100%	100%	100%	100%

Opportunities to engage with renowned researchers and leading businesses in the field	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	10%	11%	13%	11%
Better than other programmes	31%	32%	20%	29%

As good as other programmes	36%	34%	38%	36%
Not as good as other programmes	4%	13%	13%	10%
No comment	13%	3%	8%	7%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

Access to a wider community / network of alumni, start-ups, entrepreneurs, researchers and partners	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Significantly better than other programmes	30%	31%	25%	29%
Better than other programmes	41%	35%	45%	39%
As good as other programmes	14%	18%	15%	16%
Not as good as other programmes		8%	2%	4%
No comment	8%	1%	5%	4%
No response	6%	8%	8%	7%
Column Total	100%	100%	100%	100%

18 Access to further support for business start-up and career opportunities

To what extent did your involvement in this programme increase your understanding of your options for business start up?	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	3%	4%	1%	3%
To a small extent		10%	4%	6%
To a moderate extent	14%	33%	24%	25%
To a large extent	55%	35%	49%	44%
To a very large extent	23%	10%	14%	15%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

To what extent did your involvement in this programme provide access to people and organisations who have helped to enhance your career opportunities?	Climate-KIC	KIC InnoEnergy	EIT Digital	Total
Not at all	4%	6%	5%	5%
To a small extent	14%	16%	12%	14%

To a moderate extent	30%	33%	26%	30%
To a large extent	29%	27%	41%	31%
To a very large extent	18%	11%	8%	12%
No response	5%	8%	8%	7%
Column Total	100%	100%	100%	100%

Business survey

8 **To what extent were the following motivations reasons why you sought support from the KIC's acceleration programme:**

The EIT brand	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Not at all	20%	32%	15%	27%
To a small extent	37%	19%	29%	23%
To a moderate extent	24%	27%	39%	28%
To a large extent	9%	10%	7%	9%
No response	9%	13%	10%	12%
Column Total	100%	100%	100%	100%

The KIC brand	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Not at all	9%	11%	46%	16%
To a small extent	33%	25%	20%	26%
To a moderate extent	33%	34%	12%	31%
To a large extent	19%	21%	2%	18%
No response	6%	9%	20%	10%
Column Total	100%	100%	100%	100%

The range of support offered	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Not at all	0%	0%	2%	1%
To a small extent	0%	5%	2%	4%
To a moderate extent	15%	25%	27%	23%
To a large extent	80%	62%	59%	65%
No response	6%	8%	10%	8%

Column Total	100%	100%	100%	100%

The team's credentials	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Not at all	0%	11%	12%	9%
To a small extent	28%	21%	20%	22%
To a moderate extent	37%	35%	39%	36%
To a large extent	30%	20%	17%	21%
No response	6%	13%	12%	12%
Column Total	100%	100%	100%	100%

8b Which type of support did you received from the programme?

Business development support:	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Consulting	61%	51%	46%	52%
Technology assistance	30%	14%	5%	15%
Training programmes e.g. seminars and vocational training courses covering topics such as financing, design, PR, marketing, legal aspects and other subjects	59%	73%	56%	68%
Tailored one-to-one mentoring or coaching	76%	63%	41%	62%
Investor readiness support	43%	25%	37%	30%

Infrastructure support:	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Access to office space	44%	24%	27%	28%
Shared back-office services	13%	0%	10%	4%
Access to laboratories and research facilities	9%	8%	2%	7%

Network support:	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Access to potential customers	39%	27%	66%	34%

Access to potential investors	67%	42%	68%	50%
Access to potential partners	50%	45%	66%	49%

Financial support:	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Grants	63%	79%	49%	72%
Investment	59%	8%	7%	17%

9 How satisfied were you with the support you received?

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Very unsatisfied	9%	5%	0%	5%
Unsatisfied	0%	4%	5%	4%
Satisfied	31%	52%	66%	50%
Very satisfied	52%	31%	22%	33%
No response	7%	8%	7%	8%
Column Total	100%	100%	100%	100%

11 Do you think that you could have received this support from another source?

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Yes	22%	31%	29%	29%
No	70%	61%	61%	62%
No response	7%	9%	10%	9%
Column Total	100%	100%	100%	100%

12 Were there any forms of support that you needed but which were not provided by the programme?

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total

Yes	17%	28%	2%	23%
No	69%	51%	2%	48%
No response	15%	21%	95%	30%
Column Total	100%	100%	100%	100%

14 Overall, how would you rate the impact of the programme on your idea / business:

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
No impact	2%	0%	5%	1%
Small impact	4%	11%	27%	12%
Moderate impact	22%	30%	37%	30%
Large impact	61%	48%	20%	46%
No response	11%	11%	12%	11%
Column Total	100%	100%	100%	100%

16 To what extent do you agree or disagree that your participation in the accelerator/incubator programme produced the following benefits/ results?

