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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

{COM(2025) 189 final}

Annex 26: Evaluation of EIT Manufacturing

Annex to the Commission's interim evaluation of Horizon Europe

Contents

1. Effectiveness

The EIT Manufacturing Knowledge and Innovation Community (the 'KIC' or 'EIT Manufacturing') was established in 2019 as part of the fourth wave of EIT KICs and in accordance with Article 9 of the EIT Regulation, Regulation (EU) 2021/819 [1]. Its first operational activities and calls were launched in 2020. EIT Manufacturing was established to develop a competitive and sustainable manufacturing production in the European Union and to lead manufacturing innovation globally. To achieve its objective, for the 2019-2023 period, EIT Manufacturing received an EIT grant of EUR 149 million.

EIT Manufacturing's partnership network includes stakeholders representing the entire manufacturing product lifecycle. It has more than 200 partners, including leading industry players, universities and research institutes.

Objectives and achievements

EIT Manufacturing's 2021-2027 Strategic Agenda [2] set the following five objectives are: (1) competitive manufacturing skills and social sustainability; (2) powerful manufacturing innovation ecosystems; (3) globally competitive and resilient manufacturing; (4) environmentally sustainable manufacturing; and (5) manufacturing fit for the digital age. However, the Strategic Agenda was revised in July 2024 and, the number of strategic objectives was reduced to three: (1) put people at the centre of manufacturing, (2) accelerate green manufacturing and (3) foster sovereignty and competitiveness.

EIT Manufacturing ensures consistency between its Strategic Agenda and the EU's policy priorities, including the European Green Deal, the New Circular Economy Action Plan and A Europe Fit for the Digital Age. In line with the Next Generation EU recovery plan, EIT Manufacturing supports manufacturing industry in developing a humancentric, sustainable and resilient approach. The KIC is thus and fully aligned with Horizon Europe and the European Commission's top priorities.

All these strategic objectives are implemented and the results are delivered by the knowledge triangle integration concept, which brings together education, science and business. The EIT Impact Framework has defined several key performance indicators (KPIs) for the KICs activities in innovation, business creation and education. Table 1 shows EIT Manufacturing's achievements in terms of KPIs for 2020-2023.

[1] Regulation (EU) 2021/819 of the European Parliament and of the Council of 20 May 2021 on the European Institute of Innovation and Technology) replaced the original regulation, Regulation (EC) No 294/2008.
[2] EIT Manufacturing's revised Strategic Agenda 2021-2027.

Table 1: EIT Manufacturing KPI 2020-2023; targets (T) and achieved results (A)

	2020		2021-2022		2023		**Total**	
	T	A	T	A	T	A	**T**	**A**
Innovations launched on the market	28	15	60	72		22	**88**	**109**
Designed/Tested innovations*			21	55		21	**21**	**76**
KIC Supported Start-ups/Scale-ups	30	62	301	471	73	332	**404**	**865**
Start-ups created of/for innovation	4	1	18	36		3	**22**	**40**
Start-ups created of EIT labelled MSc/PhD programmes	0	0	0	0	0	0	**0**	**0**
Investment attracted by KIC supported start-ups/scale-ups (EUR mil)	0	0	13,3	68	22	45,8	**35,3**	**113,8**
Graduates from EIT labelled MSc/PhD programmes	0	0	0	0	111	26	**111**	**26**
Participants in (non-degree) education and training*			642	10555	2566	16302	**3208**	**26857**

* KPI reported only from 2021 (designed/tested innovations reports on IPR applications).
Source: EIT administrative and monitoring data (reported by KIC and verified by EIT).

EIT Manufacturing only started operating in 2020, so it is difficult to assess its contribution to achieving the strategic objectives at this point in time. A very positive trend can nevertheless be observed in the KIC's performance in 2021-2023 with most targets met, as shown in Table 1. As the external evaluation highlighted [3], although it can be argued that the targets set seem quite modest, the KIC has managed to overperform in some areas, surpassing expectations for a KIC in its start-up phase.

In particular, EIT Manufacturing has performed well in the entrepreneurial activities and business creation KPIs. From 2020 to 2023, there was a remarkable growth in the number of KIC-supported start-ups and scale-ups to a total of 865 supported companies**,** more than double the target of 404. EIT Manufacturing similarly demonstrated its ability to attract investment in 2021-2023, achieving over EUR 113 million, more than triple the target of EUR 35,3 million.

