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COMMISSION STAFF WORKING DOCUMENT EVALUATION

Interim Evaluation of the Horizon Europe Framework Programme for Research and Innovation (2021 - 2024)

Accompanying the document

Communication from the Commission to the European Parliament and the Council

Horizon Europe: Research and Innovation at the heart of competitiveness

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Annex 27: Evaluation of EIT RawMaterials

Annex to the Commission's interim evaluation of Horizon Europe

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1. Effectiveness

EIT RawMaterials Knowledge and Innovation Community (the KIC or EIT RawMaterials) was established in 2015 in accordance with Article 9 of the EIT Regulation, Regulation (EU) 2021/819 ¹. Its first operational activities and calls were launched in 2016. It is part of the second wave of the knowledge and innovation communities (KICs). The KIC was created in response to the challenges of ensuring the accessibility, availability and sustainability of raw materials needed for the EU economy. To achieve these goals, EIT RawMaterials is working on projects to secure the sustainable supply of critical and strategic raw materials to Europe These projects include supporting start-ups; driving innovation; leading European education activities in the sector; and managing for the European Commission the European Raw Materials Alliance (ERMA), which identifies, assesses and evaluates major mining and recycling projects in and outside Europe to strengthen the resilience of EU industrial ecosystems to today's high levels of supply dependency on non-EU countries. EIT RawMaterials also funds projects and businesses that work on the substitution of critical, toxic and low-performing materials in order to reduce environmental impact and supply dependencies.

To carry out its mission, EIT RawMaterials received EUR 442 million grants from the EIT in 2015-2023.

EIT RawMaterials is the largest innovation network in the raw materials sector in Europe, with more than 140 core and associate partners and over 190 project partners. These are leading businesses, universities, research and technology organisations from over 30 European countries and across the entire raw materials value chain.

Objectives and achievements

EIT RawMaterials' 2021-2027 Strategic Agenda ² defines the following three objectives: (1) securing raw materials supply for Europe; (2) designing materials solutions; and (3) closing materials loops. The KIC aims to contribute to the renewal and strengthening of the raw materials supply chains to make them more sustainable and aligned with the objectives of the Critical Raw Materials Act (CRMA) and to support the twin digital and green transitions. In this context, it also aims to contribute to the shift to a circular economy and to cater to the massive skills-building needs through its developed education programmes and academy concepts, which will play a leading role through the launch of the Raw Materials Academy and the Advanced Materials Academy. EIT RawMaterials is therefore fully aligned with the objectives of the Horizon 2020 and Horizon Europe programmes.

These strategic objectives are implemented by integrating the knowledge triangle, which brings together education, science and business. In the EIT Impact Framework, the EIT has defined several key performance indicators (KPIs) for the KIC's innovation, business creation and education activities. Table 1 shows EIT RawMaterials' achievements in terms of KPIs for 2017-2023.

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¹ Regulation (EU) 2021/819 of the EIT (2021) replaced the original regulation (EC) 294/2008.

² EIT RawMaterials 2021-2027 Strategic Agenda.

Table 1: EIT RawMaterials 1	KPI 2017-2023; targets ('	Γ) and achieved results (A)

	2017		2018		2019		2020		2021-2022		2023		Total	
	Т	Α	Т	Α	T	Α	Т	Α	T	Α	T	Α	Т	Α
Innovations launched on the market	7	2	55	57	87	70	98	83	118	95	29	26	394	333
Designed/Tested innovations*									2	184	15	32	17	216
KIC Supported Start-ups/Scale-ups	59	34	49	58	80	82	135	164	259	302	50	184	632	824
Start-ups created of/for innovation		3	2	2	6	3	8	5	14	16	2	17	37	46
Start-ups created of EIT labelled														
MSc/PhD programmes	0	0	1	0	1	2	5	5	7	5	6	9	20	21
Investment attracted by KIC supported														
start-ups/scale-ups (EUR mil)	1,5	3,6	0,9	123	3,5	20	5	28,3	25	232	40	163	75,9	569,9
Graduates from EIT labelled MSc/PhD														
programmes	4	0	60	34	120	53	143	80	278	242	144	138	749	547
Participants in (non-degree) education														
and training*									18289	28914	3903	47139	22192	76053

^{*} KPI reported only from 2021 (the KPI on designed/tested innovations reports on IPR applications)

Source: EIT administrative and monitoring data (reported by KIC and verified by EIT)

Overall and as the external evaluation highlighted ³, EIT RawMaterials has made good progress in solving societal challenges; creating innovation and entrepreneurship ecosystems; complementing existing EU policies and initiatives; and establishing collaboration between all three sides of the knowledge triangle. As Table 1 shows, most of the targets formulated in the KIC's 2021-2027 Strategic Agenda have been met or exceeded.

Concerning education activities, EIT RawMaterials trained more than 76 000 participants in non-degree programmes in 2017-2023, exceeding the goal of 22 000 by a factor of 3.5. However, only 574 students graduated from EIT-labelled programmes during the same period, so the target of 749 was not met. Under Horizon Europe (2021-2023), the KPI assessment shows mixed results. As Table 1 shows, the number of participants in non-degree programmes in 2021-2022 was 76 053, so far more than the target. However, although the number of graduates from EIT-labelled programmes was far greater in 2021-2022 (at 242) than in previous years, it did not reach the target of 278. In 2023, the number of graduates decreased to 138, so again below the target of 144.