Better understanding of the market	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	20%	23%	17%	22%
Agree	43%	44%	39%	43%
Disagree	24%	17%	24%	19%
Strongly disagree	2%	4%	10%	4%
No response	11%	12%	10%	11%
Column Total	100%	100%	100%	100%

Better knowledge about competitors	KIC InnoEnergy	Climate-KIC	EIT Digital	Total

Strongly agree	11%	8%	0%	7%
Agree	41%	38%	32%	38%
Disagree	33%	36%	46%	37%
Strongly disagree	4%	6%	12%	7%
No response	11%	12%	10%	11%
Column Total	100%	100%	100%	100%

Better understanding of IPR issues	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	24%	6%	0%	9%
Agree	41%	43%	32%	41%
Disagree	19%	32%	46%	31%
Strongly disagree	2%	5%	10%	5%
No response	15%	14%	12%	14%
Column Total	100%	100%	100%	100%

Better understanding of technical issues	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	6%	4%	0%	4%
Agree	22%	23%	17%	22%
Disagree	50%	46%	49%	47%
Strongly disagree	9%	14%	22%	14%
No response	13%	13%	12%	13%
Column Total	100%	100%	100%	100%

Better business model	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	26%	35%	7%	30%
Agree	59%	46%	41%	47%
Disagree	0%	5%	32%	8%
Strongly disagree	2%	1%	5%	2%
No response	13%	12%	15%	13%
Column Total	100%	100%	100%	100%

Helped convert business idea into a viable business proposition	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	24%	24%	7%	22%
Agree	54%	52%	41%	51%
Disagree	7%	10%	29%	12%
Strongly disagree	0%	2%	7%	3%
No response	15%	12%	15%	13%
Column Total	100%	100%	100%	100%

Reduced time to market	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	24%	16%	7%	16%
Agree	43%	43%	39%	42%
Disagree	19%	25%	34%	25%
Strongly disagree	2%	4%	7%	4%
No response	13%	13%	12%	13%
Column Total	100%	100%	100%	100%

Access to our first customer	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	11%	10%	2%	9%
Agree	30%	26%	15%	25%
Disagree	39%	42%	54%	43%
Strongly disagree	7%	10%	17%	11%
No response	13%	13%	12%	13%
Column Total	100%	100%	100%	100%

Access to potential partners	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	19%	12%	27%	15%
Agree	44%	50%	54%	49%
Disagree	20%	21%	7%	19%
Strongly disagree	4%	4%	2%	4%

No response	13%	13%	10%	12%
Column Total	100%	100%	100%	100%

Access to seed / growth funding	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	48%	16%	5%	20%
Agree	26%	35%	49%	35%
Disagree	7%	26%	29%	23%
Strongly disagree	4%	9%	5%	8%
No response	15%	14%	12%	14%
Column Total	100%	100%	100%	100%

Access to pool of EIT graduates	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Strongly agree	20%	8%	5%	10%
Agree	39%	28%	34%	31%
Disagree	24%	37%	34%	34%
Strongly disagree	2%	12%	15%	11%
No response	15%	15%	12%	14%
Column Total	100%	100%	100%	100%

17 Did the programme help advance your business idea to the next level?

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Yes	80%	78%	44%	74%
No	9%	11%	44%	15%
No response	11%	11%	12%	11%
Column Total	100%	100%	100%	100%

18 **Please indicate the progression achieved:**

	KIC InnoEnergy	Climate-KIC	EIT Digital
Concept to pilot	42%	62%	n/a
Pilot to post-revenue	40%	25%	n/a
Post-revenue to growth	16%	8%	n/a
Other (please specify):	2%	5%	n/a
No response	0%	1%	n/a
Column Total	100%	100%	n/a

19 **Would you have made this progress without the support you received from the KIC?**

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Yes	6%	10%	29%	11%
Yes, but not as quickly	61%	64%	54%	62%
Not at all	22%	15%	7%	15%
No response	11%	11%	10%	11%
Column Total	100%	100%	100%	100%

20 **Has your business accessed investment from another source after receiving support from the KIC?**

	KIC InnoEnergy	Climate-KIC	EIT Digital	Total
Yes	46%	46%	39%	45%
No	39%	44%	51%	44%
No response	15%	10%	10%	11%
Column Total	100%	100%	100%	100%

3. Consultation workshop

Workshop Report: Interim evaluation of the EIT, Brussels, 27/1/2017

Introduction

Within the framework of the **interim evaluation of the EIT**, the European Commission, Directorate-General Education, Youth, Sport and Culture (DG EAC) organised a consultation workshop in Brussels to discuss and reflect upon the emerging, 'headline' findings of the evaluation with respect to the following issues:

- The role and contribution of the EIT in strengthening EU innovation capacity through knowledge triangle integration;
- EIT in EU innovation landscape: relevance, coherence and EU added value of the EIT.