When it comes to innovation activities, the KIC has supported the creation of 40 new start-ups, almost double the target of 22. Table 1 shows that particularly good progress was made in 2021-2022, when 36 companies were created (as opposed to just 1 in 2020 and 3 in 2023). In addition, between 2020 and 2023, EIT Manufacturing launched 109 products and services onto the market**,** exceeding the target of 88, and designed and/or tested 76 innovations also over the target of 21

Nevertheless, as regards the education activities, EIT Manufacturing has failed to reach some targets. According to the external evaluation study [4], the KIC has managed to create education programmes and trainings specifically designed for businesses. As shown in Table 1, the KIC has supported 26 857 participants in (non-degree) education and training programmes compared with the target of 3 208. However, this has not yielded any concrete results since the number of start-ups created of such trainings is still 0. In addition, only 26 students graduated from the EIT-labelled programmes in 2023 compared with the target of 111.

[3] Deloitte and White Research, *Three-year Interim Review of 4th Wave KICs: EIT Manufacturing – Final Report*, September 2023, p.55
[4] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p.55

Long-term scientific, societal, economic and technological impacts

EIT Manufacturing has identified a number of societal long-term goals. They are defined in the EIT Impact Framework as follows:

1) Strong European workforce with skill levels that make the industry competitive on a global scale,
2) Strong female impact on the European manufacturing innovation and start-up arena,
3) Increased attractiveness of manufacturing as the go-to-job for creative and innovative people of all ages, gender and physical capabilities,
4) Attractive open, regional arenas, empowering ideas that satisfy industry needs and allow venture capital to flow into emerging and growing companies,
5) European industry is the global innovation hotspot for manufacturing technology and solutions and a core engine of societal growth and persistence,
6) Europe's manufacturing industry is a role model in circular product design,
7) Worldwide, Europe has the highest share of production facilities with a net-zero carbon footprint,
8) European manufacturing companies make extensive use of industrial data and digital business platforms and manage their supply chains and customers in digital eco-systems [5].

As the KPIs were only introduced in 2021, the assessment focuses on the relevance of the KIC's activities in contributing to achieving these goals rather than on the extent of the impact already achieved. Since EIT Manufacturing was launched as part of the fourth wave of the EIT KICs, with its first operational activities and calls launched in 2020, the assessment of its long-term impact is challenging.[6] A more accurate assessment of the KIC's impact will be conducted during the seven-year comprehensive review starting in 2025, as done with the first three waves of KICs. As regards the KIC's contribution to achieving a strong EU workforce that will make EU industry globally competitive, the percentage of highly qualified employees with generic and flexible skills in the manufacturing sector has reached 26%. Progress has therefore been made towards the EIT Manufacturing target of 30% by the end of 2027 (up from 24% in 2017) [7]. EIT Manufacturing contributes to the increase of a strong, European workforce through its programmes to foster innovation and promote skills development, as well as supporting initiatives that enhance the adaptability of the European workforce. By encouraging educational opportunities, supporting SMEs and driving strategic collaborations, EIT Manufacturing contributes to nurturing a skilled workforce capable of meeting the evolving demands of the manufacturing sector, making industry competitive on a global scale.

When it comes to a strong female impact on EU manufacturing innovation and start-ups, the share of female scientists and engineers aged 25-64 in the manufacturing sector reached 22% in 2022, up from the starting baseline of 20% in 2018 [8], with the aim to achieve at least 30% by 2027. EIT Manufacturing has indirectly contributed to this progress through its initiatives to promote gender diversity, support skills development and promote inclusive innovation. For

[5] EIT Impact Framework 2022-2027, pp. 18-19.
[6] The Three-year review report covers a very narrow set of years (2020-2022) and as it is highlighted in the report, the KIC's impact targets and achievements are still in a very early stage to be completely assessed against their original purpose. Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 50
[7] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.
[8] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.

example, EIT Manufacturing contributes to the 'Girls Go Circular' activity, which is an EIT Community initiative that has equipped more than 40 000 schoolgirls aged 14-19 across the EU with digital and entrepreneurial skills through an online learning programme on the circular economy. This growth reflects ongoing efforts to promote gender equality and leadership diversity in the sector. In addition, the percentage of female board members in manufacturing increased from a starting baseline of 31.2% in 2020 to 36% at the beginning of 2024 [9]– and has therefore made progress towards EIT Manufacturing's target of over 40% by the end of 2027. Through initiatives supporting female leadership and equitable representation (e.g. the Leaders Programme, WomenTech EU and STRADA), EIT Manufacturing is continuing to push for an increased female presence in decision-making roles in management teams and board representation within manufacturing companies.

EIT Manufacturing supports the European industry to make it a global innovation hotspot by promoting innovation, improving competitiveness and enhancing the productivity of manufacturing activities, which all contribute to strengthening the sector's share of the EU's GDP. The share of manufacturing value added to GDP increased from a starting baseline of 14% in 2018 to 15% in 2023, which represents progress towards EIT Manufacturing's 16% target by the end of 2027 [10]. This reflects the manufacturing sector's growing contribution to the EU economy.