Moreover, EIT RawMaterials is addressing the gender dimension with dedicated activities, such as the Girls Go Circular programme, which the KIC coordinates on behalf of the EIT community. The programme focuses on digital and entrepreneurial skills in the field of the circular economy for young girls and has trained over 47 000 girls aged 14-19 across Europe, exceeding the target of 40 000 girls. In 2024, EIT RawMaterials launched the Women in Mining Initiative, which is focused on substantially increasing the gender balance in the sector by attracting women to the sector and supporting initiatives.

When it comes to supporting entrepreneurial and business creation, EIT RawMaterials has supported 800 start-ups or scale-ups since 2017, thus surpassing the target of 632 for 2017-2023. The KIC has also exceeded expectations in the investment attracted by supported entities, which reached EUR 584 million (against a target of EUR 75.9 million).

As regards innovation, EIT RawMaterials slightly underperformed on the KPIs related to products and processes placed on the market. In 2017-2023, EIT RawMaterials introduced 333 innovations into the market, falling slightly short of the target of 394. As Table 1 shows, the KIC has achieved the targets in other innovation areas (e.g. supported start-ups and scale-ups, and designed or tested solutions).

³ Deloitte and White Research, 7-Year Review of 2nd Wave KICs: EIT RawMaterials Final Report, March 2022, p. 10.

Overall, the KIC performed better on the innovation and entrepreneurship KPIs under Horizon Europe (2021-2023)⁴. EIT RawMaterials has exceeded targets for designed and tested innovations (216 achieved against a target of 17); start-ups and scale-ups supported (486 against a target of 309); and investment attracted by the start-ups and scale-ups (EUR 395 million against a target of EUR 65 million).

In September 2020, the Commission tasked EIT RawMaterials with leading the European Raw Materials Alliance (ERMA ⁵. ERMA has so far organised the evaluation of over 100 investment projects in the sector with a total qualified investment opportunity of over EUR 25 billion and 46 short-listed cases. Through this initiative, the KIC has increased the opportunity to generate a larger impact from innovation, start-up activities and entrepreneurial support actions ⁶. The KIC is also directly supporting the Commission's International Partnership endeavours in order to grow international raw materials partnership programmes. Similarly, the EIT's HEI Initiative, Innovation Capacity Building for Higher Education (HEI Initiative), which is coordinated by EIT RawMaterials on behalf of the EIT community, aims to increase the EU's entrepreneurial and innovation capacities through the activities of higher education institutions ⁷.

However, EIT RawMaterials has lagged behind in revenue generation from supported innovations, as reported under the Horizon 2020 programme. This has nevertheless improved over the years and EIT RawMaterials' future revenue generation prospects are good thanks to its current broader portfolio.

Long-term scientific, societal, economic and technological impacts

The following societal long-term goals have been identified in the EIT Impact Framework 2022-2027 for the KIC's activities:

- 1) improved industrial competitiveness;
- 2) raw materials concentrate produced;
- 3) reduced CO₂ emissions;
- 4) critical raw materials substitution/reduction;
- 5) advanced materials produced;
- 6) increased recycling rate over current rate;
- 7) enhanced sustainability 8.

The indicators were only introduced in 2021. The assessment therefore focuses on the relevance of the KIC's activities to contributing to achieving these goals, rather than on the extent of the impact already achieved.

⁴ European Commission: Directorate-General for Research and Innovation, Boekholt, P., Thielmann, A., Strauka, O. and Endo, C., *Horizon Europe and the digital & industrial transition – Interim evaluation support study – Phase 2 – Horizon Europe – Institutionalised partnership report – EIT RawMaterials*, Boekholt, P.(editor) and Strauka, O.(editor), Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2777/85259, p. 26.

⁵ European Raw Materials Alliance (ERMA).

⁶ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 99.

⁷ About the EIT HEI Initiative – EIT HEI Initiative.

⁸ EIT Impact Framework 2022-2027, pp. 19-20.

EIT RawMaterials aimed to enhance industrial competitiveness with targets of making savings and increasing sales by EUR 15 million by2024. ⁹. The aim was to increase the production of raw materials concentrateby 2% by 2024, as set in the 2021-2027 Strategic Agenda for which the KIC has reported a 50% increase for 2016-2023 ¹⁰.

The aim was also to substitute or reduce critical raw materials for 80 substitution cases (including the substitution of critical raw materials and toxic materials) by 2024. The KIC's data indicate that the viability of 64 cases were already proved in 2016-2023. During that period, the number of new or improved products with reduced toxic material content increased to 62 – more than the 2024 target of 58^{10} .

Production of advanced materials was set to increase by 2% by 2024, on top of a 100% increase already achieved in 2016-2023. In addition, 8 new advanced materials were developed in 2016-2023 (compared with a target of 2 for 2021-2023).