Workshop participants included Member States representatives, industry, research organisations and academia, as well as Commission officials and EIT staff. A list of participants is provided in Annex 1.

This report summarises the key discussion points and conclusions of the workshop.

Presentation and discussion topics

- Welcome address and introductory remarks by Harald Hartung (DG EAC, Head of Unit C1- Innovation and EIT);
- Introductory remarks by Martin Kern (EIT- Interim Director);
- Key issues from the participants' perspectives;
- Introduction to the evaluation and presentation of the preliminary findings by Charu Wilkinson (ICF);
- Discussion on "the role and contribution of the EIT in strengthening EU innovation capacity through knowledge triangle integration" facilitated by Rebecca Allinson (Technopolis); Rapporteur: James Leather (ICF);
- Discussion on "the role and added value of the EIT in the EU innovation landscape" facilitated by Erik Arnold (Technopolis); Rapporteur: Bea Mahieu (Technopolis);
- Wrap up by Georgi Dimitrov (DG EAC).

Welcome address and introductory remarks by Harald Hartung (DG EAC)

The workshop was opened by Mr. Harald Hartung, DG EAC. He explained that the purpose of the workshop was to collect feedback on initial evaluation findings as well as inputs on more strategic and forward looking issues such as main priorities of the EIT going forward.

The EIT has a role to play in enhancing EU's capacity to innovate. In concrete terms, the EIT is:

- developing an entrepreneurial mindset and culture through its graduate courses;
- turning ideas coming up in labs and universities into successful products on the market;

- creating new markets.

The first independent evaluation was published in 2011, soon after the launch of the EIT. There is now much more solid evidence on where things stand. Key issues for the evaluation to address are: whether the right balance between investment and output has been achieved? It is this intervention fit for purpose? Is there any duplication of effort?

The interim evaluation was launched in April 2016. An inter-service committee has been set up to oversee and steer the evaluation. The final report will be ready towards the end of March. On the basis of the independent evaluation report produced by ICF and Technopolis, the Commission will prepare a Staff working document on the evaluation summarising the final results of the evaluation, the Commission services response to the findings and conclusions of the evaluation and proposed follow up actions.

- The evaluation will inform the EIT's Strategic Innovation Agenda for 2021-2027.

Introductory remarks by Martin Kern (EIT)

The objectives of the EIT are: to integrate the knowledge triangle (business, education and research) and to reinforce the innovation capacity of the EU.

The concept of knowledge triangle integration (KTI) has not been defined in the EIT regulation; it has been deliberately left open as there is no single recipe for KTI. It has been left up to each KIC to find the right approach according to the thematic challenge it is addressing and the context in which it is operating.

A lot has been achieved since the EIT was launched in 2008:

- Six KICs have been established;
- 30 innovation hubs have been set-up across the EU;
- The KICs bring together over 800 partners from across the knowledge triangle.

The success of the EIT will however, be measured against collaboration and results achieved e.g. products brought to market, success of graduates etc. Some of the innovations are starting to bear fruit. Eighteen EIT innovators are on the Forbes list of most promising EU entrepreneurs. Some of the start-ups who have been through the accelerator programmes now have over 100 employees,

The EIT management recognises that there are some weaknesses and challenges that require attention. For example:

- There is a need to reduce complexity and to simplify.
- The EIT has recently developed a Regional Innovation Scheme (RIS), a key mechanism for achieving pan-European coverage.
- More focus is being placed on enhancing cross-KIC cooperation and synergies
- Widening education programme beyond masters and PhD
- New ideas being explored and developed e.g. an impact fund.

This is a moment to take stock: what has been achieved, what are the strengths of the EIT model, how to go further, and what should be critically reviewed?

The evaluation will inform the new SIA. The EIT has launched a lot of reflections e.g. a working group has been set up to provide ideas and feedback for future strategy.

In recent years, the EIT has established a culture of learning and evaluation.

The EIT has received a report from the High Level Group set up by the Commissioner. In parallel the EIT has launched its own impact study and has conducted thematic reviews of KTI, its education and business creation activities.