The circular material-use rate in the manufacturing sector increased slightly from 11% in 2014 to 11.5% in 2022[11]. Progress has been made, but this modest rise indicates a need for further efforts to promote circular practices within the sector. EIT Manufacturing is continuing to support initiatives and strategies to drive sustainable and green manufacturing and more efficient use of materials in order to boost progress towards the circularity goal and achieve a 15% circular material-use rate by the end of 2027. EIT Manufacturing has been funding innovation projects that directly target that goal over the last few years. Examples of these projects include Rheplace, which focuses on ensuring the stable quality of plastics made from recycled material, and aProMag, which produces 3D-printed magnets made from recycled material.

EIT Manufacturing contribution to a net-zero carbon footprint concretises in supporting technologies, innovations and strategies to further reduce greenhouse gas emissions within the manufacturing sector in order to achieve the EU's climate goals. Greenhouse gas emissions in non-ETS (Emissions Trading System) industry fell by 12% in 2021, so progress has been made towards EIT Manufacturing's target of at least 25% by the end of 2027[12]. This indicates some improvement, but there is still a significant way to go. Innovation activities such as DPGSM (reduction of CO_2 emissions from the production of rebar steel for the construction industry) and Stilride (a new process for bending sheet metal that reduces the amount of steel used in car production) are having a direct impact on this long-term KPI. EIT Manufacturing has also turned to activities such as Demo4Green to support SMEs and start-ups from Regional Innovation Scheme (RIS) countries in order to bring their green technologies to the market.

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

1) contribution to the revenue growth of organisations trading in or employing innovations developed with KIC support;

[9] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.
[10] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.
[11] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.
[12] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.

2) the number and revenue of start-ups and scale-ups supported by KICs trading three years after KIC support ceased;
3) new jobs created in start-ups/scale-ups;
4) impact on employment growth as a result of the company being engaged with KICs;
5) number and type of jobs in existing businesses sustained through innovations;
6) number and type of skill gaps and/or skill shortages filled, by KIC sector;
7) visible innovation ecosystems not previously in existence;
8) share of indicated innovation ecosystems that cover RIS countries [13].

From 2020 until the dates for which the most recent data are available (mainly 2023) [14], the revenue of organisations trading in or deploying innovations developed with the KIC's support grew by an average of 21%. Similarly, the number of staff employed by companies engaged with EIT Manufacturing increased by an average of 9%. This indicates that EIT Manufacturing's support has had a positive impact in fostering job creation within its community. EIT Manufacturing's lifelong learning programme has effectively addressed key technical skills gaps in the main areas (i.e. advanced manufacturing, automation and robotics, digital transformation, and sustainable manufacturing). The lifelong programme was implemented via the online Skills.move platform and together with the EIT Manufacturing partners, who carried out blended training. In 2023, 16 302 learners successfully completed their courses. 73 distinct categories of cutting-edge technologies were covered, including robots/cobotics, generative AI and additive manufacturing. 15 essential transversal skills gaps (e.g. design thinking and leadership) were also identified and addressed. 7 200 EIT Manufacturing courses have been delivered to over 5 200 learners and more than 60 000 learning units were consumed via online learning platforms in 2021-2023. Over 230 courses are currently available. These skill gaps are further addressed by the KIC's masters and PhD programmes, in fields such as data science and AI for competitive manufacturing, human-robot interaction for sustainable manufacturing, and smart systems for resilient manufacturing.

EIT Manufacturing is one of the KICs launched in the fourth wave in 2020. Due to the KIC's lack of maturity so information on the long-term impact of EIT-labelled programmes on participants' career growth is not yet available. This will be part of the seven-year assessment that will start in January 2025.

2. Additionality

Table 2 provides the basic financial figures for EIT Manufacturing since the start of its operations in 2019. EIT Manufacturing was able to achieve a direct leverage factor [15] of 0.32 in 2019-2023 (if one only takes co-funding from partners related to the EIT grant into consideration) and 0.47 (if one adds direct revenues created through KIC activities (EUR 70 million vs the EIT grant of EUR 149 million)).

[13] EIT Impact Framework 2022-2027, pp. 7-11.
[14] EIT Administrative data (data reported by KICs and validated by EIT), October 2024.
[15] Ratio of the direct leverage to the EU contribution. This is calculated as: direct leverage factor = (1/(Funding rate))-1.