The recycling rate was targeted to increase by 2% by 2024, and the KIC's reported data show that an 82% rate had already been achieved in 2016-2023. The aim is to increase sustainability by 20% by 2024 thanks to new and existing processing plants with lower discharge rates. For 2016-2023, a 6% sustainability increase has been reported by the KIC.

A survey conducted for the external evaluation ¹¹ among the KIC's supported ventures asked about the perceived impact of the companies' action in relation to these indicators:

- reduction of CO₂ emissions: 91 respondents reported a medium to extremely large impact, 10 respondents reported a weak impact and 10 respondents reported no impact.
- reduction or substitution of critical raw materials: 74 respondents reported a medium to extremely large impact, 10 reported a weak impact and 16 respondents reported no impact.
- enhanced sustainability: 76 respondents reported at least a medium impact, 11 reported a weak impact and 20 respondents reported no impact.
- increased recycling rates: 72 respondents indicated a medium to extremely large impact, 6 reported a weak impact and 24 respondents reported no impact.
- raw materials concentrate produced and advanced materials produced: 61 and 59 respectively reported at least a medium impact and 23 and 27 respectively reported no impact.

EIT RawMaterials has also identified a number of long-term economic impact measures. These are defined in the EIT Impact Framework 2022-2027 as follows:

- the contribution to the revenue growth of organisations trading in or employing innovations developed with the KICs' support;
- the number and revenue of start-ups and scale-ups supported by KICs trading three years after KIC support ceases;
- new jobs created in start-ups and scale-ups;
- the impact on employment growth as a result of the company being engaged with KICs;
- the number and type of jobs in existing businesses sustained through innovations;

¹¹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 33.

⁹ A few more projects targeting this KPI are planned for 2024 and 2025. Reporting is expected to start from grant reporting 2024 onwards.

¹⁰ Data reported to EIT by the KIC (last updated in October 2024).

- the number and type of skill gaps and/or skill shortages filled, by KIC sector;
- new visible innovation ecosystems;
- the share of indicated innovation ecosystems that covers RIS countries ¹².

In the survey conducted for the external evaluation on the estimation of revenue growth and profitability of ventures due to EIT RawMaterials support¹³, 60 of the 123 respondents reported that revenue had grown by between 5% and 50%. 53 of the 121 respondents reported that profitability had grown by between 5% and 50%. According to the external report ¹⁴, this result suggests that the organisations were for the most part benefiting from their involvement in EIT RawMaterials. However, those organisations that benefited in terms of both revenue and profits mostly derived only relatively minor benefits from EIT RawMaterials support – over half of the respondents experienced only between 0% and 5% revenue and profitability growth. The KIC's data nevertheless indicated that EIT RawMaterials support to start-ups helped 280 out of 328 to survive the 'valley of death' period (i.e. the period between start-up and revenue generation) ¹⁵.

As regards the revenue of start-ups and scale-ups supported by the KIC and trading at least one year after KIC support ceased, the survey results ¹⁶ indicate that the revenue of 10 companies grew by more than EUR 0.5 million, the revenue of 23 companies grew by less than EUR 0.5 million and the revenue of 7 companies did not grow at all.

Between 2016 and 2020, the KIC's activities directly resulted in the creation or securing of 1 046.5 direct jobs in the raw materials sector. This was more than double the annual business plan target of 401.5 direct jobs. The original proposal and the strategic agendas of EIT RawMaterials contained targets of creating 10 000 direct and indirect jobs by 2022 ¹⁷. However, the 1 046.5 direct jobs created in the raw materials sector do not include (1) indirect jobs created in ventures supported; (2) jobs created within partner organisations as a result of EIT RawMaterials funding for work on KAVA and KCA projects; or (3) downstream jobs created in industrial sectors that rely on the raw materials sector. These three categories are all influenced by the KIC's activities ¹⁸. The KIC's updated data state that 1 714 jobs were created and/or secured in the RawMaterials sector in 2016-2023, compared with a target of 2 000 by 2024.

According to the external evaluation report ¹⁹, the KIC has had a positive effect on job retention and on indirect jobs created. Unfortunately, while the general trend seems to be that EIT RawMaterials had a tangible effect on jobs in the broader raw materials sector, it is not clear to what extent these were sustained through innovations.

The external evaluation report ²⁰ also shows that many skills gaps have been filled thanks to EIT RawMaterials. These mostly concern broadly applicable skills rather than sector-specific skills. However, material processing, sustainability practices and turning waste into a standardised product were common skills that were addressed in the EIT-labelled and non-

¹³ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 34.

¹² EIT Impact Framework 2022-2027, pp. 7-11.

¹⁴ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 34.

¹⁵ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 34.

¹⁶ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, pp. 34-35.

¹⁷ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 36.

¹⁸ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, pp. 35-36.

¹⁹ Deloitte and White Research, *EIT RawMaterials – Final Report*, 2022, p. 36.

²⁰ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, pp. 36-37.

labelled education programmes showing that the relevant sector-specific skills are also covered ²¹.

