



EN

THIS ACTION IS FUNDED BY THE EUROPEAN UNION

ANNEX X

to the Commission Implementing Decision on the Annual action plan in favour of Türkiye for 2024

Action Document for Private Sector Development, Trade, Research and Innovation

ANNUAL ACTION PLAN

This document constitutes the annual work programme in the sense of Article 110(2) of the Financial Regulation, and annual and multiannual action plans and measures in the sense of Article 9 of IPA III Regulation and Article 23(2) of NDICI - Global Europe Regulation.

1. SYNOPSIS

1.1 Action Summary Table

Title	Private Sector Development, Trade, Research and Innovation Annual Action Plan in favour of Türkiye for 2024
OPSYS	ACT-62859
ABAC	ABAC Commitment level 1 number: JAD.1655607
Basic Act	Financed under the Instrument for Pre-accession Assistance (IPA III)
Economic and Investment Plan (EIP)	No
EIP Flagship	No
Team Europe	No
Beneficiary(y)/(ies) of the action	The action shall be carried out in the Republic of Türkiye
Programming document	IPA III Programming Framework
PRIORITY AREAS AND SECTOR INFORMATION	
Window and thematic priority	Window 4: Competitiveness and Inclusive Growth Thematic Priority 2: Private sector development, trade, research and innovation
Sustainable Development Goals (SDGs)	Main SDG: SDG 9 ‘Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation’ Other significant SDGs:

	SDG 8 ‘Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all’ SDG 12 ‘Ensure sustainable consumption and production practices’ SDG 13 ‘Take urgent action to combat climate change and its impacts’			
DAC code(s)	32120 - Industrial development - 30% 32110 - Industrial policy and administrative management - 20% 32130 - Small and medium-sized enterprises (SME) development - 10% 32182 - Technological research and development - 20% 41010 - Environmental policy and administrative management - 10% 33110 - Trade policy and administrative management - 10%			
Main Delivery Channel	Central Government – 12001			
Targets	<input checked="" type="checkbox"/> Climate <input type="checkbox"/> Gender <input type="checkbox"/> Biodiversity			
Markers (from DAC form)	General policy objective	Not targeted	Significant objective	Principal objective
	Participation development/good governance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Aid to environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Gender equality and women’s and girl’s empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with Disabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Principal objective
	Biological diversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Combat desertification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change mitigation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Climate change adaptation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Internal markers and Tags	Policy objectives	Not targeted	Significant objective
EIP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EIP Flagship		YES		NO

		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tags:		YES	NO
Transport		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Energy		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environment and climate resilience		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Economic development (incl. private sector, trade and macroeconomic support)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Human Development (incl. human capital and youth)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Health resilience		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Migration and mobility		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agriculture, food security and rural development		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rule of law, governance and Public Administration reform		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digitalisation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tags	YES	NO	
digital connectivity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
digital governance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
digital entrepreneurship	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
digital skills/literacy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
digital services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Connectivity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tags	YES	NO	
digital connectivity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
transport	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
health	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
education and research	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Migration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduction of Inequalities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COVID-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BUDGET INFORMATION

Amounts concerned	Budget line: 15.02.02.01 Total estimated cost: EUR 9 400 000.00 Total amount of EU budget contribution EUR 9 400 000.00 of which EUR 3 600 000.00 for indirect management with IPA III beneficiary
MANAGEMENT AND IMPLEMENTATION	
Implementation modalities (management mode and delivery methods)	<ul style="list-style-type: none"> - Indirect management with the Republic of Türkiye (outcome 1), - Indirect Management with the European Institute of Innovation and Technology (EIT) (outcome 2) - Indirect management with an Entrusted Entity to be selected in accordance with the criteria set out in section 4.3.1 (outcome 3)
Final Date for conclusion of Financing Agreement	At the latest by 31 December 2025
Final date for concluding contribution / delegation agreements, procurement and grant contracts	3 years following the date of conclusion of the financing agreement, with the exception of cases listed under Article 114(2) of the Financial Regulation
Indicative [operational implementation] period	72 months following the conclusion of the financing agreement
Final date for implementing the Financing Agreement	12 Years following the conclusion of the financing agreement

1.2 Summary of the Action

The action falls under Window 4, 'Competitiveness and Inclusive Growth' of the IPA III Programming Framework. It aims to improve the business environment, innovation ecosystem, and investment climate, enhancing the competitiveness, innovation, environmental sustainability, and technological advancement of Turkish industry in line with the IPA III Programming Framework and SDGs, especially SDG 9.