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

	2019	2020	2021	2022	2023	Total
EIT grant	3,5	29,2	29,5	44,5	42,9	**149,6**
Co-funding	0,0	5,7	11,3	14,3	16,5	**47,7**
Revenues		4,6	5,7	6,0	6,7	**23,1**
Activities not funded by EIT		69,0	0,1	0,1	14,0	**83,2**
Co-investment, i.e. investments attracted by start-ups		0,0	3,5	64,6	45,8	**113,9**

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

In 2021-2022, the funding rate of EIT Manufacturing activities was 76% and 24% was co-funding from partners [16]. The funding distribution varied according to the activity: innovation, education and business creation activities were funded with EIT funding at the rates of 59%, 92% and 94% respectively.

In terms of leverage effects for EIT KICs, the specificity of the EIT model requires the monitoring of additional leverage not only through co-funding and the revenues of EIT KICs that are directly reinvested back into the KIC's activities, but also through the activities not funded by the EIT [17] 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 Manufacturing achieved a leverage factor of 1.03 in 2019-2023. When the co-investments (i.e. investments attracted by start-ups of EUR 113 million) are also included, the leverage factor rises to 1.79 over the period of the EIT Manufacturing lifecycle to date. This means that, for every euro of EIT funding spent, EIT Manufacturing activities have helped to attract close to EUR 2 in external investment.

The high degree of openness of calls in Horizon Europe prompted EIT Manufacturing to initiate a strategic transition and introduce additional advisory services so that it becomes not only a funding provider, but also a community with an attractive portfolio of services. This new strategy seems to be successful. For example, CLC East had a budget of EUR 1.7 million in 2022, of which EUR 700 000 was external revenue earned by advising start-ups and training programmes. Overall, 4.5% of EIT Manufacturing's total budget was mobilised from complementary and cumulative (national and regional) funding and 1.5% from the EU's Recovery and Resilience Facility.

[16] European Commission: Directorate-General for Research and Innovation, Neuberger, S., Boekholt, P. and Strauka, O., *Horizon Europe and the digital & industrial transition – Interim evaluation support study – Phase 2 – Horizon Europe – Institutionalised partnership report – EIT Manufacturing*, Boekholt, P.(editor) and Strauka, O.(editor), Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2777/58516 p. 23.

[17] Non-EIT financed activities (NEFAs) are fully implemented without an EIT grant but must contribute to 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.

3. Transparency and openness

EIT Manufacturing has made progress in building a diverse partner community and including a wide range of stakeholders. [18]. As regards openness to new partners, EIT Manufacturing has made substantial progress in addressing previous shortcomings. The KIC is open to new members. Information on accession and exit criteria have been published on its website [19].

According to the external evaluation report [20], EIT Manufacturing has implemented several measures to attract new partners. Between 2020 and 2022, the KIC grew steadily, covering 24 EU Member States and 5 non-EU countries [21]. By 2022, EIT Manufacturing had reached more than 270 stakeholders (67% industry, 14% universities, 15% Research and Technology Organisations- RTOs and 4% others), of which 170 are core and associate partners [22]. The KIC has achieved a well-balanced representation across the manufacturing ecosystem, albeit with a slight bias towards industry due to sector-specific aspects [23]. The EIT Manufacturing partnership was mainly composed of large industry members (55%). In order to increase the participation of SMEs in the partnership, membership fees were reduced and the KIC engaged with relevant stakeholders through co-location centres (CLCs) and the RIS Hubs. In 2022, 103 of the 273 EIT Manufacturing partners were SMEs (38% of the total). In terms of financial support, about 27% of the total 2021-2022 EIT Manufacturing grant of EUR 74 million was directed to SMEs. By October 2024, the number of SMEs participating in the implementation of the 2023-2025 EIT Grant Agreement had increased to 43% of all active partners. EUR 43 million had been directed to SMEs (42% of the total EIT grant) [24].

As part of EIT Manufacturing's growth strategy, the KIC has started piloting a wider variety of calls, including some with reduced complexity and lower funding. The calls have been promoted through relevant channels and accompanied by clear selection criteria. 38.8% of the 135 organisations selected through calls in 2023 had not previously been associated with the KIC. However, according to the external evaluation report [25], EIT Manufacturing has been expanding at a slower pace than anticipated. In addition, the impact of the COVID-19 pandemic reduced organisations' interest in joining the network and this has slowed growth.

As highlighted in the Partnership report [26], EIT Manufacturing was successful in establishing agreements with 15 universities: 10 for master's degree programmes and 7 for doctorate programmes (2 fall into both categories). However, with the transition to Horizon Europe, EIT Manufacturing temporarily halted admitting new universities until the accession criteria could be clarified. EIT Manufacturing has since been welcoming new partners to the degree programmes, offering a wide variety of activities.