Key issues from the participants' perspectives

Mr. Hartung invited the participants to introduce themselves and flag the most important issue from their perspective that the EIT needs to tackle.

The issues highlighted by participants are summarised below. In line with Chatham House Rules, none of the remarks are directly attributed to any participant.

- The EIT/ KICs should do something new and different from other initiatives. The KICs should not fund research (which is the focus of Horizon 2020); business support is covered by national/ regional policy. There is a need for stronger connection of EIT with DGs and country policy levels.
- The need for EIT to demonstrate its added value and focus on excellence.
- Make the EIT's unique selling proposition (USP) more clear for industry.
- To find good examples of public investment and strategies that policy makers could use.
- The EIT should not be constrained by the Horizon 2020 straitjacket.
- More harmonised approach across KICs; greater inclusiveness and transparency.
- KICs should offer critical mass and focus on topics not found in Horizon 2020; KIC topics should be carefully chosen.
- Harmonise rules, regulations, interpretation of KPIs etc. across KICs. The EIT could take a role and create infrastructure on top of KICs for access to finance, and education.
- Connections with regional innovation are not strong enough; weak systemic links.
- The need for clearer impact and sustainability.
- Remove the limit of 50 partners for new KICs, as this encourages a 'closed' shop of pre-existing networks.
- Need to clarify how EIT is embedded in business model of universities – connection teaching and research Is key to EIT's sustainability.
- Understanding and clarity on whether the EIT model still fit for purpose. KTI has an echo of something that talking about years ago. Is it still valid?
- Is it possible to go beyond listing of case studies into convincing account on how KICs lead to impact on ecosystem in the sectors covered by KICs? To what extent have the weaknesses highlighted by the European Court of Auditor's been addressed in operational terms?
- Speed up introduction of innovations to the market and bringing those good ideas to businesses openness and inclusiveness is an issue - how the KICs mobilise private funds.

- Widening awareness and participation – KICs are perceived as closed clubs.

Rapporteur's feedback on break-out sessions (after the presentation of the preliminary findings by Charu Wilkinson)

This section provides a general summary of the discussion. It does not cover all the issues discussed, but rather focuses on those of the greatest significance or greatest controversy.

EIT in EU innovation landscape

- There is tension between being excellence driven versus the EIT/ KICs role in bridging the innovation divide. There was no consensus among participants on the question whether the EIT/KICs should remain involving only the best or whether more efforts are needed to involve also other actors, thus expanding the original consortia and CLC. However, participants agreed that a balance needs to be struck.
- Ideas on possible ways for more cohesion building were put forward e.g. more efforts for sharing of knowledge, learning; spreading knowledge, experiences.
- Calls for KICs to reach out to their external environment. There is currently lack of interaction between EIT/KICs and their ecosystems. KICs are seen as closed networks (excellence).
- There is a difference between acting as partner and making use of services offered. The latter should be open to all.
- There is weak visibility of EIT and KICs among national policy makers.
- Issue of communication. EIT/ KICs are not effectively communicating what they are doing. This is linked to the plethora of objectives and goals being added to the EIT over time, making it hard to be clear to the outside world what the essence of KICs is.
- Identity of KICs is getting lost in the multitude instruments at EU level, which sometimes appear to overlap.
- Added value lies in creation of networks around thematic areas; access to knowledge and key players across Europe; access to excellent students/graduates, 'co-production of knowledge'. All these effects take time to materialise.
- Clarity of purpose of the EIT needs to be reinforced. The EIT initiative is expected to respond to a continuously increasing number of objectives (KTI, cohesion, from idea to market, etc.). Participants considered that too many expectations were set upon the EIT, creating also confusion on where the added value of the EIT is compared to other EU initiatives. Participants considered that the EIT should focus on its core mission.

EIT and knowledge triangle integration (KTI)

- Both groups were asked to vote informally: yes or no do they think that KTI is still a relevant approach to underpin the EIT. Most participants said yes, it was still a useful model, and indeed what else is the EIT beyond KTI? That is what makes it distinctive from other initiatives to support innovation.
- But participants also noted the historical aspect to KTI, and the importance of being alert to other ideas within the innovation space – e.g. triple helix, innovation within the public, open innovation.