The overall objective of the action is to enhance the transformation of industry towards sustainable economic growth through innovation, technology development, regulatory adaptation, and efficient resource use. The support will target green transition in the private sector and improve the innovation ecosystem, aligning with the EU's Green Agenda and integration with European innovation networks. The action is composed of three areas of support:

Area of Support (AoS) 1: Adaptation of the Turkish industry and harmonisation with EU legislation within the context of green and circular economy.

The aim is to support the alignment of industrial sectors with the relevant EU regulations for environmentally sustainable production, particularly the **Ecodesign for Sustainable Products Regulation (ESPR)**. This involves preparing guidelines for sustainable production and develop sectoral roadmaps for the utilisation of recycled materials and recovering products for the electrical & electronics, machinery, textiles, and chemicals sectors within the scope of **ESPR**.

The specific objective of this area of support is to support the policy framework for harmonisation and guide enterprises in producing eco-designed products, promoting digitalisation, R&D, and innovation for green transformation in line with the **ESPR**.

Area of Support (AoS) 2: Enhancement of innovation ecosystem in Türkiye and promotion of integration with EU industrial value chains and innovation networks.

The specific objective of this area of support is to complement the operations of the **EIT Community RIS Hub** and improve the innovation ecosystem in Türkiye and integration with EU innovation networks. This support aims to enhance Türkiye's capacity within the European Institute of Innovation and Technology (EIT) network, improving its position and integration in the European innovation ecosystem. By building capacities and fostering linkages, the RIS Hub and EIT programs will enhance cooperation, promote internationalisation, and contribute to combatting brain drain. These efforts will help integrate Türkiye with the EU value chain, boost competitiveness, and foster sustainable and inclusive economic growth, whilst contributing to the achievement of **SDGs 8 and 9**.

Area of Support (AoS) 3: Transition to green economy and improvement of resource efficiency for sustainable production and services

The specific objective is to escalate the transition towards a green economy and advancement of resource efficiency. This will be achieved by establishing a "**National Integrated Resource Efficiency Assessment Centres Network**". A Resource Efficiency Assessment Centre (REAC) is a specialised facility, often affiliated with universities, technical institutions and OIZs, that provides free or low-cost expertise, energy, waste, and productivity assessments to small- and medium-sized manufacturers.

The resource efficiency centres focus on practical interventions at the SME level, helping businesses optimise resource use, reduce emissions and adopt sustainable practices. The REACs' work in improving resource efficiency and emissions reduction will provide essential data and actionable results that will enhance compliance efforts, as well as promote access to green finance and the adoption of circular economy principles.

1.1. Beneficiar(y)/(ies) of the Action

The action shall be carried out in the Republic of Türkiye.

2. RATIONALE

2.1 Context

Besides its economic preparedness and the significant advancements made in enhancing the business and innovation environment over recent decades, Türkiye continues to face the challenges on reforming its economic structures and improving its overall economic competitiveness in order to meet evolving challenges and global agendas set for moving towards greener and circular economies.

Among the most prominent global agendas, **European Green Deal¹, adopted in 2019** calls a shift to a green, digital and circular economy relying upon a significant economic transformation that creates new industries and job opportunities and promote resilience against resource scarcity. Green Deal initiatives are promoted for supporting the private sector ecosystem that leads the way in driving innovation, attract investments and creates high-quality sustainable jobs. More recently, the **Green Deal Industrial Plan (2023)** recognises the digital and green transitions as paramount challenges that must be addressed concurrently. It outlines strategies to integrate the digital transition initiatives of the manufacturing industry with EU climate targets. The fourth pillar of the Green Deal Industrial Plan focuses on **Trade and Resilient Supply Chains**, advocating for cooperative efforts with trade partners to support the green transition, such as through Clean Tech/Net-Zero Industrial Partnerships.

The **Türkiye 2023 Report²**, in the competitiveness and inclusive growth cluster, recognises measures aimed at enhancing competitiveness, addressing the green transition, and reinforcing digital transformation. These measures and policy improvements are pointed out in the 2024-2026 and the previous **Economic Reform Programmes (ERP)**. The reports underscore the necessity of strengthening institutional capacities for designing, implementing, and monitoring structural reforms within the industry. Additionally, they highlights the discrepancies between Türkiye's industrial policies and EU industrial policy principles, indicating a need for better alignment.