When it comes to transparent consultation processes, EIT Manufacturing organises events on AGORA, which is an open platform for manufacturing stakeholders. In 2021, EIT Manufacturing hosted its first consultation process on AGORA, called 'Shape It'. The event was open to all partners and aimed to gather the EU manufacturing community together to

[18] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 45.
[19] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 62.
[20] Partnership report – EIT Manufacturing, p. 38.
[21] The Member States not covered by the partnership are Cyprus, Luxembourg and Malta. Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report, 2023*, p. 65.
[22] Partnership report – EIT Manufacturing, p. 4.
[23] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 61.
[24] During the implementation of the 2023-2025 EIT grant agreement, the grant committed to SMEs and the number of SMEs and their participation can still increase in the upcoming months and next year because EIT Manufacturing still has calls to open and new projects to sign.
[25] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 61.
[26] Partnership report – EIT Manufacturing, p. 38

identify future focus areas for the next calls for proposals. The consultation process lasted 11 weeks and four final topics were identified for the 2023 call: (1) automation for human-centred factories; (2) collaborative robots and solutions for flexible manufacturing; (3) smart technologies for circular and green manufacturing; and (4) AI and digital twins for manufacturing systems [27].

EIT Manufacturing is a young KIC and is still investing in visibility measures to raise the awareness of the industry and the public. It has demonstrated that it can use corporate communication strategies and branding for specific activities effectively. It reaches out to stakeholders via several channels (e.g. monthly newsletters sent to the KICs community). Regarding the selection of projects, three external evaluators participated in the assessment of the calls for proposals for 2022 and 2023, and the KIC's final scoring was transparently documented [28].

4. Efficiency

Table 3 sets out EIT Manufacturing's operational budget and administrative expenditures (or running costs). The running costs include the management, governance, coordination, organisation and overhead expenditure paid from the EIT grant. This does not include the contribution from EIT Manufacturing's partners.

Table 3: EIT Manufacturing operational and administrative expenditure (in euro)

	2020	2021	2022
Operational Expenditures	31 794 288 €	38 438 811 €	53 518 947 €
Running Costs	3 480 738 €	3 134 808 €	5 219 189 €
Total budget	**35 275 025 €**	**41 573 618 €**	**58 738 136 €**

Source: EIT financial data (reported by KICs and validated by the EIT; also available in Corda).

Table 3 indicates that the running costs for EIT Manufacturing's headquarters and CLCs for 2020-2022 ranged between 7.5% and 9.9%, at an average of 8.7%. When only the period of Horizon Europe (2021-2022) is considered, these costs constituted 8.2% of the overall operational costs. Taking into account only the administrative costs of EIT Manufacturing's headquarters, the average ratio of administrative costs to EIT Manufacturing's overall operational budget dropped to 1.9% for the Horizon Europe period. The impact of the CLCs network on the administrative expenses is therefore obvious, because the administrative costs 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 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

[27] Partnership report – EIT Manufacturing, p. 39
[28] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 62.

Manufacturing's headquarters are located in Paris. The KIC's activities are supported locally through six CLCs: CLC Central (Germany), CLC East (Austria), CLC North (Sweden), CLC South (Italy), CLC West (Spain) and CLC Southeast (Greece).

The KIC's short implementation period means that it is not yet possible to estimate whether its cost-effectiveness in Horizon Europe has increased with respect to Horizon 2020. EIT Manufacturing has been using cascade funding since 2023 and it is too early to draw conclusions.

2023 data indicate that EIT Manufacturing's average time-to-grant is 2.5 months.

5. Coherence and synergies

The main conclusion from the external evaluation report [29] is that EIT Manufacturing is strongly committed to aligning with EU initiatives, such as the Green Deal, and is making considerable efforts to achieve EU objectives. In order to strengthen coherence and synergies with EU policies and programmes, EIT Manufacturing has set up a policy advisory board that meets the relevant Commission services twice a year. EIT Manufacturing's strategy is to establish collaborations that cover a wide range of industrial sectors and combine capacities to use modern technologies [30].

Since 2023, EIT Manufacturing has been cooperating with the European Innovation Council (EIC) and the COSME programme to provide 'quality approval' for start-ups and scale-ups so that they receive funding (i.e. they are fast-tracked within the EIC) [31]. Relevant synergies within Horizon Europe can be found – notably with 'innovative SMEs' and 'European Science Cloud'. Additional synergies with other programmes include InvestEU, European Regional Development Fund (ERDF) and Erasmus+ [32].

At the global level, EIT Manufacturing has not yet established itself as a leading community in the manufacturing sector. This is a common trend among early-stage KICs [33]. EIT Manufacturing participates in the EIT Global Outreach programme and collaborates with the World Economic Forum and the World Manufacturing Forum to establish a global network of students that act as EU ambassadors. 1.2% of the total EIT Manufacturing budget goes into creating links and establishing collaborations with international organisations and/or entities in non-EU countries [34].

