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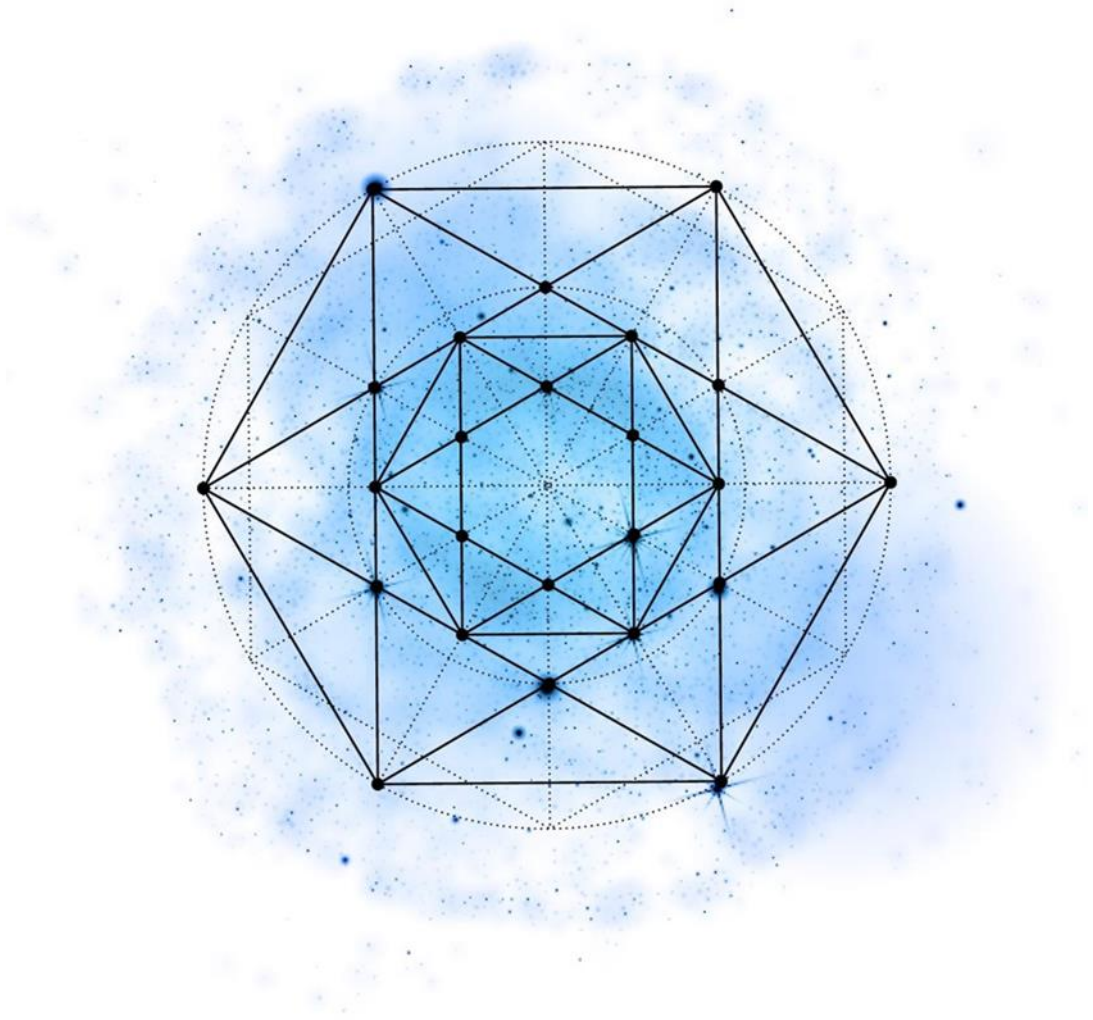

Final review of the 1st wave KICs: EIT InnoEnergy

Final Report

November 2023

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List of abbreviations

Table 1: List of abbreviations

Abbreviation	Full name/term
CIE	Counterfactual Impact Evaluation
CLC(s)	Co-Location Centre(s)
DG	Directorate-General
EBA	European Battery Alliance
EC	European Commission
EIB	European Investment Bank
EIC	European Innovation Council
EIF	European Investment Fund
EIT	European Institute of Innovation and Technology
ESG	Environmental, Social, and Governance
ESIF	European Structural and Investment Funds
EU	European Union
FS	Financial Sustainability
GB	Governing Board
GGP	Good Governance Principles
GHG	Green House Gas (emissions)
IP	Intellectual Property
IPR(s)	Intellectual Property Right(s)
KAVA(s)	KIC Added Value Activity/-ies
KIC	Knowledge and Innovation Community
KPI(s)	Key Performance Indicator(s)
KTI	Knowledge Triangle Integration
LE	Legal Entity
MCA	Multi-Criteria Analysis
RIS	Regional Innovation Scheme
RoI	Return on Investment
SA	Strategic Agenda
SB	Supervisory Board
SDG	Sustainable Development Goal
SIA	Strategic Innovation Agenda
SME(s)	Small and medium-sized enterprises
SO(s)	Strategic Objective(s)
TBIE	Theory-based impact evaluation

1. Introduction

This report covers the findings of the final review of EIT InnoEnergy, a Knowledge and Innovation Community, (hereinafter "KIC" and/or "EIT InnoEnergy") conducted by White Research and Deloitte. Beyond the methodological overview, the report is organised into chapters, which also represent the evaluation criteria, as follows:

- Relevance to the EU global challenges
- EU added value and relevance with regard to the objectives of the EIT
- Achievement of KIC's own objectives
- Efforts to coordinate KIC's activities with other relevant research and innovation initiatives
- Capacity to ensure openness to new members
- Achievements in attracting new members from across the EU
- Compliance with good governance principles
- Efforts and results in designing and implementing gender-sensitive measures and activities
- Capacity to develop sustainable innovation ecosystems and the achieved level of financial sustainability (FS)

In each chapter the relevant indicators are assessed and recommendations are made. The report concludes with separate chapters featuring recommendations based on the findings and a justification for the scoring of the KIC. An overview of the methodology and data sources is provided in ANNEX I. Reference list.

European Institute of Innovation and Technology

The European Institute of Innovation and Technology (EIT) is the EU flagship for innovation, using collaborative partnerships and cutting-edge research to find solutions to pressing global challenges. Established in 2008 as a driver of European innovation[1], the EIT is an Agency of the European Union (EU) based in Budapest, Hungary. Since 2014, the EIT has been an integral part of Horizon 2020 and is now part of Horizon Europe's Pillar III "Innovative Europe". Over the years, it has become Europe's largest innovation ecosystem and the European innovation flagship, gathering over 2 900 partners[2], including research centres, universities, and businesses specialised in innovation and technology. The EIT was created to strengthen the EU's innovation capabilities and increase EU's competitiveness and sustainable economic growth by fostering and enhancing cooperation among entrepreneurs, academia, and research institutes. The EIT also contributes to achieving the four key Strategic Orientations outlined in the Horizon Europe Strategic Plan[3].

As explained in its Strategic Innovation Agenda[4] (SIA), the EIT represents the embodiment of the knowledge triangle that brings together education, research, and innovation hubs in several long-term priority fields such as sustainable energy, digitalisation, urban mobility, and climate change[5]. To do so, the EIT supports the development of dynamic, long-term, cross-border and public-private partnerships among businesses (industry and SMEs), research centres and universities to address and devise solutions to pressing global challenges. These partnerships are called Knowledge and Innovation Communities (KICs).

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[1] European Parliament and Council of the European Union. 2008. Regulation 294/2008. Accessed on September 17th, 2021. Available at: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008R0294.

[2] https://eit.europa.eu/who-we-are/eit-community-across-europe.

[3] European Commission. Horizon Europe Strategic Plan 2021-2024. Accessed on September 17th, 2021. Available at:https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/3c6ffd74-8ac3-11eb-b85c-01aa75ed71a1.

[4] Decision (EU) 2021/820 of the European Parliament and of the Council of 20 May 2021 on the Strategic Innovation Agenda of the European Institute of Innovation and Technology (EIT) 2021-2027: Boosting the Innovation Talent and Capacity of Europe and repealing Decision No 1312/2013/EU

[5] European Parliament and Council of the European Union. 2013. Decision n. 1312/2013 on the Strategic Innovation Agenda of the European Institute of Innovation and Technology (EIT): the contribution of the EIT to a more innovative Europe. Accessed on September 17th, 2021. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0892:0923:EN:PDF.

The KICs are dynamic cross-border partnerships that develop innovative products and services and launch them on the market, create the environment for the establishment of new innovation companies, train a new generation of entrepreneurs and allow them to thrive. Each of the EIT KICs operates in innovation hubs, called Co-location Centres, spread across the continent to increase the impact and reach of the EIT's activities. Currently, there are 64 Co-location Centres in Europe. Since 2008, the EIT's KICs have contributed to the creation of over 13 000 jobs and nearly 1 500 products and services, and have supported more than 3 800 start-ups[6].

Our assessment focuses on EIT InnoEnergy. EIT InnoEnergy, along with EIT Climate-KIC and EIT Digital represent the first wave of KICs that were established in 2009, after an extensive selection and evaluation process by the EIT with the support of external experts[7]. They aim to address long-term societal challenges to facilitate innovation and generate tangible impact.

EIT InnoEnergy

EIT InnoEnergy was created to connect people and resources across the world to accelerate the energy transition in Europe. Similarly, it brings together industry, research and higher education to create a pipeline of sustainable innovation through to market. By creating a sustainable, operational framework amongst the three actors of the knowledge triangle, it aspires to become the leading innovation engine for sustainable energy. In accordance with the European Green Deal, EIT InnoEnergy concentrates its activities on the following key areas: smart electric grids, energy for circular economy, smart and efficient cities and buildings, renewable energies and energy for transport and mobility, energy storage, energy efficiency and nuclear instrumentation[8].

Over the past 11 years, it has transformed into the largest sustainable energy innovation in the world. Its network comprises over 1 200 partners, it invested around EUR 690 million in 500 sustainable energy innovations and more than 1 600 graduates accomplished its Master programmes of which 35% female[9]. Furthermore, EIT InnoEnergy is leading the transition towards a carbon-neutral Europe by 2050 in the following strategic industrial sectors: green hydrogen, battery storage and solar photovoltaics. Through the alliance of these industries, EIT InnoEnergy attempts to further develop the energy value chain in Europe necessary to support big industrial projects[10]. This will subsequently bring about the necessary expertise and know-how to tackle energy issues, such as reducing energy costs, paving the way for a decarbonised Europe.

Final review of the 1st wave KICs

As the second and last seven-year Framework Partnership Agreements for EIT Climate-KIC, EIT Digital and EIT InnoEnergy draw to a close, a final review of those KICs' activities and performance has been carried out to analyse and assess their achievements over the period 2016-2022 (and partially 2023) compared to what was planned in their proposals, Strategic Agendas, Business Plans and reported in grant reports, and compare the KIC's achievements against the market/public benchmarks/references[11].

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[6] European Institute of Innovation and Technology (EIT). 2021. EIT Factsheet. Accessed on September 17th, 2021. Available at: https://eit.europa.eu/sites/default/files/eit_at_a_glance_-_factsheet.pdf.

[7] EIT. Decision 17/2018 of the Governing Board of the European Institute of Innovation and Technology (EIT). Accessed on August 9th, 2022. Available at: https://eit.europa.eu/sites/default/files/17_2018_gb_decision_confirmation_of_duration_kics.pdf

[8] EIT InnoEnergy. Strategic Agenda 2021-2027. Accessed on August 25th 2023. Available at: https://www.innoenergy.com/media/6400/eit-ie-strategic-agenda-2022-2024.pdf

[9] EIT InnoEnergy. About EIT InnoEnergy. Accessed on August 25th, 2023. Available at: https://www.innoenergy.com/about/about-eit-innoenergy/

[10] (ibid.)

[11] EIT Request for services for conducting a final review of the 1st wave of KICs.

In accordance with requirements in the EIT Regulation and Strategic Innovation Agenda[12], Article 12 of the Partnership Agreement[13], and Articles 10 and 11 of the EIT Regulation[14], the EIT shall carry out a comprehensive assessment and a final review of the KICs' activities in line with the standards put forth by the Better Regulation Guidelines[15] and the criteria for European Partnerships set out in the Horizon Europe Regulation[16]. Based on the results of the final reviews, the EIT Governing Board may conclude a Memorandum of Cooperation with the respective KICs, with the consultation of the Member State Representative Group.

To provide a comprehensive final review, the evaluation is based on the analysis of the following criteria:

1. **Relevance to the Union's global challenges**; this criterion focuses on the relevance to the EU objectives. The pivotal role of innovation, economic growth, green and sustainable Europe and digital transition in the Union's political agenda suggests that all KICs' activities orbiting around relevant objectives shall be properly assessed against the societal challenges they were designated for.
2. **KICs' Union added value and relevance with regard to the objectives of the EIT**; as one of the main pillars of innovation in the EU, the KICs have created added value through their actions towards promoting innovation, entrepreneurship and education. This criterion assesses whether the KICs have been aligned with the EIT objectives and whether their Regional Innovation Scheme (RIS) activities have been aligned with the relevant Guidance Notes.
3. **Achievement of KICs' objectives**; all KICs are required to present a 7-year Strategic Agenda. This document serves as their raison d'être and contains – inter alia – their strategic objectives, goals and expected results within these seven years. Assessing this criterion will help us understand whether the KICs have actually managed to address their objectives and goals and whether they have been successful in achieving the expected results, by analysing both societal, economic and mid-term impact KPIs.
4. **KICs' efforts to coordinate their activities with other relevant research and innovation initiatives**; as mentioned above, the KICs are one of the main pillars of innovation in the EU. As such, they create different collaborations with various relevant stakeholders in the EU. This criterion assesses whether the KICs have succeeded in achieving such synergies and their volume.
5. **KICs' capacity to ensure openness to new members**; KICs' functioning requires constant evolution towards new partnerships. It is important that throughout their years of existence – especially those funded by the EIT – the KICs operate in an open, transparent and inclusive manner that allows them to expand their members and achieve their objectives. This criterion evaluates whether the KICs' achieved partnerships within their years of operation have aided in reaching their goals and subsequently whether their activities have been open to new members, specifically representing the knowledge triangle players (innovation, research, education).
6. **KICs' achievements in attracting new members from across the Union**; as part of their evolution, KICs are required to cooperate with all EU players and RIS eligible countries. These collaborations ensure that the KICs have achieved an adequate geographical representation of all key actors of the knowledge triangle. This criterion assesses the effectiveness of the ecosystem that

[12] Decision (EU) 2021/820 of the European Parliament and of the Council of 20 May 2021.
[13] European Institute for Innovation and Technology (EIT). "Model EIT KIC Partnership Agreement". Accessed on September 17th, 2021. Available at: https://eit.europa.eu/sites/default/files/eit_kic_partnership_agreement_v1.0_final_14-03-2021.pdf.
[14] Regulation (EU) No 2021/819 of the European Parliament and of the Council of 20 May 2021 on the European Institute of Innovation and Technology (recast), OJ L 189, 28.5.2021, p. 61.
[15] European Commission. "General Principles". Better regulation: guidelines and toolbox. Accessed on September 17th, 2021. Available at: https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en.
[16] Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013, OJ L 170, 12.5.2021, p. 1.

the KICs have built throughout the years and its volume, both in the EU but also in RIS eligible countries.

7. **KICs' compliance with good governance principles**; as part of the EU, the KICs are required to operate under good governance principles (GGP) and ensure compliance with them. This criterion evaluates whether the KICs are compliant with the relevant good governance principles, through the analysis of relevant EIT assessments.
8. **KICs' efforts and results in designing and implementing gender-sensitive measures and activities**; KICs are also required to operate in a gender balanced environment, adjusted to society's challenges. Implementing gender sensitive measures is considered as one challenge that numerous organisations need to overcome and thus, this criterion assesses whether KICs have designed and implemented such measures.
9. **KICs' capacity to develop sustainable innovation ecosystems and the achieved level of FS**; KICs are established to address innovation challenges. For this specific reason, they need to develop strong innovation ecosystems that will be a part of a wider innovation community. However, the FS of such ecosystems is also being assessed and this criterion delves deeper into analysing the sustainability of the latter and whether the KICs have addressed the societal challenges they were established for.

Scores (maximum 10 for each criterion)[17] and pre-defined weighting were applied for each criterion, as shown below:

Table 2: Final review assessment scoreboard

0-10	Scores interpretation
0	The profile does not meet the criterion at all or cannot be assessed due to missing or incomplete information
1-2	Poor – serious weaknesses
3-4	Fair – goes some way to meeting the criterion, but with significant weaknesses
5-6	Good – but with a number of shortcomings
7-8	Very good – but with a small number of shortcomings
9-10	Excellent – meets criterion in every relevant respect. Any shortcomings are minor

Scores were awarded based on whether the detailed indicators under each criterion were met, and the number and significance of the shortcomings and weaknesses.

In order to assess the performance of the KIC, a desk research was conducted, supplemented by qualitative data obtained through interviews and targeted surveys, a detailed counterfactual analysis and additional evaluation methods such as theory-based impact evaluation, multicriteria analysis and network analysis. As part of the desk research, the following documents were reviewed:

- EIT regulations, guidance, and principles
- KIC proposals, agreements, business plan, reports and action plan
- previous evaluation, impact study findings and relevant findings stemming from previous 7-year assessments, and
- EIT and KIC internal monitoring data and EIT recommendations
- other background data and materials shared by the KIC throughout the entire assessment period.

A qualitative, semi-structured interview was carried out with a representative of the KIC's management to complement, triangulate and further clarify data collected through the desk research and surveys.

Finally, the findings obtained through various data collection instruments and evaluation indicators used

[17] The maximum and threshold points for each criteria was predefined by EIT.

for the assessment of the KIC's performance were triangulated in an assessment matrix to produce solid conclusions and recommendations.

2. Executive summary

The report covers the findings of the final review of EIT InnoEnergy conducted by White Research and Deloitte, under contract 21-3030-03/EIT. Under the contract, three 1st wave KICs were assessed, namely EIT Digital, EIT Climate-KIC, and EIT InnoEnergy, using a single assessment methodology. This report covers the overall evaluation proceedings and findings related to EIT InnoEnergy.

EIT InnoEnergy was established with the aim of connecting people and resources across the world to accelerate the energy transition in Europe. It brings together industry, research and higher education to create a pipeline of sustainable innovation that reach the market. Over the past 11 years, it has transformed into the largest sustainable energy innovation ecosystem in the world. Its network comprises over 1 200 partners, it invested around EUR 690 million in 500 sustainable energy innovations and more than 1 600 graduates accomplished its master programmes of which 35% female.

The assessment has been carried out in line with the requirements set out in the Request for Service No. 01 implementing document[18], using the **following methodological tools:**

- **Desk research:** The goal of the desk research was to collect both qualitative and quantitative data on the KIC's activities, impact and results. The documents assessed were partly declared in the above referenced Request for Services document. Additional documents needed for the assessment were requested from the EIT and EIT InnoEnergy.
- **Surveys:** We developed and distributed with the help of the KIC three unique sets of questionnaires for three main target groups. The surveys provided more statistically significant data, leading to more objective results. The questionnaires aimed to build upon the collected information to complete and enrich understanding from the initial desk research.
- **Semi-structured interviews:** A semi-structured interview was carried out with a representative of the EIT InnoEnergy in two rounds to complement the data collected during the desk research.
- **Multi-criteria analysis:** In line with the EC's Better Regulation Guidelines and its toolbox, we carried out a Multi-Criteria Analysis (MCA). This evaluation tool was utilised to assess overall possible alternatives and preferences and evaluate them under different criteria at the same time.
- **Theory-based Impact Evaluation:** It was utilised to assess cause and effect between interventions and outcomes in a more detailed manner, zooming in on the various elements within an intervention and taking into account potential impactful external factors as well.
- **Counterfactual Impact Evaluation:** It enabled us to estimate more reliably the impact of the KIC, by comparing the outcomes of interest of those who have participated in its programme(s) or benefited from its support with those who are similar but have not participated in the programme.
- **Survival analysis (Kaplan-Meier estimate):** Only one indicator was identified under the societal and economic impact KPIs where we conducted the survival analysis.
- **Network analysis:** Our network analysis focused on the patterns of relationships between the organisations and the strengths of these connections.
- **Triangulation, conclusions and recommendations:** The goal of using this method was to address all data findings from the aforementioned data collection, and if necessary, complete it with any additional findings to reach solid conclusions of this assessment. Based on this, we were able to formulate all relevant recommendations.

During the assessment, the KIC's results and activities were assessed along the nine criteria set out by the EIT, but the following areas were also considered and expanded upon as part of Section 6.2:

- KIC Governance, KIC Partnership
- KIC Funding, FS
- Knowledge Triangle Integration (KTI), Innovation Ecosystem and CLCs
- Education & Alumni
- Innovation
- Entrepreneurship & Business Creation
- EIT Regional Innovation Scheme (EIT RIS)
- Synergies, Complementarities & Cross-KIC collaboration
- Communications, Dissemination & Outreach

[18] Ref. Ares (2022)5507243 - 01/08/2022.

Summary of the Assessment Criteria

Table 3: Assessment summary

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
Relevance to the Union's global challenges	EIT InnoEnergy is making progress in fostering innovation and entrepreneurship, while acknowledging areas for improvement. The KIC is actively working on enhancing innovation calls, strengthening the alumni network, and aligning with EU initiatives to promote sustainability. The organisation remains committed to education, supporting start-ups, and enriching the innovation landscape. EIT InnoEnergy strategically aligns with global initiatives such as the Paris Agreement and the United Nations' Sustainable Development Goals, emphasising its dedication to addressing climate change and sustainable energy. Through its contributions across economic, social, and environmental dimensions, it demonstrates a data-driven approach to making a positive global impact. Thus, this criterion has been assessed as **Excellent**. Assessment **1.1 – 9 – Excellent:** EIT InnoEnergy has made remarkable progress. However, it acknowledges areas for improvement. Initiatives are underway to enhance calls for innovation activities, strengthen the alumni network, and strategically align with EU initiatives. EIT InnoEnergy remains committed to fostering education, encouraging start-ups, and enriching the innovation landscape, while addressing challenges to create a future defined by sustainable innovation and entrepreneurship. **1.2 – 9 – Excellent:** EIT InnoEnergy's strategic alignment with global initiatives, including the Paris Agreement, the United Nations' Sustainable Development Goals, and the European Commission's (EC) Green Deal, reflects its commitment to addressing critical societal challenges such as climate change, sustainable energy, and economic growth. Through its multifaceted contributions across economic, social, and environmental dimensions, EIT InnoEnergy demonstrates a well-documented, data-driven approach to achieving its mission, while making a positive impact on a global scale.	9/10 (Threshold: 6)	1
KIC's EU added value and relevance with regard to the objectives of the EIT	EIT InnoEnergy is a prominent player in EU decision-making and finance, with roles like grant recipient, thought leader, and deal facilitator, particularly in emerging markets like the European battery production. It aligns its activities with the EIT's objectives, focusing on impact measurement, innovation capacity building, and collaboration. EIT InnoEnergy plays a crucial role in energy education, emphasising transparency and communication in its governance structure. It consistently supports innovation and entrepreneurship in the RIS countries and is committed to allocating 40% of	8/10 (Threshold: 6)	1

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
	investments there. EIT InnoEnergy continues its work in eligible regions, contributing to Europe's innovation ecosystem and EIT's mission. Thus, this criterion has been assessed as **Very Good**. <u>Assessment</u> **2.1 – 9 – Excellent:** EIT InnoEnergy has established itself as a pivotal collaborator and influential participant in numerous areas. EIT InnoEnergy's multifaceted engagement underscores the success of the EIT KIC model as a pioneering EU-funded entity dedicated to innovation and sustainability, reshaping the European landscape. **2.2 – 8 – Very Good:** EIT InnoEnergy has demonstrated a strong commitment to innovation across various regions, as indicated by its achievements in designing, testing, and marketing innovations, as well as fostering start-ups for innovation. While a few targets were not met, the overall accomplishments underscore the organisation's effectiveness in driving technological advancement, innovation and entrepreneurship in the energy sector. **2.3 – 8 – Very Good:** EIT InnoEnergy has consistently aligned its efforts with the EIT RIS Framework, with notable activities and initiatives supporting innovation and entrepreneurship in the RIS countries up until 2020. The organisation's commitment to fostering entrepreneurial talent, bridging academia and industry, and expanding innovation ecosystems in the RIS countries has been evident. Furthermore, EIT InnoEnergy's Strategic Agenda (SA) for 2021-2027 reaffirms its dedication to RIS objectives, with the aim of creating more RIS Hubs and enhancing targeted RIS activities. This aligns with the overarching goal of allocating 40% of investments to RIS countries and monitoring progress through specific KPIs. Since 2021, the organisation has continued its impactful work, launching numerous RIS education activities and innovation projects across multiple RIS countries. These efforts demonstrate EIT InnoEnergy's ongoing commitment to fostering sustainable energy innovation and collaboration in the RIS countries and regions, furthering the mission of the EIT and contributing to Europe's innovation ecosystem. While EIT InnoEnergy's impact is commendable, there is room for further expansion of its activities in certain RIS regions to ensure broader geographical coverage.		
Achievement of the KIC's objectives	EIT InnoEnergy's performance in regard to its impact on the energy and innovation sectors, as well as its commitment to driving innovation and sustainability is quite an achievement. EIT InnoEnergy is recognised for its success in advancing innovation, securing investment, and supporting education within the EIT RIS, earning an excellent rating. Additionally, it plays a vital role in the EU's innovation ecosystem and has made strides in reducing energy costs, both rated as excellent. While its economic	8/10 (Threshold: 6)	2.5

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		

impact is considered very good, there is a suggestion to tailor support for start-ups to enhance revenue, employment, skills, and career development. Thus, this criterion has been assessed as **Very Good**.

Assessment

3.1 – 9 – Excellent: Overall, EIT InnoEnergy's performance showcases its positive impact on energy and innovation sectors, with impressive achievements across various dimensions of operation. The performance of EIT InnoEnergy, which is also presented in the various chapters of this report, showcases that the KIC is on track to achieve its 7-year Strategic Agenda objectives and expected results. Any deviation from the Strategic Agenda has been justified, approved by the EIT and has led to maximising impact.

3.2 – 9 – Excellent: EIT InnoEnergy has made substantial progress in achieving its strategic objectives, demonstrating a strong commitment to sustainability and innovation in the energy sector. Notably, it has significantly reduced greenhouse gas emissions, is actively contributing to the reduction of energy costs, and has played a pivotal role in job creation within the sustainable energy sector. The organisation promotes social and environmental sustainability, fosters competitiveness in European value chains, and facilitates knowledge exchange between academia, industry, and research institutions. EIT InnoEnergy's strategic, operational, and financial sustainability practices underscore its mission-driven focus and impact-driven investment strategy. Overall, the organisation's efforts align with its goal of advancing the energy transition and creating a more sustainable world. The KIC has achieved its objectives and respective targets as stated in its original proposal and Strategic Agenda in relation to the societal challenge.

3.3 – 8 – Very Good: EIT InnoEnergy's performance has been commendable across various dimensions of its operations. From education and business incubation to innovation and start-up support, the organisation has achieved remarkable success in driving growth, knowledge transfer, and technological advancements. Despite a few challenges in collecting revenues in the past and in promoting graduates' integration in the business environment, EIT InnoEnergy's overall achievements highlight its significant positive impact on the energy and innovation landscape.

3.4 – 8 – Very Good: EIT InnoEnergy's RIS strategy effectively supports innovation and entrepreneurship in moderate or modest innovator regions, aiming to bridge innovation gaps. It encompasses elements such as training, support for start-ups, collaboration promotion, and resource access. The strategy's strong focus on sustainable energy has led to successes in renewable energy and related fields. EIT InnoEnergy also operates programmes like Primer and participates in initiatives such as EIT Jumpstarter, contributing to entrepreneurship and Intellectual Property evolution. While

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
	notable successes have been achieved, concerns exist about sustainability post-EIT grant. Overall, EIT InnoEnergy plays a pivotal role in advancing innovation and positive transformations in the energy and innovation domains across diverse regions. **3.5 – 9 – Excellent:** EIT InnoEnergy has made significant progress in achieving societal impact KPIs; it has reduced CO_2 emissions by supporting sustainable energy initiatives, with an estimated 2.1 Gigatons of CO_2 reduction by 2030 and 831 terawatt-hours of clean energy generated; decreased energy costs through backing innovative startups and leading industrial alliances in key sectors; increased the availability of innovative energy solutions by supporting over 500 startups and building a vast ecosystem; prepared a skilled workforce with 1 600 graduates; received a positive feedback on gender-related measures but identified room for improvement; and successfully mobilised resources to create job opportunities and drive sustainable energy innovation, aiming for a EUR 390 billion market value by 2025. **3.6 – 8 – Very good:** EIT InnoEnergy has performed very well in economic impact KPIs. However, enhanced tailored support and strategies to the unique needs of start-ups and entities within the sector are needed to maximise positive effects on revenue, employment, skills, and career development. **3.7 – 8 – Very Good:** The KIC performs very well in medium-term KPIs, as all data conclude on the positive employment outcomes for EIT-labelled education programme graduates, as well as the diversity of career paths pursued by the students and graduates. However, mixed results in terms of revenue generation by supported start-ups is an issue where the KIC should pay attention to. Further analysis and exploration of the underlying factors influencing these trends could provide valuable insights for both educational institutions and aspiring entrepreneurs.		
KIC's efforts to coordinate its activities with other relevant research and innovation initiatives	EIT InnoEnergy has played a pivotal role in shaping the European energy landscape by aligning with key initiatives and actively participating in energy policy development. Its commitment to cross-KIC collaboration underscores its dedication to achieving broader societal and economic impacts. While it has successfully fostered synergies with various institutions and initiatives, there is room for improvement in strengthening collaborations to enhance FS and synergistic efforts. Furthermore, its Strategic Agenda 2021-2027 lacks explicit details about its strategic approach to planned synergies, suggesting areas for development in this regard. Thus, this criterion has been assessed as **Very Good**. <u>Assessment</u>	8/10 (Threshold: 6)	0.5

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
	4.1 – 9 – Excellent: EIT InnoEnergy has consistently played a vital role in contributing to and shaping the European energy landscape, aligning with key initiatives such as the Clean Energy package, European Green Deal, and Horizon Europe, while actively participating in energy policy development and promoting sustainability and innovation. The KIC's dedication to cross-KIC collaboration and synergy-driven relationships underscores its commitment to fostering societal and economic impacts in line with the broader objectives outlined in the EIT's SIA. **4.2 – 7 – Very Good:** While the KIC has successfully fostered many synergies with various institutions and initiatives, including those related to the European Green Deal and raw materials strategy, there is room for improvement in strengthening collaborations, to advance FS and enhance synergistic efforts. Furthermore, the KIC's strategic approach to planned synergies is not explicitly detailed in its Strategic Agenda 2021-2027, suggesting potential areas for development in this regard.		
KIC's capacity to ensure openness to new members	EIT InnoEnergy has built partnerships with nearly 600 organisations aligned with its energy-focused goals, positively impacting its performance indicators and receiving positive feedback from supported start-ups. It uses open calls and transparent processes to attract new partners and innovation initiatives, with room for improvement in project evaluations. The organisation now prioritises well-established and promising innovation projects with a profit-oriented and risk-averse approach. EIT InnoEnergy maintains operational transparency and openness to new members, following Good Governance Principles. However, there has been a shift towards more industry representation in its partnerships, leading to an imbalance, which the KIC plans to address in the future. Thus, this criterion has been assessed as **Excellent.** <u>Assessment</u> **5.1 – 9 – Excellent:** EIT InnoEnergy has actively pursued partnerships with nearly 600 organisations, including shareholders and project partners, that align with its strategic objectives in the energy sector, focusing on innovation, sustainability, and the UN SDGs. The KIC's diverse partnership network, particularly with SMEs, has contributed positively to its core KPIs, and feedback from supported start-ups indicates a recognition of the value provided by EIT InnoEnergy's activities, with many likely to maintain their partnership beyond 2024. **5.2 – 8 – Very Good:** EIT InnoEnergy uses open calls to attract new partners and innovation initiatives, with a transparent admission process. Feedback suggests that some aspects of evaluating innovation projects could be improved, and the KIC has been recommended to consider EU-wide rules during evaluations, such as data protection, ethics, and diversity. While the KIC encourages the participation	9/10 (Threshold: 6)	0.5

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
	of new partners through various resources and guidance, it now primarily focuses on well-established and promising innovation projects with a profit-oriented and risk-averse approach, rather than selecting many new innovation activities. **5.3 – 9 – Excellent:** EIT InnoEnergy follows the GGP by maintaining operational transparency and openness to new members. It achieves this through open calls, transparent processes, and facilitating the availability of relevant documents, ensuring stakeholder awareness and participation. **5.4 – 8 – Very Good:** EIT InnoEnergy has actively integrated the knowledge triangle players - universities, industry, and research institutions - into its partnership, with industry playing a prominent role in programmes like the Master School. However, over the years, there has been a shift towards greater representation from industry partners, leading to an imbalance in the partnership composition, with more industry involvement compared to universities and research institutions. This imbalance is recognised as a challenge and is expected to be addressed in the future.		
KIC's achievements in attracting new members from across the Union	EIT InnoEnergy has built a robust and inclusive innovation ecosystem that extends across the energy value chain and beyond EU borders. While the partnership includes 23 EU Member States, there is uneven representation in knowledge transfer activities, with a shift towards more industry players and a need for greater involvement of research institutions and universities. Entities from the RIS countries are integrated into the partnership, but efforts to enhance knowledge transfer representation in these regions should continue. The organisation has seen consistent growth and actively collaborates with a diverse range of organisations, aiming to become a leading sustainable energy innovation ecosystem in the EU and the US by 2027. Thus, this criterion has been assessed as **Very Good**. <u>Assessment</u> **6.1 – 9 – Excellent:** EIT InnoEnergy's impact stems from its extensive and growing ecosystem. The KIC's network expansion has exceeded its growth projections, indicating a sustainable and inclusive environment. Its innovation ecosystem integrates key stakeholders throughout the energy value chain, reaching beyond EU borders. **6.2 – 6 – Good:** The EIT InnoEnergy partnership includes 23 EU Member States, with an uneven distribution of representation in knowledge transfer activities. There has been a decrease in higher education representation since 2020, but the number of industry players has increased due to the KIC's business-oriented focus. The majority of members are concentrated in Spain and Western EU Member States, particularly France, Germany, and the Netherlands, making up around 20% of the partnership.	8/10 (Threshold: 6)	1

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		

Research institutions are more evenly distributed but remain relatively limited, so efforts are needed to involve more research institutions and universities across EU Member States for better knowledge transfer representation.

6.3 – 8 – Very Good: It is evident that entities from the RIS countries are comprehensively integrated within the EIT InnoEnergy partnership. However, to foster a more balanced knowledge triangle integration activities in these regions, the KIC should persist in its endeavours to incorporate universities and research institutions into its RIS activities.

6.4 – 9 – Excellent: The EIT InnoEnergy partnership has seen consistent growth, with an increase in both Formal Partners/Shareholders and Associated/Project Partners. It has adopted a proactive approach to seek strategic partners aligned with its goals, especially from the industry. In terms of stakeholders, EIT InnoEnergy collaborates with a diverse range of organisations at European and national levels, including European institutions, governmental bodies, industries, universities, and SMEs, which now make up over half of its partnerships, albeit tilting towards industry. The KIC has also upgraded its website for better engagement and actively participates in various events related to its thematic areas to enhance visibility and accessibility.

6.5 – 9 – Excellent: EIT InnoEnergy aims to become the leading innovation ecosystem in sustainable energy in the EU and the US by 2027. The KIC has partners from 23 EU countries and a network of five CLCs and four EIT RIS Hubs, thus ensuring geographical diversity. The RIS Hubs are strategically chosen based on geographical proximity, innovation activity extent and alignment with smart specialisation priorities in sustainable energy, and serve as channels for regional engagement and partnerships. Collaborations with these Hubs have facilitated product development, technology transfer, social innovation, research activities, and key enabling technologies, but there are concerns about their financial sustainability after the end of the Partnership Agreement of the KIC with the EIT..