- KTI has not been run as a single model by KICs, who have adapted it to their specific societal challenges and needs. KICs have also blended in new ideas into the KTI – e.g. entrepreneurship, training outside of universities to include MOOCs.
- It was noted that there is KTI underway at a national level, so the question is what is the EU added value of this? The main benefit was the pan-EU element, enabling KTI across borders, and opening up companies to new markets, enabling them to scale-up their businesses and innovations.
- Given the KTI going on nationally, a challenge for KICs and the EIT HQ is to capture this and integrate / disseminate what works. This will generate systemic impacts at an EU level and address the innovation challenges that remain. An example was given of a scheme in Sweden whereby students were embedded in challenge-led innovation (triggered by business needs, or societal needs), which provided an example of the application of KTI.
- KICs are not necessarily doing KTI well. They tend to be organised around the three strands with vertical structures, which brings a risk of 'silo' behaviour, whereby Directors deliver their objectives but do not consider how to work with other elements of the knowledge triangle.

Wrap up and closing remarks

Main points raised by participants at the closing stage were that there is a tension between the two models of the KIC:

- KIC as a business in itself that is acting as an investor to generate a return.
- KIC supporting the businesses of its partners.

The first model can be problematic from a partner's perspective, for instance in relation to IP and ensuring they benefit from participation. Instead, KICs have to bring benefits to both partners and society. The key is in the partnership: KICs can be sustainable if they focus investment on creating and sustaining the partnership, provided there is a focus also on societal challenges. The role of EIT headquarter should be to develop learning capacity and spread lessons.

List of participants

	Name	Organisation
1	**John Goddard**	Newcastle University
2	**Ramon Wyss**	KTH
3	**Alea López de San Román**	LERU
4	**Maria Holopainen**	Storaenso
5	**Leonardo Pinna**	Italian industrial association (Confindustria)
6	**Dr. Jan van den Biesen**	Philips Research
7	**Charlotte Andersdotter**	Association of Swedish enegineering companies
8	**Emma Fau**	EUcapital SPRL
9	**Kumardev Chatterjee**	European Young Innovators Forum
10	**Luke Incorvaja**	Permanent Representation of Malta to the EU
11	**Maia-Liisa Anton**	Permanent representation of Estonia to the EU
12	**Ursula Tubli**	Permanent representation of Estonia to the EU
13	**Eszter Lakos**	Permanent Representation of Hungary to the European Union
14	**Karina Angelieva**	Bulgarian representation
15	**Julia Schmalenberg**	Fraunhofer EU Office
16	**Albert van der Steen**	TNO / EARTO
17	**Massimo Busuoli**	NTNU
18	**Sandra Kučina Softić**	University Computing Centre, University of Zagreb, Croatia
19	**Valeria Bandini**	ASTER
20	**Chris NORTH**	DG RTD
21	**Martin Kern**	EIT
22	**Eva Atanassova**	EIT
23	**Neville Reeve**	DG RTD
24	**Andrew Todd**	DG EAC
25	**Denis Crowley**	DG EAC
26	**Elisabeth Schmidt**	DG EAC
27	**Luka Juros**	DG EAC
28	**Georgi Dimitrov**	DG EAC
29	**Harald Hartung**	DG EAC
30	**Salvatore Amico Roxas**	DG EAC
31	**Charu Wilkinson**	ICF
32	**Erik Arnold**	Technopolis Group
33	**Rebecca Allinson**	Technopolis Group
34	**Bea Mahieu**	Technopolis Group
35	**James Leather**	ICF

ANNEX 3: METHODS AND ANALYTICAL MODELS

This sub-section reviews the data collection and analysis activities that were undertaken as part of the evaluation.

1. Open Public Consultation

The purpose of the OPC was to gather information and opinions from a wide spectrum of stakeholders on the effectiveness, efficiency, relevance, coherence and added-value of the activities of the EIT and KICs. Whereas most of the research conducted as part of the interim evaluation involved participants and beneficiaries of the EIT, the OPC provided an opportunity to 'open up' the data collection exercise to a wider community of individuals and organisations and enable them to input into the evaluation.

The OPC consisted of a structured questionnaire that was designed to be completed online (using SurveyGizmo). In addition or instead, respondents were given the opportunity to submit written responses. The questionnaire was designed by the evaluation team and reviewed by Commission Services prior to deployment. Questions were largely closed-ended, with a number of opportunities for respondents to provide more detailed open-ended comments. To encourage a good response rate, the questionnaire was kept as short as was feasible, and consisted of 24 questions.

The OPC was launched on 26 August 2016, and closed on 20 November 2016. It was primarily accessible via DG EAC's dedicated public consultation webpage, and was promoted via the European Commission's standard procedures for running a public consultation. The evaluation team was not involved in raising awareness of the OPC, or in encouraging specific organisations to respond. The OPC received the following responses:

- A total of 159 questionnaires were submitted;
- In addition, 12 written submissions were sent to the Commission, and passed on to the evaluation team.