At national level, the KIC has forged synergies with national initiatives (e.g. in Austria and Slovakia). Several projects funded from other EU, national or regional funds started in 2022 with EIT Manufacturing playing a significant role. Challenges in aligning the EU perspective with national initiatives nevertheless persist, largely due to prioritisation of national interests [35].

When it comes to synergies with other European Partnerships and Missions within Horizon Europe, the EIT KICs community is clearly the most active, as highlighted in the Biennial

[29] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 58.
[30] Partnership report – EIT Manufacturing, p. 19.
[31] Partnership report – EIT Manufacturing, p. 20.
[32] Directorate-General for Research and Innovation, A4 Partnership Sector, Report – Coherence and Synergies of candidate European Partnerships under Horizon Europe, October 2020.
[33] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Repor*t, 2023, p. 58.
[34] Biennial Monitoring Report (BMR) Survey Results (2023). Responses provided by EIT Manufacturing.
[35] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 58.

Monitoring Report 2024 [36]. EIT Manufacturing ensures consistency within Horizon Europe, notably with Cluster 4 (digital, industry, and space technologies). The activities of EIT Manufacturing are consistent and complementary with several partnerships in Cluster 4 (e.g. the European Partnership on 'Key Digital Technologies' (KDT), which supports the digital transformation of the manufacturing sector [37]).

Another example is the cooperation agreement that EIT Manufacturing signed with the European Factories of the Future Research Association (EFFRA) [38] in 2021. They piloted the 'Innovate Together' programme [39] together with the Made in Europe Partnership in 2021. The programme launched innovation projects based on successful research projects to accelerate their market deployment. EIT Manufacturing was therefore able to bridge the gap between two different pillars of Horizon Europe and supported successful research consortia to access the market. The first projects were successfully completed at the end of 2022. The joint programme was relaunched in October 2024 with a total budget of EUR 5 million (including contributions from the Commission and EIT Manufacturing).

The EIT KICs have established a number of EIT Community initiatives, thereby fostering synergies with other KICs. EIT Manufacturing took the lead in implementing the Deep Tech Talent Initiative (DTTI). This is one of the flagship initiatives of the new European Innovation Agenda that aims to train 1 million talents in deep tech by 2025. EIT Manufacturing had an important role in conceptualising this EIT Community initiative and aligning it with the EU's priorities. Other KICs are collaborating through the provision of training programmes [40]. EIT Manufacturing is (along with EIT Climate-KIC, EIT Food and EIT Urban Mobility) also a member of the EIT Community's NEB initiative. This is an EIT Community activity that was launched in 2021 and supports the exploration, testing and scaling-up of concepts for future ways of living – placing people's needs at the heart of transformation and encouraging innovative solutions through start-up development, capacity building and citizen-engagement activities.

6. EU added value

EIT Manufacturing's added value is centred in its network of diverse partners from industry, university and research institutes. This network is the cornerstone of all EIT Manufacturing activities. According to the external evaluation [41], EIT Manufacturing creates clear EU added value thanks to the integration of the knowledge triangle (i.e. innovation, education and business creation) across the EU. Its network makes it possible to address the relevant challenges using a bottom-up approach. The KIC is able to integrate local needs into the development of concrete solutions that extend beyond regional and national borders.

One example of EIT Manufacturing's ability to strengthen the Member States' innovation capacity is AGORA. This is a dedicated platform and gateway for manufacturing stakeholders.

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[36] 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, p. 56, https://data.europa.eu/doi/10.2777/991766.

[37] European Commission: Directorate-General for Research and Innovation, *Impact assessment for institutionalised European partnerships under Horizon Europe*, Publications Office of the European Union, 2020, https://data.europa.eu/doi/10.2777/295096.

[38] EFFRA is a not-for-profit, industry-driven association that promotes the development of new and innovative production technologies.

[39] https://www.eitmanufacturing.eu/wp-content/uploads/2024/09/eitm-cfp-innovate-together-2024.pdf.

[40] For the EIT Deep Tech Talent Initiative, see https://www.eitdeeptechtalent.eu/ or https://www.eitmanufacturing.eu/news-events/press-releases/deep-tech-talent-initiative/.

[41] Partnership report – EIT Manufacturing, p. 29.

which facilitates an innovation network in which stakeholders can exchange ideas, participate in events, and collaborate with peers on issues that matter for the industry sector – from the energy crisis to regional innovations and from sustainable value chains to technology commercialisation. AGORA also provides an opportunity to network with other organisations and to participate in calls for proposals. Another example is the Innovation Funding Catalyst, which is a service introduced by EIT Manufacturing to help partners and innovators in the manufacturing area to apply for EU funding [42].