6.6 – 9 – Excellent: EIT InnoEnergy has integrated RIS countries into its overall European strategy, rather than having a separate RIS strategy, involving partners and resources from RIS regions in its innovation ecosystem focused on battery storage, green hydrogen, and solar photovoltaics. The KIC allocates more than 40% of its annual resources to RIS countries, mainly Spain, Portugal, Poland, and other 12 RIS countries. In terms of higher education, the EBA Academy has been gradually rolled out in the selecting RIS countries through agreements with governments, extending beyond training programmes to encompass knowledge transfer and support for energy strategies, exemplified by the 'Starter programme'.

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
KIC's compliance with good governance principles	EIT InnoEnergy has largely complied with the Good Governance Principles outlined in the EIT KIC Partnership Agreement. It has maintained a balanced representation of research, higher education, and business in its shareholding structure and operationalised strategies locally through CLCs. However, there is room for improvement in gender diversity. Some minor weaknesses were identified in the Supervisory Board (SB) member selection process and better integration of governance principles in the internal agreement is needed. Nonetheless, it has implemented a Code of Conduct and a procurement policy to ensure transparency and fairness. The KIC has also made progress with regard to addressing previous recommendations, but it needs to foster greater gender diversity Thus, this criterion has been assessed as **Very Good.** <u>Assessment</u> **7.1 – 8 – Very Good:** EIT InnoEnergy has demonstrated compliance with Good Governance Principles as outlined in the EIT KIC Partnership Agreement. The KIC has established a balanced representation of research, higher education, and business in its shareholding structure, maintained clear segregation of duties, and operationalised its strategies at the local level through CLCs. However, there is room for improvement in gender diversity. Minor weaknesses identified in the latest GGP assessment include aspects of the SB member selection process and the need for further integration of GGP in the KIC's internal agreement. Nonetheless, the KIC has implemented a Code of Conduct and a procurement policy to ensure transparency, equal treatment, non-discrimination, and competition. **7.2 – 6 – Good:** EIT InnoEnergy has made commendable efforts in addressing strategic recommendations from the EIT Governing Board over the years. Most recommendations from 2016 have been fully implemented, while the implementation of others is progressing satisfactorily, albeit at a slower pace. Gender diversity and engagement with education and research entities, especially in RIS countries, still require improvements. Geographical balance in the partnership has been achieved, but representation across all elements of knowledge transfer needs improvement. Collaboration with other KICs and initiatives in the EU has improved, even though there are calls to reinitiate certain projects. KIC has been successful in terms of financial sustainability and long-term vision alignment, with steady revenues from investments and a trusted financial sustainability policy. Communication and dissemination strategies have also improved, but there is room for expansion in dissemination efforts. Overall, EIT InnoEnergy has effectively followed through on the EIT Governing Board's recommendations during the evaluation period.	7/10 (Threshold: 6)	1
KIC's efforts and results in	EIT InnoEnergy is actively committed to promoting gender equality, aligning with EU regulations and UN Sustainable Development Goals. The KIC has implemented a Gender Mainstreaming Policy and	6/10	0.5

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
designing and implementing gender-sensitive measures and activities	Gender Equality Action Plan, focusing on increasing women's representation and promoting diversity. However, these efforts have not been expert-assessed, and gender balance is not a top priority within the organisation. Surveys suggest limited interest in gender diversity among start-ups and scale-ups supported by the KIC. While progress has been made in appointing women to the KIC Supervisory Board and increasing female enrolment in master's programmes, gender diversity in management and start-up leadership remains weak, emphasising the need for stronger support for women in the male-dominated energy sector. Thus, this criterion has been assessed as **Good.** <u>Assessment</u> **8.1 – 7 – Very Good:** EIT InnoEnergy has made progress towards achieving gender equality in line with EU regulations and UN Sustainable Development Goals. The KIC has developed a Gender Mainstreaming Policy and Gender Equality Action Plan, approved at the management level, with long-term commitments to increase women's representation in various positions and promote diversity. Additionally, the KIC has joined the Equal by 2030 network, aimed at addressing the gender gap in clean energy transition. However, no concrete strategies nor measures to increase gender balance in innovation and business creation and acceleration programmes have been identified. **8.2 – 5 – Good:** EIT InnoEnergy's gender mainstreaming activities have not been specifically assessed by experts, but the KIC has implemented a Gender Action Plan validated by the EIT and joined the Equal by 2023 Network. Gender balance is not a top priority within the organisation, as indicated during an interview, and surveys of start-ups and scale-ups supported by the KIC suggest limited interest in this matter. While there has been progress in appointing women to the SB and increasing female enrolment in master's programmes, gender diversity within the KIC's management and start-up leadership remains relatively weak, highlighting the need for enhanced support to women's leadership and entrepreneurship in the male-dominated energy sector.	(Threshold: 6)	
KIC's capacity to develop sustainable innovation ecosystems and the achieved level of	EIT InnoEnergy has achieved significant success in building a sustainable innovation ecosystem to tackle energy sector challenges and skill gaps. The KIC has set and monitored ambitious goals through annual Impact Reports, fostering innovative technologies and collaborations. However, some areas need improvement, such as establishment of an Alumni Board and discontinuation of the PhD programme, which could affect addressing future skills gaps. Financially, EIT InnoEnergy has demonstrated substantial growth, diversifying funding sources and effectively meeting EIT's sustainability criteria. Its Intellectual Property policy is well-structured to protect and leverage	9/10 (Threshold: 6)	2

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
financial sustainability	innovation outcomes. Overall, EIT InnoEnergy is on a solid path towards long-term financial sustainability, aligning with the EIT's objectives. Thus, this criterion has been assessed as **Excellent**. <u>Assessment</u> **9.1 – 7 – Very Good:** EIT InnoEnergy has made significant strides in creating a sustainable innovation ecosystem that effectively addresses societal challenges and skill gaps in the energy sector. The KIC has set ambitious goals in its Strategic Agenda and consistently monitored its progress through annual Impact Reports. It has successfully supported the development of innovative technologies and solutions while establishing valuable collaborations with industry partners and expanding its influence beyond the EU borders. In terms of addressing skill gaps, EIT InnoEnergy's education programmes have produced a substantial number of graduates and supported numerous start-ups. However, there are areas for improvement, such as the need for an Alumni board and the recent decision of the KIC for the discontinuation of the PhD programme, which could impact the KIC's ability to address future skills gaps effectively. Overall, EIT InnoEnergy has demonstrated a strong commitment to its mission and has made a notable impact on the energy innovation landscape. **9.2 – 9 – Excellent:** The KIC has successfully managed to create visible innovation ecosystems not previously in existence. EIT InnoEnergy has made remarkable progress in cultivating innovation ecosystems within the energy sector. Its multifaceted approach includes education, research collaboration, start-up support, and fostering partnerships between established companies and emerging innovators. Through these efforts, EIT InnoEnergy has played a pivotal role in bridging the gap between academia and industry, equipping students with skills, empowering start-ups with funding and mentoring, and catalysing collaborative innovation projects. Notable initiatives include supporting battery gigafactories, energy-efficient building solutions, and advanced battery management software. Overall, EIT InnoEnergy's commitment to fostering collaboration, knowledge sharing, and technological advancement has solidified its position as a key driver of innovation and sustainability in the energy sector. **9.3 – 9 – Excellent:** EIT InnoEnergy has made substantial progress in achieving financial sustainability as per the EIT criteria. The organisation has consistently reported its financial sustainability progress, with a steady increase in revenue streams since 2016, diversifying its sources of funding, including EIT grants, partner contributions, and third-party contributions. Despite some challenges in specific revenue categories in 2021-2022, the KIC's approach of requiring a RoI agreement for its investments has contributed to its financial sustainability. The organisation's risk-sharing and success-sharing approach has been effective in aligning with partners and ensuring long-term financial sustainability.		

Criterion	Summary Assessment	Scoring (points)	Weight
	Global Score (after weighting was applied): 81.5/100 **Global Threshold: 60/100**		
	Overall, EIT InnoEnergy has successfully fulfilled the EIT's requirements for financial sustainability and is well-positioned to remain sustainable even after the EIT's support. **9.4 – 9 – Excellent:** EIT InnoEnergy has demonstrated impressive growth in revenue over the years, with a substantial increase from 2017 to 2018, primarily driven by RoI and equity. This growth reflects the KIC's ability to generate financial assets contributing to its financial sustainability. The organisation has been assessed positively by the EIT for respecting financial sustainability requirements and diversifying its portfolio. EIT InnoEnergy's Intellectual Property policy is well-structured and plays a crucial role in protecting and leveraging outcomes from innovation within its ecosystem, aligning with the EIT's aim to enhance EU competitiveness' and innovation capacity. The KIC's Intellectual Property policy is characterised by 14 principles that apply to all its activities, ensuring proper management and dissemination of Intellectual Property rights. Overall, EIT InnoEnergy's strong financial performance and robust Intellectual Property policy position it well for future growth and sustainability. **9.5 – 9 – Excellent:** EIT InnoEnergy has consistently excelled in financial sustainability, generating substantial revenues across various categories. The EIT has recognised and commended the KIC for its remarkable performance in this regard, characterising it as a continuously growing entity with a strong financial sustainability outlook. The use of the FS coefficient, which measures the KIC's ability to attract revenues and other financing sources, indicates that EIT InnoEnergy has not only met but exceeded its target, underscoring its effective financial management. Although the FS coefficient has increased over time, this trend is primarily due to the decrease in the EIT grant funding, aligning with the KIC's commitment to long-term financial sustainability in a changing landscape. **9.6 – 9 – Excellent:** EIT InnoEnergy's planned co-funding rates have been reported and are perfectly aligned with the specified targets. This commitment to maintaining appropriate co-funding rates underscores the KIC's strategic financial management, aligning with its long-term sustainability goals as outlined by the EIT.		

3. Methodology overview

3.1. Our approach

This document presents the results of the final review of EIT InnoEnergy carried out by White Research and Deloitte. Three KICs, specifically EIT Inno Energy, EIT Digital, and EIT Climate-KIC, were assessed using a unified assessment approach. This report encompasses the comprehensive assessment process and outcomes pertaining to EIT InnoEnergy.

The methodology used in this assessment is in line with the requirements set out in the Request for Service No. 01 implementing document. In line with this document, the assessment has been carried out through a comprehensive analysis of all areas of activities and aspects relevant to the KIC. The evaluation criteria are specified and explained in detail in the executive summary.

Scores were allocated based on the level of fulfilment of specific indicators within each criterion, alongside the severity of identified shortcomings and weaknesses. The evaluation process consisted of desk research, complemented with interviews with key staff from EIT InnoEnergy.

The report is organised in the following segments:

- Main activities, results, including EU added value, and KPIs achieved
- Strengths and weaknesses: what have worked well and what did not work
- Recommendations for improvement: what should be improved in the next years.

The final review covers the following areas of KIC operational set-up, activities and impacts:

- KIC Governance and KIC Partnership,
- KIC Funding, Financial Sustainability,
- KTI, Innovation Ecosystem and Co-location Centres,
- Education & Alumni,
- Innovation,
- Entrepreneurship & Business Creation,
- EIT Regional Innovation Scheme (EIT RIS),
- Synergies, Complementarities & Cross-KIC Collaboration,
- Communications, Dissemination & Outreach,
- Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks.

The aim of using this method was to cover all the data findings from the aforementioned data collection and, if necessary, to add additional findings to reach solid conclusions from the evaluation. This enabled us to identify all recommendations of particular relevance.

The report is organised following the order of assessment criteria and corresponding indicators. Furthermore, we have incorporated the above-mentioned aspects to the structure by choosing an indicator which relates to all listed thematic areas and have expanded upon the thematic areas as part of this chapter. In later sections we will refer to the paragraphs mentioned in the earlier chapter. The complete list of assessment criteria and indicators are presented in Table 4 below:

Table 4: Assessment matrix

Assessment criteria	Indicators	Thematic Area
Relevance to the Union's global challenges (Weighting: 1.5)	1.1 The results of the KIC's activities have been relevant to the objectives of the Union, including boosting economic growth, strengthening the innovation capacity of the Member States, fostering innovation and entrepreneurship	• Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Communications, Dissemination & Outreach
	1.2 The results of the KIC's activities have contributed significantly to addressing the societal challenge it was designated for	• Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Communications, Dissemination & Outreach
KIC's Union added value and relevance with regard to the objectives of the EIT (Weighting: 1.5)	2.1 The KIC has created a significant European added value with respect to building a sustainable innovation ecosystem through KTI, and as a result, has developed concrete solutions to address the societal challenge as foreseen in the original proposal	• Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • KTI, CLCs • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks
	2.2 All KIC's activities have been fully aligned with and relevant to the EIT objectives as defined in the EIT legislative framework	• KIC Funding, Financial Sustainability • KTI, Innovation Ecosystem and CLCs • Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Synergies, Complementarities & Cross-KIC collaboration • Communications, Dissemination & Outreach • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks

Assessment criteria	Indicators	Thematic Area
	2.3 KIC RIS activities have been fully aligned with the EIT RIS Implementation Guidance note 2018-2020 and RIS Implementation Framework (2021-2027)	• KTI, Innovation Ecosystem and CLCs • Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Communications, Dissemination & Outreach • Synergies, Complementarities & Cross-KIC collaboration
Achievement of KIC's objectives (Weighting: 1.5)	3.1 The KIC has achieved/likely to achieve its 7-year SA (2021-2027) objectives and expected results in line with its initial strategic objectives. Any deviation from the SA (2021-2027) has been justified, approved by the EIT and has led to maximising impact	• KIC Governance and KIC Partnership • KIC Funding, Financial Sustainability • KTI, Innovation Ecosystem and CLCs • Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Synergies, Complementarities & Cross-KIC collaboration • Communications, Dissemination & Outreach • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks
	3.2 The KIC has achieved its objectives and respective targets as stated in its original proposal and SA in relation to the societal challenge	• KIC Governance and KIC Partnership • KIC Funding, Financial Sustainability: this chapter should be mainly based on the results of the independent in-depth study • KTI, Innovation Ecosystem and CLCs • Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Synergies, Complementarities & Cross-KIC collaboration • Communications, Dissemination & Outreach • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks

Assessment criteria	Indicators	Thematic Area
	3.3 KPI targets including impact KPIs for up to 2024 defined in the KIC original proposal, SA (2021-2027) achieved/likely to be achieved	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs • Education & Alumni • Innovation • Entrepreneurship & Business Creation • EIT RIS • Synergies, Complementarities & Cross-KIC collaboration • Communications, Dissemination & Outreach, • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks
	3.4 The KICs have delivered EIT RIS activities and achieved results within the scope of their EIT RIS Strategies. Any deviations are duly justified and having led to maximised results	• KTI, Innovation Ecosystem and Co-location Centres, • Education & Alumni, • Innovation, • Entrepreneurship & Business Creation, • EIT RIS, • Synergies, Complementarities & Cross-KIC Collaboration, • Communications, Dissemination & Outreach, • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks.
	3.5 KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Societal impact KPIs EIT InnoEnergy)	• Education & Alumni, • Innovation, • Entrepreneurship & Business Creation, • EIT RIS, • Communications, Dissemination & Outreach, • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks.
	3.6 KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Economic Impact KPIs)	• KIC Funding, Financial Sustainability, • Education & Alumni, • Innovation, • Entrepreneurship & Business Creation,

Assessment criteria	Indicators	Thematic Area
		• Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks.
	3.7 KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Medium-term KPIs)	• KIC Funding, Financial Sustainability, • Education & Alumni, • Innovation, • Entrepreneurship & Business Creation • Achieved economic and societal impact against impact targets in the KIC Sas, EIT Impact Framework impact KPIs or market benchmarks.
KICs efforts to coordinate their activities with other relevant research and innovation initiatives (Weighting: 0.5)	4.1 The KIC has achieved the concrete synergies and complementarities described in the original proposal and SA	• Synergies, Complementarities & Cross-KIC collaboration • Communications, Dissemination & Outreach
	4.2 Number of synergies with other relevant education, research and innovation initiatives in the same area of the societal challenge at national, EU and global level	• Synergies, Complementarities & Cross-KIC collaboration
KIC's capacity to ensure openness to new members (Weighting: 0.5)	5.1 Partnership size, growth, composition and performance have been adequate for achieving the long-term objectives of the KIC SA (2021-2027)	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs
	5.2 KIC's Calls for activities have been fully open to new members	• KIC Governance and KIC Partnership
	5.3 KIC has fully addressed the EIT GGP – based on relevant GGP assessments related to openness to new members	• KIC Governance and KIC Partnership
	5.4 Balanced representation of all key knowledge triangle players in the partnership	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs
KIC's achievements in attracting new members from	6.1 KIC has grown to an effective sustainable innovation ecosystem with partners within and outside the EU, including RIS eligible countries and regions	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs • EIT RIS

Assessment criteria	Indicators	Thematic Area
across the Union (Weighting: 1)	6.2 Number of the EU Member States covered by the KIC partnership and representation of all the knowledge triangle players	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs
	6.3 Number of the RIS eligible countries and regions covered by the KIC partnership and representation of all the knowledge triangle players in its activities	• KIC Governance and KIC Partnership • EIT RIS
	6.4 Balanced geographical presence of CLCs and EIT RIS Hubs in line with the strategic objectives and societal challenges	• KIC Governance and KIC Partnership • KTI, Innovation Ecosystem and CLCs • EIT RIS
	6.5 Trend of new active partners over the period of the review	• KIC Governance and KIC Partnership, • KTI, Innovation Ecosystem and Co-location Centres, • EIT RIS • Communications, Dissemination & Outreach
	6.6 Share of indicated innovation ecosystems that covers RIS eligible countries	• KIC Funding, Financial Sustainability, • Innovation, • Entrepreneurship & Business Creation, • EIT RIS
KIC's compliance with good governance principles (Weighting: 1)	7.1 KIC fully addresses the EIT GGP – based on the relevant GGP assessment	• KIC Governance and KIC Partnership, • KTI, Innovation Ecosystem and Co-location Centres
	7.2 GB Strategic recommendations have been effectively addressed and fully implemented by the KIC	• KIC Governance and KIC Partnership
KIC's efforts and results in designing and implementing gender-sensitive measures and activities (Weighting: 0.5)	8.1 KICs have designed and implemented gender sensitive measures and activities	• KIC Governance and KIC Partnership
	8.2 Positive expert's assessment of the outputs and results delivered by these activities	• KIC Governance and KIC Partnership
KIC's capacity to develop sustainable	9.1 The KIC has created a sustainable innovation ecosystem effectively addressing the societal challenges and skill gaps it was established for	• KTI, Innovation Ecosystem and CLCs

Assessment criteria	Indicators	Thematic Area
innovation ecosystems and the achieved level of financial sustainability (Weighting: 2)	9.2 KIC has made evidenced progress against the following indicator (as per definition provided in the EIT Impact Framework): Visible innovation ecosystems not previously in existence	• KIC Funding, FS
	9.3 Effective FS Strategy, including FS mechanisms in place including diversified revenue sources and aligned with the original proposal and subsequent business plans/reports	• KIC Funding, FS • Entrepreneurship & Business Creation
	9.4 An adequate level of revenues from its activities is demonstrated and a plan for the management and exploitation of Intellectual Property (IP) and financial assets supporting the KIC's business model is in place	KIC Funding, FS
	9.5 FS : revenues of KIC LE, FS coefficient	• KIC Funding, FS
	9.6 Co-funding rates	• KIC Funding, FS

Furthermore, all data and information collected has been linked to the relevant criteria and indicators from the assessment table in the methodological note, ensuring that these are scored appropriately and consistently against the scoring system designed by EIT. The indicative scoreboards can be found in Table 2 above.

3.2. Methodological tools

Through the applied methodology, the assessment is based on robust and reliable results and incorporates multiple data sources. During the assessment, three main methodological tools have been applied:

Desk research

The goal of the desk research was to collect both qualitative and quantitative data on the KIC's activities, impact and results. The key documents reviewed as part of the desk research included:

- Key EIT documents (e.g., old EIT Regulation (2008), EIT Regulation Amendment (2013), new EIT Regulation (2021), EIT Financial Regulation, EIT SIA 2014-2020 and EIT SIA 2021-2027, Triennial Work Programmes, Single Programming Documents)
- Calls for KIC Proposals documentation; KIC Proposals
- Framework Partnership Agreements, new Partnership Agreements and KICs' Sas (originals and any later updates)
- KICs Business Plans and Reports for relevant years and experts' assessments
- KIC Assessments: Business Creation, Education, KTI, and subsequent RIS evaluations
- EIT consolidated reports on the KIC Monitoring/GB Rapporteur visits and reports
- Specific EIT guidance to KICs (e.g. governance, code of conduct, etc.)
- EIT Principles on KICs' FS (old and new)
- EIT Guidance on the EIT Regional Innovation Scheme (EIT RIS) 2018-2020 and EIT RIS Implementation Framework 2022-2027
- EIT GGP and respective assessments
- EIT and KICs websites (deliverables included in websites as well as those submitted with KIC reports)
- KICs' action plans for tackling specific issues (i.e. EIT and EU co-branding; communications strategy; Project Partners, gender balance etc.)
- Annual Grant KIC Performance Assessment Reports
- Multi-annual Dashboard
- Annual Grant KIC Performance Assessment Reports
- EIT GB Strategic Recommendations issued during the assessed period
- EIT GB Rapporteur Reports
- Communications Activities Assessments
- Publicly available relevant EU documents
- In-depth study report of the 1st wave of KICs

Additional documents and databases have been collected from/provided by the EIT and the KIC and assessed during the desk research. This assessment includes recommendations from the most recent relevant reports produced through annual EIT monitoring, such as the assessments KIC's compliance with the Good Governance Principles and Multi-Annual Dashboards depicting KIC's strengths and weaknesses of implementing a multi-annual strategy.

Throughout the overview of the documents, we have opted for a tree structure to log each document into a database and run a first rough screening of relevance, indicating the following in the database:

- The level of documentation (EIT general, cross-KICs, KIC-specific)
- The assessment criteria and indicators to which the respective document is (potentially) relevant
- The level in the Horizon Europe impact pathway to which the data is (potentially) relevant, based on the EIT Impact Framework

Document Analysis

Deloitte and White Research systematically reviewed each document using the database developed as part of the desk research. During this review, further data was added to each indicator (i.e. if the in-depth review of document X proved to be relevant to assessment criteria/indicators not identified during the first screening, the document was updated in the database).

Whilst going through each document, we extracted relevant information on the KIC performances, linking it simultaneously to the areas to be covered by the report. We have subsequently created a matrix to link the

data for each year which ensures that data gaps can be easily identified. Once all the data were grouped using this approach, the data was analysed using the following methods:

- **Synthesis of text** – In cases where the documents already contained elements of analysis of the performance, the text was synthesised and reported directly as findings, with full sourcing.
- **Qualitative content analysis** – In cases where data was presented in direct qualitative manner, the analysis consisted of finding overall trends and tendencies, patterns and links in these documents based on which overall summaries and findings were drawn.
- **Quantitative analysis** –Quantitative data analysis was carried out, or in some cases (e.g. KPIs) data was considered as standalone and indicative.

Surveys

Three unique sets of questionnaires were developed and with the help of EIT InnoEnergy distributed to the following target groups:

- Students and graduates from EIT labelled programmes and non-labelled programmes
- Start-ups and scale-ups supported by EIT InnoEnergy
- EIT InnoEnergy partners

Surveys typically provide more statistically significant data and in that way lead to more objective results. The questionnaire aimed to build upon the collected information so as to complete and enrich understanding from the initial desk research. Prior to the dissemination of the surveys, the questionnaires were sent to the respective EIT officers for feedback and validation of the questions. All questionnaires were open for responses for three consecutive weeks, during which reminders were sent out in order to boost the response rates. All three surveys reached good response rates.

Semi-structured interviews

To complement the data collected during the desk research, a semi-structured interview was conducted both in a written and oral form with the EIT InnoEnergy Operations Manager of Education and leader of the KIC's Skills Institute. The interview questions were always sent to the KIC before the interview, providing the possibility to EIT InnoEnergy representatives to send us written answers and prepare the data or information needed. Since written answers were received before the interview, the oral part of the interview was a follow-up, allowing for clarification questions. These interviews provided in-depth qualitative data that allowed for data verification and triangulation.

Multi criteria analysis (MCA)

In line with the EC's Better Regulation Guidelines and its toolbox[19], a MCA was carried out to assess overall possible alternatives and preferences and evaluate them under different criteria at the same time.

The MCA as a methodological tool has been suitable to conduct a comparison of different options (including a baseline scenario) vis-à-vis a predefined set of criteria. This tool builds on the data collected in the context of the project – including the desk research, the targeted surveys and interviews – to assess various options. Then, based on this assessment, each option received a score per criterion corresponding to the extent to which each option was more or less efficient and effective than the established baseline. These scores were then used to develop a comparison of options, in order to reach and conclude a ranking of preferred options for this study.

Our MCA consisted of three successive steps:

- Assessment of the options with regard to the assessment criteria (including the allocation of base scores);
- Outranking matrix;

[19] Commission, Better Regulation Guidelines, 03 November 2021, SWD(2021) 305 final (http://ec.europa.eu/smart-regulation/guidelines/toc_guide_en.htm).

- Permutation matrix.

Theory-based impact evaluation (TBIE)

Theory-based impact evaluation has been utilised to assess cause and effect between interventions and outcomes in a more detailed manner, zooming in on the various elements within an intervention and taking into account potential impactful external factors as well. Theory based evaluation is an approach to evaluation and not a specific method or technique. It is a way of structuring and undertaking analysis in an evaluation. Theory-based approaches to evaluation attempt to understand an intervention's contribution to observed results through a mechanistic or process interpretation of causation, rather than determining causation through comparison to a counterfactual, as explained below.

Counterfactual impact evaluation (CIE) – Propensity Score Matching

Counterfactual impact evaluation enabled us to estimate more reliably the impact of EIT InnoEnergy by comparing the outcomes of those who have participated in the KIC's programme(s) or benefited from its support– the treatment group – with those who are similar to the treatment group in all of their characteristics, only difference being that they have not participated in a KIC programme/received support from the KIC – the control or comparison group.

Propensity Score Matching is a quasi-experimental method. Based on the collected data, a propensity score was calculated for each individual, indicating their probability to be subject to the intervention (i.e., the KIC's programme or KIC's support). The individuals from the treatment group have then been matched to the individuals from the control group based on other characteristics (e.g., gender, age, education level, etc.). Finally, the average treatment effect of a scheme was calculated as the mean difference in the outcomes between the two groups.

Survival analysis (Kaplan-Meier estimate)

Only one indicator was identified under the societal and economic impact KPIs where the survival analysis could be carried out:

- Number and revenue of start-ups and scale-ups supported by KICs trading 3 years after KIC support ceased.

The Kaplan-Meier estimate was used to estimate the survival function (S(t)) from lifetime data.

Network analysis

Two indicators were identified under the KIC's achievements in attracting new members from across the Union, where the network analysis was applied:

- KIC has grown to an effective sustainable innovation ecosystem with partners within and outside the EU, including the RIS countries and regions,
- Share of indicated innovation ecosystems that covers RIS eligible countries.

Our network analysis focused on the patterns of relationships between the nodes, in this case organisations, and links between them (which organisations are connected and the strengths of these connections). It was based on an assumption that through time organisations develop formal and informal connections with other organisations, which then play an important role in determining the information flows and success of interaction in specific areas.

Triangulation, conclusions and recommendations

In this task all the data findings from the aforementioned data collection was addressed and completed with additional findings from further consultations with EIT InnoEnergy representatives and further requested documents, databases. By comparing and aggregating all information gathered, relevant recommendations were formulated.

3.3. Challenges faced in the assessment

The final review of EIT InnoEnergy was a long and intensive work requiring close cooperation with the KIC and the EIT. During this process, several challenges were encountered that influenced the overall assessment of the KIC's performance. In this section, we comprehensively analyse the challenges that arose and their implications for the evaluation process. These challenges encompassed a range of factors, from shifting expectations to internal operational dynamics. Understanding these challenges is pivotal for gaining insights into the complexities of the evaluation process and charting a path for future improvements.

Changing environment:

One of the foremost challenges faced during the evaluation process was the evolving nature of expectations set by the EIT. Over the assessed 7-year period, these expectations underwent multiple modifications, reflecting changes in the EIT's strategic priorities. This inherent dynamism necessitated a continuous re-evaluation of EIT InnoEnergy's strategies and operational focus to ensure alignment with the priorities of EIT.

Data collection challenges:

To streamline the evaluation process, a strategy was employed to minimise contact with EIT InnoEnergy, as requested by the EIT during the start of the project. We were introduced to the KIC's contact point who we could approach for additional data. Balancing minimal intrusion with the need for comprehensive data collection proved somewhat challenging and demonstrated the intricacies of maintaining efficient communication, while respecting operational autonomy. As much pertinent data as possible has been collected, in line with the requirements, timeline and resources available for this assessment. Though the KIC may have more data, it has also had the opportunity to comment on the report from the perspective of wrong, incomplete or missing data. Therefore, though not exhaustive, the data collection is considered complete given the abovementioned constraints.

4. Relevance to the EU global challenges

4.1. Relevance to the objectives of the Union

Indicator: The results of the KIC's activities have been relevant to the objectives of the Union, including boosting economic growth, strengthening the innovation capacity of the Member States, fostering innovation and entrepreneurship.

This criterion primarily assesses the relevance of the KIC's activities and results to the specific Union goals:

- **Boosting economic growth** by supporting the creation of new products, businesses or services, which in turn lead to job creation and increased industrial competitiveness throughout Europe;
- **Strengthening innovation capacity** of the Member States through activities that foster synergies and cooperation among higher education institutes, research and innovation organisations, and industry corporations;
- Contribution to addressing the **KIC's societal challenge**.

Boosting economic growth

EIT InnoEnergy has made significant strides in pursuit of the Union's objectives, specifically driving innovation and transformation in the area of sustainable energy across Europe. In this context, the KIC has not only met, but surpassed the 2022 targets for multiple KPIs related to supporting start-ups and scale-ups, particularly from the RIS countries.

More specifically, EIT InnoEnergy has offered its support to a total of 600 start-ups and scale-ups, compared to the targeted 465 for the period 2017 to 2022. Furthermore, EIT InnoEnergy has exceeded its objectives for backing start-ups and scale-ups from the RIS countries, supporting 62 during 2021-2022, compared to the target of 6.

Beyond facilitating a robust network of start-ups and scale-ups, EIT InnoEnergy has also demonstrated its capacity to attract substantial investments, aligning with its Business Plans and SA. The KIC has successfully attracted EUR 3 338 100,84 in investments from start-ups and scale-ups until 2022, thus significantly exceeding the target of EUR 1 253 000 set for the 2017-2022 period. These outcomes highlight EIT InnoEnergy's efficacy in reaching quantitative indicators vital for driving economic growth.

The achievements of EIT InnoEnergy are pertinent within the framework of the Union's goals, and the KIC's contributions are of importance due to their potential influence. EIT InnoEnergy's generation of innovative start-ups, totalling seven established for innovation by 2022, while aiming for 11, underscores the opportunity for improvement in this area. It underlines the need for well-defined and pertinent goal-setting to drive tangible progress. More specifically, the KIC should aim to revisit its strategy and goals relevant to the above-mentioned area by setting more realistic targets for the following years.

Strengthening the innovation capacity of the Member States, fostering innovation and entrepreneurship

Over the past decade, EIT InnoEnergy has been at the forefront of driving innovation in the energy sector, and in the context of its mission, it continues to build a sustainable, interconnected framework among industry, research, and higher education — the trusted ecosystem. EIT InnoEnergy's visionary strategy for the period 2021-2027 is poised to reinforce the EU's goals, leveraging its proven track record of designing, developing, and deploying commercially viable innovations to address complex energy, societal, and economic challenges.

The mission of EIT InnoEnergy is defined as nurturing innovation including talent, technology, and companies, all strategically interwoven within the trusted ecosystem. This ecosystem embraces businesses, universities, research organisations, consumers, investors, and public entities, harmonising their efforts towards catalysing innovation's far-reaching impact. EIT InnoEnergy recognises that innovation, distinct from research and commercial activities, thrives on diverse collaboration dynamics, dynamic management approaches, and trust as the cornerstones of the ecosystem.

With a relentless focus on sustainable energy, EIT InnoEnergy has elevated its position to become the preeminent accelerator in the sustainable energy domain across the Western world. This strategic positioning is exemplified by robust partnerships, including for example Bill Gates' organisations, indicating international support for Europe's leadership in the energy transition. As the energy landscape evolves, EIT InnoEnergy's goal is to facilitate over 100 ventures in both the EU and the US, harnessing the power of strategic alliances for impactful innovation.

EIT InnoEnergy's financial independence is a key driver of its sustained impact. Its approach emphasises creating an equitable blend of revenue streams from money-generating activities and cost-neutral initiatives. By 2027, EIT InnoEnergy aspires to achieve a financial model that yields EUR 2 of value created and monetised for every EUR 1 invested. With strategic investments managed through partnerships, funding from the EU, and net proceeds from previous endeavours, EIT InnoEnergy aims to secure an annual investment capacity of EUR 300 million.

EIT InnoEnergy recognises the pivotal role of individuals in driving systemic innovation. Its emphasis on fostering "game changers" has led to the graduation of 1 337 Master's students by 2022, each equipped with the skills to reshape the energy landscape. These graduates, distributed across energy institutions, represent a potent force for transformative change. EIT InnoEnergy's vision also extends to engaging with Chief Experience Officers from innovative companies to infuse innovation culture into the heart of the industry.

EIT InnoEnergy's regional approach is also key to its success. The Power Alliance, comprising partners from the RIS countries, plays a pivotal role in fostering collaboration, knowledge sharing, and innovation integration. By leveraging partnerships and constructing localised operational hubs, EIT InnoEnergy extends its ecosystem to RIS countries, effectively embedding innovation across Europe.

In the period 2017-2022, EIT InnoEnergy achieved 239 marketed innovations, exceeding the targeted 200 and has reported 90 designed/tested innovations, again above the target of 71. These achievements underscore the organisation's commitment to driving innovation that not only transforms the energy sector but also generates tangible economic returns. The strategy's strengths are evident in well-defined processes, active venture capital community, and stable business creation programmes.

Conclusion: EIT InnoEnergy has made remarkable progress in boosting economic growth, strengthening the innovation capacity of the Member States and fostering innovation and entrepreneurship, though it acknowledges that there are areas for improvement. Initiatives are underway to enhance calls for innovation activities, strengthen the alumni network, and strategically align with EU initiatives. EIT InnoEnergy remains committed to fostering education, encouraging start-ups, and enriching the innovation landscape, while addressing challenges to create a future defined by sustainable innovation and entrepreneurship.

Score: Excellent – 9

4.2. Societal challenges

Indicator: The results of the KIC's activities have contributed significantly to addressing the societal challenge it was designated for.

EIT InnoEnergy's SA for 2021-2027 aligns with several global initiatives aimed at tackling societal challenges. Notably, EIT InnoEnergy's focus on climate change aligns with the Paris Agreement signed by 195 countries in 2015, which emphasises the need to address human-induced climate change and reduce greenhouse gas emissions, including CO_2.

Furthermore, EIT InnoEnergy's alignment with the United Nations' 2030 Agenda for Sustainable Development and its 17 SDGs underscores its commitment to a wide range of objectives. Notably, SDGs #7 (Affordable and clean energy), #8 (Economic Growth), #11 (Sustainable cities and communities), #13 (Climate Action), and more resonate with EIT InnoEnergy's strategy. The organisation has been mapping its supported assets to the SDGs since 2018 to ensure its contributions are well-documented (these are available in the SA 2021-2027).