Overall, the findings from the external evaluation report ²² suggest that EIT RawMaterials has a positive impact on revenue growth, profitability growth and employment growth. The KIC also contributes to the creation of new jobs and new job types in the raw materials sector and performs well in addressing skill gaps. However, there are limited data on the impact the KIC's activities have had on the success of the ventures they support. This is because these indicators have only been added in recent years.

When it comes to the long-term educational impact on the career growth of participants in EIT-labelled programmes, a survey of EIT RawMaterials' students and graduates ²³ reveals that almost half of the respondents (19 of the 40) were still students. 4 students were employed in some capacity. 16 of the 21 (76%) graduates were in employment. 12 of the 20 (60%) students and graduates in employment felt that they were employed in the sector related to their EIT-labelled study programme. Students and graduates were most frequently employed in the following four sectors: professional, scientific and technical activities (6 out of 20); mining and quarrying (11 out of 20); and education and manufacturing (2 each out of 20). The external report similarly concluded that most students and graduates were employed in sectors related to their field of study ²⁴.

2. Additionality

The table below provides the basic financial figures for EIT RawMaterials since the start of its operations in 2015. EIT RawMaterials was able to achieve a direct leverage factor ²⁵ of 0.35 in 2015-2022 (if one only takes co-funding from partners related to the EIT grant into consideration) and 0.52 (if one adds direct revenues created through KIC activities (EUR 228 million vs the EIT grant of EUR 442 million)). The direct leverage factor was 0.72 for the Horizon Europe period of 2021-2022.

Table 2: EIT RawMaterials financial figures (in EUR million)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
EIT grant	3,8	16,8	32,3	51,0	75,0	94,4	56,7	57,9	54,4	442,4
Co-funding	0,2	4,9	9,3	11,9	15,6	22,9	33,0	28,1	31,0	156,7
Revenues		6,4	7,1	8,7	9,2	10,2	9,4	9,0	11,5	71,6
Activities not funded by EIT		74,8	107,8	138	172,5	291,2	0,0	0,0	1,5	785,3
Co-investment, i.e. investments										
attracted by start-ups			3,6	122,8	20,0	28,4	181,0	51,1	163,0	569,9

Source: EIT financial data reported by KICs and validated by the EIT (also available in Corda). EIT Grant 2023 figures are planned derived from three-year business plans

In terms of leverage effects for the EIT KICs, the specificity of the EIT model requires the monitoring of additional leverage not only through co-funding and the direct reinvestment of

²¹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 37.

²² Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 14.

²³ Deloitte and White Research, *EIT RawMaterials – Final Report*, 2022, p. 77.

²⁴ Deloitte and White Research, *EIT RawMaterials – Final Report*, 2022, p. 77.

²⁵ Ratio of the direct leverage to the EU contribution. This is calculated as: direct leverage factor = (1/(funding rate))-1.

EIT KICs' revenues back into the KIC's activities, but also through the activities not funded by the EIT ²⁶ as well as the co-investments attracted by the companies supported through the EIT.

When the activities funded by direct contributions by partners and affiliated entities (activities not funded by the EIT) are considered, EIT RawMaterials achieved a leverage factor of 2.29 in 2015-2023. When the co-investments (i.e. investments attracted by start-ups of EUR 570 million) are also included, the leverage factor rose to 3.58 over the period of the EIT RawMaterials lifecycle to date. This means that, for every euro of EIT funding spent, EIT RawMaterials activities have helped to attract over EUR 3.5 in external investment.

Since Horizon 2020, private contributions mobilised by EIT RawMaterials have come from partners' own sources through complementary activities additional to EIT-funded projects. EIT RawMaterials partners have constantly exceeded the initial targets for their own contribution to funding sources (87% more than targeted for Horizon 2020). Additionality is also generated by spillover effects and the cross-transfer of solutions from one raw material solution to another.

3. Transparency and openness

EIT RawMaterials is the largest consortium in the global raw materials sector, according to the external partnership report ²⁷. It is composed of more than 140 core and associate partners and over 190 project partners across the entire raw materials value chain. Partners are spread across more than 30 European countries, with a higher concentration in Germany, Spain, France, Italy, Finland and Sweden. EIT RawMaterials has six innovation hubs or co-location centres (CLCs) in Europe.

The KIC's partnership composition shows a well-balanced representation of stakeholders from all three sides of the knowledge triangle. The KIC has consistently grown and aims to expand the number of core partners to 165 by 2027. However, in order to maintain the current size and composition of the partnership or even to increase them, the value of the membership should be clearly communicated to current and future members in order to prevent retrogressive changes which have in the past caused some members leave the partnership.

By October 2024, the number of SMEs participating in the implementation of the EIT grant agreement 2023-2025 had reached 9% (32 of the total of 350 active partners) and EUR 12 million (7% of the total EIT grant) had been directed to SMEs.

According to the external evaluation report ²⁸, EIT RawMaterials has made significant progress in ensuring that it remains open to new members, including SMEs. Weaknesses in the calls for activities had been identified, but the external evaluation report ²⁹ rated the KIC's openness to new members positively in 2022. The KIC has adhered to the Principles of Good Governance, addressing strategic recommendations and implementing feedback provided by the EIT ³⁰. The membership procedure is based on clear criteria, and entry and exit rules for members and potential members are published on the KIC's website ³¹.