EIT Manufacturing has also created added value by building several innovation ecosystems through its CLCs, which offer unique opportunities to connect within regions and for regions to connect with each other. CLCs are closely connected and can form an EU innovation ecosystem at the pan-EU and even global scales. According to the partnership evaluation study [43], some projects have been developed solely because EIT Manufacturing connected partners in other regions and Member States. In line with the main conclusions of the external evaluation report [44], EIT Manufacturing has also performed well in creating innovation ecosystems that did not previously exist, even if there are specific areas that deserve attention to ensure alignment of innovation ecosystems with the societal challenges it addresses.

Finally, EIT Manufacturing's added value lies in providing support when other funding instruments are not applicable (i.e. above TRL6) as well as in connecting universities with industry partners that want to follow up on scientific achievements by bringing new technologies and solutions to the market [45].

7. Relevance

EIT Manufacturing has made significant progress in establishing innovation ecosystems and partnerships that are aligned with the goals of strengthening innovation capacity and contributing to sustainable economic growth and competitiveness in the EU [46]. According to the Partnership's external evaluation findings [47], EIT Manufacturing can contribute to global positioning and strategic autonomy; industrial competitiveness; digitalisation; sustainable development; and human-centred ethical innovation. EIT Manufacturing's strategic objectives are therefore aligned with the framework programme and contribute to achieving the EU's objectives. EIT Manufacturing is also aligned with relevant UN Sustainable Development Goals (SDGs), notably those related to clean and affordable energy.

EIT Manufacturing's bottom-up approach has enabled it to identify four focus areas that have become its flagships: (1) flexible production systems for competitive manufacturing; (2) low environmental footprint systems and circular economy for green manufacturing; (3) digital and collaborative solutions for innovative manufacturing ecosystems; and (4) human-machine co-working for socially sustainable manufacturing [48]. They are intended to help address the most pressing challenges for a greener and more competitive EU manufacturing sector.

EIT Manufacturing has also shown flexibility and responsiveness in adapting to emerging developments, and changing markets and policy needs. In 2022 it revised its business plan to take the COVID-19 pandemic into account. In 2023 it revised its Strategic Agenda in order to

[42] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 18
[43] Partnership report – EIT Manufacturing, p. 29.
[44] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 21.
[45] Partnership report – EIT Manufacturing, p. 29.
[46] Deloitte and White Research, *Three-year Review EIT Manufacturing – Final Report*, 2023, p. 21.
[47] Partnership report – EIT Manufacturing, p. 4.
[48] For EIT Manufacturing – focus areas, see: https://www.eitmanufacturing.eu/what-we-do/focus-areas-flagships/. Partnership report – EIT Manufacturing, p. 17

align its strategic objectives with the new challenges in the sector. These included disruptions of global supply chains; the war in Ukraine and the related insecurity of energy prices; the slowdown in the process of global integration; and the rise in protectionism. The main goal of this revision was to better position EIT Manufacturing as a source of knowledge and talent for the transition to a sustainable, humancentric and resilient EU industry.

EIT Manufacturing has also shown flexibility and adaptability by ensuring that its strategic objectives were aligned with the new key EU policy priorities, which focus on putting people at the centre of manufacturing; accelerating green manufacturing; and fostering sovereignty and competitiveness. Consultation of EU Member States showed that EIT Manufacturing was considered relevant to the national policies and priorities of the Member States (85%), for their industry (89%) and for their research organisations, including universities (93%) [49].

8. Directionality

The Partnership evaluation study found [50] that EIT Manufacturing could achieve very good results for the goals set by the Strategic Agenda, which include global positioning and strategic autonomy; industrial competitiveness; digitalisation; sustainable development; and human-centred ethical innovation.

EIT Manufacturing started operations during the COVID-19 pandemic, which gives clear reasons for not reaching the goals in some cases [51], but the KIC has made considerable efforts to make progress in implementing its strategic vision. EIT Manufacturing's bottom-up approach has helped it to implement processes to deliver on the KIC's main goals. The Strategic Agenda has been updated to reflect the lessons learned from the first three years of operations. EIT Manufacturing also tailors its programmes to the latest needs and challenges of EU industry. For example, the KIC has established a network of industry and universities to tackle global challenges through education and transferring skills. In addition, an annual teaching factory competition has been created in order to connect challenges with solving teams and to increase the concept's visibility. The teaching factory concept can be scaled up and can be transferred to other settings, and has been selected among the five "good practices of EIT". Several members have already taken up these concepts, including in EIT RIS countries, because they go beyond what calls alone would be able to offer to the regions [52].

9. International positioning

EIT Manufacturing is predominantly EU-oriented and this is reflected in its network of partners. It is nevertheless making steady progress in its international positioning and international partners are involved in several KIC activities: EIT Manufacturing has 3 partners from Switzerland; 2 each from Norway and the UK; and 1 each from Bosnia and Hercegovina, and North Macedonia.