The EC's Green Deal is another set of goals with which EIT InnoEnergy aligns its efforts. By addressing key societal challenges, such as decreasing greenhouse gas emissions, reducing energy costs, and improving energy system operability, EIT InnoEnergy contributes to the Green Deal's goal of promoting growth and job creation through green initiatives. EIT InnoEnergy's impacts extend across economic, social, and environmental dimensions. It creates economic growth and competitiveness, contributes to job creation and maintenance, and fosters environmental benefits through reduced CO_2 emissions and more affordable energy solutions.

The alignment of EIT InnoEnergy's operations with these outlined societal impacts and the Horizon Europe programme's energy-related Pillars and Clusters showcases a clear and concise approach to achieving its goals. The organisation's contributions are monitored quantitatively, ensuring accountability and a data-driven approach.

Conclusion: EIT InnoEnergy's strategic alignment with global initiatives, including the Paris Agreement, the United Nations' Sustainable Development Goals, and the EC's Green Deal, reflects its commitment to addressing critical societal challenges such as climate change, sustainable energy, and economic growth. Through its multifaceted contributions across economic, social, and environmental dimensions, EIT InnoEnergy demonstrates a well-documented, data-driven approach to achieving its mission, while making a positive impact on a global scale.

Score: Excellent – 9

Table 5: Activities of the KIC

KPI	2017 Targeted	2017 Achieved	2018 Targeted	2018 Achieved	2019 Targeted	2019 Achieved	2020 Targeted	2020 Achieved	2021 – 2022 Targeted	2021 – 2022 Achieved	Total targeted	Total achieved/ reported*
KIC Supported Start-ups/Scale-ups	**68**	**97**	**75**	**100**	**76**	**127**	**92**	**89**	**154**	**187**	**465**	**600**
Investment attracted by KIC supported start-ups/scale-ups (in EUR millions)	**10**	**32.87**	**20**	**20.07**	**118**	**1 416.34**	**105**	**662.36**	**1 000**	**1 206.47**	**1 253**	**3 338.10**
Start-ups created of/for innovation	**1**	**0**	**2**	**2**	**n/a**	**n/a**	**2**	**2**	**6**	**3**	**11**	**7**

4.3. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Excellent – 9

Strengths
EIT InnoEnergy has exceeded its targets in supporting start-ups and scale-ups, both in terms of numbers and funding. The organisation's support for 600 start-ups and scale-ups, along with substantial investments drawn by the supported ventures, demonstrates its ability to stimulate economic growth and entrepreneurship.
EIT InnoEnergy's financial model aims for value creation that exceeds investment, demonstrating a sustainable approach.

Weaknesses	Recommendations
While EIT InnoEnergy has achieved significant progress, there is room for enhancing the accuracy of goal-setting and target achievement.	Within two months, EIT InnoEnergy should establish clear, specific, and measurable targets for each of its major initiatives, aligned with the KIC's goals. These targets should cover areas such as the number of supported start-ups, scale-ups, investments attracted by supported start-ups, and innovation creation. Regularly track progress towards these targets and make adjustments as needed to ensure they are met by the end of the grant period in 2024. In addition, EIT InnoEnergy should invest in

Weaknesses	Recommendations
	education initiatives that are geared towards nurturing future innovators. Within two months, it should set a sustainable plan for future specific educational programmes, partnerships, or initiatives and set clear targets, with a goal of reporting which of the above-mentioned activities will continue.
Initiatives to strengthen the alumni network could be further developed to foster continuous engagement, knowledge sharing, and collaboration.	Within two months, EIT InnoEnergy should set quantifiable goals for the expansion and strengthening of the alumni network, with the aim of engaging at least 200 alumni actively. This can include organising regular alumni events, knowledge-sharing platforms, and collaborative projects to foster continuous engagement. Monitor alumni participation and adjust strategies to achieve this target by the end of 2024.

5. EU added value and relevance with regard to the objectives of the EIT

5.1. European added value

Indicator: The KIC has created a significant European added value with respect to building a sustainable innovation ecosystem through knowledge triangle integration, and as a result has developed concrete solutions to the societal challenge it addresses, as foreseen in the original proposal.

EIT InnoEnergy has established itself as a reliable cooperation partner and highly regarded participant within the realms of EU decision-making and financial institutions, assuming various roles. These roles include being a recipient of grants, a beacon of insightful thought leadership, a contributor to regulatory frameworks, a catalyst for risk reduction in project pipelines, and a facilitator of deal flow. These collective engagements underscore the viability of the EIT KIC model as a leading and forward-looking EU co-funded entity, driven by innovation and sustainability. The KIC has managed to create a significant European added value through its activities.

EIT InnoEnergy leads three pivotal industrial value chains: the European Battery Alliance, the European Green Hydrogen Acceleration Centre, and the EU Solar PV Industry Alliance. Through these initiatives, the KIC spearheads the creation and growth of novel markets. For example, in the battery sector, when the European Battery Alliance was initiated in 2017, Europe held a marginal position in production. However, by 2022, Europe's investment in batteries amounted to EUR 160 billion, resulting in substantial growth. Moreover, the KIC stands as a reputable and effective innovation ecosystem and powerhouse: EIT InnoEnergy has cultivated a network encompassing over 1 400 partners spanning academia, research, industry, investors (both equity and debt), and regulatory bodies. The substantial leverage inherent within this trustworthy ecosystem empowers EIT InnoEnergy to elevate start-up success rates, foster the expansion of scale-up enterprises, and assist strategic stakeholders in reducing risk associated with their innovation strategies. The intrinsic value of this ecosystem was appraised at over EUR 1 billion by Start-up Genome.

Conclusion: EIT InnoEnergy has established itself as a pivotal collaborator and influential participant in EU decision-making and financial institutions, with diverse roles such as grant recipient, thought leader, and deal facilitator. It leads key industrial value chains, driving the growth of emerging markets like European battery production. EIT InnoEnergy's multifaceted engagement underscores the success of the EIT KIC model as a pioneering EU-funded entity dedicated to innovation and sustainability, reshaping the European landscape.

Score: Excellent – 9

5.2. Alignment with and relevance to the EIT objectives

Indicator: All KIC's activities have been fully aligned with and relevant to the EIT objectives as defined in EIT legislative framework.

The original objective outlined in the 2008 EIT Regulation was as follows: "The EIT's objective is to contribute to sustainable European economic growth and competitiveness by reinforcing the innovation capacity of the Member States and the Community. It should do this by promoting and integrating higher education, research and innovation of the highest standards." Additionally, the EIT adopts the Horizon Europe overall objective of "contributing to building an economy based on knowledge and innovation across the whole Union by leveraging sufficient additional research, development and innovation funding" reinforced by three priorities "a) excellent science; b) industrial leadership; c) societal challenges."[20]

These general objectives are encompassed by the specific objectives of:

- integrating the knowledge triangle of research, innovation and education and thus to reinforce the Union's innovation capacity and address societal challenges[21];

[20] REGULATION (EU) No 1291/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 establishing Horizon 2020 - the Framework Programmed for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC, Accessed on January 13th, 2022. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1291

[21] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Horizon 2020 - The Framework programmed for Research and Innovation, Accessed on January 13th, 2022. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0808:FIN:en:PDF

- responding to the priority of "Societal challenges"[22];
- fostering "Leadership in enabling and industrial technologies"[23].

The Regulation outlines the fundamental rationale behind the EIT as integrating education and entrepreneurship with research and innovation and following the business logic and a result-oriented approach. As stated in the Regulation, "the EIT should (further) foster entrepreneurship in its higher education, research and innovation activities. It should promote excellent entrepreneurial education and support the creation of start-ups and spin-offs"[24].

Regarding the above, the KIC has made serious efforts in aligning its activities with the EIT's objectives. The actions of the KIC are in line with the goals of the EIT. This alignment is based on the commitments to achieve impact and results as stated in the SA. Any significant deviation from these commitments will lead to an update of the SA promises. The KIC has devised a method to gauge impact using the Value Network Analysis model, which is harmonised with the EIT Impact Framework and the KIC's impact objectives.

The specific aims of the EIT RIS activities are to boost the innovation capacity of emerging entrepreneurs, foster collaborations among stakeholders in education, research, and industry in specific countries, raise the count of EIT partners and beneficiaries from the RIS countries, and engage local authorities and stakeholders in KIC initiatives. The EIT RIS Action Line I concentrates on involving local entities in KIC undertakings, while Action Line II concentrates on mobilising, connecting, and internationalising national/regional networks.

The KIC's educational offerings play a vital role in propelling inventive and entrepreneur-cantered energy education. Its objective is to cultivate change-makers in sustainable energy by establishing a supportive environment for their advancement. The KIC also concentrates on maximising investments in research and innovation for financial viability and the attainment of the Sustainable Development Goals.

In terms of governance, the KIC employs a structure akin to that of a corporate entity, wherein a SB supervises the execution of the Business Plan and advises the Executive Board. The KIC upholds a commitment to transparency and routinely communicates with its collaborators via meetings, newsletters, and other mediums. Essential documents and information, such as the KIC's vision, objectives, undertakings, partnership particulars, and IP policy, are also published on its website.

The activities of EIT InnoEnergy are closely aligned with the objectives of the EIT across various domains. SkillCharge's portfolio, including SkillCharge Education, was purposefully developed to harmonise with the EIT's goals. Notably, EIT courses on the FutureLearn platform saw increased engagement in 2021, contributing significantly to the advancement of education in the energy sector. The entrepreneurship strategy revolves around fostering new businesses, particularly those that hold potential for addressing energy system challenges, sustainability, and impact in line with InnoEnergy's KPIs, closely mirroring the EIT's objectives. The role of EIT InnoEnergy in scouting ventures for support, embedding InnoEnergy in local ecosystems, and active participation in related events seamlessly aligns with the EIT's pursuit of integrating the knowledge triangle and nurturing innovation ecosystems. The EIT RIS activities' goals to enhance innovation capabilities, facilitate collaboration among knowledge triangle stakeholders, and engage regional authorities align well with the EIT's knowledge integration and strategic sustainability aims. Additionally, EIT InnoEnergy's strategic investment of grants in diverse areas contributes directly to the EIT's overarching objective of achieving significant societal impact. In short, EIT InnoEnergy's endeavours in education, entrepreneurship, knowledge integration, EIT RIS engagement, and societal impact align deeply with the comprehensive objectives set by the EIT.

The KIC engages in various activities, including providing funding, mentoring, and resources to start-ups and small to medium-sized enterprises (SMEs) working on innovative energy solutions. EIT InnoEnergy runs acceleration programmes offering training, mentorship, networking, and funding to early-stage start-ups. It

[22] REGULATION (EU) No 1291/2013
[23] Ibidem.
[24] REGULATION (EU) No 1291/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC, Accessed on January 13th, 2022. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1291

invests directly in start-ups aligned with its mission, providing financial support and strategic guidance. Facilitating collaboration among start-ups, industry partners, research organisations, and investors, EIT InnoEnergy has created a network connecting entrepreneurs with potential customers, partners, and investors. The KIC initiates and supports collaborative innovation projects, bringing together start-ups, research institutions, and industry players to work on cutting-edge energy solutions. Additionally, it offers business incubation services providing start-ups with office space, mentoring, and access to industry experts. EIT InnoEnergy assists start-ups in navigating the energy market by offering insights, market analysis, and connections to potential customers. They also provide educational programmes and workshops to help entrepreneurs develop the necessary skills for running successful energy-related businesses. The organisation's focus lies in promoting sustainable energy solutions, including renewable energy, energy storage, energy efficiency, and related technologies.

Some of the KIC's flagship entrepreneurship and business creation activities are:

- Start-up Support: EIT InnoEnergy supported a start-up called Northvolt, which aims to build Europe's largest lithium-ion battery factory. EIT InnoEnergy provided funding, expertise, and a network of industry partners to help Northvolt develop and scale their battery manufacturing technology.
- Acceleration Programme: One of EIT InnoEnergy's acceleration programmes, called Highway™, supported a start-up named Tibber. Tibber offers an AI-powered platform that helps homeowners optimise their electricity consumption and reduce costs. Through the programme, Tibber received mentoring, access to investors, and connections to potential customers, helping them grow rapidly.
- Investment: EIT InnoEnergy invested in Skeleton Technologies, a company specialising in ultracapacitors for energy storage. The investment not only provided financial support but also enabled Skeleton Technologies to leverage EIT InnoEnergy's network to expand their customer base and enter new markets.
- Collaboration and Networking: EIT InnoEnergy facilitated a collaboration between a start-up named Exeger and various industry partners. Exeger develops solar cell technology that can be integrated into consumer electronics. EIT InnoEnergy connected Exeger with device manufacturers and retailers, helping them bring their innovative solar-powered products to market.
- Innovation Project: EIT InnoEnergy initiated a collaborative project involving a start-up called Delft IMP, which focuses on improving wind turbine blade design. EIT InnoEnergy connected Delft IMP with research institutions and wind energy companies, enabling them to test and refine their blade innovations in real-world conditions.
- Business Incubation: EIT InnoEnergy provided business incubation support to a start-up called Skeleton Technologies (noted earlier). The support included office space, access to technical resources, and mentoring to help Skeleton Technologies refine their ultracapacitor technology and develop a viable business model.
- Access to Markets: EIT InnoEnergy helped a start-up named NÜWIEL access new markets for their electric bike trailer. Through EIT InnoEnergy's network, NÜWIEL connected with distributors and retailers across Europe, allowing them to expand their market reach and increase sales.
- Educational Programmes: EIT InnoEnergy organised educational workshops for entrepreneurs, such as a workshop on energy storage technologies. These workshops provided startups with valuable knowledge and insights into the latest trends and advancements in the energy industry.

These examples showcase how EIT InnoEnergy supports start-ups and entrepreneurs through various activities, helping them develop innovative energy solutions, access markets, and grow their businesses.

During the desk research and the interviews, we found that the activities of the KIC are in line with the main objectives set and the Business Plans compiled. The results regarding the relevant KPIs are highlighted in Chapter 6.3.

Conclusion: EIT InnoEnergy has consistently aligned its activities with the objectives of the EIT, focusing on impact measurement, innovation capacity building, and collaboration through the EIT RIS activities. The KIC plays a crucial role in promoting inventive and entrepreneur-centred energy education, striving to create change-makers in sustainable energy, while maximising investments in research and innovation. EIT InnoEnergy's governance structure emphasises transparency and communication, with essential information readily available on its website. In all aspects of its operations, including education, entrepreneurship,

knowledge integration, and societal impact, EIT InnoEnergy mirrors and deeply aligns with the EIT's overarching goals. Through its strategic investments, active participation in innovation ecosystems, and dedication to the knowledge triangle, EIT InnoEnergy demonstrates its unwavering commitment to advancing innovation and sustainability in Europe.

Score: Very Good – 8

5.3. Alignment with the EIT RIS Guidance

Indicator: KIC RIS activities have been fully aligned with the EIT RIS Guidance note 2018-2020 and RIS Implementation Framework (2022-2027)

EIT RIS Guidance Note 2018-2020[25]

The EIT RIS Guidance Note 2018-2020 aimed to update the EIT RIS strategy, offering flexibility to the KICs. It outlined two main action lines, as presented in Table 6, one emphasising local engagement and the other promoting knowledge transfer and networking. These actions were designed for sustainability and alignment with national authorities' interests. RIS Hubs were introduced to facilitate KICs' interactions with local stakeholders and knowledge transfer, with eligibility criteria including thematic alignment, the capacity to work with relevant authorities, commitment to EIT RIS, and connections to enhance synergies.

Table 6: Description of Action Lines of EIT RIS Guidance Note 2018-2020

Action Line	***Descriptions of Activities and Example Outputs***
Action line I: Engage local players in KIC activities	Descriptions of Activities: - Education: establishment of RIS scholarship programmes, campaigns and events, facilitation of industry involvement in educational programmes, internships for graduates focused in EIT RIS eligible countries and regions - Entrepreneurship: foster participation of start-ups and scale-ups in acceleration programmes, establishment of partnerships with local businesses, matchmaking and networking events, support of start-ups creation - Innovation and Research: augment the involvement of researchers originating from EIT RIS eligible countries and regions in KTI innovation projects, pilot testing of the outcomes of KIC innovation projects, foster involvement of local start-ups in technology and know-how transfer Example Outputs: - EIT RIS scholarships, internships, networking and matchmaking for start-ups, students and researchers in innovation projects, etc.
Action line II: Mobilise, interlink and internationalise national / regional networks	Description of Activities: - The KIC should work towards raising awareness and best practices from the KTI model, along with knowledge triangle stakeholders at national level. Such process might include the linking of activities in the sectors of research, education and business with the aim of enabling innovation. As a next step of the process, the KIC should facilitate the development and implementation of joint innovation and entrepreneurship strategies to connect knowledge triangle partners, while also facilitating the development of innovation related ecosystems practicing KTI. Example Outputs: - Identification and initiation of joint projects and pilots based on KTI approach among local knowledge triangle actors

[25] Note: EIT RIS Guidance Note 2018-2020 remained into force for the year 2021, as it was considered a transitional year.

EIT InnoEnergy's alignment with the EIT RIS Guidance Note for 2018-2020 remained consistent. In the span of 2019-2020, EIT InnoEnergy hosted the Primer PowerUp! Challenge, providing participants from the RIS countries with the opportunity to excel in their innovative ideas and business ventures. Furthermore, EIT InnoEnergy executed the Primer pre-acceleration programme, tailored to early-stage start-ups from diverse backgrounds, across all RIS Hubs of the KIC.

EIT InnoEnergy also operated other investment tools to support entrepreneurship during this time: Highway and Boostway, which were accessible to start-ups originating from the EIT RIS countries. Notably, 13 start-ups from EIT RIS countries signed Business Creation Services Agreements in 2019 and 2020.

Starting in 2020, EIT InnoEnergy joined the EIT Jumpstarter, a business creation initiative for business idea holders, covering six thematic areas. EIT Jumpstarter is jointly managed by seven EIT Innovation Communities: EIT Digital, EIT Health, EIT Food, EIT Raw Materials, EIT InnoEnergy, EIT Manufacturing, and EIT Urban Mobility. Selection of participants is based on the robustness of their entrepreneurial concepts, sectoral impact, and growth potential. Throughout the programme's duration, start-up teams acquire skills in validating and refining business concepts, as well as perfecting their pitches for potential investors. Since 2019, a total of about 500 teams have undergone training within the EIT Jumpstarter.

EIT InnoEnergy introduced the Starter programme to bridge the gap between EIT RIS academic teams and industrial stakeholders, with the aim of creating viable market projects. This initiative fosters business-oriented innovation and nurtures idea-stage start-ups within universities, cultivating collaborations between academia and the business world. In 2018, Starter was piloted in two universities in Krakow (Jagiellonian University and University of Science and Technology), with 20 teams successfully completing the programme and presenting their projects to investors. Subsequently, in 2019, five additional pilots were organised at higher education institutions in Poland, Slovenia, and Hungary, involving over 60 participants who took part in the training courses.

RIS Implementation Framework 2022-2027

The successor of the EIT RIS Guidance Note 2018-2022, the EIT RIS Implementation Framework 2022-2027[26] sets EIT RIS as a mandatory part of KICs' multiannual strategies. The primary goal is to create tailored approaches for different EIT RIS countries, addressing their specific needs and improving overall performance. KICs are expected to contribute to objectives such as enhancing local innovation capacities through capacity-building activities, fostering collaboration among local knowledge transfer actors, supporting the integration of new partners into KICs, linking local innovation ecosystems to pan-European ones, serving as bridges to relevant RIS3 strategies, and attracting additional private and public funding, notably from European Structural and Investment Funds (ESIF). KICs are evaluated based on various KPIs across areas like organisational participation, university engagement, support for start-ups and SMEs, and the impact of projects in the EIT RIS countries. Additionally, RIS-specific indicators, including attracted ESIF funding, establishment of CLCs and RIS Hubs, new and established KIC Partners from RIS countries, and coverage of innovation and business ecosystems in RIS regions, are included in the EIT impact framework. The Framework sets a minimum target of 15% of the KICs' aggregated core KPIs for impact to be achieved in the EIT RIS countries and regions. EIT InnoEnergy's RIS strategy outlined in the KIC's SA (2021-2027) is very well aligned with the RIS Implementation Framework for 2022-2027. The KIC aims to continue building innovation ecosystems in the EIT RIS eligible countries and regions through the creation of additional RIS Hubs and targeted RIS activities. Additionally, the KIC mentions in its SA that 40% of its investments go to RIS countries. Also, the updated KPI monitoring system for EIT InnoEnergy includes a significant number of RIS-specific KPIs, which cover nearly all of those required by the RIS Implementation Framework for 2022-2027. The KPIs currently not included in the KIC's specific monitoring system that may be difficult to assess without regular data collection include: the number of organisations from EIT RIS eligible countries, regions

[26] EIT RIS Implementation Framework 2022-2027, Accessed on September 18, 2023. Available at: https://eit.europa.eu/library/eit-ris-implementation-framework-2022-2027

that have attracted funding from ESIF and the amount of funding attracted, and the share indicated of innovation and business ecosystems that cover EIT RIS eligible countries and regions.

Since 2021, EIT InnoEnergy has launched more than 17 RIS education activities in seven RIS countries, from which more than 5 000 participants benefited. A good example is the EIT Jumpstarter Joint Local Training which provided training to seven teams and mentoring to four. Each team presented their idea or project and received training about the market and financial aspects of its business development. The training also presented the EIT KIC Greece Hub, which also covers Cyprus, and possibilities of support available from EIT InnoEnergy following programme completion. Furthermore, EIT InnoEnergy's RIS innovation projects since 2021 cover at least three RIS countries. Through the Accelerate Estonia Scale-up Safari, the EIT InnoEnergy Estonia was introduced and showcased the ways that the hub can aid start-ups and corporates through EIT InnoEnergy activities. Last, the EIT InnoEnergy Türkiye has partnered up with a Turkish company and started the STAR BIGG Green Growth Programme; an acceleration programme which helps sustainable energy start-ups.

Conclusion: EIT InnoEnergy has consistently aligned its efforts with the EIT RIS frameworks, with notable activities and initiatives supporting innovation and entrepreneurship in RIS countries. EIT InnoEnergy remined committed to fostering entrepreneurial talent, bridging academia and industry, and expanding innovation ecosystems in eligible RIS countries. Furthermore, EIT InnoEnergy's Strategic Agenda 2021-2027 reaffirms its dedication to RIS objectives, with the aim of creating more RIS Hubs and enhancing targeted RIS activities. This aligns with the overarching goal of allocating 40% of investments to RIS countries and monitoring progress through specific KPIs. Since 2021, the organisation has continued its impactful work, launching numerous RIS education activities and innovation projects across multiple RIS countries. These efforts demonstrate EIT InnoEnergy's ongoing commitment to fostering sustainable energy innovation and collaboration in eligible regions, furthering the mission of EIT and contributing to Europe's innovation ecosystem.

Score: Very Good – 8

5.4. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Very Good – 8

Strengths
Alignment with the objectives of EIT and the EU demonstrating European added value and addressing the KIC-relevant societal challenges .
Strong performance with regards to reaching its targets.

Weaknesses	Recommendations
Limited regional reach; while EIT InnoEnergy's impact is commendable, there might be room for further expansion of its activities in certain RIS regions to ensure broader geographical coverage.	In early 2024, EIT InnoEnergy should identify and target at least three underrepresented RIS countries/regions within Europe. Within these countries/regions, specific measurable outcomes should be achieved, including the initiation of collaborative projects involving local stakeholders, and the increase of the number of RIS scholarships and innovation projects.

6. Achievement of KIC's own objectives

6.1. 7-year Strategic Agenda objectives and expected results

Indicator: A KIC is on track to achieve its 7-year Strategic Agenda objectives and expected results in line with its initial strategic objectives. Any deviation from the Strategic Agenda has been justified, approved by the EIT and has led to maximising impact.

During the span of 2021-2027, EIT InnoEnergy envisions itself as the foremost catalyst for innovation and entrepreneurship within the realm of sustainable energy.

Aligned with this vision, EIT InnoEnergy's mission for the same period revolves around constructing and overseeing a resilient, enduring operational framework that seamlessly interlinks industry, research, and higher education in the energy sector. The overarching objective is to amplify the effectiveness and impact of innovation by harmoniously integrating these three key players, surpassing what could be achieved individually. In this pursuit, EIT InnoEnergy seeks to establish a dependable ecosystem that includes enterprises, universities, research entities, consumers, investors, and both public and governmental bodies.

In congruence with its vision and mission, EIT InnoEnergy has meticulously defined strategic aims for the timeframe of 2021-2027. These include increasing the competitiveness of European value chains, propelling an all-encompassing, sustainable, and environmentally conscious growth, nurturing novel innovation ecosystems within the InnoEnergy domain, and bolstering the competitive stance of the InnoEnergy sector. Importantly, these objectives find alignment with pertinent United Nations Sustainable Development Goals, including SDG 8, SDG 9, SDG 11, SDG 12, and SDG 13. EIT InnoEnergy's Strategic Objectives, as outlined in its SA 2021-2027, are the following:

- SO1 – Decreasing the Green House Gas (GHG) emissions
- SO2 – Decreasing the cost of energy
- SO3 – Increasing the operability of the energy system
- SO4 – Creating, or maintaining jobs
- SO5 – Promoting inclusive, sustainable, and green growth
- SO6 – Increasing competitiveness of the European value chains
- SO7 – Increasing knowledge triangle Liquidity and
- SO8 – Securing KIC's Strategic, Operational and FS

The KIC's progress regarding its 7-year SA are further outlined in the chapter below.

As also described below, EIT InnoEnergy has achieved notable success in various KPIs. In education programmes, the KIC attracted 82% of the target number of students. Business incubation exceeded expectations with more start-ups and spin-offs created. Knowledge transfer saw significant success, surpassing targets. Innovation initiatives, including new products and testing, outperformed goals. Start-up support attracted substantial investment, indicating investor confidence. Graduates from EIT programmes exceeded targets, showing the programmes' contribution to skilled workforce development.

However, several challenges persist such as falling short of co-funding rate targets and facing difficulties in FS revenues and dissemination of results.

Conclusion: Overall, EIT InnoEnergy's performance showcases its positive impact on energy and innovation sectors, with impressive achievements across various dimensions of operation. The performance of EIT InnoEnergy, which is also presented in the various chapters of this report, showcases that the KIC is on track to achieve objectives of its 7-year Strategic Agenda and expected results. Any deviation from the SA has been justified, approved by the EIT and has led to maximising impact.

Score: Excellent – 9

6.2. KIC's achieved objectives

Indicator: The KIC has achieved its objectives and respective targets as stated in its original proposal and Strategic Agenda in relation to the societal challenge.

The KIC's Strategic Objectives also stem from the need to tackle the challenges mentioned in the chapter above. EIT InnoEnergy has identified eight Strategic Objectives in its SA, and these are presented below, accompanied by relevant data regarding the KIC's progress:

SO1 – Decreasing the GHG emissions

EIT InnoEnergy has taken several actions to reduce GHG emissions, including supporting clean energy start-ups, promoting electric mobility, improving energy efficiency, and advancing renewable energy integration. It also contributes to reducing GHG emissions through education, research, and circular economy initiatives.

EIT InnoEnergy has significantly reduced CO_2 emissions by promoting sustainable energy initiatives, collaborating with partners, and fostering the adoption of eco-friendly energy generation, distribution, and consumption. The KIC's Impact Report for 2022 predicts that by 2030, KIC portfolio companies (i.e., entities supported by the KIC) will have prevented the release of 2.1 Gigatons of CO_2, demonstrating their positive influence in combating greenhouse gas emissions. Additionally, KIC's investments have led to the production of 831 terawatt-hours of clean and renewable energy, contributing to both emissions reduction and the global shift towards sustainable energy solutions. In conclusion, EIT InnoEnergy's dedicated efforts have been instrumental in decreasing CO_2 emissions and advancing a more sustainable energy landscape.

SO2 – Decreasing the cost of energy

EIT InnoEnergy is actively involved in initiatives aimed at reducing the cost of energy production and distribution, particularly in the context of sustainable and clean energy solutions. Its actions include investing in renewable energy, energy storage innovations, smart grid technologies, and supporting energy start-ups.

EIT InnoEnergy has played a significant role in cost reduction in the energy sector by supporting over 500 portfolio companies with a reported 93% survival rate since 2010. However, external data procured for this evaluation and a subsequent impact analysis showcase that the survival rate of such companies is at 81%, which is contradictory to the KIC's analysis and lower than the control's percentage of 98% survival. More information on the abovementioned is presented in Chapter 6.6.

These emerging businesses are pioneering innovative technologies that lead to cleaner, more affordable, and widely accessible energy solutions, accelerating the adoption of sustainable energy sources and lowering energy expenses. Additionally, EIT InnoEnergy is spearheading European decarbonisation efforts by forming industrial alliances in key sectors like battery storage, green hydrogen, and solar photovoltaics, fostering strategic value chains that address energy cost reduction, greenhouse gas emissions reduction, and energy availability and security. Overall, EIT InnoEnergy's collaborative approach and support for emerging enterprises are driving advancements in reducing energy costs and facilitating the transition to sustainable energy sources.

SO3 – Increasing the operability of the energy system

EIT InnoEnergy is actively engaged in initiatives aimed at increasing the operability and flexibility of the energy system. It supports grid modernisation, energy storage solutions, demand response, hydrogen as an energy carrier, interconnection of energy markets, and more.

EIT InnoEnergy is dedicated to promoting sustainability in the energy sector by working towards affordable energy, a secure supply, and reduced greenhouse gas emissions. Their innovative approach involves collaboration among individuals, startups, industrial value chains, and the ecosystem to create synergistic and impactful solutions. Through investments and interconnections in these areas, EIT InnoEnergy expects their portfolio companies to save 2.1 Gigatons of CO_2, cut EUR 12.8 billion in energy costs, and produce 831 terawatt-hours of clean energy by 2030, contributing significantly to a more sustainable world.

SO4 – Creating or maintaining jobs

EIT InnoEnergy recognises the importance of creating and maintaining jobs in the sustainable energy sector. It supports clean energy start-ups, operates incubators and accelerators, invests in renewable energy

projects, collaborates with universities and research institutions, and promotes energy efficiency to stimulate job creation.

EIT InnoEnergy has been highly successful in promoting job creation within the sustainable energy sector. Through collaborative efforts and support for startups, it will have contributed to the generation of 7 million new jobs by 2025[27]. This underscores EIT InnoEnergy's dedication to fostering sustainable economic growth and employment opportunities during the transition to cleaner energy sources.

However, based on responses from the start-up survey, which are presented in Table 7 belowjob creation outcomes vary significantly and do not reflect the KIC's ambitions for the future. Notably, 17% of respondents reported no job creation, highlighting diversity in project nature and start-up maturity. However, 10% reported generating at least two new jobs, showcasing EIT InnoEnergy's positive impact on job growth for some entities, while an exceptional case of 3% claimed to have created 4 500 jobs, potentially serving as a valuable success story for further analysis.

SO5 – Promoting inclusive, sustainable, and green growth

EIT InnoEnergy is committed to promoting inclusive, sustainable, and green growth by supporting initiatives and projects that prioritise social and environmental sustainability. It promotes diversity and inclusion, engages with local communities, and supports sustainable energy access, among other actions.

EIT InnoEnergy is committed to fostering inclusive, sustainable, and green growth on multiple fronts. The KIC prioritises nurturing talent and fostering innovative mindsets, with a diverse cohort of over 1 600 graduates from 99 nationalities, equipping them with skills to drive sustainable economic growth. It has backed more than 500 start-ups with a reported 93% survival rate, catalysing innovation in sustainable energy technologies. However, as mentioned above, the KIC's supported start-ups survival rate is at 81%.

EIT InnoEnergy's leadership in battery storage, green hydrogen, and solar photovoltaics is creating new sustainable energy markets, facilitated by collaborations with government, industry, and academia. EIT InnoEnergy's extensive ecosystem of 1 200 partners collectively aims to save 2.1 Gigatons of CO_2, reduce energy costs by EUR 12.8 billion, and generate 831 terawatt-hours of clean energy by 2030. EIT InnoEnergy integrates ESG (Environmental, Social, and Governance) principles and a robust impact model in its investment process, aligning with SDGs and Green Deal objectives, and quantifies its economic, social, and environmental impact to promote inclusive and sustainable growth in the sustainable energy sector.

SO6 – Increasing competitiveness of the European value chains

EIT InnoEnergy actively supports initiatives aimed at increasing the competitiveness of European value chains in the clean energy and sustainable technology sectors. Its actions include supporting innovative start-ups and SMEs, facilitating collaboration, investing in strategic projects, and promoting cross-sectoral collaboration.

EIT InnoEnergy is actively engaged in bolstering the competitiveness of European value chains, focusing on critical sectors like battery storage, green hydrogen, and solar photovoltaics. Through strategic alliances, it brings together stakeholders from all parts of the value chain, forming specialised ecosystems that address gaps and facilitate the necessary funding, skills, and talent. This approach enables EIT InnoEnergy to support substantial industrial projects and cultivate strategic value chains, aligning with Europe's decarbonisation goals and the aim for a carbon-neutral Europe by 2050.

EIT InnoEnergy's endeavours are making a significant impact on the energy trilemma, as they reduce energy costs, curb greenhouse gas emissions, and enhance energy availability and security in Europe. The industrial value chains it is nurturing are expected to reach a market value of EUR 390 billion annually by 2025, driving investments in raw materials, recycling, workforce reskilling, and the creation of over 7 million new jobs by 2025. These figures underscore the substantial scale and potential influence of EIT InnoEnergy's initiatives in enhancing the competitiveness of European value chains.

[27] EIT InnoEnergy, Impact Report 2022, Accessed on 11/10/2023, Available at: https://www.innoenergy.com/discover-innovative-solutions/reports/impact-report-2022/

S07 – Increasing Knowledge Triangle Liquidity

EIT InnoEnergy fosters collaboration and knowledge exchange between academia, industry, and research institutions. It facilitates academic-industry partnerships, operates innovation hubs, offers joint educational programmes, supports entrepreneurship, and host networking events to promote knowledge exchange.

EIT InnoEnergy has established a reliable sustainable energy innovation ecosystem, comprising more than 1 200 partners who collaborate to promote and embrace sustainable energy solutions. Its strategy involves investment in all facets of this ecosystem and facilitating strong connections between its components, resulting in substantial and enduring benefits across economic, social, and environmental dimensions.

S08 – Securing KIC's Strategic, Operational and Financial Sustainability

EIT InnoEnergy takes various actions to ensure its strategic, operational, and financial sustainability. It diversifies funding sources, secures long-term commitments, collaborates with corporate partners, invests in start-ups, generates revenue through programmes, and practices efficient resource allocation, among other strategies.

EIT InnoEnergy is deeply committed to sustainability on multiple fronts:

- **Strategic Sustainability:** Its primary mission is to contribute to a more sustainable world by advancing the energy transition. The KIC ensures that all its activities and supported companies align with the goals of making energy affordable, securing its supply, and reducing greenhouse gas emissions.
- **Operational Sustainability**: EIT InnoEnergy practices open and collaborative innovation across four key layers: people, start-ups, industrial value chains, and an extensive ecosystem of 1 200 partners. This interconnected approach creates synergies and fosters innovation, particularly in sustainable energy generation, transmission, and consumption.
- **Financial Sustainability:** In its investment process, EIT InnoEnergy assesses the potential economic and environmental impact, giving priority to companies that contribute to the UN SDGs and Green Deal objectives. They support portfolio companies in measuring and achieving their impact goals while considering ESG risks throughout the selection process, actively addressing them in regular meetings with portfolio companies.

In summary, EIT InnoEnergy's dedication to securing strategic, operational, and financial sustainability is evident through their mission-driven focus, collaborative innovation approach, and investment strategy that emphasises impact and sustainability.