When it comes to transparent processes for consulting relevant stakeholders, EIT RawMaterials organises open events (e.g. 'expert forums') for non-partners, in which experts in a specific

²⁶ Non-EIT financed activities (NEFAs) are fully implemented without an EIT grant but must contribute to the KIC's Strategic Agenda and must be based on the EIT Knowledge Triangle Integration concept. They replaced the former KIC complementary activities (KCAs) applied in 2014-2020 under Horizon 2020.

²⁷ Institutionalised partnership report – EIT Raw Materials, p. 55.

²⁸ Institutionalised partnership report – EIT Raw Materials p. 40.

²⁹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 44.

³⁰ Institutionalised partnership report – EIT Raw Materials, p. 27.

³¹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 44.

field or members of a value chain gather to exchange views on recent and future developments. These events are opportunities for networking and partner recruitment, because they bring together all sides of the knowledge triangle. They also foster collaboration between members, who collectively identify strategies to address sector-related challenges, thus helping to define EIT RawMaterials' calls for projects and activities. EIT RawMaterials has a strong communication strategy to provide partners with clear guidelines and information, thus ensuring that changes are clearly understood. Feedback loops through regular staff and steering committee meetings (along with publicly accessible events, such as the RawMaterials Summit) allow stakeholders to understand the KIC's operations and connect with partners. As regards the calls for projects, EIT RawMaterials provides detailed evaluation and selection criteria. When selecting projects, the KIC complies with the principles of transparency, equal treatment, non-discrimination and competition. In this context, EIT RawMaterials has also worked to address gender equity in the raw materials sector: the percentage of female students in EIT-labelled courses was 40% in 2018-2023 (the target was 30%). However, progress is still needed for female representation in management and executive positions ³².

4. Efficiency

Table 3 sets out EIT RawMaterials's operational budget and administrative expenditure (or running costs). The running costs include the management, governance, coordination, organisation and overhead expenditures paid from the EIT grant. They do not include any contributions from EIT RawMaterials's partners.

Table 3: EIT RawMaterials operational and administrative expenditure

	2016	2017	2018	2019	2020	2021	2022
Operational Expenditures	22 997 577 €	42 438 674 €	64 470 475 €	91 526 410 €	117 605 754 €	89 806 072 €	86 855 411 €
Running Costs	6 815 428 €	6 990 079 €	6 793 691 €	7 104 508 €	7 334 456 €	5 994 249 €	6 569 850 €
Total budget	22 997 577 €	42 438 674 €	64 470 475 €	91 526 410 €	117 605 754 €	89 806 072 €	86 855 411 €

Source: EIT financial data (reported by KICs and validated by the EIT).

Table 3 indicates that the running costs covering EIT RawMaterials's headquarters and CLCs for 2016-2022 ranged between 6.2% and 29.6%, and averaged 7.9%. When only the period of Horizon Europe (2021-2022) is considered, these costs constituted 7.1% of the overall operational costs. Taking into account only the administrative costs of EIT RawMaterials's headquarters, the average ratio of administrative costs to EIT RawMaterials's overall operational budget dropped to 4%. The impact of the CLCs network on the administrative expenses is obvious because the administrative expenses decreased considerably once the costs related to the CLCs are excluded.

The EIT KICs are pan-European networks with many offices on the ground across Europe. These offices are an operational activity carried out by the KICs at a corresponding administrative cost. The EIT, in order to keep these administrative costs at an acceptable level, has, in its guidelines to the KICs, set maximum thresholds for the EIT-funded share of the KICs' administrative costs, depending on the KICs' maturity. The values range from 18% and 15% in the first and second years of a KIC respectively to a constant of 12% from the third year until the end of the partnership lifecycle. If the EIT KICs were, as beneficiaries of EIT grants, to follow the rules of EU public entities, the expenses related to CLCs would be treated as operational expenditure related to ground operations rather than as administrative expenditure. In such circumstances and considering that one of the core operational aspects of the EIT model

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³² Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 44.

is to support location-based innovation locally and in regions, it would be more appropriate to take only the administrative expenses of the EIT KICs' headquarters into account.

EIT RawMaterials's headquarters is located in Berlin. It functions as an administrative hub and manages the interaction between the EIT and the partnership. Most of the impact-creating activities are facilitated through the regional innovation hubs, which are known as co-location centres (CLCs). There are six CLCs across Europe: CLC Baltic (Espoo, Finland); CLC Central (Metz, France); CLC East (Krakow, Poland); CLC North (Lulea, Sweden); CLC South (Rome, Italy); and CLC West (Brussels, Belgium).

The budget has over the years been in line with the strategic focus on deploying innovative solutions in the raw materials sector. Most of the budget has been assigned to innovation activities (i.e. into up-scaling in order to bridge the gap between R&D and industrialisation), thus underlining the special role of EIT RawMaterials compared with that of other Horizon 2020 and Horizon Europe funding instruments (i.e. other pillars or other partnerships).