[49] Directorate-General for Research and Innovation, *Report on European Partnerships under Horizon Europe: results of the structured consultation of Member States*, https://www.era-learn.eu/news-events/news/european-partnerships-under-horizon-europe-results-of-the-structured-consultation-of-member-states-1.
[50] Partnership report – EIT Manufacturing, p. 34.
[51] Partnership report – EIT Manufacturing, p. 35.
[52] Partnership report – EIT Manufacturing, p. 35.

EIT Manufacturing participates in the EIT Global Outreach programme [53] activities and the Strategic Regional Innovations (SRI) [54]. 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) [55], Tel Aviv (Israel) [56] and London (UK) [57]. Under the SRI, activities are currently being developed in the Western Balkans, Türkiye and Ukraine. These will in the future expand into Moldova and potentially Georgia, in line with the EU's enlargement policy priorities.

EIT Manufacturing collaborates internationally by participating in other EU initiatives, such as the European Factories of the Future Research Association (EFFRA) (e.g. through activities involving international stakeholders, such as high-level groups of manufacturers or working groups set up by the Commission). These synergies support the implementation of Environmental Technology Verification (ETV) and include a collaboration agreement with EFFRA on the Innovate Together programme [58], in which both EU Member States and associated countries participate.

10. Phasing-out preparedness

The EIT Regulation [59] defines 'financial sustainability' as the EIT KICs' capacity to finance their knowledge triangle activities independently from the EIT contributions. It asks the EIT KICs to pursue this goal by implementing an effective financial sustainability strategy that involves mobilising funds from other public and private sources before the end of the 15-year period of EIT financial support. 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 Manufacturing's financial sustainability strategy was defined at an early stage in its lifecycle. This strategy has been updated to ensure higher financial contributions from external sources. EIT Manufacturing plans to gradually evolve towards a service organisation model that licenses education and training courses, provides access to funding, and provides customer and business intelligence services. These services can be offered at both the central and the CLC levels. However, given that EIT Manufacturing has only been operating since 2020, the coming years will show whether these mechanisms and strategies can be successful.

EIT Manufacturing expects that its financial sustainability coefficient [60] will continuously increase in the coming years, so as to achieve the 2025 target of 31.1%. In 2021-2022, the targeted financial sustainability coefficient was 21.6% (EUR 17 320 000 revenue). In that period, EIT Manufacturing achieved a coefficient of 16.24%, thus generating a total revenue of

[53] https://go-eit.eu/.
[54] https://eit-ris.eu/.
[55] https://go-eit.eu/eit-silicon-valley-hub/.
[56] https://go-eit.eu/eit-israel-hub/.
[57] https://go-eit.eu/eit-uk-hub/.
[58] Innovate Together 2024 – EIT Manufacturing.
[59] 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.
[60] The financial sustainability coefficient (FS coefficient) is the ratio of a KIC's own revenues to its EIT grant in a given year.

EUR 12 017 556. EUR 10 325 000 of this came from membership fees; EUR 1 012 045 came from alternative funding sources; and the remainder came from returns on investment (RoI) as well as consultancy fees and education activities [61].

EIT Manufacturing aims to build on active earned income and passive investment revenue. When applying for funding, proposals are encouraged to consider how the project can contribute to the EIT Manufacturing's financial sustainability. This contribution can take different forms, such as a fixed sum paid at the end of an activity by start-ups entering the KIC business creation portfolio; revenue sharing once the product is commercialised; or equity shares following the support received from the KIC [62]. As at the end of 2023, EIT Manufacturing reported 10 equity shareholdings in start-ups with a total value of EUR 2.8 million that had been implemented in 2021-2022. It also reported 40 additional initiatives (including revenue sharing agreements, and education and innovation projects).

There is also a financial sustainability strategy for the education pillar that is mainly based on two streams.

1. Masters programmes with a defined fee to make the programme sustainable. This portfolio of digital content will be sold to organisations or individuals. Education managers in the CLCs will support the promotion and selling of education programmes (in partnership with local training providers).
2. Learning Factories and the Skills.Move platform offer more than 100 learning paths. EIT Manufacturing is currently exploring market opportunities and pricing options for the Flexy Enhance programme in order to increase its impact and contribute to the KIC's financial sustainability.

[61] EIT Manufacturing Grant Assessment 2022, EIT Manufacturing.
[62] *Business Plan 2023 – 2025: 2nd Call for proposals for Activities to be executed in 2023*, EIT Manufacturing, November 2022, https://www.eitmanufacturing.eu/wp-content/uploads/2022/08/EITM-Call-for-proposals-guidelines-23-25_BC_version2209.pdf.