Conclusion: EIT InnoEnergy has made substantial progress in achieving its strategic objectives, demonstrating a strong commitment to sustainability and innovation in the energy sector. Notably, it has significantly reduced greenhouse gas emissions, is actively contributing to the reduction of energy costs, and has played a pivotal role in job creation within the sustainable energy sector. The organisation promotes social and environmental sustainability, fosters competitiveness in European value chains, and facilitates knowledge exchange between academia, industry, and research institutions. EIT InnoEnergy's strategic, operational, and financial sustainability practices underscore its mission-driven focus and impact-driven investment strategy. Overall, the organisation's efforts align with its goal of advancing the energy transition and creating a more sustainable world. The KIC has achieved its objectives and respective targets as stated in its original proposal and Strategic Agenda in relation to the societal challenge.

Score: Excellent – 9

6.3. KPI targets

Indicator: KPI targets including impact KPIs for up to 2024 defined in the KIC original proposal, Strategic Agenda (2021-2027) achieved/likely to be achieved.

The KIC has established, in alignment with the EIT recommendations, targets for its multiannual strategy. This evaluation covers years 2016-2022, thus the achievements of the KIC can be assessed to a large extent. Targets and achievements are presented in Table 7 below, where all EIT KPIs and KIC Specific KPIs are presented. Based on the values in the achieved column, the KIC has been assessed based on the

achievement of the KPI targets. The report also includes comments from EIT Governing Board's past recommendations as to the future direction the EIT InnoEnergy should take.

Table 7: EIT KPIs

KPI	2017 Targeted	2017 Achieved	2018 Targeted	2018 Achieved	2019 Targeted	2019 Achieved	2020 Targeted	2020 Achieved	2021 – 2022 Targeted	2021 – 2022 Reported	Total targeted	Total achieved/ reported
Designed/Tested Innovations	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	71	90	71	90
EIT RIS Designed/Tested Innovations	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	18	n/a	18
EIT RIS Countries – Designed/Tested Innovations	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	n/a	4
Marketed Innovations	18	21	26	28	21	22	19	21	116	147	200	239
EIT RIS Marketed Innovations	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	50	3	50
EIT RIS Countries – Marketed Innovations	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	n/a	10
Supported Start-ups/Scale-ups	68	97	75	100	76	127	92	89	154	187	465	600
EIT RIS Start-ups/scale-ups Supported	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	62	6	62
EIT RIS Countries - KIC supported start-ups/scale-ups	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12	n/a	12
Start-ups created of/for innovation	1	0	2	2	n/a	n/a	2	2	6	3	11	7
EIT RIS Start-ups created of/for innovation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	1	3	1
EIT RIS Countries - start-ups created of/for innovation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	n/a	1
Start-ups created of EIT labelled MSc/PhD programmes	6	4	2	3	4	7	16	6	13	8	41	28
EIT RIS start-ups created of EIT labelled MSc/PhD programmes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	4	2	4
EIT RIS Countries - Start-ups created of EIT labelled MSc/PhD programmes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	n/a	1
Investment attracted by KIC supported start-ups/scale-ups (in EUR millions)	10	32,87	20	20	118	1.416,33	105	662,36	1.000,00	1.206,47	1.253,00	3.338,100
Investment attracted by KIC supported EIT RIS start-ups/scale-ups (in EUR millions)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	150	61	150	61

KPI	2017 Targeted	2017 Achieved	2018 Targeted	2018 Achieved	2019 Targeted	2019 Achieved	2020 Targeted	2020 Achieved	2021 – 2022 Targeted	2021 – 2022 Reported	Total targeted	Total achieved/ reported
EIT RIS Country - Investment attracted by KIC supported start-ups/scale-ups	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	n/a	9
Graduates from EIT labelled MSc/PhD programmes	190	201	229	230	252	275	225	206	n/a	425	896	1337
EIT RIS Graduates from EIT labelled MSc/PhD programmes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	165	n/a	165
Students enrolled in EIT labelled MSc/PhD programmes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	914	n/a	914
Participants in (non-degree) education and training	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	101410*	n/a	101410	n/a
EIT RIS Participants with (non-degree) education and training	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EIT labelled MSc/PhD students and graduates who joined start-ups	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	85	34	85	34
EIT RIS EIT labelled MSc/PhD students and graduates who joined start-ups	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	36	n/a	36
FS revenues (in EUR millions)	5,19	4,93	10,48	11,02	20,01	18,72	15,40	23,83	76,20	68,42	127,28	126,92
FS coefficient	n/a	6.49%	n/a	13.64%	22.14%	20.71%	17.19%	26.59%	88.09%	79.39%	-	-
Co-funding rate	90.46%	89.60%	92.58%	92.58%	88.04%	88.04%	77.83%	77.83%	41.8%	41.8%	-	-

* Based on EIT feedback, the KIC has indicated erroneous target number for the KPI "participants in non-degree education", as they have included the planned numbers for the EBA Academy. Nevertheless, the KIC did not report the learners under EBA Academy in their Grant Reporting 2021-2022, to avoid double counting. Therefore, the correct target number for this KPI would be 0.

The creation of start-ups originating from EIT-labelled MSc/PhD programmes has been significant, with 37 start-ups established by 2022. The target for this KPI was 41 start-ups by the end of the reference period (2017-2022), meaning that it was within 10% of reaching its target. While the achievement fell slightly short of the target, the establishment of these start-ups showcases EIT InnoEnergy's role in fostering entrepreneurial ventures stemming from its educational programmes. EIT InnoEnergy achieved a remarkable milestone in the number of graduates from the EIT-labelled MSc/PhD programmes. By 2022, a total of 1 336 graduates had successfully completed these programmes, far surpassing the target of 896 graduates for the period spanning 2017 to 2022. This accomplishment underscores the KIC's effectiveness in providing high-quality education and contributing to the development of skilled professionals in the energy and innovation sectors.

In terms of participants in non-degree education and training programmes, the specific achievement is not provided, making it challenging to assess against the target of 101 410 participants for the years 2021-2022. Based on feedback from the EIT, the KIC has indicated erroneous target number for this KPI, as it has included the planned numbers for the EBA Academy. Based on the EIT feedback, the KIC reported 5 000 learners in years 2021-2022. Nevertheless, the KIC did not report the learners under EBA Academy in their Grant Reporting 2021-2022, to avoid double counting. However, non-degree education and training are crucial components of EIT InnoEnergy's initiatives to disseminate knowledge and expertise and should be better reported in the future years.

In summary, EIT InnoEnergy has demonstrated significant success in fostering start-ups created from its MSc/PhD programmes and in producing a substantial number of graduates from these programmes. While the specific achievement for participants in non-degree education and training is not provided, the overall accomplishments reflect the organisation's commitment to education, innovation, and skill development in the energy and innovation sectors.

In the period of 2021-2022, EIT InnoEnergy achieved the creation and testing of 90 innovations, surpassing the target of 71. This accomplishment illustrates the organisation's success in promoting and nurturing innovative ideas and technologies. Between 2017 and 2021-2022, EIT InnoEnergy successfully marketed 239 innovations, significantly exceeding the target of 200. This achievement demonstrates the organisation's effectiveness in bringing innovative products and services to the market, driving technological advancements.

By 2022, EIT InnoEnergy facilitated the creation of 7 start-ups geared towards innovation. While this achievement falls slightly short of the target of 11 start-ups, it still showcases the organisation's contribution to fostering entrepreneurial endeavours driven by innovative concepts. In the years 2021-2022, EIT InnoEnergy achieved development and testing of 18 innovations within the context of the EIT RIS. The specific target for this metric is not provided.

For the same period of 2021-2022, EIT InnoEnergy exceeded expectations by developing and launching 10 innovations on the market and supporting the creation of 1 start-up under the EIT RIS. The achievement of these metrics is noteworthy, considering the absence of targets.

EIT InnoEnergy has made significant strides in achieving its goals and targets across various KPIs. In terms of Education Programmes, EIT InnoEnergy achieved 82% of its target for programme attractiveness, showcasing its ability to attract students to its offerings. The number of eligible applicants for EIT-labelled PhD and Master programmes exceeded the target, indicating strong interest and demand for these educational opportunities.

The area of Business Incubation has been particularly successful, with the KIC surpassing its targets. The number of business ideas incubated as well as the creation of start-ups and spin-offs have exceeded expectations. This highlights EIT InnoEnergy's effectiveness in nurturing and supporting entrepreneurial ventures. Knowledge Transfer has been a noteworthy accomplishment, where EIT InnoEnergy significantly exceeded the target. The organisation has successfully facilitated the transfer and adoption of knowledge, showcasing its role in disseminating valuable insights and expertise. Innovation has also been a strong suit

for EIT InnoEnergy. The organisation exceeded targets for launching new products, services, and processes, as well as for designing and testing innovations. This performance underscores EIT InnoEnergy's commitment to driving innovation and pushing the boundaries of technological advancement. Start-up Support has been impressive, with EIT InnoEnergy exceeding its target for supporting start-ups and scale-ups. The level of investment attracted by KIC-supported ventures has far surpassed the projected amount, indicating a high degree of investor confidence in these enterprises.

EIT InnoEnergy's commitment to equipping the market with talents is not evident, as it underperforms in relevant KPI targets (e.g., EIT labelled MSc/PhD students and graduates who joined start-ups). However, since this KPI has only been monitored in 2021-2022, it might be too early to draw conclusions, as most of the students graduated recently.

While EIT InnoEnergy has achieved most of its targets, there have been some challenges. The sum of FS revenues throughout the years and the dissemination of results, faced challenges in meeting the targets. Regarding the FS revenues, the underperformance mostly concerns the low revenues of the KIC for the years 2017 and 2019, against the respective targets. However, after 2019 the KIC constantly overperforms in FS related areas, including revenue generation.

Conclusion: EIT InnoEnergy's performance has been commendable across various dimensions of its operations. From education and business incubation to innovation and start-up support, the organisation has achieved remarkable success in driving growth, knowledge transfer, and technological advancements. Despite a few challenges in collecting revenues in 2017 and 2019, and in promoting graduates' integration in the business environment, EIT InnoEnergy's overall achievements highlight its significant positive impact on the energy and innovation landscape.

Score: Very Good – 8

6.4. EIT RIS activities and results

Indicator: The KICs have delivered EIT RIS activities and achieved results within the scope of their EIT RIS Strategies. Any deviations are duly justified and having led to maximised results.

The RIS strategy of EIT InnoEnergy aims to support innovation and entrepreneurship in European regions categorised as moderate or modest innovators. This initiative strives to bridge the innovation gap between technologically advanced and less advanced areas. The strategy comprises several key elements.

Firstly, it involves enhancing innovation capabilities in targeted regions through training, workshops, and educational programmes. Secondly, the programme aids start-ups and innovative projects in these regions, by helping them refine ideas, devise business plans, and secure funding. Furthermore, EIT InnoEnergy promotes collaboration among universities, research institutions, start-ups, and established companies to foster a culture of innovation and knowledge exchange. Participants in the RIS activities gain access to InnoEnergy's network of experts, mentors, investors, and partners, which accelerates the development and commercialisation of innovative ideas.

The strategy has a strong focus on sustainable energy innovation and supports projects and start-ups contributing to clean and efficient energy solutions. EIT InnoEnergy's past support has facilitated innovations in renewable energy, energy storage, smart grids, energy efficiency, electric mobility, energy access, circular economy, and materials and manufacturing.

In addition, EIT InnoEnergy operates the Primer acceleration programme tailored to start-ups in RIS countries. This initiative prepares them for participation in the Highway programme. The organisation also plays a role in the EIT Jumpstarter initiative. A noteworthy success story in 2021 involved EIT InnoEnergy's support to ElevenEs, leading to the development of the first European lithium iron phosphate (LFP) battery cell in the Western Balkans.

EIT InnoEnergy introduces its Education-Business-Acceleration framework in selected RIS countries through agreements with governments. However, concerns arise due to the reduction of RIS Hubs and their impact on the strategy's sustainability after the end of the KIC Partnership Agreement.

In essence, EIT InnoEnergy's achievements within the EIT RIS demonstrate its success in advancing innovation, supporting start-ups, securing investment, and nurturing education and entrepreneurship. These accomplishments highlight its pivotal role in propelling positive transformations and expansion within the energy and innovation domains across diverse regions.

Conclusion: EIT InnoEnergy's RIS strategy effectively supports innovation and entrepreneurship in moderate and modest innovator regions, aiming to bridge innovation gaps. It encompasses elements such as training, support for start-ups, collaboration promotion, and resource access. The strategy's strong focus on sustainable energy has brought about successes in renewable energy and related fields. In addition, EIT InnoEnergy operates programmes such as Primer and participates in initiatives such as EIT Jumpstarter, contributing to entrepreneurship and IP transformation. While notable successes were achieved, concerns exist about sustainability after the end of Partnership Agreement. Overall, EIT InnoEnergy plays a pivotal role in advancing innovation and positive transformations in the energy and innovation domains across diverse regions.

Score: Very Good – 8

6.5. KIC's progress on societal KPIs

Indicator: KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Societal impact KPIs EIT InnoEnergy)

Reduced CO_2 emissions

EIT InnoEnergy has made substantial strides in diminishing CO_2 emissions through its sustainable energy initiatives. By channelling investments into a network of partners and encouraging the adoption of sustainable energy generation, transmission, and consumption, EIT InnoEnergy has actively contributed to a future of energy that eco-friendly and low in carbon emissions.

As per the EIT InnoEnergy Impact Report 2022, it is estimated that by 2030, companies within EIT InnoEnergy's portfolio have collectively prevented the release of 2.1 Gigatons of CO_2. This accomplishment serves as compelling evidence of the positive influence of EIT InnoEnergy's collaborative endeavours in curbing greenhouse gas emissions.

Furthermore, the report underscores that EIT InnoEnergy's investments have led to the production of a substantial 831 terawatt-hours of energy sourced from clean and renewable sources. This considerable volume of clean energy not only aids in curbing CO_2 emissions but also bolsters the shift towards sustainable energy solutions on a global scale.

Table 8: Societal impact KPI on the reduction of the CO2 emissions

Societal impact KPI	Target by 2025	Potential contribution/Accumulated, estimated by 2030[28]
Gigatons of CO_2 saved	0.3 gigatons	2.1 gigatons

In summary, EIT InnoEnergy's dedicated efforts have played a pivotal role in reducing CO_2 emissions and advancing the cause of a more sustainable energy landscape.

Decreased costs of energy

[28] In its Impact report for 2022 the KIC reported on the reduction of CO2 emissions with accumulated data, with its activities' potential contribution estimated by 2030.

EIT InnoEnergy has achieved significant strides in cost reduction within the energy sector through its collaborative innovation initiatives. By offering support to more than 500 portfolio companies since 2010, many of which boast a reported 93% survival rate, EIT InnoEnergy is at the forefront of driving innovation and technological advancements in sustainable energy. Though, as described above, the KIC's supported start-ups survival rate currently is at 81%.

EIT InnoEnergy supported businesses are challenging conventional norms and pioneering disruptive technologies that result in cleaner, more cost-effective, and widely accessible energy solutions for consumers. This, in turn, expedites the shift towards sustainable energy sources and contributes to the objective of lowering energy expenditures.

Furthermore, EIT InnoEnergy plays a pivotal role in spearheading the decarbonisation of Europe by leading industrial alliances in critical sectors like battery storage, green hydrogen, and solar photovoltaics. These coalitions bring together the necessary expertise and experience to cultivate strategic value chains, directly addressing the energy trilemma of reducing energy expenses, curbing greenhouse gas emissions, and enhancing availability and security. Through the creation of new markets and addressing gaps in the existing value chain, EIT InnoEnergy is nurturing the essential resources, skills, and talent required to drive down energy costs.

Table 9: Societal impact KPI on the decreased costs of energy

Societal impact KPI	Target by 2025	Potential contribution/Accumulated, estimated by 2030[29]
Money saved, substituting existing technologies by InnoEnergy assets (EUR millions)	EUR 1 800 million	EUR 12.5 billion

EIT InnoEnergy's collaborative innovation approach, support for emerging enterprises, and leadership in strategic value chains are driving advancements in the reduction of energy costs and expediting the transition to sustainable energy sources.

Increased availability and access to the innovative energy

EIT InnoEnergy has made notable strides in enhancing the availability and access of innovative energy solutions. Through its innovative system and collaborative approach, EIT InnoEnergy has nurtured the transition towards sustainable energy and played a part in advancing global sustainability. By providing support to emerging businesses, industrial supply chains, and the overall energy ecosystem, EIT InnoEnergy has facilitated the growth and acceptance of sustainable energy production, transmission, and consumption.

- Emerging Businesses: EIT InnoEnergy has backed more than 500 portfolio companies, with a reported 93% survival rate, which however, is contradictory to the impact analysis performed for this report that resulted in a 81% survival rate for the KIC supported start-ups. These start-ups are at the forefront of innovation and technological progress in the field of sustainable energy, actively contributing to the United Nations' Sustainable Development Goals and the European Union's Green Deal principles. Their groundbreaking technologies and inventive solutions are driving the development of cleaner and more affordable energy choices, hastening the shift to sustainable energy sources.
- Industrial Supply Chains: EIT InnoEnergy is leading the way in three key strategic supply chains, namely battery storage, green hydrogen, and solar photovoltaics. Through cooperation with critical

[29] In its Impact report for 2022 the KIC reported on the decreased costs of energy with accumulated data, with its activities' potential contribution estimated by 2030.

stakeholders spanning government, industry, and academia, EIT InnoEnergy is forging new markets for sustainable energy. This collaboration facilitates the exchange of knowledge, alignment of policies, joint investments, and integration of supply chains, all aimed at promoting the widespread adoption of sustainable energy solutions.

- Ecosystem: EIT InnoEnergy has established a trusted and interconnected ecosystem of over 1 200 partners dedicated to sustainable energy innovation. This network of stakeholders actively promotes and embraces sustainable energy solutions. By investing in every facet of this ecosystem and promoting their interconnections, EIT InnoEnergy's collective efforts are yielding substantial long-term outcomes. It is estimated that by 2030, companies within EIT InnoEnergy's portfolio will have collectively prevented the release of 2.1 Gigatons of CO_2, saved EUR 12.8 billion in energy expenses, and generated 831 terawatt-hours of energy from clean sources.

Table 10: Societal impact KPI on the increased availability of the innovative energy

Societal impact KPI	Target by 2025	Achieved/reported by 2021-2022	Potential contribution/Accumulated, estimated by 2030[30]
TWh generated from renewable sources based on InnoEnergy innovations	100 TWh	N/A	831 TWh
People with access to energy in developing countries thanks to InnoEnergy deployed assets	180 000	2 million*	N/A

*Accumulated 2022

In summary, EIT InnoEnergy's progress in supporting start-ups, spearheading industrial supply chains, and cultivating a sustainable energy ecosystem has significantly expanded the availability of innovative energy solutions, thereby contributing to a more sustainable world.

Ensuring the workforce in the InnoEnergy field

EIT InnoEnergy is dedicated to supplying the talent and fresh perspectives necessary to empower the upcoming generation in the realm of sustainable energy. They have provided education to over 1 600 graduates from their Master's programme, representing 99 different nationalities. These graduates are actively driving sustainable economic growth through their work in engineering, entrepreneurship, and innovation. By emphasising the importance of individuals and their skillsets, EIT InnoEnergy is effecting change from within, ensuring a transition towards a more sustainable world.

Empowering through Education; EIT InnoEnergy recognises that addressing climate change hinges on people. Their primary focus is on equipping the industry with the requisite skills through education and by cultivating new ways of thinking. With a track record of over 1 600 graduates from their Master's programme,

[30] In its Impact report for 2022 the KIC reported on the increased availability of the innovative energy with accumulated data, with its activities' potential contribution estimated by 2030.

EIT InnoEnergy is preparing the next generation with the knowledge and expertise necessary to foster sustainable economic growth and contribute to the energy transition.

Table 11: Societal impact KPI on ensuring the workforce in the InnoEnergy field

Societal impact KPI	Target by 2025	Achieved/reported by 2021-2022
# and type of skills gaps and/or skills shortages filled to accelerate the energy transition	10	5*
# of students working/leading new ventures	2 000	1 600**
% of alumni who continue their work in the InnoEnergy field	40%	73%***

*Based on the EIT InnoEnergy Impact report 2022, the KIC has contributed to cultivating and filling gaps in entrepreneurial skills, smart grid technologies, battery storage, green hydrogen and solar photovoltaics. For more information regarding skills gaps, see Figure 7.** Based on the EIT InnoEnergy Impact report 2022

***Based on the survey conducted for the purpose of the Final review of EIT InnoEnergy

Through supporting start-ups and collaborating with industrial supply chains, as mentioned above, EIT InnoEnergy's efforts in preparing the workforce for the energy sector are evident in its commitment to education, support for start-ups, and collaboration with industrial supply chains. By investing in individuals, fostering innovation, and cultivating sustainable energy markets, EIT InnoEnergy is making a substantial impact in accelerating the energy transition and constructing a more sustainable world.

Gender balance promoted in the InnoEnergy field

Survey responses show that 55% of EIT InnoEnergy's partners believe that the KIC has highly satisfactory progress and application of gender related measures in different processes in the energy field policies/activities, i.e. selection process, evaluation process, etc.

On the contrary, numerous responses show that they are not interested in this specific area, which also highlights either lack of knowledge from the participants or normalisation of gender related measures. Whilst the evaluators are not in a position to acknowledge which factor influenced the responses, the former poses a threat to the energy sector, which is dominated by men, as also described in the respective chapters below.

Table 12: Societal impact KPI on the promotion of gender balance in the InnoEnergy sector

Societal impact KPI	Target by 2025	Achieved/reported by 2021-2022
The survival rate of a venture managed by a woman entrepreneur (in %)	70%	-
Investment attracted by female entrepreneurs (in EUR million)	500	-

It is, however, noteworthy that gender balance is not considered a priority within EIT InnoEnergy, as stated by the EIT InnoEnergy representative during an interview, and this itself proves that the KIC has still room for improvement in regard to addressing this and similar objectives. What is more, according to the interview, the KIC is monitoring relevant updates regarding gender balance since 2022, hence the lack of reported data in the table above. However, in its Impact report for 2022 the KIC highlights a number of 1 914 women entrepreneurs in the field, which itself is a positive outcome.

Figure 1: Answers of the partners survey on their opinion of gender-sensitive measures applied across the following EIT InnoEnergy policies/activities

Resources leveraged for InnoEnergy sector's growth

EIT InnoEnergy has achieved substantial advancement in mobilising resources to propel growth within the energy sector. Through collaborative efforts and the establishment of an ecosystem, the KIC has united over 1 200 partners to promote and embrace sustainable energy generation, transmission, and consumption. This interconnected network has empowered EIT InnoEnergy to lay the foundation for a sustainable and environmentally friendly energy future.

By allocating investments across various facets of the energy sector, such as aligning policies, making joint investments, and integrating supply chains, EIT InnoEnergy aims to amplify the widespread adoption of sustainable energy solutions. This collective initiative is projected to create 7 million new job opportunities and achieve a combined annual market value of EUR 390 billion by the year 2025. However, recent survey results have shown that the abovementioned number is highly contradictory with the KIC's progress, since respondents replied that to this date, no more than 4 500 jobs were created by start-ups supported by the KIC. Based on these figures, the KIC's ambitions for creating over 7 million jobs are worrisome and numbers that do not reflect realistic targets should be revised and/or avoided in future reporting.

Table 13: Societal impact KPI on resources leveraged for InnoEnergy sector growth

Societal impact KPI	Target by 2025	Achieved/reported by 2021-2022
External funds raised by supported assets	8 000	EUR 9.7 million

Additionally, EIT InnoEnergy's portfolio companies have already left a significant imprint in terms of economic, social, and environmental aspects. It is anticipated that by 2030, these companies will have collectively prevented the release of 2.1 Gigatons of CO_2, saved EUR 12.8 billion in energy expenses, and generated 831 terawatt-hours of energy from clean and renewable sources.

EIT InnoEnergy's efforts in resource mobilisation and the promotion of collaboration within the energy sector have solidified its position as a leading force in sustainable energy innovation. This contribution paves the way for a more sustainable world and propels the ongoing energy transition.

Conclusion: EIT InnoEnergy has made significant progress in achieving societal impact KPIs; it has actively reduced CO_2 emissions by supporting sustainable energy initiatives, with an estimated 2.1 Gigatons of CO_2

reduction by 2030 and 831 terawatt-hours of generated clean energy; decreased energy costs through backing innovative startups and leading industrial alliances in key sectors; increased availability of innovative energy solutions by supporting over 500 startups and building a vast ecosystem; prepared a skilled workforce with 1 600 graduates; received positive feedback on gender-related measures by survey respondents but identified room for improvement; and successfully mobilised resources to create job opportunities and drive sustainable energy innovation, aiming for a EUR 390 billion market value by 2025.

Score: Excellent – 9

6.6. KIC's progress on economic KPIs

Indicator: KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Economic impact KPIs EIT InnoEnergy)

Contribution to revenue growth of organisations trading or employing innovations developed with the KIC support

Based on the answers provided to the survey, the impact of EIT InnoEnergy's funding on start-up revenue growth can be assessed as follows:

- No revenue growth – 6 answers: This group of start-ups did not experience any noticeable revenue growth attributed to the EIT InnoEnergy funding. This could be due to various factors such as the start-ups not effectively utilising the funding, market conditions, or other external factors.
- Less than 5% - 4 answers: Like the previous group, these start-ups saw minimal revenue growth of less than 5% due to EIT InnoEnergy funding. This suggests that while there might have been some positive impact, it wasn't significant in terms of revenue generation.
- 5-10% revenue growth - 6 answers: Start-ups falling in this category experienced modest revenue growth in the range of 5-10% as a result of EIT InnoEnergy funding. This indicates a moderate positive impact on their revenue generation efforts.
- 10%-20% revenue growth - 4 answers: A slightly lower number of start-ups achieved revenue growth between 10% and 20% thanks to EIT InnoEnergy funding. This suggests a more substantial positive effect, indicating that the funding played a significant role in their revenue growth.
- 20%-50% revenue growth - 2 answers: A lower number of start-ups reported a substantial revenue growth of 20% to 50% due to EIT InnoEnergy funding. This indicates that for these start-ups, the funding had a considerable impact on their revenue generation and business expansion.
- More than 50% revenue growth - 7 answers: This group of start-ups experienced remarkable success, with more than half of their revenue growth attributed to EIT InnoEnergy funding. This indicates a very strong positive correlation between the funding and revenue generation for these start-ups.

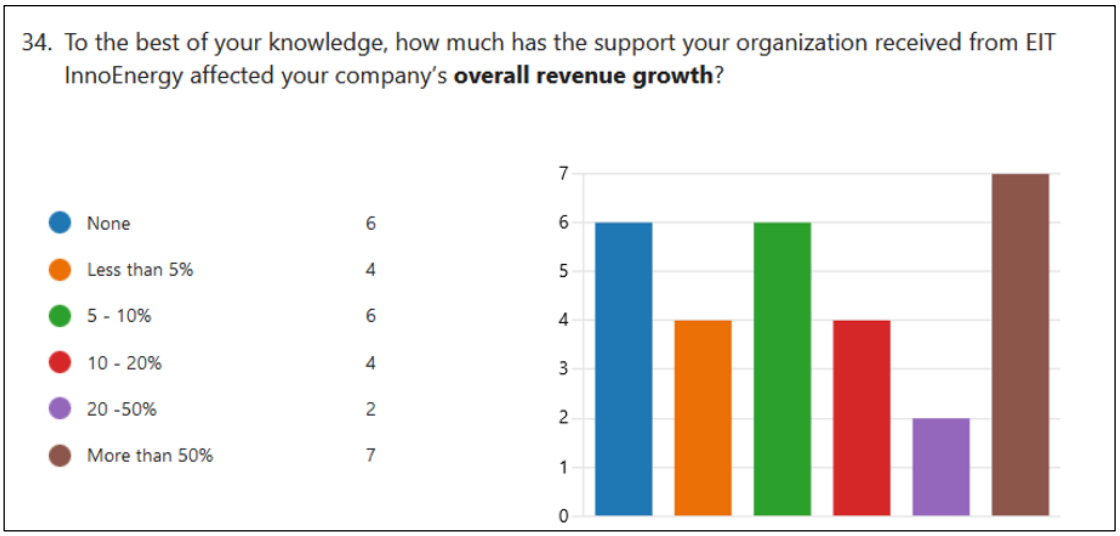

Figure 2: Answer on funding received from EIT InnoEnergy and its effect on start-up's growth

The data suggests that the impact of EIT InnoEnergy funding on revenue generation varies among start-ups. While some saw substantial revenue growth, others experienced minimal to no growth. Factors such as how effectively the funding is utilised, market conditions, and the start-up's own strategy and execution likely contribute to these differences in outcomes. To maximise the impact of EIT InnoEnergy funding, it may be beneficial for start-ups to focus on optimising the utilisation of their resources as well as the support provided by EIT InnoEnergy and aligning their strategies with market opportunities.

Impact assessment and survival analysis were carried out to support the evaluation of a number of indicators. For the start-ups supported by KIC, the evaluators concluded that the growth difference between their indicator values and the start-ups in the control group was not significant in terms of their revenues, though starting from 2018 the net sales of the KIC supported start-ups increased at a higher rate than of the start-ups in the control group.

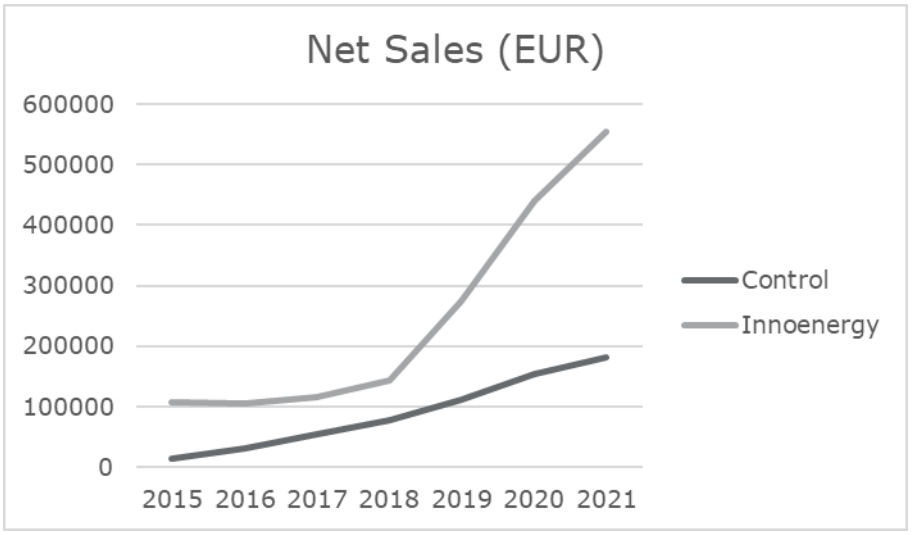

Figure 3: Net sales, start-ups supported by EIT InnoEnergy

Table 14: Net sales

Variable	Coefficient	P>|z|[31]
Net sales (2016)	-6.72 e-07	0.213

Table 15: Growth of net sales

Variable	Treated	Controls	Difference	T-stat[32]
Growth of net sales (2017-2021)	513 212	220 994	292 217	0.87

[31] P-values serve as a critical metric in statistical analysis, assessing whether a particular coefficient significantly deviates from a value of zero. This signifies the extent to which an explanatory variable exerts a statistically discernible impact on the dependent variable. For instance, if the p-value associated with the coefficient for a variable like "EIT financial assistance" significantly differs from zero, it suggests a notable influence on metrics like revenue, employment, or profit. In statistical practice, significance levels of 10%, 5%, and 1% are frequently employed as benchmarks. If the calculated p-value falls below a chosen significance level (e.g., α = 0.05), it signifies a statistically meaningful relationship between the predictor variable and the response variable within the model. Lower p-values correspond to more substantial effects on the dependent variable. Conversely, when the p-value exceeds the customary significance thresholds (e.g., 0.1, 0.05, or 0.10), it is indicative of a non-significant effect. In other words, the relationship lacks statistical robustness and is not considered a noteworthy contributor to the model's outcome.

[32] The t-statistic, a crucial statistical measure, operates inversely to the p-value in hypothesis testing. The magnitude of the t-value reflects the strength of the relationship being analysed. The larger the t-value, the more significant the

Number and revenue of start-ups and scale-ups supported by KICs trading 3 years after KIC support ceased

Survival analysis:

The evaluators conducted a binary (logit) regression on the survival of the start-ups and their relation to different variables[33], especially being supported by the KIC. The results of the regression were the following:

Pseudo R2[34] = 0.1779

Table 16: Survival analysis

Variable	Coefficient	P>|z|
KIC support	-2.84***	0.000
Sector – Agriculture, Forestry, And Fishing	-0.58	0.616
Sector – Mining, Construction	n.a.	n.a.
Sector – Manufacturing 1	n.a.	n.a.
Sector – Manufacturing 2	-0.21	0.837
Sector – Transportation, Communications, Electric, Gas, And Sanitary Services	-1.15	0.320
Sector – Wholesale & Retail Trade	0.29	0.776
Sector – Finance, Insurance, and Real Estate	n.a.	n.a.
Sector – Services	-0.98**	0.021
Age of the enterprise (years)	-0.11*	0.097
Total assets (2016)	7.00e-07	0.138
Net sales (2016)	6.01e-06	0.446
Profit before taxes (2016)	-0.000012**	0.027
Number of employees (2016)	0.25	0.315
Constant	5.17***	0.000

*** 1% significance level
** 5% significance level
* 10% significance level

The evaluators found that the KIC supported start-ups tend to have a lower survival rate than the control group's. Also, service sector has higher mortality rates. Older enterprises have higher probability to fail and lower profits also lead to higher mortality.

relationship is considered to be. Importantly, the t-statistic corresponds to a specific p-value, a measure of statistical significance, which quantifies the probability of observing such a t-value by random chance alone.
For instance, a commonly used threshold in hypothesis testing is a p-value of 0.05. In this context, a t-statistic of 1.96 corresponds to a 5% significance level. This implies that if the calculated t-statistic exceeds 1.96, the observed relationship is deemed statistically significant at the 5% significance level, meaning that the likelihood of obtaining such results due to random variation is less than 5%.

[33] The dependent variable was the survival of the start-ups (1 if the enterprise still operated in 2021 and 0 if not). The explanatory variables were the enterprise characteristics (industry, age, size, etc.) and if the enterprise received KIC support (1 if yes 0 if not).
The coefficient of the KIC support was significant and negative, so the supported enterprises had higher chances to cease operations: lower probability of survival.
The pseudo R2 is a measure for model fit, it is a standardized measure between 0 and 1. While the purpose of the analysis was not forecasting, the current value is not very high, but acceptable.

[34] Pseudo-R-squared values are used when the outcome variable is nominal or ordinal such that the coefficient of determination R2 cannot be applied as a measure for goodness-of-fit. The model estimates from a logistic regression are maximum likelihood estimates arrived at through an iterative process. These are "pseudo" R-squareds ranging from 0 to 1 with higher values indicating better model fit.

Table 17: Survival rate, start-ups supported by EIT InnoEnergy

	Active	Out of Business	SUM
InnoEnergy #	54	13	67
InnoEnergy %	81	19	100
Control #	956	19	975
Control %	98	2	100

The survival of the EIT InnoEnergy start-ups were lower than the control enterprises. From the identified 67 start-ups, 54 is still active, which is way less than the 300 target for 2025, and represents 81% survival rate, compared to the control's 98% and the KIC's data in its Impact Report for 2022, where the relevant survival rate is at 93%.

New jobs created in start-ups / scale-ups

Based on the answers to the start-up survey, the impact of the start-ups, supported by the KIC, in terms of job creation was assessed as follows:

- 17% of all respondents indicated that they have not created any jobs as a result of their engagement with EIT InnoEnergy, which corresponds to a significant portion. This could be due to various reasons such as the nature of the projects, the maturity of the start-ups, or the types of industries involved. It is important to consider that not all projects or entities may have the same potential for job creation, and this diversity in outcomes is to be expected.
- 10% answered that they have created at least 2 new jobs related to their engagement with EIT InnoEnergy. This indicates a positive impact on job creation, even though it might not be universal across all entities. These results highlight that EIT InnoEnergy's programmes or support have been effective in facilitating job growth for a portion of the participating entities.
- 3% answered that they have created 4 500 jobs related to their engagement with EIT InnoEnergy, which indicates a very significant positive impact on job creation, even if this derives from a single answer. While this response comes from a single entity with an exceptionally successful outcome, it represents a substantial and significant impact on job creation, if accurate. This outlier result could potentially be a case study for understanding how EIT InnoEnergy's support has led to such a significant job creation success story.