Thematic Priority 2: Private Sector Development, Trade, Research, and Innovation of the **IPA III Programming Framework³** under Window 4 'Competitiveness and Inclusive Growth' underscores the pivotal role of the private sector, specially manufacturing and R&D organisations, in the economy, for enhancing sustainable, technology-oriented, green, and inclusive industrial growth to improve the competitive resilience of the Turkish economy and the region.

Aligned with national strategy documents, ongoing initiatives, the **12th National Development Plan (NDP)⁴** of Türkiye, as the overarching policy document, underscores the vitality of green transition for competitiveness of Türkiye's industrial sectors, and prioritises improving the business environment and advancing R&D, innovation, and technology consistent with the associated priorities of global strategies established by the EU. The plan focuses on increasing competitiveness and efficiency by realising green and digital transformation in production.

The Plan (2024-2028) further highlights support for energy efficiency practices and technological investments with high energy efficiency and saving potential. Specifically, it states: "427.7. Support for energy efficiency practices of enterprises will be increased, and technological investments with high energy efficiency and saving potential that contribute to facility and process optimisation will be supported." This aligns directly with the objectives of the action. Whilst the primary goal for Türkiye's **manufacturing industry** is determined to transition towards a high value-added production structure by enhancing competitiveness and efficiency through green and digital transformation. The plan prioritises this goal in specific "priority sectors," including the chemical industry, pharmaceuticals and medical devices, electronics, machinery and electrical equipment, automotive, and rail system vehicles, alongside other manufacturing industry sectors which are closely aligned with the intervened sectors of this Action.

The **2023 Industry and Technology Strategy of Türkiye** further refines these goals into thematic areas such as high-tech innovation, digital transformation, entrepreneurship, and infrastructure development. There is a significant alignment with EU priorities and programmes such as Horizon Europe, which EIT is set as an

¹ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

² https://neighbourhood-enlargement.ec.europa.eu/turkiye-report-2023_en

³ <https://www.ab.gov.tr/siteimages/birimler/prdb/prgfrm.pdf>

⁴ https://www.sbb.gov.tr/wp-content/uploads/2024/06/Twelfth-Development-Plan_2024-2028.pdf

integral part of, promoting international collaboration to realise national strategic roadmaps in key technology sectors.

As articulated in the **Türkiye 2023 Report**, the study on Priority Research, Development, and Innovation (RDI) Areas has been updated and aligned with EU priorities by focusing on green and digital technologies. The updated study is structured around three main pillars: RDI topics in priority and key technologies, RDI topics for compliance with the EU Green Deal and climate change adaptation, and strategic, needs-oriented RDI topics. With notable progress and preparation in the field of science and research, Türkiye's action plan to enhance national research and innovation capacity, and participation in the Horizon Europe programme is recognised as contributing to the positive trajectory of Türkiye's performance. Despite these critical advancements noted in the Türkiye 2023 Report in the area of science and research, Türkiye still lags behind EU countries in innovation metrics, identified in the **European Innovation Scoreboard**. According to the European Innovation Scoreboard Report⁵, in 2024, Türkiye experienced a growth of 5.6 percentage points compared to 2023 and positioned as the sixth-ranked nation among the Emerging Innovators. However, Türkiye's performance continued to lag significantly behind the overall EU innovation ecosystem average, achieving only 51.7% of the EU average in 2024. Areas that need improvement include design and trademark applications, international scientific collaborations, and knowledge-intensive employment.

2.2 Problem Analysis

Short problem analysis

AoS 1

In light of the ongoing regulatory developments under the EU Green Deal, Türkiye's manufacturing sectors, encompassing electrical & electronics, machinery, textiles, and chemicals, confront significant challenges in aligning with EU Regulation No. 2024/1781 on Eco-design Requirements for Sustainable Products⁶ and its implementing acts. In response to these developments and requirements, Türkiye, through MoIT, has initiated the process of harmonising the manufacturing sectors with the ESPR.