EIT RawMaterials has continuously improved its budget consumption over time and its management costs continue to comply with EIT requirements.

5. Coherence and synergies

According to the external evaluation report ³³, EIT RawMaterials is aligned with EU initiatives, such as the Critical Raw Materials Act (CRMA), the Net Zero Industrial Act (NZIA) and the Green Deal. The alignment with the EU's green transition policies was highlighted when the Commission created ERMA ³⁴ in 2020 and appointed EIT RawMaterials to lead this strategic action – thus acknowledging the KIC's significant role in the sector and reinforcing its position as a leading organisation in the raw materials sector.

EIT RawMaterials collaborates with strategic actors through ERMA – engaging with higher education via the RawMaterials academy; with the battery sector; and with Horizon Europe for industrial uptake (particularly in clusters 4 (Digital, Industry & Space) and 5 (Climate, Energy & Mobility)) ³⁵.

At national level, EIT RawMaterials has developed synergies with initiatives in Belgium, Germany, France, Italy, the Netherlands, Finland, Sweden and the Nordic Council. However, evaluation research has highlighted challenges in aligning EU and national perspectives due to a focus on national interests ³⁶. At regional level, the CLCs maintain strong links with large industrial companies, start-up accelerators and investor networks in order to further develop ecosystem synergies.

As the Biennial Monitoring Report 2024 highlights ³⁷, the EIT KICs community is clearly the most active when it comes to synergies with other European Partnerships and Missions within Horizon Europe. Relevant synergies between EIT RawMaterials under Horizon Europe Pillar

³⁶ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 101.

³³ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 103.

³⁴ ERMA's vision is to secure access to critical and strategic raw materials, advanced materials and processing know-how for the EU's industrial ecosystems. ERMA involves all relevant stakeholders (including industrial actors along the value chain, Member States and regions, trade unions, civil society, research and technology organisations, investors and NGOs). Around 600 such partners joined ERMA in the first year following its foundation in November 2020.

³⁵ Institutionalised partnership report – EIT Raw Materials, p. 18.

³⁷ European Commission: Directorate-General for Research and Innovation, Performance of European partnerships – Biennial monitoring report 2024 on partnerships in Horizon Europe, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2777/991766, p. 56.

II partnerships include the Clean Steel Partnership (CSP), the Process4Planet Partnership (P4P), Key Digital Technologies (KDT) and Made in Europe; as well as projects such as ReclaMet and the UNCLOS (Ultra-Low CO₂ steelmaking) project. EIT RawMaterials also pursues synergies with the Digital Innovation Hubs. Similarly, the European Partnership on Innovative SMEs and the European Science Cloud initiative are also relevant to EIT RawMaterials' activities ³⁸.

The EIT KICs have established a number of EIT community initiatives (including Skills 4 Future, Strategic Education, HEI Capacity Building Initiative and the RIS Jumpstarter programme), thereby promoting synergies with other KICs. For example, the HEI Capacity Building Initiative is led by EIT RawMaterials and collaborates with all the other EIT KICs except for EIT InnoEnergy. EIT RawMaterials also leads the Strategic Education initiative on behalf of the EIT community.

6. EU added value

According to the external evaluation report ³⁹, EIT RawMaterials has created significant EU added value thanks to the integration of the knowledge triangle across Europe, both by building a sustainable innovation ecosystem and by developing concrete solutions to societal challenges. EIT RawMaterials's ecosystem promotes cross-border dialogue, thus expanding its impact across the EU. This integration has added value at the regional and sectoral EU levels by:

- accelerating innovation and up-scaling projects for industrial competitiveness;
- creating businesses/start-ups;
- providing learning and education to re-skill and up-skill the workforce;
- facilitating matchmaking and networking with EU and third countries, helping to create an EIT community.

EIT RawMaterials contributes through cross-cutting initiatives. These include Lighthouses, which are large-scale, long-term projects addressing critical raw materials challenges in the EU. These initiatives guide innovation projects to create smart solutions along the raw materials value chain for a sustainable future, aligning with strategic objectives at EU level.

Projects under the RIS broaden the KIC's scale of action by ensuring a strong presence in RIS hubs and promoting targeted matchmaking and networking events. This engagement increases participation by non-partners in RIS regions, thus enhancing the KIC's impact in countries and regions with a lower innovation performance in line with its objectives.

7. Relevance

The KIC's partnership report ⁴⁰ concludes that EIT RawMaterials is well aligned with the Framework Programme's challenges and needs – particularly in sustainability, energy, climate, resources and circularity. EIT RawMaterials also contributes to the Sustainable Development Goals (SDGs) – especially in industry, economic growth, responsible consumption and production, and clean energy.

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³⁸ Institutionalised partnership report – EIT Raw Materials, pp. 18-19.

³⁹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 15.

⁴⁰ Institutionalised partnership report – EIT Raw Materials, p. 16.