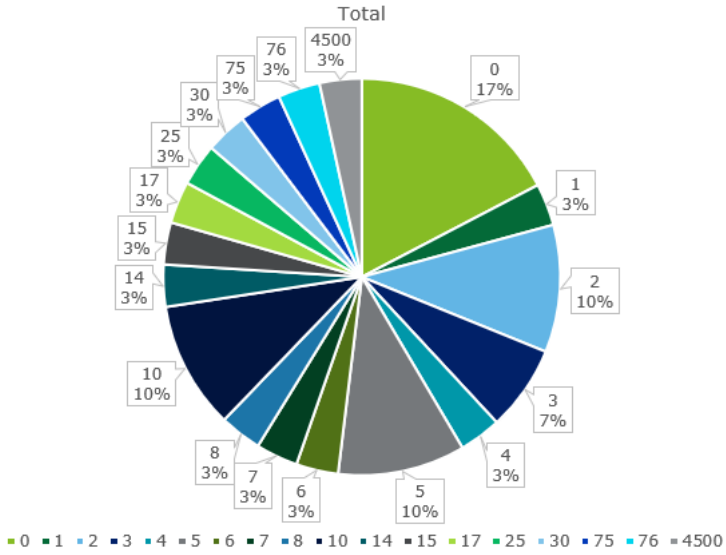

Figure 4: Answer to the question: how many jobs has the entity created through the engagement with the KIC

Overall, the responses show that while the majority of surveyed start-ups did not create jobs as a result of their engagement with EIT InnoEnergy, their engagement has contributed to job creation in some capacity. The reasons why jobs were not created by some entities engaged with EIT InnoEnergy vary and may include factors such as the nature of projects, the maturity of start-ups, industry-specific dynamics, the scale of operations, economic conditions, resource constraints, project stage, skills mismatches, regulatory barriers, or even strategic decisions. Some entities, particularly early-stage or research-focused projects, may not have reached a stage where job creation is feasible, while others may face challenges related to market conditions, resource limitations, or regulatory complexities. Understanding these diverse factors is essential for tailoring support and strategies to address the specific circumstances of each entity and potentially foster job creation in the future.

On the other hand, the creation of jobs by some start-ups can be attributed to several key factors. Firstly, successful job creation can often be linked to the growth and maturity of the companies themselves. More established companies and start-ups with proven products or services are typically better positioned to expand their workforce. Secondly, certain industries, such as renewable energy or clean technology, are inherently more labour-intensive and generate employment opportunities. Additionally, access to funding and resources is crucial, allowing entities to invest in human capital. Market demand and timing also play a pivotal role, with entities creating jobs when they identify market opportunities and reach the stage of scaling up their operations. Finally, responses show that effective collaboration with EIT InnoEnergy have facilitated access to resources, networks, and expertise, contributing to job creation outcomes. This demonstrates that EIT InnoEnergy's involvement has had a positive effect on employment opportunities for a significant portion of the entities it has engaged with.

For the start-ups supported by KIC, the impact analysis concluded that the growth difference between their indicator values and the control group's start-ups were not significant for the number of employees, at least in this short run, though the number of employees of the supported start-ups increased at a higher rate than of the controls.

Table 18: Number of employees

Variable	Coefficient	P>|z|
Number of employees (2016)	0.028	0.392

Table 19: Growth of the number of employees

Variable	Treated	Controls	Difference	T-stat
Growth of the number of employees (2017-2021)	12.41	0.83	11.58	1.58

Number and type of jobs in existing businesses sustained through innovations

The survey responses show that a significant number of start-ups did not sustain any jobs as a result of their engagement with the KIC. However, there are instances where entities were able to sustain jobs, with a smaller percentage managing to sustain a higher number of jobs. This variability in job sustainability outcomes is mostly influenced by the fact that the respondents were mainly start-ups that are more likely to create new jobs than to sustain existing ones. Furthermore, there are other influencing aspects to this indicator such as the nature of the industry, market conditions and the specific support provided by EIT InnoEnergy.

- 10 responded none: This indicates that a significant number of start-ups did not sustain any jobs as a direct result of their engagement with EIT InnoEnergy. This might imply that either the job positions created initially were temporary or the entities were not able to maintain those positions over time.
- 3 responded that they have sustained 2 jobs: This number suggests that a portion of entities were able to sustain at least one job as a result of their engagement with EIT InnoEnergy. This indicates a positive impact on job sustainability, although it is not overwhelmingly high.
- 2 responded that they have sustained 2 jobs: A smaller portion of entities reported sustaining two jobs. This suggests that some entities were successful in maintaining a couple of job positions due to their collaboration with the KIC.
- 6 responded that they have sustained 3-5 jobs: This indicates that a limited number of entities were able to maintain a slightly larger workforce over time.
- 8 responded that they have sustained 10 or more jobs: This percentage suggests that a few entities were quite successful in terms of job sustainability, managing to maintain five or more jobs due to their engagement with the KIC.

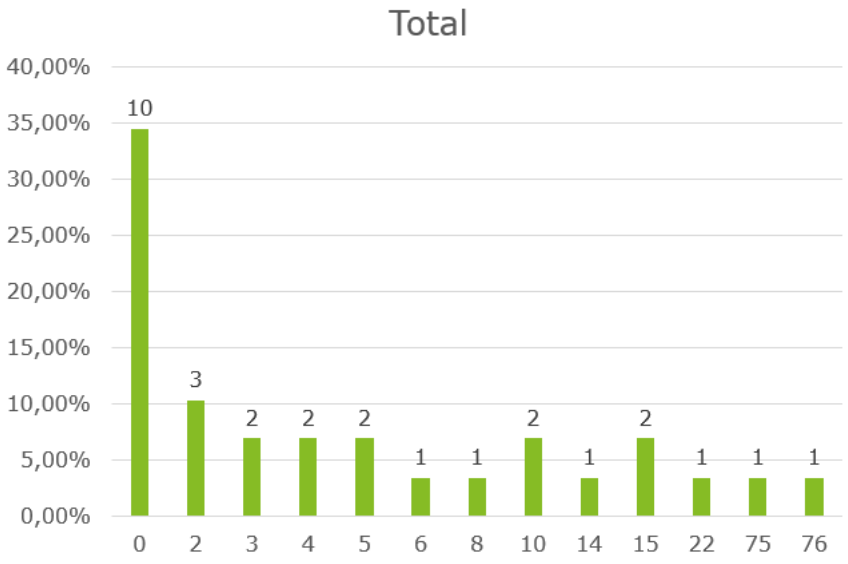

Figure 5: Answer to the survey question: how many jobs has the entity sustained through the engagement with the KIC

Number and type of skill gaps and/or skill shortages filled by KIC sector

The data collected during the start-up survey indicates that a significant portion of respondents (19) believe that their engagement with EIT InnoEnergy has helped fill skill gaps and/or skill shortages, while 3 respondents disagreed, and 7 were unsure.

20. Referring to the jobs that you have reported in the previous section, would you say that any of them helped fill skill gaps and/or skill shortages existing in the sector in which your organization operates?

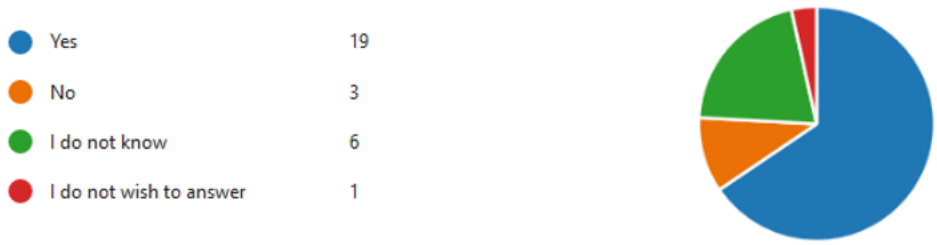

Figure 6: Answer to the survey question on relevant jobs filling skill gaps in the sector

Among the skill gaps and shortages that were addressed as a result of engagement with EIT InnoEnergy, entrepreneurship skills and competencies appear to be the most prominent, with 8 respondents indicating their positive impact. Energy transition skills and competencies follow closely, with 7 respondents acknowledging their contribution. Innovation and leadership skills and competencies are also notable, as they were mentioned by 9 respondents.

21. If yes, please indicate which skill gaps or skill shortages were addressed as a result of your engagement with EIT InnoEnergy.
N.b. skill groups, based on EIT's overarching learning outcomes include:

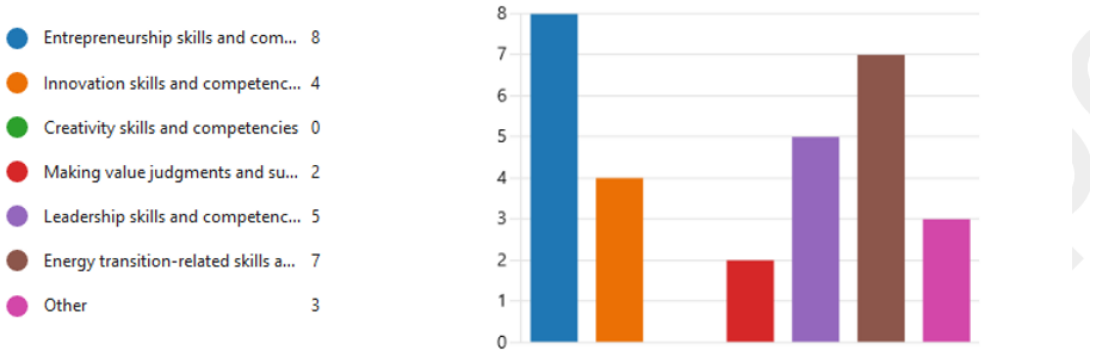

Figure 7: Answer on skills gaps addressed as a result of engagement with EIT InnoEnergy

Overall, the data suggests that EIT InnoEnergy's engagement has been particularly effective in filling skill gaps related to entrepreneurship, innovation, and leadership expertise, indicating a comprehensive approach to addressing various dimensions of skill shortages within the sector.

Career growth of participants in EIT labelled education

By analysing the collected data regarding graduates' highest and current job positions, the following observations can be made and some trends could be observed.

Intern (Part-time): It seems that there is the same number of graduates currently holding intern positions compared to the graduates that indicated internships as their highest position. This could indicate that some graduates were able to secure more stable and advanced roles after completing their internships. Graduates holding intern positions as their current job compared to the ones that declared internship as their highest role may be due to industry norms, where starting as an intern is common, or a deliberate choice to gain more experience and skills before advancing. Company loyalty and personal career goals, such as work-life

balance or skill development, can also play a role. Economic conditions, job market competitiveness, and the need for additional qualifications can further influence graduates' career trajectories.

Entry-Level Staff: The number of graduates in entry-level staff positions remains relatively consistent across survey respondents. The answers received showcase minimal divergence between graduates currently holding entry-level staff position and to the ones that declared this as their highest role. This suggests that a substantial portion of graduates have maintained their positions or progressed slightly within their respective organisations.

Intermediate Staff (Mid-management): There is a significant difference in responses relevant to the number of graduates declaring intermediate staff positions as their current job compared to graduates that hold these jobs as their highest position, indicating that some individuals have continued to grow within the mid-management level.

Senior Staff (Manager, Senior Manager): It is interesting to note the result of the same number of graduates currently holding senior staff positions and the ones holding this as their highest position. This could be due to various factors, such as changes in organisational structure or competition for higher-level roles.

Executive, Senior Executive Level: The number of graduates at the executive and senior executive level remains stable across answers indicating the senior level as their highest and their current position. This suggests that graduates have maintained their executive roles.

Self-Employed: The number of self-employed graduates remains consistent from the highest job position to the current job position. This might indicate that some graduates initially pursued entrepreneurial endeavours and continued this way.

The trends suggest that there is a general trend of graduates not moving from internships to more stable and advanced roles, with a reasonable number of individuals maintaining their positions within entry-level, intermediate, and executive levels. The stability in senior staff is a good sign, however it is important to note that individual circumstances and external factors can greatly influence these trends, and further insights could be gained by considering factors such as industry, location, and economic conditions.

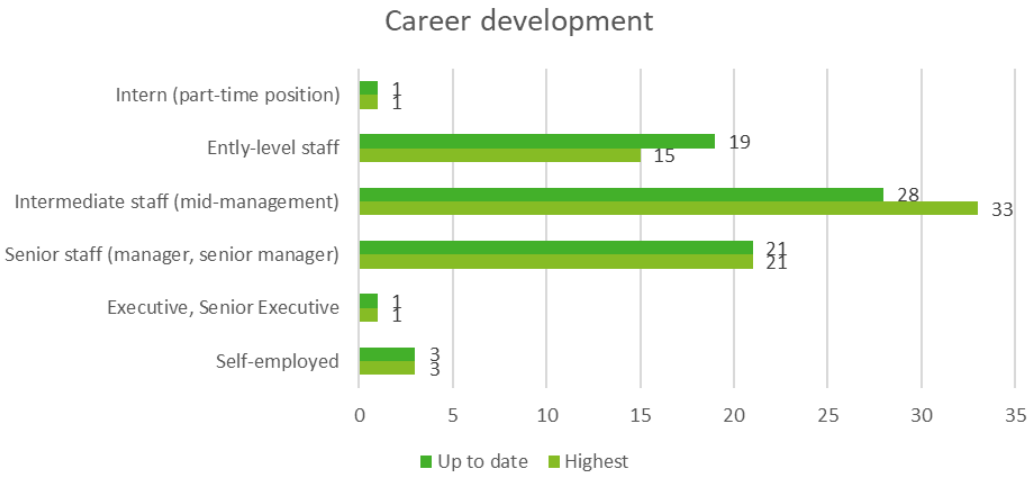

Figure 8: Answers to the survey questions of graduates highest and current job positions

Additional information

To complement the above aspects, the impact on employment growth as a result of a company being engaged with the EIT InnoEnergy as well as the number and revenue of start-ups and scale-ups supported by the KIC trading three years after KIC support ceased was analysed in detail. Based on the methodology agreed with the EIT, Counterfactual Impact Evaluation and survival analysis were carried out. Relevant information can be found in the section above.

Conclusion: The survey data shows that the impact of EIT InnoEnergy funding on start-up revenue growth varies widely, with some start-ups experiencing significant growth, while others saw minimal or no change. Job creation outcomes varied, with a substantial portion of entities not creating new jobs, but a significant number creating at least two new positions through their engagement with EIT InnoEnergy. Job sustainability was more challenging for start-ups, with many unable to sustain existing positions over time, influenced by factors like job temporariness and industry nature. EIT InnoEnergy's engagement had a positive impact on filling skill gaps and shortages, particularly in entrepreneurship, and innovation skills within the sector. Analysis of career growth among programme graduates revealed diverse trends, including stable roles, entry-level positions, self-employment, and fluctuations in senior staff positions, influenced by industry dynamics and individual choices. In conclusion, EIT InnoEnergy's impact is multifaceted, with varying outcomes across different aspects. The data underscores the importance of tailoring support and strategies to the unique needs of start-ups and entities within the sector to maximise positive effects on revenue, employment, skills, and career development.

Score: Very Good – 8

6.7. KIC's progress on medium-term KPIs

Indicator: KIC has made evidenced progress against the following KPIs (incl. impact KPIs as per definitions provided in the EIT Impact Framework – Medium-term KPIs EIT InnoEnergy)

Number and percentage of KIC Label graduates employed

The fact that 92% (69) of the graduates are currently employed, suggests a positive employment situation within the group. A high percentage of employment can indicate that the graduates have been successful in finding job opportunities in their respective fields.

On the other side, 8% (6) of the responding graduates who are not employed might have various reasons for their unemployment. This could include recent graduates who are actively seeking employment, individuals who are taking a deliberate break, those pursuing further education, or facing challenges in finding suitable job opportunities.

In general, a 92% employment rate is strong and could indicate that the graduates have been successful in entering the job market, given that the relevant percentage across the EU for 2022 has been 82% according to Eurostat[35]. Additionally, the employment rate could be influenced by factors such as the overall job market conditions, the graduates' fields of study, and the geographical location.

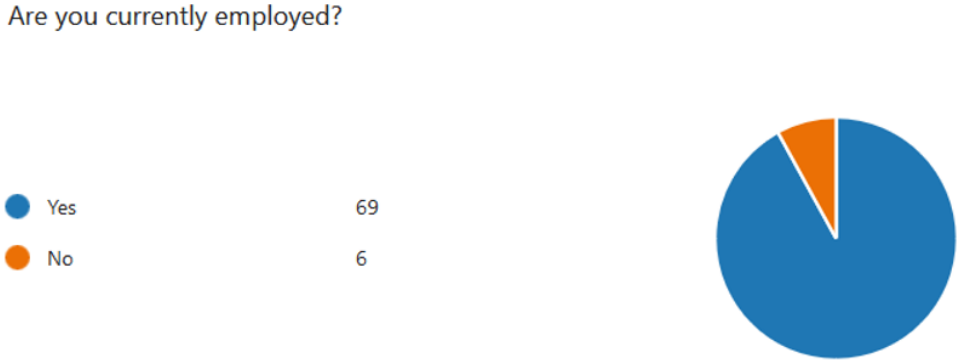

Figure 9: Answer relating to employment status

Number and percentage of students and graduates from EIT labelled MSc and PhD programmes who joined start-ups

[35] Eurostat, Accessed on September 20, 2023. Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/edn-20230810-1

In our survey, we have collected data on students and graduates from EIT labelled MSc and PhD programmes who joined or established a start-up.

Out of the responders, 28 individuals (37,83%_ have chosen to join existing start-ups. This indicates that a small subset of the graduates was interested in working for start-ups, rather than pursuing traditional employment. Interestingly, less graduates have taken the entrepreneurial route and have established their own start-up companies. They also did not choose to venture into entrepreneurship immediately after the graduation. While a small number have joined existing start-ups or established their own, the majority have pursued other career options. The choice to join or establish a start-up can be influenced by factors such as personal ambitions, risk tolerance, industry trends, available resources, and market opportunities.

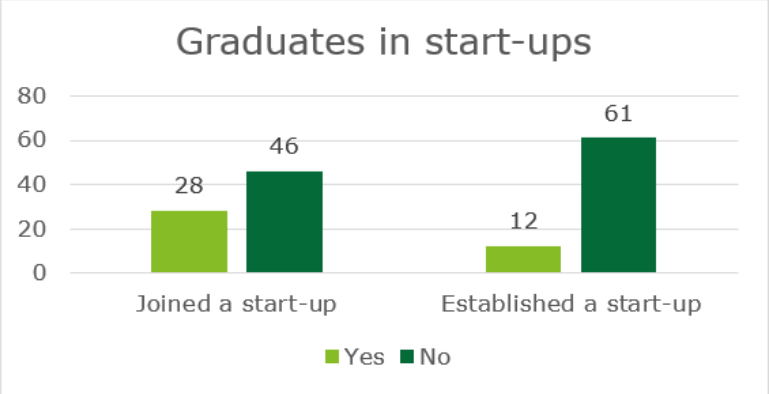

Figure 10: Survey results on whether KIC graduates joined or established a start-up

Revenue from the innovations launched on the market

The data collected through our start-ups survey indicates that the majority of the start-ups supported by the KIC were able to generate revenues from innovations developed through their engagements with the KIC. This also draws us to the conclusion that the majority of the supported start-ups have been able to not just create innovations, but to subsequently launch them on the market, thus realising some profit. Almost 80% were able to generate revenues from innovations, however this is overshadowed by the fact that the vast majority of them have only been able to generate less than EUR 0.5 million in revenue from innovations There are four start-ups with very high potential, as the indicated generated revenue coming from innovations is more than EUR 10 million.

Even though two thirds of start-ups were able to generate revenues from innovations, it is concerning that there is a relatively high proportion of start-ups that have not been able to realise any revenue from innovation. This could be caused by three different aspects, such us the early stage of the start-up, the lack of innovation developed, or the start-up has not been able to launch its innovation on the market yet.

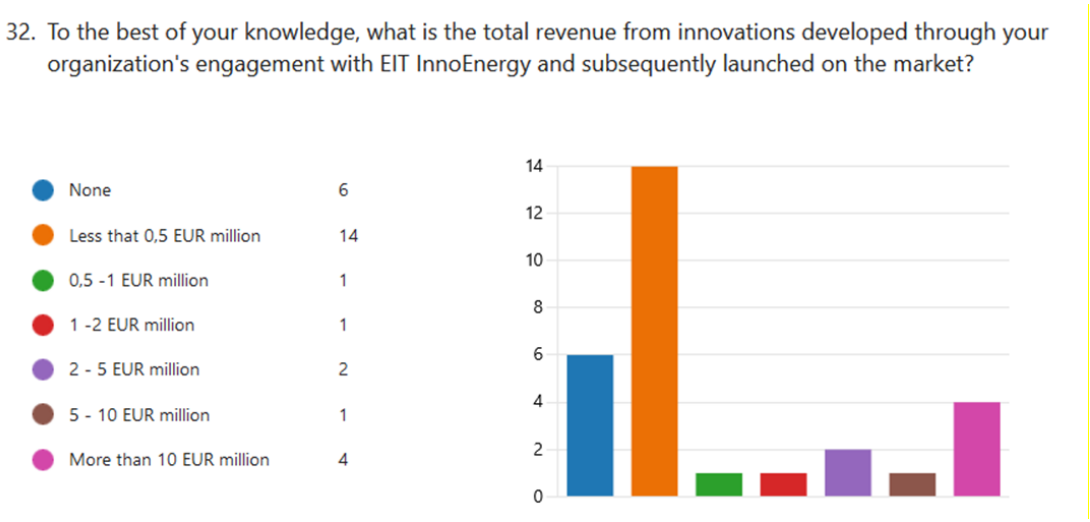

Figure 11: Answer regarding revenue generation due to the engagement with EIT InnoEnergy

Conclusion: The data underscores the positive employment outcomes for the EIT-Labelled education programmes' graduates, the diversity of career paths pursued by students and graduates, and the mixed results in terms of revenue generation for supported start-ups. Further analysis and exploration of the underlying factors influencing these trends could provide valuable insights for both educational institutions and aspiring entrepreneurs.

Score: Very Good – 8

6.8. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Very Good – 8

Strengths
Holistic Innovation Support; EIT InnoEnergy provides a comprehensive range of support services, including funding, mentoring, networking, market access, and investor relations. This holistic approach enhances the probability of start-ups' success and accelerates the development of innovative solutions.
Ecosystem Creation; By connecting established companies with start-ups and hosting events, EIT InnoEnergy creates an ecosystem that fosters knowledge sharing, networking, and collaboration. This approach helps facilitate technology adoption and market transformation.
Track Record of Innovations; The analysis highlights EIT InnoEnergy's success in achieving its innovation targets, exceeding expectations for the creation, testing, and marketing of innovations. This track record demonstrates the organisation's effectiveness in promoting and nurturing innovation.
Start-up Incubation; EIT InnoEnergy's support for start-ups extends beyond funding, encompassing vital aspects like business model development, market validation, and commercialisation strategies. This comprehensive approach increases start-ups' chances of scaling successfully.

Weaknesses	Recommendations
Start-up Creation Targets; EIT InnoEnergy fell short of its target for creating start-ups in certain periods. While this doesn't negate the organisation's efforts, it's essential to assess the reasons behind the shortfall and consider strategies to enhance start-up creation.	EIT InnoEnergy should conduct a comprehensive analysis within the next six months (until April 2024) to identify the key factors contributing to the gap between start-up creation targets and actual achievements. Based on the findings from the analysis, it should develop a plan within three months to provide more tailored support, mentorship, and resources to aspiring entrepreneurs who participate in EIT InnoEnergy programmes.

Weaknesses	Recommendations
EIT RIS Targets; The absence of specific targets for certain achievements, such as EIT RIS metrics, makes it challenging to evaluate performance accurately in those areas. Setting clear targets for these initiatives can provide better focus and measurement.	The KIC should establish specific and quantifiable targets for all relevant metrics, including those related to EIT RIS initiatives, within two months. These targets should include metrics for growth, engagement, and innovation within EIT RIS activities. It should review progress towards these targets every quarter, adjusting strategies as needed to ensure that the goals are met by the end of the fiscal year.
There are mixed results in terms of revenue generation of supported start-ups; an issue where the KIC should pay attention to.	EIT InnoEnergy should initiate a detailed analysis within the next four months (until February 2024) to explore the underlying factors influencing revenue generation trends for supported start-ups. Later, it should share the findings and insights gained from the analysis with educational institutions and aspiring entrepreneurs involved in the programmes within six months to foster collaboration and innovation in revenue generation strategies for supported start-ups.

7. Efforts to coordinate KICs activities with other relevant R&I initiatives

7.1. KIC synergies and complementarities

Indicator: The KIC has achieved the concrete synergies and complementarities described in the original proposal and Strategic Agenda

Already before 2016 and as highlighted in the SA of 2016-2022, EIT InnoEnergy has been heavily contributing to the work of relevant actors, i.e., DG RTD, Joint Research Centre, DG ENER, Joint Technology Initiatives, Energy Intensive Industries (EIIs) and European Energy Research Alliance (EERA) and cooperating with them. Thus, the KIC has been identified as the preferred "market uptake" promoter, as per the communication package of the Strategic Energy Technology Plan (known as SET Plan), in September 2015. Additionally, in 2016, the total integration of the KIC in the EU landscape was already exemplified by 9 contracts awarded to EIT InnoEnergy via competitions and running up until 2019 (see Table 20 for more information).

Table 20: Contracts awarded to KIC InnoEnergy under FP7 and H2020, until 2019

		Strategic Positioning	Current contracts/agreements	Running until	TCV(K€)	TCV KIC InnoEnergy (K€)
Commission services	DG R&D&I	KIC InnoEnergy is a member of the SET Plan integrated Roadmap (Member of Coordination Group and member in 3 Working groups) KIC InnoEnergy a key contributor to the Energy Union policy	contract Magrenov (2013)	2016	994	408
			contrract Cheetah (2013)	2016	13.232	68
			contract BET (2015)	2019	3.697	506
			contract Inpath-TES (2015)	2018	4.301	490
	JRC		Members of JRC EIT Board (2012)	unlimited		
	DG ENER		contract Insight-E (2013)	2017	1.999	230
			contract REEM_ERS (2015)	2019	3.997	263
	ETP/EII/JTI/EERA	See the strategic positioning in the charter above	Observers in EERA Exec Committee	unlimited		
	DG REGIO	Agent of RIS3 for topics 1 (R&D), 4 (Low Carbon Economy) and 11 (Education)	MOU with Malopolska and Pommern Region (2015)	2018	in discussion	in discussion

The "market uptake" attribute of EIT InnoEnergy has been also confirmed by past results summarised in the KIC Strategic Agenda 2021-2027. Until 2021, the KIC had participated in numerous European projects in all relevant dimensions of innovation and energy and had managed to support the commercialisation of other EU initiatives' results.

EIT InnoEnergy has been involved in the evolving landscape of energy policies and initiatives within the EU. The Energy Union and the "Clean Energy for all Europeans" Package have consistently remained top priorities for the Commission, the European Parliament, and Member States, with significant implications for the European energy sector's future. The Clean Energy package, introduced by the Commission in December 2016 and adopted before the end of 2018, acts as a guiding framework for stakeholders in the energy domain in the EU. With its comprehensive scope, each aspect of this package offers opportunities for an ecosystem like EIT InnoEnergy to contribute and enact tangible change. The primary objective of EIT InnoEnergy is to continue to actively participate in the practical implementation of this transformative energy revolution.

This dedication and active engagement will persist throughout the execution phase of the package, as demonstrated by the initiation of National Energy and Climate Plans submitted by Member States in the first half of 2020. These plans outline strategies and investments made by European countries in the energy field, aligning with the objectives of the Clean Energy package. The significance of these pursuits extends to the "Mobility package", which addresses critical measures for promoting clean mobility. EIT InnoEnergy's role extended to the revision of the Renewable Energy Directive and the Energy Efficiency Directive in the first half of 2021 to align with the upgraded emission reduction targets set by the EU for 2030, a shift from 40% to 55%.

Horizon Europe has brought forth a novel European framework for innovation, proposed by the EC in June 2018. EIT InnoEnergy has advocated for the inclusion of EIT and KICs within this framework, encompassing three pillars, including a dedicated innovation pillar. This approach ensures optimisation of synergies, complementarities, and efficient use of public resources across various instruments, such as the European Innovation Council (EIC), Global Challenges clusters, and Missions. EIT InnoEnergy has emphasised the necessity of an appropriate budget allocation for KICs to effectively execute its activities.

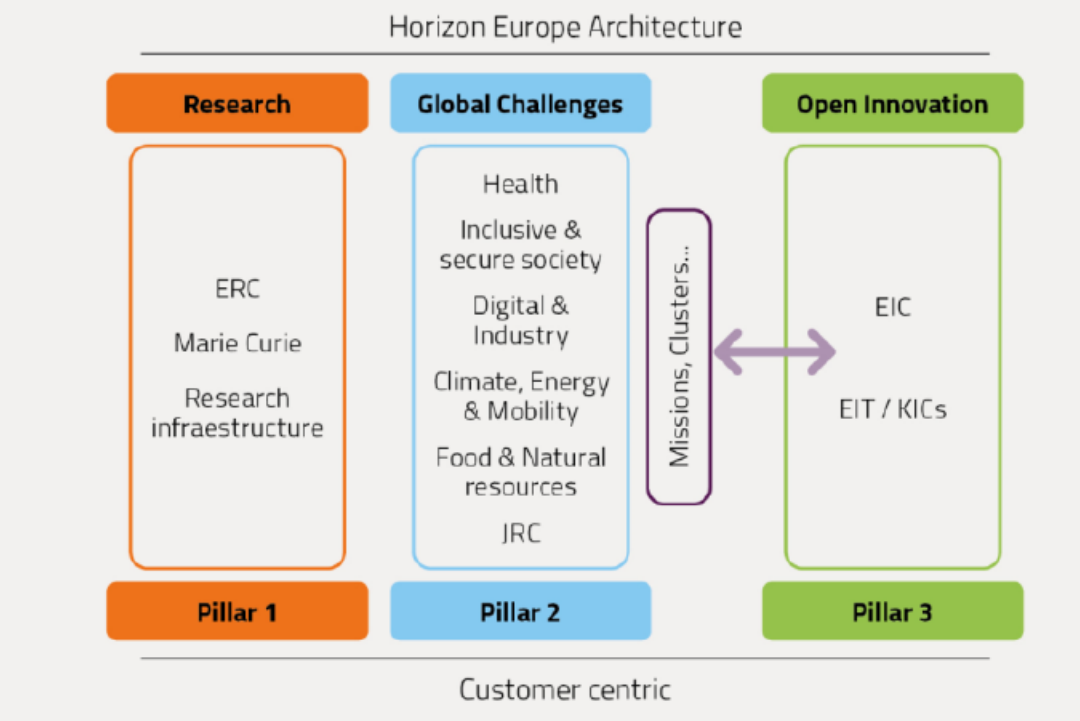

Figure 12: EIT InnoEnergy synergies from the SA 2021-2027

The launch of the European Green Deal, the COVID-19 pandemic, and the subsequent Recovery Plan for Europe in 2020 have all shaped the dynamics in the EU energy sector which is the main focus area of EIT InnoEnergy. The European Green Deal, aiming to make Europe the first climate-neutral continent, resonates closely with EIT InnoEnergy's objectives. EIT InnoEnergy aligns with the ambition of the European Green Deal by contributing directly to seven out of eight priorities, including reducing greenhouse gas emissions, promoting clean and secure energy, and fostering industrial growth. The Recovery Plan for Europe, endorsed by the European Council in July 2020, links economic recovery with the green and digital transitions, making the European Green Deal a cornerstone. This plan introduces significant investment opportunities, particularly between 2020 and 2024, that EIT InnoEnergy can leverage.

In alignment with the European Green Deal, EIT InnoEnergy leverages to a certain extent cross-KIC collaboration to share insights, best practices, and explore potential joint initiatives with other KICs. This approach, based on its SA 2021-2027, aims to enhance cooperation, foster synergies, and drive inter-disciplinary innovation through co-design, collaboration, and co-creation. EIT InnoEnergy's strategy also involves establishing a platform to facilitate rapid deployment and scaling of investments, focusing on achieving maximum impact across energy, raw materials, climate, urban mobility, and manufacturing. Partnerships with entities like the European Investment Bank (EIB), EIC, and the European Investment Fund (EIF) are sought to accelerate these efforts. However, the KIC has opted out from coordination of the strategic education cluster and did not coordinate any cross-KIC thematic innovation activities until November 2022, as reported in the Multi-annual Dashboard of the EIT.

The KIC has been prioritising points of convergence between KICs, aiming to accelerate progress towards societal and economic impacts in line with the EIT's broader SIA. Additionally, EIT InnoEnergy has committed to advancing cross-KIC objectives in areas such as Human Capital, HEI Innovation Capacity Building, and Skills for the Future. Participation in infrastructure programmes like the EIT House, CLC Consolidation, and the EIT RIS is also pursued to enhance efficiency and amplify impact.

Having built its foundation on synergies and complementarity, EIT InnoEnergy continues to expand connections with stakeholders, advising decision makers, and fostering growth and jobs generation. The impending success of Horizon Europe hinges on an efficient programme design, architecture, and

collaborations between the EIT and other entities, reflecting EIT InnoEnergy's commitment to the principle of synergy and win-win relationships.

Conclusion: EIT InnoEnergy has consistently played a vital role in contributing to and shaping the European energy landscape, aligning with key initiatives such as the Clean Energy package, European Green Deal, and Horizon Europe, while actively participating in energy policy development and promoting sustainability and innovation. The KIC's dedication to cross-KIC collaboration and synergy-driven relationships underscores its commitment to fostering societal and economic impacts in line with the broader objectives outlined in the EIT SIA.

Score: Excellent – 9

7.2. Synergies with other relevant initiatives

Indicator: Number of synergies with other relevant education, research and innovation initiatives in the same area of the societal challenge at national, EU and global level

EIT InnoEnergy's efforts showcase a commitment to collaboration and impact. By fostering partnerships, participating in cross-KIC pilots, and engaging with projects, EIT InnoEnergy actively enhances its contribution. Its systematic approach to synergies indicates dedication to maximising its role in Europe's digital transformation. As EIT InnoEnergy continues to intensify its collaborations, its success will be further measured by the meaningful outcomes it achieves through these partnerships.

As already mentioned, the KIC actively cultivates numerous synergies and complementarities with various EU programmes and global initiatives. Notably, it has established successful engagements with prominent EU institutions including the EC, EIB, EIF, EIC, and EU missions focused on climate neutrality and intelligent cities, as well as partnerships related to batteries and solar initiatives. Positioned as a pivotal contributor to the Green Deal, the KIC plays a core role in advancing strategic value chains, particularly in batteries, photovoltaics, and green hydrogen. These initiatives, including the EBA Academy, are aligned with EU-funded projects, such as the Blueprint Alliances ALBATTS (training development for battery production) and the DRIVES (training development for car production) in the framework of the European Social Fund.