Quantitative and qualitative data were analysed by the evaluation team, and the results of this analysis have been used throughout the drafting of the independent report.

2. Online surveys of partners, graduates and businesses

Three separate online surveys were designed to collect evidence from KIC partners (past and present, core and associate / affiliate[50]), graduates of EIT-label courses and businesses that had participated in KIC accelerator / business support schemes. The purpose of these surveys was to collect evidence from the individuals and organisations that had benefited from KIC support across the knowledge triangle (innovation, education and entrepreneurship), as well as, in the case of the partners, organisations that had insights into the design and delivery of the KICs.

[50] Note that the partner survey population does not match the analysis of the number of partners per KIC, because the partner survey was opened up to all partners, past and present, whereas partner data are presented on a per-year basis.

Following discussions with KICs (who hold the contact details for survey recipients), two broad approaches were used to survey delivery: EIT InnoEnergy, EIT Digital and EIT Raw Materials sent out the surveys on ICF's behalf, whereas EIT Climate-KIC and EIT Health sent ICF a contact database containing email addresses, so that ICF could send out the survey directly. All surveys were hosted online using SurveyGizmo. Recipients of the survey were contacted by email and provided with a link to the site where the survey could be completed. The partner survey was appropriate for all KICs, but the newness of the second wave of KICs meant that graduate surveys could not be deployed in relation to EIT Health or Raw Materials. EIT Health had a cohort of accelerator beneficiaries and so the start-up survey could be deployed.

Quantitative and qualitative data from the three surveys were analysed by the evaluation team, and the results of this analysis have been used throughout the independent evaluation report.

3. Social network analysis

The purpose of the social network analysis (SNA) was to answer a key evaluation question: to what extent the EIT and its activities had an impact on strengthening the EU ecosystem in the KIC fields of research and innovation, thus reducing fragmentation. This is directly related to the system-level innovation impacts of the EIT model.

The SNA was designed to investigate whether or not the establishment of the KICs had an influence on the characteristics of the research networks of the KIC core partners and associated / affiliated partners in the EU Framework Programme (FPs). Two time periods were used for comparison purposes: during FP7 (i.e. before the launch of the KICs), and under Horizon 2020 (i.e. once the KICs were established). The SNA involved taking the population of KIC partners (as at 2016), and investigating their participation and collaboration patterns within FP-funded research projects. We also looked at the extent to which the key participants in the FP research networks were involved in the KIC partners' FP networks.

The basis for the SNA was the data in the FP7 and Horizon 2020 Community Research and Development Information Service (CORDIS), available from the EU Open Data Portal[51]. We restricted the analysis to the thematic areas of the three first-wave KICs (i.e. energy (EIT InnoEnergy), environment and climate change (EIT Climate-KIC), and ICT (EIT Digital)). Under FP7 these programmes were centred in the Cooperation pillar; in Horizon 2020 they are spread over two pillars: Industrial leadership (LEIT) and Societal Challenges. EIT databases containing the identities of all KIC core partners and associated / affiliated partners were linked with the CORDIS data.

4. Research with policy-makers and at the EIT headquarters

The purpose of this part of the methodology was to understand the rationale, governance and evolution of the EIT and its mandate, processes and procedures. There have been a number of changes within the EIT in the last few years, in terms of staffing, structure,

[51] See: https://data.europa.eu/euodp/en/data/dataset?q=cordis&ext_boolean=all&sort=views_total+desc

and growth. This included the appointment of a new interim director. During the evaluation, the team visited the EIT headquarters in Budapest twice, collected data and interviewed staff.

The data analysed included: administrative documents, minutes of the board meetings, the SIA and other strategy documents. The EIT provided access to a number of other data sources for the KIC level strand of this evaluation.

Interviews with key staff at the European Commission and the headquarters of the EIT covered the following issues:

- The alignment of the EIT vision with the needs in the current EU innovation system;
- The discrepancy between the division of roles as envisaged in the official documents and its implementation;
- The processes for decision-making in relation to the EIT strategy, the EIT Board, and the activities that take place at the EIT headquarters;
- The EIT Governing Board structure and mandate;
- The space for learning in the EIT Governance System;
- The importance of the EIT brand.

In addition, interviews were held with EIT Governing Board Members (present and former), European Commission staff, Former EIT Director and Seconded National Experts.

Table A2.2 provides an overview of the interviews conducted. A complete list of the interviewees is provided in the annexes to this report (published separately).