EIT RawMaterials aims to secure a sustainable raw materials supply by driving innovation, education and entrepreneurship across the EU's industrial ecosystems. Its relevance lies in its providing a collaborative environment for disruptive and breakthrough innovations by connecting business with academia, research and investment. The KIC invests in future innovators (from school students to industry professionals) and is committed to supporting the EU's transition to a circular, green and digital economy, thereby enhancing global competitiveness and securing employment.

Since 2020, EIT RawMaterials has managed the European Raw Materials Alliance (ERMA), which is composed of over 750 partners from various sectors (including industry, Member States, regions, trade unions, civil society, research organisations, investors and NGOs). ERMA has created new opportunities for innovation ecosystems and raw materials stakeholders.

EIT RawMaterials has adapted flexibly to emerging developments. For example, the Booster Call, which was implemented in response to the COVID-19 crisis, significantly increased the budget for business creation and support activities, and boosted EIT's output (as stated in the external evaluation report) ⁴¹. The energy transition is accelerating and mineral and metal demands for clean energy technologies are projected to increase significantly by 2040. EIT RawMaterials has therefore focused on funding energy technology projects. In addition, the Russian war of aggression against Ukraine has placed the EU's energy sector and private households under immense strain. In order to reduce the EU's dependency on strategic and critical raw materials from outside the EU and to promote environmental, social and governance standards, EIT RawMaterials and ERMA have responded with two strategic EU action plans.

- The 2021 Rare Earth Magnets and Motors Action Plan ⁴² aims to build the EU's first rare earth value chain, triggering 14 investment projects to supply at least 20% of the EU's permanent magnet needs by 2030 (according to EIT RawMaterials).
- The 2023 Materials for Energy Storage and Conversion Action Plan ⁴³identifies and quantifies raw materials investments needed for electrification and energy storage, aligning itself with the REPowerEU Plan to increase the 2030 renewables target from 40% to 45%. Nearly 50 investment cases have been identified, requiring over EUR 15 billion in total.

With these action plans, EIT RawMaterials and ERMA are responding to the key actions listed in the proposal for a Critical Raw Materials Act (CRMA) for 2030 to diversify the EU's supply and set clear benchmarks for domestic capacities along the strategic raw material supply chain ⁴⁴.

8. Directionality

According to the external evaluation report ⁴⁵, EIT RawMaterials has made significant progress towards its strategic vision and objectives, even if these have not been fully achieved. The KIC has engaged and mobilised a diverse range of stakeholders across the EU, thus becoming instrumental in addressing the challenges in the raw materials sector and EU policy priorities. EIT RawMaterials is aligned with Horizon Europe's impact dimensions: strategic autonomy,

⁴¹ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 89.

⁴² https://erma.eu/app/uploads/2021/09/01227816.pdf.

⁴³ https://erma.eu/app/uploads/2023/06/8bafd7ec.pdf.

⁴⁴ Institutionalised partnership report – EIT Raw Materials, p. 17.

⁴⁵ Institutionalised partnership report – EIT Raw Materials, p. 5.

global positioning, industrial competitiveness and digitalisation, human-centred/ethical innovation, and sustainability. It is also aligned with the Green Deal.

As one of the largest raw materials networks, EIT RawMaterials includes both industry leaders and SMEs throughout the entire value chain. The creation of the ERMA has opened up new opportunities to expand innovation ecosystems and involve additional partners. The Regional Innovation Scheme has also promoted new innovation ecosystems in regions that are lagging behind in terms of innovation.

EIT RawMaterials has brought products and processes to the market; created and secured jobs in the EU; established educational and training programmes; and promoted an entrepreneurial mindset through its activities. Its support for innovation and entrepreneurship provides comprehensive guidance for idea-holders and start-ups at all stages of transforming ideas into market-ready solutions ⁴⁶.

9. International positioning

According to the external evaluation report ⁴⁷, EIT RawMaterials has established itself as a thought leader in the global raw materials sector. The KIC tackles issues beyond the EU's borders through its network and through collaboration with programmes such as the UN Economic Commission for Europe.

EIT RawMaterials participates in the EIT community's Global Outreach Programme's ⁴⁸ activities and the Strategic Regional Innovations (SRI) ⁴⁹. The Programme was established in 2018 and links the EIT's innovation ecosystem with innovation valleys worldwide, forging synergies with global innovation leaders and creating significant value for the EU economy as well as local ecosystems. The Programme currently comprises established and successful EIT Hubs in Silicon Valley (USA) ⁵⁰, Tel Aviv (Israel) ⁵¹ and London (UK) ⁵². Under the SRI, activities are currently being developed in the Western Balkans, Türkiye and Ukraine. These will in future expand into Moldova and potentially Georgia, in line with the EU's enlargement policy priorities.

The two most involved third countries in EIT RawMaterials' activities are Australia and South Africa, which each have two participations. According to the Biennial Monitoring Report (BMR) survey conducted in 2022, the percentage of grants awarded to non-EU beneficiaries in calls for proposals was 1.2% of EIT RawMaterials's total budget ⁵³. This figure then increased to 10% according to the 2024 BMR survey ⁵⁴.