In collaboration with EIT Raw Materials, the KIC jointly supports the EC in implementing the EU raw materials strategy. This involves focusing on raw materials for batteries and other critical components, as well as coordinating efforts with relevant entities like DG Grow, EIF, and the European Bank for Reconstruction and Development. The KIC's engagement extends to various cross-KIC cluster activities including Shared Services, Strategic Education, Strategic Regional Innovations, and Strategic Synergies, including Artificial Intelligence, as well as Access to Finance. These efforts underscore the KIC's commitment to cross-disciplinary collaboration and its multifaceted contribution to Europe's innovation landscape. However, as also highlighted in the 2020 report by the EIT GB Rapporteur during their visit, it is imperative for the KIC to enhance its synergistic efforts. Particularly, the collaboration with EIT Climate-KIC and EIT Digital needs to be reinforced, following a thorough mapping of activities in order to progress towards financial sustainability. The harmonisation of activities among KICs sharing mutual interests, and the facilitation of collaboration across them (exemplified by cross-KIC initiatives), encompassing both thematic and overarching subjects, requires improvement. This should include expanded avenues for collaboration with the EIC and other pertinent international undertakings within the sphere of climate and energy. The aforementioned synergies with other EU agencies would be instrumental in achieving the KIC's aspirations pertaining to synergies with the SDGs, particularly within the nexus of water, food, and energy, while concurrently fortifying connections with nations classified as Developing and RIS countries.

Concrete planned synergies of EIT InnoEnergy are not elaborated in the KIC's latest SA 2021-2027.

Conclusion: While the KIC has successfully fostered many synergies with various institutions and initiatives, including those related to the European Green Deal and raw materials strategy, there is room for improvement in strengthening collaborations, to advance FS and enhance synergistic efforts. Furthermore, the KIC's strategic approach to planned synergies is not explicitly detailed in its latest SA for 2021-2027, suggesting potential areas for development in this regard.

Score: Very Good – 7

7.3. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Very Good – 8

Strengths
EIT InnoEnergy demonstrates a commendable commitment to harmonising efforts with European initiatives by engaging with various DGs of the EC (e.g., DG ENER) and participating in collaborative projects. This strategic collaboration highlights the organisation's dedication to aligning its goals with broader EU objectives.
EIT InnoEnergy's proactive stance in establishing tangible synergies with other initiatives enhances its visibility and influence both within the EU and on a global scale (e.g., European Battery Alliance). This engagement allows for the fostering of stronger connections and amplification of its impact beyond European borders.

Weaknesses	Recommendations
Specific elaboration on the concrete planned synergies for EIT InnoEnergy within its SA for 2021-2027 is missing. This absence of detailed information could hinder a clear understanding of the organisation's upcoming collaborative efforts.	EIT InnoEnergy should provide a comprehensive, time-bound roadmap outlining specific synergistic actions for the period 2021-2027 in its SA. This roadmap should include clear goals, responsibilities, and milestones. By early 2024, EIT InnoEnergy should publish a detailed plan with measurable KPIs for its synergies, enabling a better assessment of achieved outcomes and fostering transparency.
While EIT InnoEnergy engages in some cross-KIC collaboration, it falls short in coordinating clusters and cross-KIC thematic innovation activities. This limited involvement may hinder the organisation's ability to fully harness the potential of collaboration across different KICs.	EIT InnoEnergy should significantly expand its cross-KIC engagement and cluster coordination efforts. By December 2024, EIT InnoEnergy should actively participate in a minimum of three cross-KIC thematic innovation activities and establish a clear framework for cluster collaboration. This expansion should result in at least a 20% increase in the number of collaborative projects across different KICs, fostering cross-disciplinary innovations and ensuring measurable progress in cross-KIC collaborations.

8. Capacity to ensure openness to new members

8.1. Partnership characteristics and performance

Indicator: Partnership size, growth, composition and performance are adequate for achieving the long-term objectives of the KIC Strategic Agenda.

To create a MCA of EIT InnoEnergy's partnership size, growth, composition, and performance, we used a 1 to 4 scale, where 1 is the worst and 4 is the best for each criterion.

Partnership Size:

EIT InnoEnergy has established a substantial partnership network of almost 600 active partners and builds on a shareholder structure of 29 shareholders, indicating a strong and extensive collaborative ecosystem that significantly contributes to its mission. According to our assessment, the score for the partnership's size is 4 (Excellent).

Partnership Growth:

Throughout the evaluation period, the KIC has proactively been pursuing new partners that are targeted based on their strategic fit and contribution to the strategy of the organisation. The partnership has been open to organisations worldwide with a particular interest and participation in energy transition. The KIC has pursued new partners, emphasising their strategic fit and contribution to the organisation's objectives. This proactive approach demonstrates a commitment to continuous growth and improvement. According to our assessment, the score for the partnership's growth is 4 (Excellent).

Partnership Composition:

Shareholders have been sourced via different channels based on the following criteria:

- Demonstrate capacity and capability to further EIT InnoEnergy strategic objectives and add complementary representation to the 'knowledge triangle';
- Acknowledged leadership in the energy sector, or the strong aspiration to become an acknowledged leader in the energy sector, or any other sector of relevance to the energy sector;
- Demonstrated and recognised high innovation acumen.
- Strategic intent aligned with the UN SDGs;
- A commitment to participate in the KIC activities, where feasible;
- Demonstrate the capacity to pay the cost of a share in a given year, upon execution of the transaction.

As regards project partners, the KIC has strongly focused on attracting SMEs to help them develop innovations in the energy sector. By ensuring diversity in the partnership and mobilisation of complementary assets belonging to the strategic value chains, the EIT RIS assets, students and start-ups all contributed to the KIC's core KPIs.

EIT InnoEnergy has effectively diversified its partnership composition, encompassing a wide range of organisations worldwide with a focus on the energy transition. The criteria for sourcing shareholders reflect a focus on complementarity, innovation acumen, and alignment with UN SDGs, contributing to a well-rounded composition. According to our assessment, the score for the partnership composition is 4 (Excellent).

Partnership Performance:

Moreover, a survey conducted among start-ups and scale-ups supported by EIT InnoEnergy showed that all the respondents recognised the added value of the KIC's activities to their organisation, albeit some highlighted room for improvement. The same survey also indicated that most respondents are likely to maintain their partnership with EIT InnoEnergy beyond 2024. All in all, EIT InnoEnergy's partnership has been contributing to the progress towards the KIC's long-term objectives and will continue to do so.

The KIC's diverse partnership network, including a strong emphasis on SMEs, has positively impacted its KPIs. The unanimous recognition of the added value of EIT InnoEnergy's activities by supported start-ups and the intention of most respondents to maintain their partnerships beyond 2024 reflect outstanding performance and impact. According to our assessment, the score for the partnership performance is 4 (Excellent).

Moreover, a survey conducted among start-ups and scale-ups supported by EIT InnoEnergy showed that 11 respondents recognised the added value of the KIC's activities, albeit 16 indicated room for improvement. The same survey also highlighted that 10 respondents are certain to maintain their partnership with EIT InnoEnergy beyond 2024, while 13 respondents were somewhat to very likely to do so. Overall, EIT InnoEnergy's partnership has been contributing to the progress towards the KIC's long-term objectives and it is highly probable that this trend maintains in the foreseeable future.

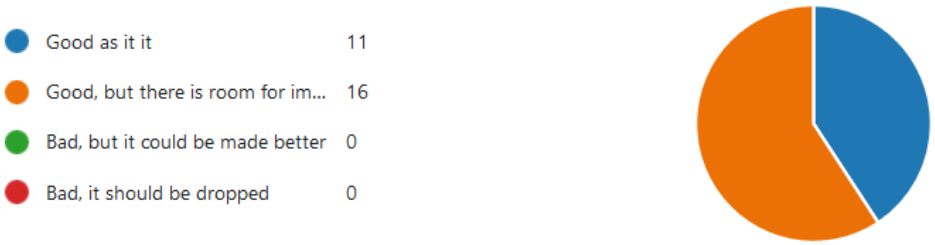

Figure 13: Survey responses to the question 'Based on your overall involvement and experience with EIT InnoEnergy, to what extent do you see value in its activities?'

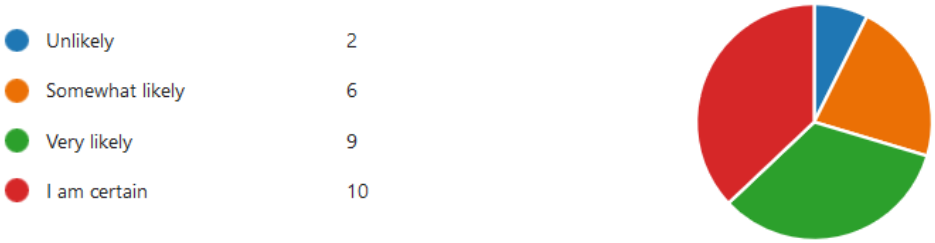

Figure 14: Survey responses to the question 'What is the likelihood that your organisation will participate and contribute to future activities of EIT InnoEnergy post-2024?'

Conclusion: EIT InnoEnergy has actively pursued partnerships with nearly 600 organisations, including shareholders and project partners, that align with its strategic objectives in the energy sector, focusing on innovation, sustainability, and the UN SDGs. The KIC's diverse partnership network, particularly with SMEs, has contributed positively to its core KPIs, and feedback from supported start-ups indicates a recognition of the value provided by EIT InnoEnergy's activities, with many likely to maintain their partnership with the KIC beyond 2024.

Score: Excellent – 9

8.2. Openness of Calls

Indicator: KIC Calls for activities have been fully open to new members.

EIT InnoEnergy periodically launches open calls, inviting potential partners to join its network. Prospective new members can enter the EIT InnoEnergy partnership by applying to these open calls and presenting their innovative project proposals. After undergoing thorough scrutiny based on eligibility, assessment and evaluation criteria, selected project proposals become integral components of the KIC business plan. The admission process is transparent and access to the partnership is fully open and strongly encouraged by the KIC.

Some parts of the process for evaluating and choosing innovation projects could be better, for example, adding a way to appeal decisions and including a stronger KTI aspect. The KIC was also recommended to

consider EU-wide rules when evaluating, such as data protection, ethics, and diversity, though it should be said that the call package is already being updated.

EIT InnoEnergy announces business creation calls on its website as ongoing opportunities. When a business creation beneficiary is chosen and the Business Creation Services Agreement is signed, the KIC issues a press release to inform everyone, though the KIC is recommended to also share a summary of business creation Call results on its website. On top of that, the KIC provides special guidance to potential new partners by offering several systems such as educational training and business creation resource packs. This method appears to be effective as more than 30 new partners have been selected in each call.

However, the latest draft for innovation activity calls did not properly reflect innovation principles. None of the principles were properly included in the draft call text, which could potentially affect the legitimacy of the newly selected innovation if this has not been revised. Nonetheless, the KIC has not been selecting many new innovation activities recently, as it now primarily directs the EIT funding towards well-established and promising innovation projects – which is a more profit-oriented and risk-averse approach.

Conclusion: EIT InnoEnergy uses open calls to attract new partners and innovation initiatives, with a transparent admission process. Feedback suggests that some aspects of evaluating innovation projects could be improved, and the KIC has been recommended to consider EU-wide rules during evaluations. While the KIC encourages new partners through various resources and guidance, it now primarily focuses on well-established and promising innovation projects with a profit-oriented and risk-averse approach, rather than selecting many new innovation activities.

Score: Very Good – 8

8.3. Good Governance Principles and openness

Indicator: KIC has fully addressed the EIT Good Governance Principles – based on relevant GGP assessments related to openness to new members.

The Good governance principles encompass specific requirements concerning operational transparency and openness to new members. To comply with these principles, the KIC needs to raise stakeholder awareness and actively encourage their participation by issuing fully open calls for projects that include non-KIC partners. Additionally, the KIC has an obligation to make all relevant documents related to its strategies, decision-making processes, partnerships, and activities available to stakeholders.

EIT InnoEnergy adheres to these principles by providing well-described and transparent processes and criteria for the selection of beneficiaries into business creation services and KIC Added Value Activities (KAVAs). The calls are fully open and have been well-promoted by the KIC, with clear entry/exit rules in place and a high-quality decision-making process. Most important documents, such as the Partnership Agreement and Grant Agreement, are publicly available on the website. Legally binding and commercial documents like Financial Statements and Articles of Association are accessible through EIT InnoEnergy's intranet.

Furthermore, the communication to shareholders takes place through an annual General Assembly along with quarterly written reports with regular updates, while the communication with the partnership is realised through quarterly meetings. Overall, the KIC has been committed to ensuring transparency and openness to new members, providing all the necessary information and documents in a timely manner.

Conclusion: EIT InnoEnergy follows the GGP by maintaining operational transparency and openness to new members. It achieves this through open calls, transparent processes, and the availability of relevant documents, ensuring stakeholder awareness and participation.

Score: Excellent – 9

8.4. Balanced representation

Indicator: Balanced representation of all key knowledge triangle players in the partnership.

EIT InnoEnergy has been making visible efforts to integrate the three key knowledge triangle players, namely universities, industry, and research institutions in the partnership. An important example is the

involvement of industry and higher education institutions in designing the syllabus in the KIC's Master School, specifying applicant skills and jointly promoting the programme. In 2021, the KIC successfully organised eight of master school programmes in the area of energy. While higher education institutions primarily handle course execution, research institutions and industry contribute to lectures and set master thesis topics. All three institutions are stakeholders in the final product (e.g., whether this might be a syllabus, and/or the education programme), with industry playing a prominent role. The integration of the knowledge triangle is deeply embedded in various agreements, shaping the implementation of business lines (e.g., aligning PhD candidates with innovation projects, and directing master's theses towards venture development). Over the years, improvements have been made in enabling more students to test business ideas.

While the knowledge triangle representation was initially equally distributed with each side, the structure has transformed into a more asymmetric yet fruitful arrangement, progressively tilting towards partners from industry. This evolution can be attributed to the KICs' business-oriented nature, prominently emphasising the attraction of SMEs. This growing imbalance became more pronounced after 2019, as there was a slight decline in the representation of research institutions and universities, while industry's presence grew significantly in parallel. By 2022, the partnership consisted of 26% industry, 13.5% universities and 7.1% research institutions as depicted in Figure 15 below.

Figure 15: Types of members

The existing imbalance has been acknowledged as a challenge in an interview with the KIC's representatives, which they expect to be resolved during the private placement round. Conversely, it is worth noting that the KIC's shareholders have continuously been well-represented across the knowledge triangle.

Conclusion: EIT InnoEnergy has actively integrated the knowledge triangle players – universities, industry, and research institutions – into its partnership, with industry playing a prominent role in programmes like the Master School. However, over the years, there has been a shift towards greater representation from industry partners, leading to an imbalance in the partnership composition, with more industry involvement compared to universities and research institutions. This imbalance is recognised as a challenge and is expected to be addressed in the future.

Score: Very Good – 8

Table 21: Representation of knowledge triangle players in the partnership

Partner Area	2016	2017	2018	2019	2020	2021
Industry	216	262	314	367	406	433
Research	33	41	43	50	48	49
University	49	60	70	72	71	84
Cities, Regions, NGOs	2	5	5	6	8	8
Grand Total	**300**	**368**	**432**	**495**	**533**	**574**

8.5. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Excellent – 9

Strengths
EIT InnoEnergy has demonstrated a steadily growing and diverse network over the years, fostering impactful initiatives that actively contribute to the energy transition goals.
The KIC has consistently published open and accessible calls, attracting a significant number of prospective partners in the sustainable energy sector.
The KIC's ability to effectively involve a considerable portion of industry partners has been remarkable.

Weaknesses	Recommendations
The KIC's partnership has been characterised by a growing imbalance in the knowledge triangle representation, having decreasing participation of universities and research institutions.	The KIC should proactively restore the equilibrium among the knowledge triangle players. By December 2024, the KIC should set specific targets to increase the representation of universities and research institutions in collaborative projects, aiming for a minimum of 15% growth in their participation. To measure progress, quarterly reports should be published, tracking the distribution of projects among universities, research institutions, and industry partners. Additionally, the KIC should implement a communication campaign by June 2024, emphasising how a diverse representation enhances the quality of innovation and entrepreneurship, thereby fostering a better balance among knowledge triangle players.

9. KIC's achievements in attracting new members from across the Union

9.1. Innovation ecosystem and partners

Indicator: KIC has grown to an effective sustainable innovation ecosystem with partners within and outside the EU, incl. RIS-eligible countries and regions

Drawing on the annual review from 2022, EIT InnoEnergy's significant impact can be attributed to its robust ecosystem. The network currently encompasses over 1 200 organisations, including 578 active partners – registered with the KIC – and 29 shareholders across 23 EU countries. Throughout the reviewed period, the KIC has displayed a steady growth trajectory reflecting an enduringly sustainable and inclusive environment. Its network has been effectively coordinated by six CLCs and 13 EIT RIS Hubs. Referencing below, it is evident that the KIC has already exceeded expectations in terms of partnership expansion, surpassing its projected growth strategy for the upcoming years.

Table 22: Partnership growth strategy as described in the KIC's SA 2021-2027.

	2021	2022	2023	2024	2025	2026	2027
#CLCs	6	6	6	6	6	6	6
#EIT RIS Hubs	10	10	10	11	11	11	11
#Number of partners	23	26	26	26	100	100	100
#Number of project partners	464	510	561	618	618	618	618
#Partners from EIT RIS countries	144	158	174	192	192	192	192

The KIC's innovation ecosystem involves key stakeholders spanning the entire energy value chain, supply chain, energy carriers and others. EIT InnoEnergy's footprint is firmly established across most EU Member States and extends its influence beyond European borders, including three partners in the US and a partner in Israel. The KIC also operates in several non-EU Member States within Europe, such as Bosnia and Herzegovina, Switzerland, the United Kingdom, Norway, Serbia and Türkiye.

In our Theory of Change on how the KIC has grown to an effective sustainable innovation ecosystem with partners within and outside the EU, incl. RIS-eligible countries and regions, the respective barriers, inputs, outputs, and outcomes were assessed, shedding light on the evolution and impact of the organisation's efforts.

Barriers:

EIT InnoEnergy initially faced the challenge of limited partnerships, hindering its ability to create a robust innovation ecosystem capable of addressing energy transition challenges comprehensively.

The KIC's objective of addressing skill gaps in the energy sector required targeted initiatives and education programmes to develop a skilled workforce and promote sustainability.

Expanding the innovation ecosystem beyond EU borders and attracting partners from RIS-eligible countries posed a significant challenge.

The discontinuation of the PhD programme raised concerns about the KIC's ability to address future skill gaps effectively.

Inputs:

EIT InnoEnergy strategically pursued partnerships and collaborations, exceeding its growth projections. The focus on expanding its ecosystem through partnerships and shareholders contributed to its sustainability.

The KIC engaged in a wide range of innovation activities, supporting the development of innovative technologies and solutions. These initiatives generated a significant impact on addressing energy transition challenges and contributed to the KIC's success.

EIT InnoEnergy's education programmes played a crucial role in addressing skill gaps in the energy sector. These programmes trained students and entrepreneurs, producing a substantial number of graduates and supporting numerous start-ups.

Expanding its influence beyond EU borders, EIT InnoEnergy established an office in Boston, United States. This global expansion enhanced its reach and influence, strengthening its position as a valuable actor in the energy innovation ecosystem.

Outputs:

EIT InnoEnergy successfully expanded its partnership network, surpassing its growth projections. With over 1 200 organisations, 578 active partners, and 29 shareholders across 23 EU countries, the KIC demonstrated its ability to create a sustainable and inclusive innovation ecosystem.

The KIC's innovation activities yielded significant results in addressing energy transition challenges. It supported the development of innovative technologies and solutions that contribute to a sustainable future, establishing itself as a key player in the EU ecosystem.

EIT InnoEnergy fostered fruitful collaborations with industry partners, research institutions, and relevant stakeholders. Its industry-oriented partnership drove innovation forward and enhanced its recognition and impact.

Expanding its presence to the United States and other non-EU countries, EIT InnoEnergy extended its global influence. It established itself as a valuable asset for EU institutions, furthering its impact and recognition beyond European borders.

Short-Term Outcomes:

EIT InnoEnergy's impact was immediately noticeable through its successful innovation activities, which supported the development of technologies addressing energy transition challenges.

The KIC's rapid growth and expansion, exceeding projections, demonstrated its ability to create a sustainable and inclusive innovation ecosystem in the short term.

EIT InnoEnergy's collaborations with industry partners and its recognition by EU institutions and departments established its reputation as a key player in the energy innovation landscape.

In the short term, EIT InnoEnergy's education programmes produced a significant number of graduates and supported numerous start-ups, contributing to skill development in the energy sector.

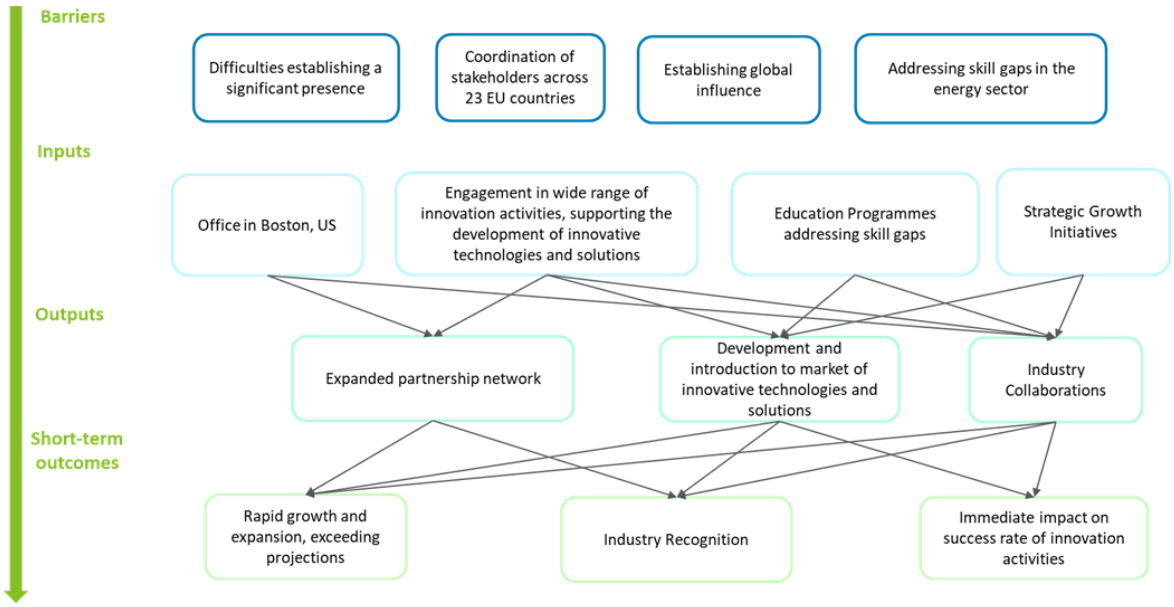

Figure 16: Theory of change

Conclusion: EIT InnoEnergy's impact stems from its extensive and growing ecosystem. The KIC's network expansion has exceeded its growth projections, indicating a sustainable and inclusive environment. Its innovation ecosystem integrates key stakeholders throughout the energy value chain, transcending EU borders.

Score: Excellent – 9

9.2. EU Member States coverage

Indicator: Number of the EU Member States covered by the KIC partnership and representation of all the knowledge triangle players.

The EIT InnoEnergy partnership spans 23 EU Member States including Austria, Belgium, Germany, Denmark, Estonia, Estland, Finland, France, Greece, Croatia, Hungary, Ireland, Italy, Luxembourg, Latvia, Netherlands, Poland, Portugal, Romania, Sweden, Slovenia and Slovakia. As depicted in Table 23 below, the knowledge triangle representation within the partnership has also been imbalanced in EU Member States, which became more prominent throughout the evaluation period. While there has been a slight decrease in higher education representation after 2020, the amount of industry players from EU Member States increased due the business-oriented nature of the KIC.

As indicated in Figure 17, members are mainly concentrated in Spain and Western EU Member States, notably France, Germany and the Netherlands, accounting for up to 20% of the partnership. Among the three pillars of the knowledge triangle, research institutions have been more equally distributed across EU Member States, though their presence has remained relatively modest and stagnant over time. Therefore, the KIC is expected to engage more research institutions and universities across EU Member States to further enhance the knowledge triangle representation.

Conclusion: The EIT InnoEnergy partnership includes 23 EU Member States, with an uneven distribution of representation in knowledge transfer activities. There has been a decrease in higher education representation since 2020, but the number of industry players has increased due to the KIC's business-oriented focus. The majority of members are concentrated in Spain and Western EU Member States, particularly France, Germany, and the Netherlands, making up around 20% of the partnership. Research institutions are more evenly distributed but remain relatively limited, so efforts are needed to involve more research institutions and universities across EU Member States for better knowledge transfer representation.

Score: Good – 6

Table 23: Knowledge triangle representation in Member States

Partner Area	2016	2017	2018	2019	2020	2021
Industry	204	249	290	345	382	402
Research	33	41	40	43	42	45
Universities	48	59	69	71	92	78
Cities, Regions, NGOs	2	5	5	6	8	8
Grand Total	**287**	**354**	**404**	**465**	**524**	**533**

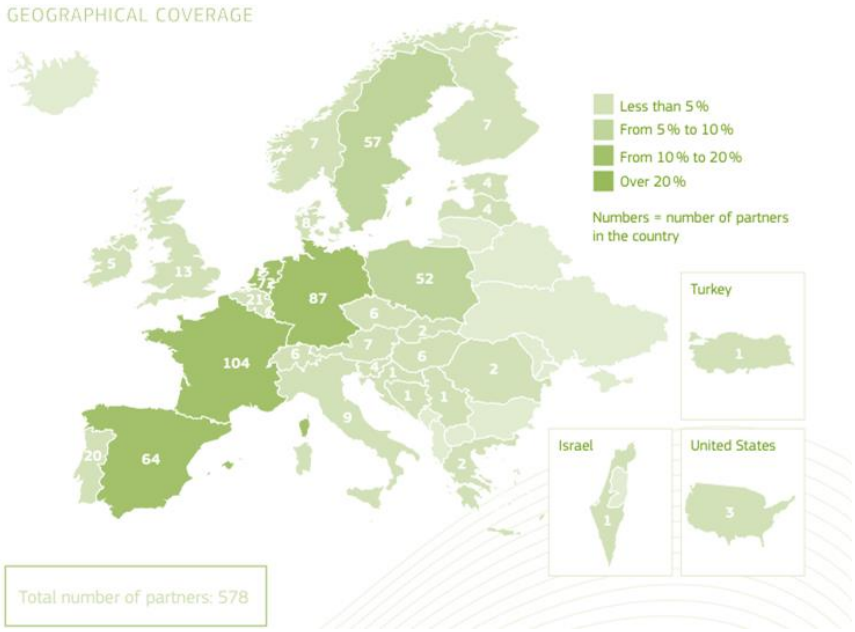

Figure 17: Retrieved from EIT InnoEnergy partnership fiche 2022

9.3. Coverage of RIS countries

Indicator: Number of the RIS countries and regions covered by the KIC partnership and representation of all the knowledge triangle players in its activities.

Since 2014, RIS countries have been mainstreamed into the EIT InnoEnergy strategy. The KIC operates in 13 RIS countries, through four RIS Hubs and a network of co-location centres. The number of partners coming from RIS countries has been growing steadily throughout the reviewed period, with 15 new partners from RIS countries in 2022.

The KIC has been expanding its presence across RIS countries through several actions such as the annual PowerUp! Competition targeting entrepreneurs and innovators from RIS countries and the EIT RIS-specific acceleration programmes called Primer. The latter strives to pre-accelerate start-ups from RIS countries for its highway programme. Again, this has resulted in a partnership dominated by industry RIS countries, particularly focusing on attracting SMEs from these regions. As illustrated in Table 24 below, university partners from RIS countries increased after 2020, but the number of research institutions remained low in these regions, even declining post-2019. Among RIS countries, the partnership has been notably concentrated in Spain and Poland. However, the KIC's network has steadily expanded into other RIS countries over time, exemplified by recent substantial partnerships like the one with ElevenEs in Serbia.

Conclusion: It is evident that RIS countries are comprehensively integrated within the EIT InnoEnergy partnership. However, to foster a more balanced knowledge triangle representation in these regions, the KIC should persist in its endeavours to incorporate universities and research institutions into its RIS activities.

Score: Very Good – 8

Table 24: Number of RIS partners

Partner Area	2016	2017	2018	2019	2020	2021
Industry	76	87	95	106	121	123
Research	15	16	19	24	21	17
Universities	13	14	15	16	16	28
Cities, Regions, NGOs	0	1	1	2	2	2
Grand Total	**104**	**118**	**130**	**148**	**160**	**170**

9.4. New active partners

Indicator: Trend of new active partners over the period of review

The EIT InnoEnergy partnership has demonstrated a consistent upward trajectory over the period under review. The partnership is classified into two distinct categories: Formal Partners/Shareholders and Associated/Project Partners. While the count of the latter category has doubled, the number of the former category has gradually expanded from 23 in 2016 to 29 in 2022. Implementing a proactive 'scouting approach, the KIC has diligently pursued strategic new partners that align with its goals and contribute to the KTI. Driven by its business-oriented nature, the KIC has progressively integrated industry members into its network, adding 40 new members to the partnership in 2021. On the shareholder front, five new shareholders (Siemens, Volkswagen, Augur, ING Bank, and Siplec) were added in 2021, while no new shareholders were included in 2022.

EIT InnoEnergy engages with a wide array of stakeholders across different levels, tailoring its approach based on specific activities. The scope of the organisations spans both European and national dimensions, involving entities like European institutions, associations, media, national/regional governmental bodies, industries, and trade associations. EIT InnoEnergy's outreach extends to universities, students, potential ventures, and cross-KIC collaborations. Notably, the KIC has predominantly concentrated on fostering partnerships with SMEs, now constituting more than half of the KIC's partnerships. To amplify visibility and accessibility, the recently upgraded EIT InnoEnergy website serves as a prominent platform, fostering user engagement and facilitating external communication. In addition, the KIC actively participates in local, regional, and EU-level events aligned with its thematic areas.

Conclusion: The EIT InnoEnergy partnership has seen consistent growth, with an increase in both Formal Partners/Shareholders and Associated/Project Partners. The KIC has adopted a proactive approach to seek strategic partners aligned with its goals, especially from the industry. In terms of stakeholders, EIT InnoEnergy collaborates with a diverse range of organisations at European and national levels, including European institutions, governmental bodies, industries, universities, students, and SMEs, which now make up over half of its partnerships. The KIC has upgraded its website for better engagement and actively participates in various events related to its thematic areas to enhance visibility and accessibility.

Score: Excellent – 9

9.5. Balanced geographical presence of CLCs and EIT RIS Hubs

Indicator: Balanced geographical presence of CLCs and EIT RIS Hubs in line with the strategic objectives and societal challenges.

EIT InnoEnergy's overarching strategic objective is to become the 'Go To' trusted innovation ecosystem in sustainable energy, both within the EU and the US, by the year 2027. The KIC believes that its ecosystem is already the biggest accelerator in sustainable energy in the Western world. Partners come from 23 EU countries, coordinated through five CLCs and four EIT RIS Hubs, ensuring a comprehensive geographical diversity. The Hubs and offices are strategically located across Estonia, Latvia, Lithuania, Slovakia, Hungary, Czechia, Slovenia, Croatia, Serbia, Romania, Bulgaria, Greece, Türkiye. They are selected based on the three fundamental criteria for partnership, as outlined in the 2018-2020 EIT InnoEnergy strategy, namely:

- Geographical proximity
- Ecosystem type, extent of innovation activities and current position in terms of European innovation
- Alignment with existing Smart Specialisation Strategy (S3) priorities within the domain of Sustainable Energy

The KIC channels its operations through these Hubs, facilitating meaningful engagement with regional stakeholders and fostering partnerships that promote the KTI model. These collaborations have resulted in product and service development, technology transfer, social innovation, and the fostering of links and synergies between various innovation actors. Moreover, these collaborations support technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities, and the first production of key enabling technologies, as well as the diffusion of general-purpose technologies. However, in the Multi-annual dashboard, concerns have been raised about the financial sustainability of the RIS Hubs after the end of the Partnership Agreement between the KIC and the EIT, especially given the

KIC's reduction in the number of RIS Hubs (from 13 EIT RIS Hubs mentioned in the Strategic Agenda 2021-2027 to only four in 2023) in recent years. To address this, it is imperative for the KIC to heighten its efforts to ensure that the RIS Hubs contribute to the KPIs of the EIT. Nevertheless, no concerns have been raised as of 2023 regarding the KIC's operations and outreach in RIS countries, despite the reduction of its RIS Hubs; its Hubs and offices ensure a wide coverage of RIS countries and the rest of the EU Member States.

Conclusion: EIT InnoEnergy aims to become the leading innovation ecosystem in sustainable energy in the EU and the US by 2027, with partners from 23 EU countries and a network of five CLCs and four EIT RIS Hubs to ensure geographical diversity. These Hubs are strategically chosen based on proximity, innovation activity extent, alignment with smart specialisation priorities in sustainable energy, and serve as channels for regional engagement and partnerships. Collaborations with the RIS Hubs have facilitated product development, technology transfer, social innovation, research activities, and key enabling technologies, but there are concerns about their financial sustainability after the end of the Partnership Agreement between the KIC and the EIT, requiring efforts for the RIS Hubs to deliver on the EIT KPIs.

Score: Excellent – 9

9.6. Innovation ecosystems in RIS countries

Indicator: Share of indicated innovation ecosystems that covers RIS eligible countries.

EIT InnoEnergy's approach to RIS countries is characterised by its inclusive integration within its broader European strategy. Instead of having a distinct RIS strategy, the KIC has seamlessly incorporated RIS regions into its innovation ecosystem. Partners and resources from RIS countries are an integral part of the KIC's activities spanning strategic value chains, emphasising a comprehensive and collaborative approach to innovation.

As laid out in the EIT InnoEnergy Strategic Agenda 2021-2027, 40% of the KIC's investments go to RIS countries. This resource allocation has primarily been channelled through Spain, Portugal, and Poland, along with other 12 RIS countries as beneficiaries. In 2021, RIS countries contributed to 87 out of the 397 assets (i.e., investments in RIS countries) in the EIT InnoEnergy portfolio. This underlines the impactful role played by RIS countries in the KIC's innovation endeavours.

EIT InnoEnergy extends its commitment to RIS countries beyond innovation, particularly in the realm of higher education. The EBA Academy has been gradually introduced in selected RIS countries through strategic agreements with their governments. This initiative gained momentum with the signing of a Memorandum of Understanding with the Hungarian government in November 2021. Following this, a similar agreement was established with Romania in June 2022 and negotiations have been advancing smoothly with Slovakia. These agreements extend beyond the provision of training programmes and platforms within the battery value chain. They further include a comprehensive commitment to designing educational initiatives, facilitating knowledge transfer and providing backing for energy strategies within these countries. An illustrative example of this commitment is the KIC's 'Starter programme', which fosters entrepreneurship and innovation within RIS regions.

EIT InnoEnergy's approach to RIS countries underscores its commitment to inclusivity and collaboration. Rather than having a separate RIS strategy, the KIC has seamlessly integrated RIS countries into its overarching European strategy, involving partners and resources in its innovation ecosystem focused on critical energy sectors. The substantial allocation of resources to RIS countries, along with their significant contributions to the InnoEnergy portfolio, highlights their vital role. Additionally, the KIC's engagement in higher education initiatives, knowledge transfer, and support for energy strategies within RIS countries exemplifies its holistic approach to fostering innovation and sustainable energy solutions.

Conclusion: EIT InnoEnergy has integrated RIS countries into its overall European strategy rather than having a separate RIS strategy, involving partners and resources from RIS regions in its innovation ecosystem focused on battery storage, green hydrogen, and solar photovoltaics. The KIC allocates more than 40% of its annual resources to RIS countries, mainly through Spain, Portugal, Poland, and other 12 RIS countries. In terms of higher education, the EBA Academy has been gradually rolled out in selected RIS countries through agreements with governments, extending beyond training programmes to encompass knowledge transfer and support for energy strategies, exemplified by the 'Starter programme'.

Score: Excellent – 9

9.7. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Very Good – 8

Strengths
EIT InnoEnergy has established an extensive and well-coordinated innovation ecosystem that encompasses all three strategic energy value chains, spanning across most EU MS and regions beyond the EU.
EIT InnoEnergy has performed extremely well in engaging SMEs related to the sustainable energy sector, accounting for a half of its members.
RIS countries have been an integral part of EIT InnoEnergy's overall strategy. Including 13 RIS countries, the KIC has demonstrated its commitment to knowledge transfer and driving energy transition within these regions.