Table A2.2 Interviews completed with policy-makers and at the EIT headquarters

Interviewee category	Example(s) of interviewees	# of completed interviews
European Commission / policy makers	DG EAC (present and past EIT 'managers') DG RTD / HORIZON 2020 representatives European Parliament	6
EIT headquarters	Board Director & COO Staff of the Partnership Management Unit, Policy and Communication Unit and Services and Finance Unit	12
Key EIT stakeholders at national level	Innovation policy-makers Innovation support agencies	4
Total		**22**

5. KIC-level research

KIC-level research consisted of a large programme of work spanning qualitative and quantitative research methods (in resource terms, the KIC research was the single largest research task conducted as part of the evaluation). Broadly, the purpose of the KIC-level research was to collect a comprehensive evidence base about the effectiveness and impact of the EIT at KIC level, and to explore the added value of the EIT compared to national initiatives. The scope of the work included five KICs: the three first-wave KICs (EIT InnoEnergy, EIT Climate-KIC, EIT Digital), plus the two second-wave KICs (EIT Health and EIT Raw Materials).

Research with each of the KICs was the responsibility of thematic experts (with the support of a thematically focussed research team), who undertook the following research activities:

- *Desk research*: a review of documentary material on the KICs, including: Business Plans; performance reports, including KPIs; independent assessments of KICs; and any other material available;
- *In-depth semi-structured interviews*: each KIC team undertook a comprehensive programme of interviewing with key individuals, including representatives from: the Board, KIC management (COO, CEO, Directors of education, innovation, entrepreneurship), the project officer at the EIT, CLC team members, key partners, and regional / national stakeholders (see 0 for an overview per KIC).
- *Study visits to CLCs*: a member of the study team undertook a study visit to two CLCs in Berlin (part of EIT Digital and EIT Climate-KIC respectively) to interview a selection of stakeholders involved in the delivery of activity (CLC Managers) and a selection of partners / beneficiaries (e.g. businesses that received support from the CLCs). In addition, CLC representatives were interviewed as part of the in-depth semi-structured interviews.
- *Case studies*: case studies were designed to explore thematic topics of relevance to the evaluation, and three each were completed within each of the three first-wave KICs (the second-wave KICs were omitted from the case study exercise as they had only recently commenced delivery). Each case study consisted of between 2-4 interviews with key stakeholders (project leads, partners, beneficiaries), together with a review of project documentation and evaluative evidence, if available.

The primary research undertaken at KIC level is summarised in Table A2.3. A complete list of the interviewees is provided the annexes to this report (published separately). The results of the KIC-level research were analysed by the evaluation team, and are presented throughout this report in response to the evaluation questions. Where relevant, we have included extracts from the case studies to provide additional evidence that illustrates and supports the conclusions of the evaluation team.

Table A2.3 Overview of the primary research undertaken within each of the KICs

KIC name	# Stakeholder interviews	Case studies
EIT InnoEnergy	6 KIC team / Board 2 partners 2 beneficiary 1 EIT desk officer	*Developing Game Changers*: improvements made to the KIC's Masters programme on the basis of lessons learned from implementation. *Financing Minesto*: support to a business/technology on the cusp of commercialisation, and the role of the KIC as a partner. *EIT InnoEnergy Iberia's role in the regional innovation system*: the systemic impact of the KIC in supporting regional innovation.
EIT Climate-KIC	6 KIC team / Board 3 partners 2 participants professional development 1 EIT desk officer	*Pioneers into Practice:* the impact of the KIC's professional mobility programme which looked to build entrepreneurial and intrapreneurial skills amongst climate professionals. *Start-up support: analysis of* the results generated by the KIC's Accelerator, which looked to support start-ups to scale up their businesses. *Innovation support*: the impacts of support provided by the KIC to a start-up via its participation in two innovation support projects.
EIT Digital	5 KIC team / Board 1 partner 1 beneficiary innovation project 1 EIT desk officer	*ARISE network:* regional innovation support provided by the KIC, to build innovation and entrepreneurship support capacity in European regions. *High Impact Initiatives (HIIs):* the rationale, activities and emerging impacts of EIT Digital's HIIs, which are innovation projects with significant potential. *Silicon Valley Hub:* the added value and achievements of the Hub and drivers/barriers to transatlantic cooperation.
EIT Health	6 KIC team / Board 3 partners 1 EIT desk officer	No case studies were completed for the second-wave KICs
EIT Raw Materials	6 KIC team / Board 1 EIT desk officer	No case studies were completed for the second-wave KICs

6. Patent landscaping

In addition to the work carried out by the thematic leads at KIC level, CambridgeIP were contracted to undertake a concise patent landscaping exercise. The purpose was to explore the innovation impact and channels of impact of KIC's patent activities. A case study approach was used, whereby KICs were invited to suggest an example of a business that they had supported that had resulted in the generation of a patent. The

results were thus not expected to be representative of all patents registered as an output of EIT support; rather, this analysis has been used to illustrate the impacts for specific examples. The following cases were suggested by the KICs and analysed by CambridgeIP:

- CorPower Ocean AB (EIT InnoEnergy); and
- Backhaul Solutions for Heterogeneous Networks (EIT Digital).