As highlighted in the partnership report, the Programme's activities focus on three main areas:

- the exporting partner network: with a focus on Australia, Canada, South Africa, Latin America and other regions;
- developing access to the pool of global talent: creating mutual benefits for third-country talents following EIT RawMaterials' education programmes, as well as for EU graduates

⁴⁶ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 29.

⁴⁷ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 101.

⁴⁸ https://go-eit.eu/.

⁴⁹ https://eit-ris.eu/.

⁵⁰ https://go-eit.eu/eit-silicon-valley-hub/.

⁵¹ https://go-eit.eu/eit-israel-hub/.

⁵² https://go-eit.eu/eit-uk-hub/.

⁵³ Institutionalised partnership report – EIT Raw Materials, p. 34.

⁵⁴ Biennial Monitoring Report (BMR) Survey Results 2022 and 2024.

and start-ups from EIT-labelled and other education activities finding business opportunities with industry in third countries;

- establishing strategic alliances: identifying relevant ecosystems in target regions and adopting best practices from them ⁵⁵.

The KIC aims to continue its contributions to the EU-Latin America and Caribbean (LAC) round tables and to promote EU start-ups and SMEs. This supports the international dimension of the Green Deal by forming green alliances with partner countries and regions to prevent ecological collapse and combat climate change ⁵⁶.

In terms of ongoing activities under Horizon Europe, ERMA is expanding its international strategic partnerships and outreach activities, in both membership and leadership of investment cases. ERMA plays a crucial role in the international partnership with Canada and was instrumental in the implementation of Memorandum of Understanding between the EU and Ukraine on a strategic partnership on raw materials. Other strategically important non-EU countries for ERMA include Kazakhstan and Namibia, along with several countries and territories with upcoming (Greenland and Norway) or already announced (Argentina, Australia and Chile) international partnerships ⁵⁷.

10. Phasing-out preparedness

The EIT Regulation ⁵⁸ defines 'financial sustainability' as the capacity of EIT KICs to finance their knowledge triangle activities independently from the EIT contributions. It requires the EIT KICs to pursue this goal by implementing an effective financial sustainability strategy that mobilises funds from other public and private sources before the end of the 15-year period of EIT funding. The closer an EIT KIC gets to the end of its EIT funding period, the less EIT funding it receives and the more alternative funding sources it has to find. The emphasis is on encouraging KICs to secure a larger share of their funding from external sources in order to ensure their long-term viability and continue their activities effectively. The challenge is for the KICs to secure adequate co-funding from other sources.

EIT RawMaterials has consistently overachieved its financial sustainability coefficient ⁵⁹ target and co-funding rates. The coefficient varied between 10% and 22% in 2017-2020 and was 16% in 2022. EIT RawMaterials' revenues show consistently stable income from membership fees, while the KIC is growing its revenues from services and activities in order to differentiate and grow income sources in anticipation of the expected reduction of EIT funding rates. With the support of its IP Committee, the KIC has defined objectives to take advantage of additional revenue sources (e.g. intellectual property management or financial assets). The initial Strategic Agenda did not set targets for revenue generation through KIC activities. These targets were introduced as a single metric in the updated Strategic Agenda in 2018. To achieve long-term financial sustainability, the new Strategic Agenda introduced a backflow scheme in 2021. In 2022, EIT RawMaterials introduced an equity model with start-ups and already holds more than 40 direct equity stakes or options in these start-ups, which already had an aggregate value of

⁵⁵ Institutionalised partnership report – EIT Raw Materials, pp. 34-35.

⁵⁶ Institutionalised partnership report – EIT Raw Materials, p. 35.

⁵⁷ Institutionalised partnership report – EIT Raw Materials, p. 35.

⁵⁸ In particular, Articles 2(16) and 6(i) of Regulation (EU) 2021/819 of the European Parliament and of the Council of 20 May 2021 on the European Institute of Innovation and Technology.

⁵⁹ The financial sustainability coefficient (FS coefficient) is the ratio of a KIC's own revenues to its EIT grant in a given year.

EUR 7.6 million at the end of 2023 (when the KIC held 39 equity stakes or options). It also reported that it had concluded more than 200 revenue-sharing agreements by the end of 2023.

Complementary to the implemented financial sustainability mechanisms, EIT RawMaterials has received recommendations to reduce its reliance on membership fees and to improve its revenue generation, intellectual property management and financial asset ownership ⁶⁰. The 2021-2027 Strategic Agenda focuses on gradually reducing reliance on EIT funding and finding new ways to achieve financial independence. The 2021-2027 Strategic Agenda aims to address this. It is also to be noted that EIT RawMaterials reported substantial financial reserves in 2023 and that this could provide a solid basis for further progress towards financial sustainability in the future.

In sum, EIT RawMaterials has created a solid basis for achieving financial sustainability beyond the 15-year period of EIT funding. The KIC will have to further diversify its revenue sources and reduce its dependency on membership fees, and has already taken active steps in this direction. One of its main future sources of revenues will be income from assets held as a result of services provided to start-ups – thus following more closely than in the past the successful example of EIT InnoEnergy.

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⁶⁰ Deloitte and White Research, EIT RawMaterials – Final Report, 2022, p. 120.