Weaknesses	Recommendations
As for the overall strategy, there has been an imbalanced representation of knowledge triangle players across EU Member States and RIS countries. This imbalance, with a higher concentration of industry partners and fewer research institutions, could potentially hinder the KIC's ability to fully leverage the expertise and contributions of all three players in driving innovation.	The KIC should actively engage more research institutions and universities in its activities. By early 2024 the KIC should establish specific targets to increase the representation of research institutions and universities in RIS regions, aiming for at least a 20% growth in their participation. The KIC should also set a target for increasing industry partners in RIS regions by 15%. Quarterly reports should be published, tracking the distribution of partners across EU Member States and RIS regions. The KIC should particularly focus on RIS countries with lower representation, ensuring that they have an equal opportunity to participate in collaborative projects, thus fostering a more balanced partnership.
Due to the KIC's reduction in the number of RIS Hubs in recent years, concerns have been raised about the Hubs' long-term financial sustainability after the conclusion of the EIT grant.	The KIC should revise its strategy for consolidating existing RIS Hubs, with a specific focus on traditionally underrepresented ecosystems, by the first quarter of 2024. Additionally, the KIC should implement a sustainable funding model for these Hubs, with a clear plan for financial self-sufficiency. This approach will broaden the KIC's outreach to potential stakeholders in underrepresented regions, and quarterly progress reports should be published to track the establishment and financial progress of these Hubs.

10. Compliance with Good Governance Principles

10.1. Good Governance Principles

Indicator: KIC fully addresses the EIT Good Governance Principles – based on the relevant GGP assessment.

The GGP are defined by Article 6 of the Partnership Agreement as follows:

- The KIC governance and management structure must:
  - "ensure compliance with the provisions of Article 10 of the Horizon Europe Regulation and the criteria for the selection, implementation, monitoring, evaluation and phasing out laid down in Annex III of the Horizon Europe Regulation;
  - reflect diversity, in particular with regard to gender, geographical and professional background;
  - reflect the diversity in the composition of the KIC, in particular the balance within the knowledge triangle;
  - separate ownership and membership from operational management;
  - separate the supervisory functions from the operations;
  - have a size which allows the KIC to function in an effective and efficient way;
  - separate the decisions on activities, on KIC funding schemes and distribution of funding from their implementation;
  - ensure that at least half of the members — including the chairperson — of the body with supervisory functions are independent from the KIC partners;
  - be composed of high-quality members who are selected in a transparent and competitive procedure;
  - have an effective supervision or ownership over the entities with a CLC role.
- The KIC must have an effective operational structure to implement the KIC SA and the KIC Business Plans.
- The KIC must comply with the following:
  - As an institutionalised European partnership, the KIC should act in the EU public interest.
  - The KIC must adopt its Code of Conduct based on the model provided by the EIT which includes policies on conflict of interests, ethical values and integrity.
  - In order to reinforce the highest standards of integrity and to reduce the risk of fraud, the KIC must adopt an Anti-fraud Strategy followed up by an action plan. The Anti-fraud Strategy must be reviewed every two years.
  - The KIC Legal Entity (LE) and entities with a CLC role must have a Procurement Policy in place to ensure compliance with the substantive requirements of EU public procurement law, in particular with the main principles of transparency, equal treatment, non-discrimination and competition.
  - KIC must have Gender Mainstreaming Policy in place to ensure gender responsive portfolio of activities and balanced gender representation in decision making.
- The KIC LE must ensure that, within the scope of the KIC SA, KIC partners act in the best interest of the KIC, safeguarding its goals, mission and identity.
- The KIC must have an IP Board in place in order to advise on IP rights related issues.
- These principles must be transposed in the KIC internal arrangements (see Article 5.3)."

EIT InnoEnergy's adherence to the GGP practices can be summarised as follows:

Based on the most recent EIT monitoring assessments, the KIC's shareholding and governance structure reflects geographical and professional diversity with a balanced representation of the knowledge triangle. While governance reforms have been made in this regard, gender diversity remains an area for improvement, a topic which is explored further in Chapter 11. Additionally, the KIC separates ownership from operational management as management comprising members of the executive team is directly employed by the KIC SE. In 2023, seven out of the 13 members of the SB are independent. For most of the evaluation period, the KIC's management team has been stable, though members have recently been departing, as brought to light in an interview with the KIC's representatives.

In the latest GGP assessment from 2022, only minor weaknesses were identified by the EIT GB rapporteur. These include areas such as the selection process of the SB members and the need for further integration of the Good Governance Principles in the KIC's internal agreement. Nonetheless, EIT InnoEnergy has adopted

a Code of Conduct and put a procurement policy in place to comply with the main principles of transparency, equal treatment, non-discrimination and competition.

Conclusion: EIT InnoEnergy has demonstrated compliance with the Good Governance Principles as outlined in the EIT KIC Partnership Agreement. The KIC has established a balanced representation of research, higher education, and business in its shareholding structure, maintained clear separation of duties, and operationalised its strategies at the local level through CLCs. However, there is room for improvement in gender diversity. Minor weaknesses identified in the latest EIT GGP assessment include aspects of the SB member selection process and the need for further integration of GGP in the KIC's internal agreement. Nonetheless, the KIC has implemented a Code of Conduct and procurement policy to ensure transparency, equal treatment, non-discrimination, and competition.

Score: Very Good – 8

10.2. Implementation of EIT GB Strategic recommendations

Indicator: EIT GB Strategic recommendations have been effectively addressed and fully implemented by the KIC.

EIT InnoEnergy has demonstrated committed efforts in addressing the strategic recommendations set forth by the EIT Governing Board in preceding years. The majority of the recommendations dating back to 2016 have now been fully implemented, while progress in addressing others has been satisfactory, albeit at a slow pace. For instance, efforts to ensure gender diversity within its activities, governance board and management team should be enhanced, as the KIC has been undertaking a long trajectory to fully implement a diversity and gender mainstreaming strategy. Following consistent recommendations, achieving a geographically balanced partnership has been accomplished, yet further efforts are required to ensure all elements of the knowledge triangle are adequately represented. The engagement with education and research entities remains a point of weakness, especially in the RIS countries. The KIC's response to this recommendation hinges on the notion that these organisations are narrowly labelled as 'research' and the limited presence of Research and Technology Organisations across Europe. Moreover, the KIC was repeatedly requested to further strengthen synergies with other actors and initiatives in the EU, especially with other first-wave KICs. While the KIC now participates in several Cross-KIC collaborations such as Shared Services and Human Capital, it stopped working with other KICs on education projects like the Deep Tech Talent Initiative, which the KIC is recommended to reconvene.

On a positive note, the KIC stands in a strong position in terms of recommendations on financial sustainability and long-term sustainability. From the beginning of the reviewed period onwards, steady revenues have flowed in from investments in start-ups and innovation projects. Furthermore, the KIC's financial sustainability policy largely remains unaltered vis-à-vis its 2025 vision, which means it remains a trusted vehicle toward the EU and Member States policymakers. Finally, EIT InnoEnergy has been proactive in improving communication and dissemination strategies, cooperating with the EIT in this regard, though dissemination efforts can be expanded. Overall, the KIC has aptly followed through on the recommendations outlined by the EIT Governing Board throughout the evaluation period.

Conclusion: EIT InnoEnergy has made commendable efforts in addressing strategic recommendations from the EIT Governing Board over the years, with most recommendations from 2016 now fully implemented and others progressing satisfactorily but at a slower pace. Gender diversity and engagement with education and research entities, especially in RIS countries, still require enhancement. Geographical balance in the partnership has been achieved, but representation across all elements of knowledge transfer needs improvement. Collaboration with other KICs and initiatives in the EU has improved, although there are calls to reinitiate certain projects. On the positive side, the KIC has been successful in terms of financial sustainability and long-term vision alignment, with steady revenues from investments and a trusted financial sustainability policy. Communication and dissemination strategies have also improved, but there is room for expansion in dissemination efforts. Overall, EIT InnoEnergy has effectively followed through on the EIT GB's recommendations during the evaluation period.

Score: Good – 6

10.3. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Very Good – 7

Strengths
The KIC's shareholding and governance structure reflects geographical and professional diversity with a balanced representation of the knowledge triangle.
The KIC fully adheres to the Good Governance Principles and has proactively addressed the EIT Governing Board strategic recommendations over the years, showcasing responsiveness and dedication to continuous improvement.

Weaknesses	Recommendations
The recent departure of members from the KIC's management team could signal potential instability, thereby posing a risk to the KIC's continuity and execution of strategies.	The KIC should establish a structured leadership pipeline to prepare high-potential individuals within the organisation for management positions. By June 2024, the KIC should identify and develop a pool of at least three high-potential employees, each with a clear development plan and specific milestones toward assuming management roles. Additionally, the KIC should ensure a solid handover process for departing members, with detailed handover plans in place for all key management positions. Quarterly assessments should be conducted to track the progress of high-potential individuals in their leadership development.
The KIC's discontinuation of collaboration with other 1st wave KICs on education projects, despite recommendations to enhance synergies with other actors and initiatives in the EU, suggests a weakness in fully capitalising on opportunities for cross-KIC collaboration.	The KIC should conduct a thorough evaluation of the reasons behind discontinuing cross-KIC collaboration on education projects. By the first quarter of 2024, the KIC should complete this evaluation and, based on the findings, revise its strategy to accommodate any necessary changes or lessons learned. The revised strategy should aim to enhance collaboration with other KICs in the pursuit of common goals, and by June 2024, the KIC should have at least two active cross-KIC collaborations on education projects to foster synergies and strengthen its position in the education sector. Regular assessments should be conducted to ensure the sustained success of these collaborations.

11. Efforts and results in gender sensitive measures and activities

11.1. Gender sensitive measures and activities

Indicator: KICs have designed and implemented gender sensitive measures and activities

Gender equality is a core value of the EU, and it has been emphasised as a policy priority, particularly in recent years. In response to this, the EIT developed a new gender mainstreaming policy, adopted in December 2022, in line with EU regulations and UN SDGs to strengthen the role of the EIT in the European innovation landscape in promoting gender equality, women's entrepreneurship and leadership across Europe. This policy applies to both EIT and the KICs. The key objectives are for gender-responsive content, maintaining a balanced activity portfolio, and a gender-balanced representation in staff and activities.

In alignment with the 2021-2027 SA, EIT InnoEnergy is dedicated to fostering gender equality within its governance board. Since 2021, EIT InnoEnergy has taken definitive steps by formally adopting a Diversity and Inclusion Plan. This plan encompasses a comprehensive spectrum of relevant objectives and corresponding actions while implementing a monitoring and reporting mechanism for progress tracking. While developed Gender Mainstreaming Policy and Gender Equality Action Plan have been approved at the management level, no follow-up strategies or measures have been implemented to increase gender balance in the KIC's innovation and business creation and acceleration programmes. Several long-term commitments are made to implement this strategy: women representing at least 40% of all the different level positions by 2027 as well as 30% of the SB members, modernises policies to support flexible work and promote and facilitate the exchange of the benefits of diversity. Furthermore, EIT InnoEnergy has implemented the Gender Action Plan as validated by the EIT and joined the Equal by 2023 Network[36]. The latter is an initiative aimed at accelerating gender equality and diversity in clean energy transitions, closing the gender gap by 2030. The purpose is by 2024, at least 25% of the graduates from the KIC's Master programmes need to be female and at least 10% of its supported start-ups need to be represented by a female co-founder or Chief Experience Officer.

Conclusion: EIT InnoEnergy has made progress in achieving gender equality in line with EU regulations and UN Sustainable Development Goals. The KIC has developed a Gender Mainstreaming Policy and Gender Equality Action Plan, approved at the management level, with long-term commitments to increase women's representation in various positions and promote diversity. Additionally, the KIC has joined the Equal by 2030 network, aimed at addressing the gender gap in clean energy transition. However, no concrete strategies nor measures to increase gender balance in innovation and business creation and acceleration programmes have been identified.

Score: Very Good – 7

11.2. Positive expert's assessment gender sensitive activities

Indicator: Positive expert's assessment of the outputs and results delivered by these activities

EIT InnoEnergy's gender mainstreaming activities have not undergone specific monitoring or assessments by subject matter experts, though the KIC has consistently been encouraged to intensify efforts in diversifying the organisation. It is, however, noteworthy that gender balance is not considered a priority within EIT InnoEnergy, as underscored by an EIT InnoEnergy representative during an interview. Additional insights emerged from surveys targeting start-ups and scale-ups supported by the KIC, reveal that a significant majority of respondents do not place substantial interest in this matter, thus are not au courant with the gender mainstreaming aspects introduced by the KIC.

[36] Retrieved from: https://www.equalby30.org/eit-innoenergy

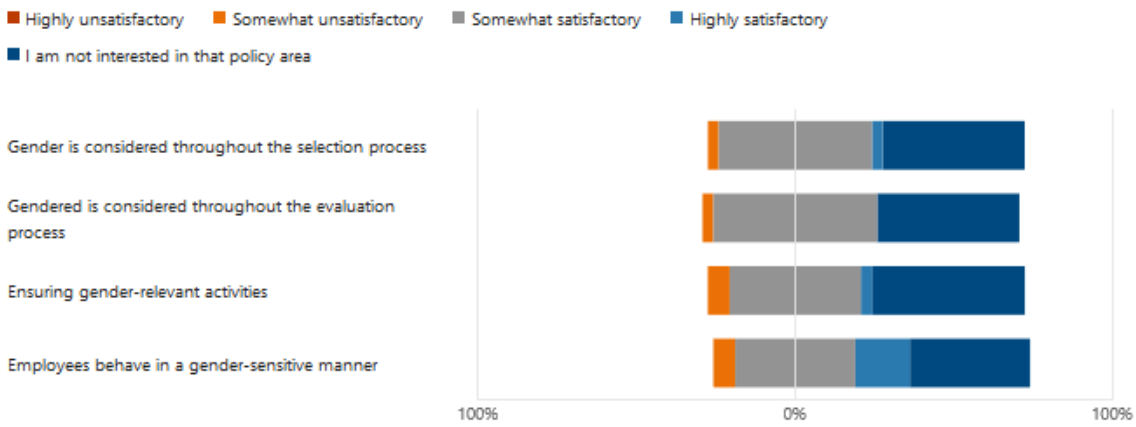

Figure 18: Answers of the partners survey on their opinion of gender-sensitive measures applied across the following EIT InnoEnergy policies/activities

Figure 19: Answers to the partner survey question: To the best of your knowledge, is there any written gender equality policy, plan or course or action taken by EIT InnoEnergy to achieve gender-equality?

In terms of the KIC's governance reforms, four women have been appointed as SB members, out of 11, now representing 33% of the SB. Gender diversity within the KIC's management remains weak, where women hold a mere 24% of the executive team positions. In 2021, 25 out of the 148 start-ups supported by the KIC had a female CEO/Owner, accounting for 17%, whereas this has decreased to 7% in 2022. The intake of women in its master programmes has visibly increased throughout the KIC's lifespan, from an initial 10% to over 30%, due to the Diversity and Inclusion Scholarship for MSc programmes.

In terms of activities, limited available information on specific activities and their outcomes has been found, specifically focused on gender mainstreaming objectives. Given the male-dominant nature of the sector, the KIC should enhance its gender-sensitive activities and continue supporting women's leadership and entrepreneurship, to further narrow the gender gap beyond 2024. To do so, regular gender equality trainings and thematic gender mainstreaming workshops are required within the KIC. However, The KIC has been supporting women's entrepreneurship by organising several events and webinars that raise awareness about the gender gap in the energy sector.

Conclusion: EIT InnoEnergy's gender mainstreaming activities have not been specifically assessed by experts, but the KIC has implemented a Gender Action Plan validated by the EIT and joined the Equal by 2023 Network. Gender balance is not a top priority within the organisation, as indicated during an interview, and surveys of start-ups and scale-ups supported by the KIC suggest limited interest in this matter. While there has been progress in appointing women to the SB and increasing female enrolment in master's programmes, gender diversity within the KIC's management and start-up leadership remains relatively weak, highlighting the need for enhanced support for women's leadership and entrepreneurship in the male-dominated energy sector.

Score: Good – 5

11.3. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Good – 6

Strengths
EIT InnoEnergy has been making visible progress in implementing a gender and diversity mainstreaming strategy at the governance level.

Weaknesses	Recommendations
A significant share of partners of KIC may not be sufficiently aware of the KIC's policies and efforts pertaining to pursuing gender equality.	The KIC should conduct a comprehensive review of gender equality initiatives implemented by other successful KICs. By March 2024, the KIC should publish a best practices document summarising key strategies for tackling gender imbalance. The KIC is recommended to actively raise awareness among its partners about the advantages of fostering inclusivity and integrating gender equality into projects. By December 2024, the KIC should organise at least two gender equality awareness workshops or training sessions for its partners. The progress in raising awareness should be monitored through partner surveys conducted annually.
The limited number of specific projects focused on gender mainstreaming in the climate innovation field appears to have started only recently.	The KIC should prioritise the development of gender mainstreaming projects in its portfolio. By June 2024, the KIC should allocate resources to launch a minimum of two gender mainstreaming projects within the climate innovation field. These projects should be designed to actively promote gender equality and inclusivity. A regular monitoring and reporting system should be established to track the progress of these measures. Progress reports on gender mainstreaming projects should be published semi-annually, including information on the number of participants and key milestones achieved in each project.

12. Sustainable innovation ecosystems and financial sustainability

12.1. Sustainable innovation ecosystem

Indicator: The KIC has created a sustainable innovation ecosystem effectively addressing the societal challenges and skill gaps it was established for.

One of the main goals of all KICs is to introduce long-term and impactful innovation ecosystems that address societal challenges and skill gaps. For EIT InnoEnergy, the delivery of high-quality results and the consecutive creation of impact is of paramount importance. At a Strategic Agenda level, the KIC identified several societal challenges and set ambitious targets towards addressing them, as described already in Chapter 4.

To be able to monitor the impact generated towards all societal challenges defined in KIC's Strategic Agenda, the KIC publishes its annual Impact Reports, where all relevant successes are highlighted and the KIC's progress against the specific targets are presented. In conjunction with its Impact Reports, the KIC also reports relevant data to the EIT.

Assessing whether the KIC has managed to create a sustainable innovation ecosystem is very important, and needs to take several aspects into consideration. For example, the KIC's impact on innovation is a catalyst and will help in understanding whether EIT InnoEnergy successfully delivered the desired results. The KIC has overall successfully supported the development of innovative technologies and solutions that contribute to addressing energy transition challenges. Through its very successful innovation activities described in a previous chapter, the KIC has proved that it generates quite an impact towards addressing important challenges for future generations.

What is more, the KIC has established fruitful collaborations with industry partners, research institutions and other stakeholders relevant to energy challenges. The KIC has established an industry-oriented partnership that drives innovation forward. What is more important, however, is that EIT InnoEnergy has established itself as an asset for the EU ecosystem. The KIC is a valuable actor for numerous EU Institutions and departments, and as such its impact is very well recognised. It is also noted that the KIC has expanded well beyond the EU borders, as it currently operates an office in Boston, United States.

EIT InnoEnergy is also being assessed against how it has addressed the skill gaps it was established for. The KIC's education programmes operate for more than 10 years, generating a very high number of graduates. The KIC has established numerous programmes that train students and entrepreneurs to develop their skills and promote sustainability in the energy sector. As already described in Chapter 6.3, the KIC has produced a very good number of graduates from its programmes and has supported numerous start-ups that were created from its students. However, the lack of an Alumni board and the discontinuation of its PhD programme risk the overall expansion of the KIC in such domains of activity and highlight a serious weakness when it comes to further addressing skills gaps in the future.

For the start-ups supported by KIC, the impact assessment concluded that the growth difference between their indicator values and the controls' were significant for their investments (total assets – at 1% significance level), and their profitability (10% significance level) this latter in a negative way, i.e. start-ups supported by the KIC were less profitable than the control group treated for the purpose of this assessment.

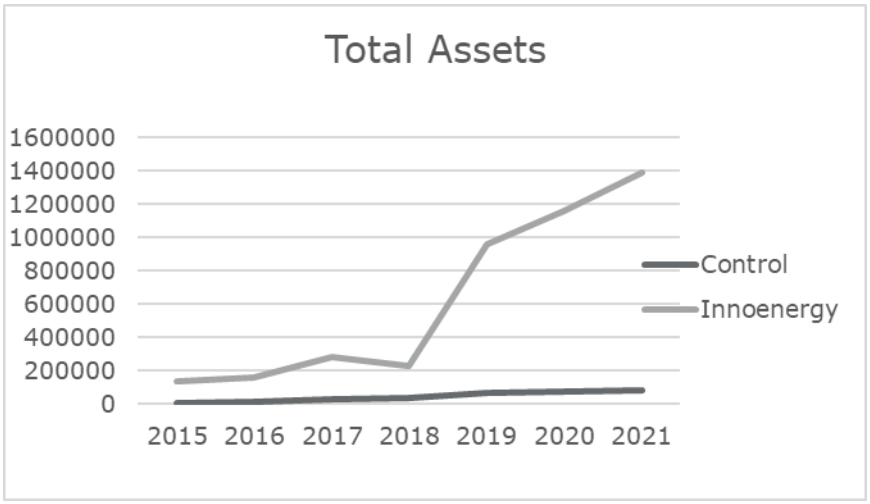

Figure 20: Total assets

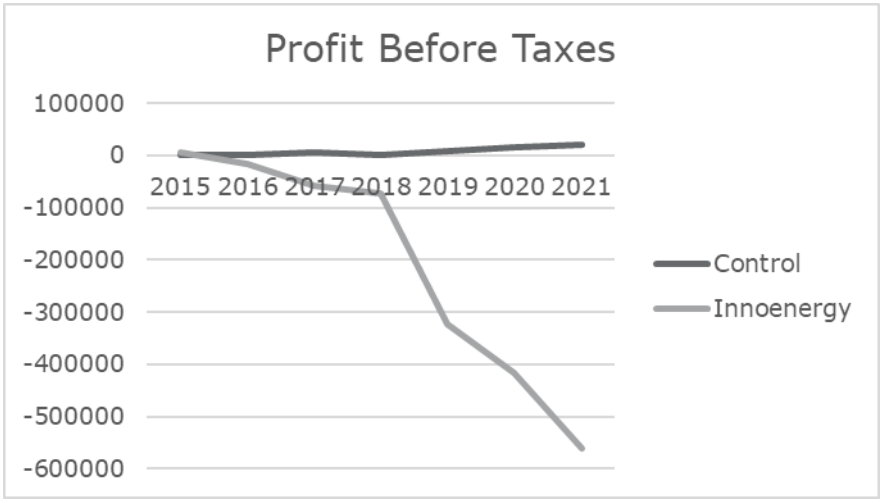

Figure 21: Profit before taxes

Table 25: Total assets and profit before taxes

Variable	Coefficient	P>|z|
Total assets (2016)	2.98e-07	0.245
Profit before taxes (2016)	-6.71 e-07	0.486

Table 26: Growth of total assets and profit before taxes

Variable	Treated	Controls	Difference	T-stat
Growth of total assets (2017-2021)	1 278 726	29 074	1 249 652***	2.26
Growth of profit before taxes (2017-2021)	-590 768	80 023	-670 791*	-1.83

In our Theory of Change for EIT InnoEnergy's journey towards establishing a sustainable innovation ecosystem that effectively addresses societal challenges and skill gaps, fulfilling its core mission, we identify the main barriers that needed to be addressed, the strategic inputs deployed, the resulting outputs, and the short-term outcomes achieved. We follow a similar framework to assess barriers, inputs, outputs, and outcomes, shedding light on the evolution and impact of the organisation’s efforts.

Barriers:

EIT InnoEnergy initially grappled with limited partnerships hindering its goal of creating a robust innovation ecosystem for addressing energy transition challenges, particularly in the context of skill gap mitigation, expanding beyond the EU, and concerns over the discontinuation of the PhD programme.

Inputs:

EIT InnoEnergy achieved strategic growth through partnerships, expanding its ecosystem and sustainability, engaging in diverse innovation activities with a significant impact, addressing skill gaps via education programmes, and establishing a global presence in Boston, solidifying its role in the energy innovation ecosystem.

Outputs:

EIT InnoEnergy exceeded growth expectations by expanding its partnership network to over 1 200 organisations and 29 shareholders across 23 EU countries, creating a sustainable innovation ecosystem. Their innovation efforts addressed energy transition challenges, establishing their role in the EU ecosystem, fostering collaborations with industry partners, and extending their global influence, enhancing recognition and impact both within and beyond Europe.

Short-term Outcomes:

EIT InnoEnergy quickly made a noticeable impact through successful innovation activities addressing energy transition challenges, demonstrating its ability to create a sustainable innovation ecosystem, and gaining recognition as a key player in the energy innovation landscape. Additionally, in the short term, its education programmes produced numerous graduates and supported start-ups, contributing to skill development in the energy sector.

Conclusion: EIT InnoEnergy has made significant strides in creating a sustainable innovation ecosystem that effectively addresses societal challenges and skill gaps in the energy sector. The KIC has set ambitious goals in its SA and consistently monitored its progress through annual Impact Reports. It has successfully supported the development of innovative technologies and solutions while establishing valuable collaborations with industry partners and expanding its influence beyond the EU borders. In terms of addressing skill gaps, EIT InnoEnergy's education programmes have produced a substantial number of graduates and supported numerous start-ups. However, there are areas for improvement, such as the need for an Alumni board and the discontinuation of the PhD programme, which could impact the KIC's ability to address future skills gaps effectively. Overall, EIT InnoEnergy has demonstrated a strong commitment to its mission and has made a notable impact on the energy innovation landscape.

Score: Very Good – 7

12.2. Innovation ecosystems not previously in existence

Indicator: KIC has made evidenced progress against the following indicator (as per definition provided in the EIT Impact Framework): Visible innovation ecosystems not previously in existence

As per definition in the EIT Impact Framework an innovation ecosystem is a highly symbiotic (players are highly dependent on each other's inputs and outputs) network of researchers, educators/trainers and companies interacting in a specific area (location and theme) for the generation of new research, development and innovation. Innovation ecosystems are identifiable e.g., through the outputs (for example in a specific area of R&I) they produce and the relationships of members of the ecosystem. They are less mature and business-oriented compared with "business ecosystems". Innovation ecosystems are likely to be associated with CLCs, but could also emerge in other locations where KICs are active.

EIT InnoEnergy aims to support and accelerate the development of innovative solutions in the energy sector. The KIC operates at the intersection of academia, research, industry, and start-ups to foster collaboration and drive technological advancements. EIT InnoEnergy is involved in various innovation activities, including education and research collaboration with universities, research centres, and industry partners to create educational programmes, courses, and research initiatives focused on sustainable energy technologies. The

goal is to equip students with the skills and knowledge needed to drive innovation in the energy sector. Additionally, EIT InnoEnergy supports start-ups by providing funding, mentoring, and access to a network of industry experts, investors, and potential partners. This support helps start-ups develop their ideas into market-ready products and services. The KIC also initiates and supports collaborative innovation projects that bring together researchers, companies, and stakeholders to address challenges in the energy sector and develop new technologies, products, and services.

EIT InnoEnergy assists entrepreneurs and innovators in turning their ideas into viable businesses by offering support in business model development, market validation, and commercialisation strategies. It also facilitates collaboration between established companies and start-ups to accelerate the adoption of innovative energy technologies, aiming to create a collaborative ecosystem that drives technology adoption and market transformation. Through organising events, workshops, conferences, and networking opportunities, EIT InnoEnergy brings together experts, innovators, and industry stakeholders for knowledge sharing, idea exchange, and collaboration. The KIC also assists start-ups and innovative companies in gaining access to markets and customers by providing guidance on market entry strategies, regulatory compliance, and scaling up operations.

Furthermore, EIT InnoEnergy plays a role in investor relations by helping start-ups and innovative projects connect with potential investors, including venture capitalists, angel investors, and corporate partners interested in supporting sustainable energy solutions.

Some of EIT InnoEnergy's most important innovation activities throughout the years have been:

- Northvolt: EIT InnoEnergy supported Northvolt, a Swedish battery manufacturer, in its efforts to build a gigafactory for lithium-ion batteries. The project aimed to enhance Europe's battery manufacturing capacity and reduce its reliance on imported batteries for electric vehicles (EV) and energy storage.
- DREEAM: The DREEAM project, funded by EIT InnoEnergy, focused on developing energy-efficient building solutions. It aimed to create a modular and adaptable system for sustainable buildings, integrating energy generation, storage, and management technologies.
- Accure Battery Management: EIT InnoEnergy supported Accure Battery Management, a start-up that developed advanced software solutions for optimising the performance and lifetime of lithium-ion batteries. This technology had applications in EV, renewable energy storage, and more.
- SONO Motors: EIT InnoEnergy provided support to SONO Motors, a start-up working on an electric vehicle equipped with integrated solar panels. The project aimed to create a self-charging electric car that utilised renewable energy to extend its driving range.
- VirtuWind: The VirtuWind project, co-funded by EIT InnoEnergy, focused on developing innovative solutions for optimising wind energy production through improved communication and coordination among wind turbines in wind farms.
- Energiency: Energiency, a start-up supported by EIT InnoEnergy, developed software solutions that utilised artificial intelligence and data analytics to optimise energy consumption in industrial processes. The goal was to help industries reduce their energy usage and improve efficiency.
- InnoEnergy Highway: EIT InnoEnergy launched the InnoEnergy Highway programme to connect start-ups with industry partners, enabling them to collaborate on pilot projects and technology validation. This initiative aimed to accelerate the deployment of innovative energy technologies.
- Hydrogen Valley: EIT InnoEnergy has been involved in projects related to the development and integration of hydrogen technologies. For instance, it has supported initiatives relevant to the creation of "Hydrogen Valleys," which are localised ecosystems where hydrogen is produced, stored, and used for various applications.
- SmartGrids Accelerator: EIT InnoEnergy has supported start-ups and projects focusing on smart grid technologies and solutions. These initiatives aim to modernise and optimise the electricity grid through advanced digital technologies and energy management systems.
- Renewable Energy Innovation: EIT InnoEnergy has been involved in various projects related to renewable energy sources, including solar, wind, and tidal energy. These projects often aim to improve the efficiency, affordability, and integration of renewable energy into the grid.

In our survey we have developed a series of questions in relation to the innovation ecosystems developed by the EIT InnoEnergy. The partner survey has confirmed that for partners the aforementioned innovation

ecosystems are the most important and these are the most well-known. It also needs to be mentioned that a small number of respondents have not been familiar with what an innovation ecosystem is, even though the definition was given in the question.

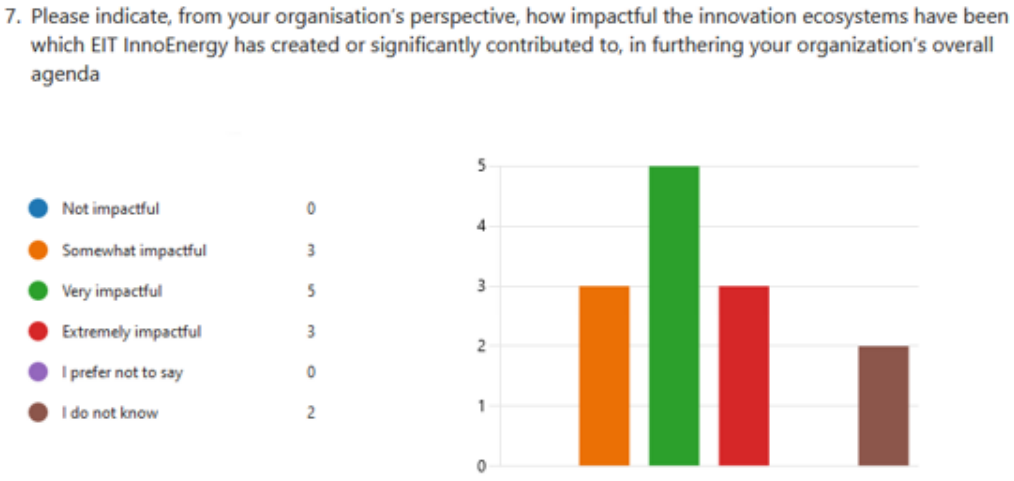

Figure 22: Answer relating to impactful ecosystems created by the KIC

Conclusion: The KIC has successfully managed to create visible innovation ecosystems not previously in existence. EIT InnoEnergy has made remarkable progress in cultivating innovation ecosystems within the energy sector. Its multifaceted approach includes education, research collaboration, start-up support, and fostering partnerships between established companies and emerging innovators. Through these efforts, EIT InnoEnergy has played a pivotal role in bridging the gap between academia and industry, equipping students with skills, empowering start-ups with funding and mentoring, and catalysing collaborative innovation projects. Notable initiatives include supporting battery gigafactories, energy-efficient building solutions, and advanced battery management software. Overall, EIT InnoEnergy's commitment to fostering collaboration, knowledge sharing, and technological advancement has solidified its position as a key driver of innovation and sustainability in the energy sector.

Score: Excellent – 9

12.3. Effective Financial Sustainability Strategy

Indicator: Effective Financial Sustainability Strategy, including Financial Sustainability mechanisms in place including diversified revenue sources and aligned with the original proposal and subsequent business plans/reports

The EIT defines financial sustainability as the capacity of a KIC to finance its knowledge triangle activities independently of contributions from the EIT. The FS Strategy elaborated by the KIC shall follow the criteria set out in Decision 4/2015 and Decision 13/2021 of the GB of the EIT. This includes annual reporting on the progress of the strategy, diversification of revenue sources, incorporating the strategy within all KAVAs, and developing a commercialisation strategy for each innovation activity.

Given the requirement of KICs to achieve this level of FS by the end of the fifteen-year funding period, each KIC drafted a FS strategy. This includes a strategy with mechanisms in place, including diversified revenue sources driven by the original proposal and subsequent business plans. All EIT InnoEnergy annual Business Plans and Grant Reports have been assessed regarding progress towards FS by the EIT with relevant recommendations being provided.

In the past years, building and strengthening the FS of the KIC has been a priority for EIT InnoEnergy. As detailed by Table 27 below, the EIT funding of these activities currently makes up an average of 48% of the EIT InnoEnergy budget. The primary revenue sources of EIT InnoEnergy are:

- EIT funding
- Partner contributions, which include partnership fees and project co-funding

- Third party contributions, which include public funding from other national, regional, or international bodies, back-flow from start-ups and up-scaling projects, and revenues generated through services provided.

The revenue targets set by EIT InnoEnergy in its SA for each of these categories are outlined in Table 27, below.

Table 27: Overview of the financing of EIT InnoEnergy activities, 2021-2027 (in EUR millions)*

KIC Financing (MEUR)	2021	2022	2023	2024	2025	2026	2027	TOTAL
EIT Grant Projections	54	48	40	35	25	25	25	260
KIC LE investments	25	27	57.2	88.2	116.2	147.2	178.2	653
Membership fees	3	4	4	4	4	4	4	28
Other partners contributions	20	20	20	20	20	20	20	140
Third party contribution	4	5	6	7	8	8	8	46
Total Funding	103	118.2	127.2	154.2	173.2	204.2	235.2	1 127
% of EIT grant of the total budget	53%	41%	31%	23%	14%	12%	11%	-

* As presented in ETI InnoEnergy SA 2021-2027

Since 2016, EIT InnoEnergy has regularly reported its progress of FS revenues to the EIT. The revenue stream has grown steadily, increasing from EUR 4.3 million in 2016 to EUR 68.4 million in 2021-2022. As of 2019, EIT InnoEnergy has started to report its revenues in all five revenue categories, i.e. membership fees, alternative funding sources, services and consultancy fees, educational services, and RoI and equity.