CambridgeIP carried out a desk based qualitative and quantitative analysis as follows:

- Background research on the company and broader developments in the relevant technology areas;
- Company patent portfolio analysis, including patent family size analysis, patent citation analysis, geographic distribution of patent protection, key technology applications of the company's patents;
- Industry patent analysis using IPC code analysis, building of some top-level patenting trends in the technology fields relevant to the company, identifying patenting trends and key patents in the field;
- Other analysis such as commercialisation evidence, such as licensing or spin-offs.

Due to budget constraints, the analysis was based solely on data extracted from publicly available sources and documents created by third parties, such as patent data obtained Patent Offices' databases and company website. As such, the analysis is limited in scope. In particular, there was no scope to conduct:

- Comparisons between different technology areas and the IP outcomes of different KICs;
- Analysis of factors that can increase the impact of the technologies;
- Systematic analysis of the total patent/IP impact of the KICs;
- Analysis of the relative superiority of any one technology compared to the market;
- Identification of licensing partners/targets from patent data.

7. Comparative analysis

Comparative analysis consisted of a review of a small number of national programmes and initiatives[52] that are broadly comparable with the EIT. The primary purpose of this exercise was to provide evidence as to the added value of the EIT model in comparison

[52] It was agreed at inception stage that, since there are no directly comparable initiatives to the EIT in operation at an EU level, the focus of the benchmarking work would be national level programmes and initiatives.

to what is happening at national level, and also to use these comparators to shed light on the effectiveness, impact and efficiency of the EIT. A total of eight national initiatives were identified in the Interim Report:

- COMET - Competence Centres for Excellent Technologies, Austria;
- Cooperative Research Centres Programme, Australia;
- Leading-Edge Clusters, Germany;
- Networks of Centres of Excellence (NCE) Program, Canada;
- Nordic Centres of Excellence, Norway;
- Pôles des Compétitivité, France;
- SHOK – Strategic Centres for Science, Technology and Innovation, Finland; and
- VINN Excellence Centres – Centres of Excellence in Research and Innovation, Sweden.

Comparator initiatives were selected on the basis that they demonstrated some similarities to the objectives and implementation models of the KICs. This means that they mostly support the creation of communities of various actors, from the private, public and academic sectors, in order to pursue innovation. A mixture of countries – including some non-EU countries – was also considered necessary to achieve a balance of contexts.

The research carried out as part of the comparative analysis consisted of:

- *Desk research*: this was the primary data collection methodology, and involved analysis of information on the official websites of the comparators, as well as in the available documentation that included monitoring, annual and evaluation reports.
- *In-depth semi-structured interviews*: to fill in gaps an desk research and explore specific research topics, a total of five interviews were carried out with representatives from five of the comparator schemes[53].

The data collected via these methods was analysed via a template that was structured around five key 'themes': i) inputs and expenditure; ii) activities carried out; iii) outputs, outcomes, and impacts (quantitative measures where possible, though qualitative assessments of impacts were also included); iv) monitoring and evaluation arrangements; and v) strategic positioning (a largely qualitative assessment of initiatives' embeddedness and role in national/regional innovation systems, and interviewees' views on their distinctiveness vis-à-vis the EIT/KICs). Information collected about the KICs was also added to the analysis matrix, and on the basis of this, comparisons were made about the similarities and differences between the EIT and the other initiatives.

[53] COMET, Leading-Edge Clusters, NCE, Nordic Centres of Excellence, VINN Excellence Centres

8. Consultation workshop

At the end of the data collection phase, a one day workshop was organised in Brussels to present the emerging findings of the evaluation, and for attendees to discuss two key topics of relevance to the evaluation:

- The role and contribution of the EIT in strengthening the EU's innovation capacity through knowledge triangle integration;
- The role of the EIT in the EU innovation landscape, including its relevance, coherence and EU added value.

Workshop participants included Member States representatives, industry, research organisations and academia, as well as Commission officials and EIT staff. The evaluation team prepared a short paper summarising the main discussion points from the workshop, and the results have been incorporated into the analysis presented in this report.