However, despite the diversity of its revenue sources, EIT InnoEnergy faced some challenges in reaching FS, especially in the education, alternative funding sources and services and consulting categories during 2021-2022. Since 2010, EIT InnoEnergy has required a RoI agreement for all its investments. This agreement is signed between the investment beneficiary and EIT InnoEnergy. The KIC selectively invests in cases where the introduced innovation (technological, social, or business model) has the potential to impact specific energy KPIs: reducing energy costs, decreasing greenhouse gas emissions, and improving energy system operability. These innovations are expected to subsequently create socioeconomic benefits, primarily in job creation or retention, economic growth, and enhancing European competitiveness.

EIT InnoEnergy follows a risk-sharing and success-sharing approach. It functions as a risk investor, meaning that the RoI agreements are activated only if the innovation proves successful. This approach aligns with the partners within the KIC's ecosystem and is consistently applied to all investments.

In general, the KIC has been widely assessed as successfully fulfilling the EIT's requirements for FS. More specifically, since 2019 the KIC overachieves FS revenue targets, ensuring its long-term financial sustainability. Various assessment reports from the EIT highlight the KIC's very good potential to be financially sustainable even after the end of the KIC Partnership Agreement.

In addition, an in-depth study report of 1st wave KICs[37] has been conducted by the EIT in 2023. The findings of the abovementioned analysis are also reiterated by the authors of the report. In addition, the in-depth study provides valuable information regarding the FS of EIT InnoEnergy. The KIC has a well-established business strategy, covering the entire investment cycle, value generation, and eventual exit. This approach allows for a sustainable financial structure, often referred to as "evergreen" in the financial services sector.

[37] The EIT has conducted an in-depth study of the first wave KICs (EIT Digital, EIT Climate-KIC and EIT InnoEnergy), which were launched in 2009, and their partnership agreements with the EIT are ending on 31 December 2024. The study aimed to assess the achievements, impact and sustainability of the KICs, as well as to identify lessons learned and best practices for future KICs. The study was based on a mixed-methods approach, including document analysis, interviews, surveys, case studies and benchmarking.

It has implemented a unique asset management process that delivers value through ten key dimensions: team, technology, compliance, market/customer engagement, societal acceptance, access to funding, governance, supply chain, industrialisation, and intellectual property.

Furthermore, the KIC continually seeks to broaden its income streams to reduce risks associated with financial services. In 2021, it successfully brought on board five new shareholders who also serve as strategic partners. These shareholders invested EUR 2.8 million each and are open to expanding the EIT InnoEnergy model into the United States.

To sum it up, EIT InnoEnergy has excelled in diversifying its sources of revenue and has built a substantial portfolio of financial assets through various companies and innovative ventures. As a result, it has already achieved financial sustainability.

Conclusion: EIT InnoEnergy has made substantial progress in achieving financial sustainability as per the EIT criteria. The KIC has consistently reported its FS progress, with a steady increase in revenue streams since 2016, diversifying its sources of funding, including EIT grants, partner contributions, and third-party contributions. Despite some challenges in specific revenue categories in 2021-2022, the KIC's approach of requiring a RoI agreement for its investments has contributed to its FS. The KIC's risk-sharing and success-sharing approach has been effective in aligning with partners and ensuring long-term FS. Overall, EIT InnoEnergy has successfully fulfilled the EIT's requirements for FS and is well-positioned to remain financially sustainable even after the end of the KIC Partnership Agreement.

Score: Excellent – 9

12.4. Adequate revenues and leveraging of assets

Indicator: An adequate level of revenues from its activities is demonstrated and a plan for the management and exploitation of intellectual property and financial assets supporting the KIC's business model is in place.

The revenues of EIT InnoEnergy 2016-2022, as reported in the yearly EIT-assessed Grant Reports, is detailed in Table 28 below. The category 'Alternative Funding Sources' includes national and regional funding, EU-funding in the form of contracting services, private funding, IP Rights (IPR) income, international donors and other sources.

Table 28: EIT InnoEnergy Revenue, 2016-2022

KIC Revenue (Thousand EUR)	2016	2017	2018	2019	2020	2021-2022 reported	Total
ROI & Equity	317 339,19	885 132	6 294 000	10 353 000	15 941 000	33 602 949	67 393 420,19
Education	24 152, 53	494 500	1 060 600	1 719 000	2 461 000	11 205 500	16 964 752,53
Services & Consulting	30 000	163 737,60	663 000	738 000	951 000	3 161 712,50	5 707 450,10
Membership Fees	3 220 000	2 376 000	2 266 000	4 310 000	3 624 000	18 651 000	34 447 000
Alternative Funding Sources	748 157,66	1 013 368,81	743 000	1 604 000	851 000	1 796 516	6 756 042,47
Total Revenue	4 340 303,38	4 932 738,41	11 026 600	18 724 000	23 828 000	68 417 677,50	131 268 665,29

As previously described, the biggest amount of revenues generated until 2017 derived from membership fees. However, what is being evident in Table 28 above, is that EIT InnoEnergy has managed to nearly triple its revenue from 2017 to 2018 and continues to do so every year. More important is the fact that since 2018 the biggest amounts of revenue generated come from RoI and equity, which clearly showcases the KIC's ability to own financial assets that bring value to its FS.

The KIC has been assessed by the EIT as respecting the FS requirements and diversifying its portfolio. The KIC's portfolio is very strong and has a diversified range of financial assets and investments, while its strategy has very clear goals and well-defined FS mechanisms.

EIT InnoEnergy is constantly growing by increasing its revenues year by year since 2017. Its ambitious goals set for the future reflect very well the FS requirements of the EIT.

While the KIC is performing very well in FS related aspects, its IP policy is in place and bears the following characteristics, as presented in its IP Policy Report in 2022. EIT InnoEnergy has established an IP team that deals with all IP-related aspects of the KIC and its activities.

EIT InnoEnergy's IP Policy is poised to play a significant role in safeguarding the interests of all participants within the KIC's ecosystem, including InnoEnergy itself and the KIC Partners, as specified in the Framework Partnership Agreement. This policy is designed to promote the protection and utilisation of outcomes derived from innovation funded and/or supported by EIT InnoEnergy. By doing so, it aligns with the overarching aim of the EIT to enhance the competitiveness and innovation capacity of the EU. The Formal Partners have collectively endorsed an IP policy that serves as a motivating factor and is geared towards generating value for all members of the InnoEnergy ecosystem. This policy is deeply intertwined with ensuring the FS of InnoEnergy as a corporate entity over the medium term.

In pursuit of its objectives, the KIC adopts an IP policy that incentivises KIC Partners to collaborate in joint research and innovation endeavours, thereby yielding valuable outcomes within the established framework. Simultaneously, this policy aids in safeguarding the legitimate interests of the Partners in relation to their pertinent intellectual property. The Partners are dedicated to creating value by generating and leveraging IP rights. They regard InnoEnergy as a facilitator, especially when it comes to identifying relevant thematic areas for innovation and determining the mechanisms through which IPR stemming from such innovations will be secured, managed, and disseminated.

The KIC's IP Policy is driven by 14 principles, namely:

- Background IP identification,
- Access to Background IP,
- Transfer and licensing of Background IP to affiliates,
- Ownership of Results,
- Protecting Results,
- Agreeing on Protecting Results,
- Reporting IP rights,
- Access to Results,
- Transfer and licensing of Results outside the Activity,
- Request for Access to Background IP and Results,
- Freedom to operate, IP rights where InnoEnergy is an exploiting party,
- IP assets in valorisation and exploitation, and
- Support in IP management.

The KIC's IP policy applies to all its activities, while each activity has specific means to implement relevant IP policy. As per the in-depth study carried by the EIT, the intangible fixed assets listed on the KIC's balance sheet for 2021 total EUR 1 536 400, showing an increase from EUR 1 130 476 in 2020. These assets comprise software developed by EIT InnoEnergy, serving two main purposes: one for reporting activities to the EIT and the other for day-to-day management tasks, encompassing both performance and financial functions.

Intangible assets acquired through EIT grants are recorded at their original cost, considering any depreciation. As of December 31, 2021, the net book value of these assets is EUR 143 812, a decrease from EUR 342 472 in 2020.

In accordance with the Business Plan for 2023-2024, when a KIC Partner engages in supported activities, they automatically possess full ownership rights over the results they produce independently during this period. In cases where results are jointly created, ownership rights are shared equally among the co-creators. Importantly, EIT InnoEnergy does not acquire any IPRs in these scenarios; instead, IPRs are retained by the partners responsible for commercialising the outcomes.

Conclusion: EIT InnoEnergy has demonstrated impressive growth in revenues over the years, with a substantial increase from 2017 to 2018, primarily driven by returns on investment (RoI) and equity. This

growth reflects the KIC's ability to generate financial assets contributing to its FS. The organisation has been assessed positively by the EIT for respecting FS requirements and diversifying its portfolio. EIT InnoEnergy's IP policy is well-structured and plays a crucial role in protecting and leveraging outcomes from innovation within its ecosystem, aligning with the EIT's aim to enhance EU competitiveness and innovation capacity. The KIC's IP policy is characterised by 14 principles that apply to all its activities, ensuring the proper management and dissemination of IP rights. Overall, EIT InnoEnergy's strong financial performance and robust IP policy position it well for future growth and sustainability.

Score: Excellent – 9

12.5. Financial Sustainability

Indicator: Financial Sustainability: revenues of KIC LE, FS coefficient

EIT InnoEnergy generates high revenues. Furthermore, the KIC has been praised by the EIT for its continuous overperformance in relation to FS related aspects. EIT has characterised EIT InnoEnergy as constantly growing, and largely ensuring FS for the future.

An additional measure for reaching FS goals used by the EIT is the FS coefficient. The coefficient is calculated applying the following formula: total revenues generated by the KIC Legal Entity divided by the total EIT grant for year N. It captures the ability of the KIC LE and its CLCs to attract revenues and other financing sources. The FS coefficient for EIT InnoEnergy has increased over time, as shown in Table 29, but this is due to the decrease of EIT grant. EIT InnoEnergy has overachieved its target FS coefficient, as assessed by the KIC's annual grant reports. The latest FS coefficient reported is in line with other KICs, but it is still high overall, mainly due to the EIT's funding decrease.

As per the in-depth study carried by the EIT, for the years 2023-2024, the KIC has only managed to secure EUR 8 million in financing from other sources than EIT grant, and all of this funding comes from "Contributions from international bodies or institutions." Additionally, there is financial support from DG Employment for the EBA Academy. As of now, no funding from the allowed sources has been secured for the years beyond 2025. The KIC has secured EUR 80 million from exiting investments, acquired a EUR 50 million credit facility in convertible loans to maintain an annual investment capacity, and secured an additional EUR 120 million for 2025-2027 from portfolio company exits. To achieve financial independence from EIT, it attracted strategic investors like Volkswagen, Siemens, Augur, IDEC, SIPLEC, and ING, who invested EUR 16.92 million in 2021. In Q1 2023, it finalised a private placement with strategic investors, securing EUR 200 million to finance early-stage ventures, support follow-on investments, aid in company building, and enable expansion into the United States.

Table 29: Annual FS coefficient

KPI	2016	2017	2018	2019	2020	2021-2022 reported
FS Coefficient	**6.06%**	**6.49%**	**13.64%**	**20.71%**	**26.59%**	**79.39%**

In summary, EIT InnoEnergy has successfully obtained enough financing to smoothly transition away from the EIT funding.

Conclusion: EIT InnoEnergy has consistently excelled in FS, generating substantial revenues across various categories. The EIT has recognised and commended the KIC for its remarkable performance in this regard, characterising it as a continuously growing entity with a strong FS outlook. The use of the FS coefficient, which measures the KIC's ability to attract revenues and other financing sources, indicates that EIT InnoEnergy has not only met but exceeded its target, underscoring its effective financial management. Although the FS coefficient has increased over time, this trend is primarily due to the decrease in the EIT grant funding, aligning with the KIC's commitment to long-term FS in a changing landscape.

Score: Excellent – 9

12.6. Co-funding rates

Indicator: Co-funding Rates

The co-funding rate is the percentage of the EIT funding that makes up the entire KAVA budget. The EIT has established guidelines for the KICs regarding the maximum co-funding rate that can be achieved in each period of the grant cycle. The target co-funding rates are outlined in Table 30 below:

Table 30: EIT target co-funding Rates

Phase	Start-Up	Ramp-Up	Maturity	Exit from EIT Grant
Years	1 - 4	5 – 7	8 – 11	12 - 15
EIT Co-funding rate	Up to 100%	Up to 80%	Up to 70%	50% at year 12, decreasing by 10 percentage points per annum

The annual EIT co-funding rates planned by EIT InnoEnergy are at an average of 83% for 2016-2022. As presented below, EIT InnoEnergy has reported its Co-funding rates and those are somewhat close to being in line with its targets.

Conclusion: EIT InnoEnergy's planned EIT co-funding rates have been reported and are perfectly aligned with the specified targets. This commitment to maintaining appropriate co-funding rates underscores the KIC's strategic financial management, aligning with its long-term sustainability goals as outlined by the EIT.

Score: Excellent – 9

Table 31: EIT InnoEnergy co-funding rates 2016-2022

	2016	2017	2018	2019	2020	2021-2022
Projected EIT Co-funding rate	**89.31%**	**90.46%**	**92.58%**	**88.04%**	**77.83%**	**41.8%**
Achieved/Reported EIT Co-funding rate	**85.06%**	**89.60%**	**92.58%**	**88.04%**	**77.83%**	**41.8%**

12.7. Strengths, weaknesses and recommendations

Final score of the assessment criterion: Excellent – 9

Strengths
The KIC has achieved a relatively high FS coefficient and is on track to achieve set targets.
KIC generated high revenues from RoI and equity in the recent years

Weaknesses	Recommendations
Despite its very good performance in revenue generation, EIT InnoEnergy's revenues from education, alternative funding sources and services and consulting, do not contribute to the KIC's FS to the extent that other activities do.	The KIC should develop and implement a comprehensive revenue diversification strategy. By the first quarter of 2024, EIT InnoEnergy should set specific revenue targets for each of the underperforming sectors (education, alternative funding sources, and services and consulting), aiming to increase their contribution to overall revenues by at least 15% within the next year. The KIC should also identify and initiate new revenue streams or partnerships to supplement its income sources. Progress reports should be generated quarterly, measuring revenue growth in the targeted sectors and the impact of new revenue initiatives on the KIC's financial sustainability.

13. Conclusions and recommendations

13.1. Relevance to the EU global challenges

EIT InnoEnergy has made significant progress in boosting economic growth, enhancing innovation capacity, and promoting innovation and entrepreneurship. However, it recognises areas for improvement and is taking initiatives to enhance innovation activities, strengthen its alumni network, and align strategically with EU initiatives. The KIC remains committed to fostering education, supporting startups, and enriching the innovation landscape while addressing challenges to create a sustainable future. EIT InnoEnergy is strategically aligned with global initiatives like the Paris Agreement, UN Sustainable Development Goals, and the European Commission's Green Deal, showing its dedication to addressing societal challenges such as climate change, sustainable energy, and economic growth. Through its data-driven approach, it makes a positive global impact across economic, social, and environmental dimensions.

Clear and well-defined targets will help in evaluating and ensuring consistent progress, while investing in education initiatives can create a broader impact by nurturing future innovators.

13.2. EU added value and relevance with regard to the objectives of the EIT

EIT InnoEnergy has become a significant player in EU decision-making and financial institutions, playing diverse roles such as receiving grants, providing thought leadership, and facilitating deals. It leads in critical industrial value chains, particularly in emerging markets like European battery production, making it a pioneer in EU-funded initiatives focused on innovation and sustainability. EIT InnoEnergy consistently aligns its activities with the goals of the EIT, emphasising impact measurement, building innovation capacity, and collaborating through the EIT RIS activities. The KIC plays a crucial role in promoting innovative and entrepreneur-cantered energy education, aiming to produce change-makers in sustainable energy while maximising investments in research and innovation.

EIT InnoEnergy prioritises transparency and communication in its governance structure, providing essential information to collaborators on its website. It mirrors the EIT's overarching goals in all its operations, including education, entrepreneurship, knowledge integration, and societal impact. Through strategic investments, active participation in innovation ecosystems, and a commitment to the knowledge triangle, EIT InnoEnergy demonstrates its unwavering dedication to advancing innovation and sustainability in Europe.

Moreover, EIT InnoEnergy has consistently aligned its efforts with the EIT RIS frameworks, with a focus on supporting innovation and entrepreneurship in RIS countries until 2020. The organisation's commitment to nurturing entrepreneurial talent, bridging the gap between academia and industry, and expanding innovation ecosystems in eligible countries is evident. In addition, EIT InnoEnergy's Strategic Agenda for 2021-2027 reaffirms its dedication to RIS objectives, aiming to enhance targeted RIS activities. This aligns with the overarching goal of allocating 40% of investments to RIS countries and monitoring progress through specific KPIs. Since 2021, the organisation has continued its impactful work by launching numerous education activities and innovation projects in multiple RIS countries, furthering the mission of the EIT and contributing to Europe's innovation ecosystem.

To strengthen its alignment with the EIT RIS Strategy, EIT InnoEnergy could consider increasing its presence and activities in underrepresented RIS regions, fostering greater collaboration and innovation.

13.3. Achievement of KICs own objectives

EIT InnoEnergy's performance is highlighted as positive and impactful in the energy and innovation sectors. KIC has achieved notable success in various aspects, including education, business incubation, innovation, and start-up support, driving growth and technological advancements. Despite challenges in revenue collection and graduate integration, their achievements are significant.

The KIC has made strides in reducing CO_2 emissions and generating clean energy, with projected reductions of 2.1 Gigatons of CO_2 by 2030 and 831 terawatt-hours of clean energy. It has also contributed to decreasing energy costs, fostering innovation, and preparing a skilled workforce. However, there is room for improvement in gender-related measures.

EIT InnoEnergy has mobilised resources for job creation and sustainable energy innovation, targeting a EUR 390 billion market value by 2025. The impact on start-ups varies, with some experiencing substantial revenue growth and job creation, while others face challenges in sustaining positions. The KIC has positively influenced skill development and career growth in the sector.

In conclusion, EIT InnoEnergy's impact is multifaceted, with varying outcomes across different aspects, emphasising the importance of tailored support for start-ups and entities. The data also highlights positive employment outcomes for graduates and diverse career paths. Further analysis could provide valuable insights for educational institutions and entrepreneurs.

The KIC should analyse the factors contributing to the gap between start-up creation targets and actual achievements. If there are challenges in this area, consider offering more tailored support, mentorship, and resources to aspiring entrepreneurs.

It should also establish specific targets for all relevant metrics, including those related to EIT RIS initiatives. Clear targets provide a benchmark for success, facilitate evaluation, and aid in identifying areas that need improvement.

Further analysis and exploration of the underlying factors influencing the trends of revenue generation for supported start-ups could provide valuable insights for both educational institutions and aspiring entrepreneurs.

13.4. Efforts to coordinate KICs activities with other relevant R&I initiatives

EIT InnoEnergy has consistently played a crucial role in shaping the European energy landscape. They have aligned their efforts with key initiatives such as the Clean Energy package, European Green Deal, and Horizon Europe. The KIC actively participates in energy policy development and promotes sustainability and innovation.

Its dedication to collaboration and synergy-driven relationships across various entities underscores KIC’s commitment to achieving societal and economic impacts in line with the broader objectives of the EIT's Strategic Agenda. While EIT InnoEnergy has successfully fostered synergies with institutions and initiatives related to the European Green Deal and raw materials strategy, there is room for improvement in strengthening these collaborations to enhance financial sustainability and synergistic efforts.

Additionally, EIT InnoEnergy's strategic approach to planned synergies is not explicitly detailed in its latest Strategic Agenda for 2021-2027, suggesting potential areas for development in this aspect.

EIT InnoEnergy should provide a more detailed outline of its planned synergies. This would allow for a better assessment of the achieved outcomes.

The cross-KIC engagement should be expanded to enable EIT InnoEnergy to tap into broader collaborative opportunities and cross-disciplinary innovations.

13.5. Capacity to ensure openness to new members

EIT InnoEnergy has established partnerships with nearly 600 organisations, including shareholders and project partners, that align with its strategic objectives in the energy sector, focusing on innovation, sustainability, and the UN Sustainable Development Goals. The organisation's diverse partnership network, especially with small and SMEs, has positively impacted its KPIs. Feedback from supported start-ups indicates that they value EIT InnoEnergy's activities, and many intend to continue their partnerships beyond 2024.

EIT InnoEnergy uses open calls to attract new partners and innovation initiatives, maintaining transparency in the admission process. Some feedback suggests that the evaluation of innovation projects could be improved, with recommendations to consider EU-wide rules during evaluations, such as data protection, ethics, and diversity. While the organisation encourages new partners through resources and guidance, it

now primarily focuses on well-established and promising innovation projects, adopting a profit-oriented and risk-averse approach rather than selecting numerous new activities.

EIT InnoEnergy adheres to Good Governance Principles, ensuring operational transparency and openness to new members. This is achieved through open calls, transparent processes, and the availability of relevant documents to ensure stakeholder awareness and participation.

The KIC has actively integrated knowledge triangle players—universities, industry, and research institutions—into its partnerships, with industry playing a prominent role in programmes like the Master School. However, there has been a shift over time toward greater representation from industry partners, leading to an imbalance in the partnership composition, with more industry involvement compared to universities and research institutions. Recognising this imbalance as a challenge, EIT InnoEnergy plans to address it in the future.

Despite the business-oriented nature of the field, the KIC should take proactive measures to restore the equilibrium among the knowledge triangle players by reinforcing the long-term benefits of a balanced partnership. The KIC might highlight how a diverse representation enhances the quality of innovation and entrepreneurship.

13.6. KIC's achievements in attracting new members from across the Union

EIT InnoEnergy's impact in the European energy landscape is driven by its extensive and expanding ecosystem. With partnerships spanning 23 EU Member States, the KIC's innovation network integrates key stakeholders across the energy value chain. While it has seen growth and success, there's a need for greater representation from research institutions and universities to enhance knowledge transfer activities. EIT InnoEnergy has effectively integrated RIS countries into its strategy, allocating significant resources to these regions. It aims to become a leading innovation ecosystem in sustainable energy by 2027, with a network of CLCs and RIS Hubs. However, there are concerns about the financial sustainability of these Hubs after the end of the KIC Partnership Agreement.

In pursuing its goals, EIT InnoEnergy collaborates with a diverse range of organisations, including SMEs, and actively enhances its visibility through website improvements and participation in thematic events. Overall, the organisation's impact is rooted in its ecosystem, its strategic partnerships, and its commitment to fostering sustainable energy innovation throughout Europe and the US.

The KIC should actively engage more research institutions and universities in its activities. It would be fruitful for the KIC to particularly focus on those (RIS) countries where the concentration of members has been lower, thus facilitating access to a diverse array of innovation resources across the entire EU.

The KIC should revise its strategy in the establishment of additional RIS Hubs, ensuring that its expansive network encompasses ecosystems that have been traditionally underrepresented. By taking this approach, the KIC can effectively broaden its outreach to potential shareholders originating from these regions. This broader network reach will inevitably enhance FS by expanding the pool of contributors and supporters.

13.7. Compliance with good governance principles

EIT InnoEnergy has largely adhered to Good Governance Principles outlined in the EIT KIC Partnership Agreement, maintaining a balanced representation of research, higher education, and business in its structure and implementing strategies effectively through local centres (CLCs). However, there is room for improvement in gender diversity and some minor weaknesses in SB member selection processes and internal governance integration. The KIC has made efforts to address previous recommendations, with most implemented, although gender diversity and engagement with education and research entities, especially in RIS countries, still require enhancement. Financial sustainability and collaboration with other initiatives are strong points, but communication and dissemination strategies could be expanded. Overall, EIT InnoEnergy has responded effectively to the EIT Governing Board recommendations during the evaluation period.

To prepare and substitute for leaving high-level members, the KIC is recommended to establish a structured leadership pipeline that identifies high-potential individuals within the KIC and prepares them for

management positions in the future. Furthermore, the KIC is recommended to ensure very solid handover processes from departing members.

The KIC should evaluate the reasons behind discontinuing cross-KIC collaboration on certain initiatives and consider revising the strategy to accommodate any changes or lessons learned. This will allow the KIC to effectively enhance collaboration with other KICs in the pursuit of common goals.

13.8. Efforts and results in gender-sensitive measures and activities

EIT InnoEnergy has taken steps to promote gender equality in alignment with EU regulations and UN Sustainable Development Goals. They have developed a Gender Mainstreaming Policy and Gender Equality Action Plan with long-term commitments to increase women's representation and diversity. The organisation has also joined initiatives like the Equal by 2030 network to address gender gaps in clean energy transition. However, specific strategies or measures to enhance gender balance in innovation and business programmes have not been outlined. Expert assessments of their gender mainstreaming activities are lacking, although they have a validated Gender Action Plan and participation in the Equal by 2023 Network. Gender balance is not a top priority within the organisation, and surveys indicate limited interest in this matter among supported start-ups and scale-ups. While progress has been made in appointing women to the Supervisory Board and increasing female enrolment in master's programmes, gender diversity within management and start-up leadership remains a challenge, underscoring the need for increased support for women's leadership and entrepreneurship in the male-dominated energy sector.

The KIC should draw insights and lessons learned from other KICs that have effectively tackled gender imbalance issues. Based on this, the KIC is recommended to raise more awareness about the advantages of fostering inclusivity and integrating gender equality into projects among its stakeholders.

The KIC should evolve its portfolio to ensure that gender mainstreaming activities are represented to an extent consistent with its prioritisation of fostering gender equality in its vision. In addition, a regular monitoring and reporting system should be put in place to track progress of these measures.

13.9. Innovation ecosystems and financial sustainability

EIT InnoEnergy has made impressive strides in establishing a sustainable innovation ecosystem to tackle societal challenges and skill gaps in the energy sector. They've set ambitious goals in their SAs, effectively supported the development of innovative technologies, and fostered valuable collaborations with industry partners, extending their influence beyond the EU borders. While their education programmes have produced numerous graduates and supported start-ups, there is room for improvement, such as creating an Alumni board and addressing the discontinuation of the PhD programme. Overall, EIT InnoEnergy's strong commitment to its mission and notable impact on the energy innovation landscape are evident through the creation of innovative ecosystems.

Financially, EIT InnoEnergy has demonstrated impressive revenue growth, diversifying funding sources and consistently exceeding financial sustainability targets. Their risk-sharing and success-sharing approach have contributed to their financial sustainability. A well-structured IP policy has played a crucial role in protecting and leveraging innovation outcomes, aligning with EU competitiveness and innovation goals. EIT InnoEnergy's strong financial performance and robust IP policy indicate a promising outlook for the organisation's future, with a commitment to maintaining appropriate co-funding rates that align with long-term sustainability goals outlined by the EIT.

The KIC should intensify its strategies towards collecting more revenues from all sources described in its annual Business Plans and its SA.

13.10. Final conclusion

After the comprehensive assessment, taking into account the weighted scores across various assessment criteria, EIT InnoEnergy receives a final score of **81.5/100**, which translates to a **Very Good** rating. This score reflects the organisation's overall performance and effectiveness in multiple areas.

EIT InnoEnergy has made significant progress in boosting economic growth, innovation capacity, and addressing global challenges like climate change and sustainable energy. It aligns with international

agreements such as the Paris Agreement and UN Sustainable Development Goals. However, it recognises areas for improvement in enhancing innovation activities and strengthening its alumni network. The organisation focuses on education, supporting start-ups, and addressing sustainability challenges, making a positive impact across economic, social, and environmental dimensions.

EIT InnoEnergy plays a crucial role in EU decision-making and financial institutions, particularly in industrial value chains like European battery production. It aligns its activities with EIT goals and emphasises impact measurement and building innovation capacity. The KIC has a strong commitment to nurturing entrepreneurial talent, bridging the gap between academia and industry, and expanding innovation ecosystems in RIS countries.

EIT InnoEnergy has achieved success in various aspects, including education, innovation, and start-up support, with significant contributions to reducing CO_2 emissions and generating clean energy. However, there is room for improvement in gender diversity and achieving certain targets. The organisation demonstrates strong financial sustainability, revenue growth, and a robust Intellectual Property policy. To further enhance financial sustainability, it should intensify revenue collection efforts from all sources outlined in its plans.

14. ANNEXES

14.1. ANNEX I. Reference list

REGULATION (EC) No 294/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 2008establishing the European Institute of Innovation and Technology, received from EIT on 02.11.2021.

REGULATION (EU) No 1292/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 amending Regulation (EC) No 294/2008 establishing the European Institute of Innovation and Technology, received from EIT on 02.11.2021

DECISION No 1312/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013on the Strategic Innovation Agenda of the European Institute of Innovation and Technology (EIT): the contribution of the EIT to a more innovative Europe, received from EIT on 02.11.2021

DECISION 13/2021 of the Governing Board of the European Institute of Innovation and Technology (EIT) on the principles of FS of knowledge and innovation communities (KICs), https://eit.europa.eu/sites/default/files/2021-13_20210317-gb66-13_new_eit_fs_principles.pdf, accessed on 01.11.2021

DECISION 4/2015 of the Governing Board of the European Institute of Innovation and Technology (EIT) on principles on KIC's FS, https://eit.europa.eu/sites/default/files/EIT%20GB%20Decision%20on%20principles%20on%20KIC%20Financial%20Substainability.pdf, accessed on 01.11.2020.

DUNA Portal Grant Reporting and Business Planning modules (access granted by EIT)

EIT and KICs websites (deliverables included on websites, as well as those submitted alongside KIC reports)

Documents provided by EIT:

- Key EIT documents (e.g. old EIT Regulation and EIT Regulation (recast), EIT Financial Regulation, EIT SIA 2014-2020 and EIT SIA 2021-2027, Triennial Work Programmes, Single Programming Documents)
- Calls for KIC Proposals documentation; KIC Proposals
- Framework Partnership Agreements (repealed by 31 December 2020), new Partnership Agreements and KICs' SAs (originals and any later updates)
- KICs Business Plans and Reports for relevant years and experts' assessments
- KIC Assessments: Business Creation, Education, KTI, Innovation
- RIS Evaluation 2020
- EIT consolidated reports on the KIC Monitoring/GB Rapporteur visits and reports
- Specific EIT guidance to KICs (e.g. governance, code of conduct, etc.)
- EIT Principles on KICs' FS (old and new)
- EIT Guidance on the EIT Regional Innovation Scheme (EIT RIS) 2018-2020 and EIT RIS Implementation Framework 2022-2027
- EIT GGP and respective assessments
- ECA Reports and Recommendations
- EIT Impact Study (PwC)
- KICs' action plans for tackling specific issues (i.e., EIT and EU co-branding; communications strategy; Project Partners, etc.)
- Multi-annual Dashboard
- Annual Grant KIC Performance Assessment Reports
- EIT GB Strategic Recommendations issued during the assessed period
- EIT GB Rapporteur Reports
- Communications Activities Report of the in-depth study of 1st wave of KICs
- 1st wave of KICs in-depth study report

14.2. ANNEX II. Interviews

Participant	Date
Oana Penu, EIT InnoEnergy	17 March 2023

14.3. ANNEX III. Surveys

Survey	# recipients	# of responses	% of responses
Partners	70	13	18%
Start-ups/Scale-ups	50	29	58%
Students/Graduates	1 300	75	5.7%

14.4. ANNEX IV. Overview counterfactual impact evaluation and survival analysis results

General description of the data

We received the data on company statements for the period 2014-2023 from Dun & Bradstreet. We had the data for 1308 companies either financially supported by one of the KICs or selected as control for the impact evaluation and the survival analysis.

Control	975
InnoEnergy	67
Grand Total	**1032**

The control group was selected based on the size (threshold: minimum and maximum revenues and employees), the industry and the geographical location (country level).

After the creation of the database and data cleaning and restructuring, we conducted a counterfactual impact evaluation based on the propensity score matching procedure.

The first step was to prepare the matching of the assisted and the control enterprises. This was based on the industry, the age of the start-up and 4 financial indicators in 2016: total assets, net sales, profit before tax and the number of employees. The outcome variables were the growth of the same indicators between 2017-2021. (Though we had the 2022 and 2023 data, those were very limited, since in some countries the reporting periods within the year differs.)

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The results of the regression analysis:

First, we calculated the propensity scores of the enterprises, which also revealed how the different indicators influenced the probability of receiving funds from the KIC.

Pseudo R2 = 0.262

Variable	Coefficient	P>IzI
Sector – Agriculture, Forestry, And Fishing	1.01**	0.038
Sector – Mining, Construction	1.04**	0.018
Sector – Manufacturing 1	0.18	0.705
Sector – Manufacturing 2	1.94***	0.000
Sector – Transportation, Communications, Electric, Gas, And Sanitary Services	0.96*	0.055
Sector – Wholesale & Retail Trade	-0.01	0.960
Sector – Finance, Insurance, and Real Estate	0.93	0.176
Sector – Services	-0.49***	0.002
Age of the enterprise (years)	0.24***	0.000
Total assets (2016)	2.98e-07	0.245
Net sales (2016)	-6.72 e-07	0.213
Profit before taxes (2016)	-6.71 e-07	0.486
Number of employees (2016)	0.028	0.392
Constant	-3.17***	0.000

*** 1% significance level
** 5% significance level
* 10% significance level

The results shows that certain sectors were more relevant for the KIC to support: agriculture, mining, certain areas of manufacturing, transport (to some extent) and services. The age of the enterprise also had a positive correlation with the probability of being supported.

We calculated the growth differences of the assisted (treated) enterprises and the matched control enterprises and calculated if it is significant at the usual significance levels.

Variable	Treated	Controls	Difference	T-stat
Growth of total assets (2017-2021)	1 278 726	29 074	1 249 652***	2.26
Growth of net sales (2017-2021)	513 212	220 994	292 217	0.87
Growth of profit before taxes (2017-2021)	-590 768	80 023	-670 791*	-1.83
Growth of the number of employees (2017-2021)	12.41	0.83	11.58	1.58

*** 1% significance level
** 5% significance level
* 10% significance level

For the start-ups supported by KIC, we concluded that the growth difference between their indicator values and the controls' were significant for their investments (total assets – at 1% significance level), and their profitability (10% significance level) this latter in a negative way. We didn't find significant difference for their revenues and the number of employees, at least in this short run.

This is much in line with the literature, see for example Nyikos et al (Nyikos Györgyi, Laposa Tamás, Béres Attila - Micro-economic effects of public funds on enterprises in Hungary REGIONAL STUDIES

REGIONAL SCIENCE (2168-1376): 7 1 pp 346-361 (2020)). The assisted companies are usually able to increase their inputs (capital and labour) but not much or their sales and profitability. Here we even found that the profitability of the supported enterprises was significantly lower that the controls. This exercise however should be done also at a later stage because the increase in the revenues and profitability may occur years after the additional investments.

The results of the survival analysis

We conducted a binary (logit) regression on the survival of the start-ups and their relation to different variables, especially being supported by the KIC. The results of the regression were the followings:

Pseudo R2 = 0.1779

Variable	Coefficient	P>IzI
KIC support	-2.84***	0.000
Sector – Agriculture, Forestry, And Fishing	-0.58	0.616
Sector – Mining, Construction	n.a.	n.a.
Sector – Manufacturing 1	n.a.	n.a.
Sector – Manufacturing 2	-0.21	0.837
Sector – Transportation, Communications, Electric, Gas, And Sanitary Services	-1.15	0.320
Sector – Wholesale & Retail Trade	0.29	0.776
Sector – Finance, Insurance, and Real Estate	n.a.	n.a.
Sector – Services	-0.98**	0.021
Age of the enterprise (years)	-0.11*	0.097
Total assets (2016)	7.00e-07	0.138
Net sales (2016)	6.01e-06	0.446
Profit before taxes (2016)	-0.000012**	0.027
Number of employees (2016)	0.25	0.315
Constant	5.17***	0.000

*** 1% significance level
** 5% significance level
* 10% significance level

We found that the KIC supported start-ups tend to have a lower survival rate than the controls. Also services have higher mortality rates. Older enterprises have higher probability to fail and lower profits also lead to higher mortality.