While the machinery and electronics industries have prior experience with Eco-Design requirements, the new environmental obligations, reporting requirements, green supply system, and value chain adjustments introduced by the ESPR present opportunities and challenges for these sectors to develop further. Conversely, the textile and chemical sectors currently lack specific Eco-Design requirement information, making their adaptation crucial as the ESPR scope expands. According to TURKSTAT, 99.7% of businesses in Türkiye are SMEs, with 12.2% of these in the manufacturing sector as of 2023. These four sectors, largely composed of SMEs, are significant suppliers to the EU and other international markets. Therefore, it is crucial for Türkiye, as part of the Customs Union, to develop these sectors to comply with all ESPR requirements.

Aligning with the EU and ESPR is crucial for Turkish manufacturers to sustain and enhance their competitiveness in the European market as a vital trading partner. Non-compliance risks exclusion, potentially leading to substantial economic losses for both Türkiye and the EU. Transitioning to sustainable manufacturing processes holds also promise for addressing Türkiye's unemployment problems by creating new job opportunities in green technologies, thereby supporting workforce development and mitigating unemployment. From a circular economy standpoint, there is a pressing need to boost efficiency by promoting the judicious use of materials and encouraging practices like reuse, remanufacturing, and product upgrades according to the ESPR obligations for economic actors.

⁵ https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1781>

Despite important steps taken and studies carried out, Türkiye still has a way to go in fulfilling the obligations of the Paris Agreement, reaching the 2053 net zero target and requirements of the ESPR. The energy consumption of the **chemical industry** is 4,581 TOE in 2022. Besides, the chemical industry is the sector that uses the most process water among the manufacturing sectors, with 44%, according to a study conducted in 2017. On the other hand, the electric consumption of the **electrical and electronics industry** is 4,820 GWh in 2022, constituting 2.7% of the industrial electricity consumption value. Recycling is monitored under state support, however, electronic waste and waste batteries cannot be collected sufficiently, and since they cannot be collected, equipped facilities cannot be established. Existing well-equipped facilities provide services below their capacities because they cannot reach sufficient waste collection rate.

The **textile sector**, another focus sector of the action, is stated in the EU Textile Strategy Roadmap as a resource-intensive sector with significant climate and environmental impacts. High amounts of water are used, especially in the production of raw materials in the field and in the fabric dyeing and finishing production processes (an average of 20-230 m³ of water for 1 ton of textile fabric). As another sector covered by this action, electric consumption of the **machinery industry** is 1,041 TOE and water consumption is 47,9 million cubic meters in 2022. From the perspective of resource sustainability related to ESPR, key problems that required to be addressed in the machinery sector include greenhouse gas emissions, energy efficiency, fossil fuel savings, emissions during machine operation, personnel health and safety, material sourcing, diversity in raw material and material usage, design for reuse, and services.

Addressing climate change is another critical aspect of Türkiye's adaptation efforts, focusing on lowering the carbon footprint of manufacturing through renewable, energy-efficient or low-emission technologies. By protecting resilience against climate-related disruptions, sustainable manufacturing practices are imperative for long-term industry viability and contribute to global climate change mitigation efforts. Therefore, harmonising Türkiye's manufacturing sector with EU standards is crucial across these dimensions to propel towards a green economy, sustain competitiveness in the global arena, and meet regulatory imperatives effectively. In this regard, fulfilling the requirements of the ESPR is a key step towards achieving the 2053 net-zero target and moving towards more sustainable, energy efficient and circular chemical, textile, electrical & electronics and machinery sectors.

AoS 2

Türkiye 2023 Report highlights Türkiye's strides in science and research, and its performance in the EU programmes. Despite economic readiness, Türkiye faces challenges in adapting to EU competitiveness, with slow R&D funding growth and disparities in the innovation ecosystem. Policy updates prioritise green and digital technologies aligned with EU goals, but Türkiye's participation in EU research programmes, including the EIT, needs improvement as Türkiye's participation in the EIT is short of its full potential. The 2023 Türkiye Report notes that the country's participation in the activities of the EIT is satisfactory. However, there is still potential for further enhancement. Addressing this gap is a priority to enhance participation and integration with the broader EU innovation ecosystem.

The European Innovation Scoreboard identifies Türkiye as an emerging innovator, pointing at the need for increased support for innovation capacity and entrepreneurial training. Türkiye's commitment to advancing sustainable industrial technologies was reaffirmed, emphasising the need to address these challenges to enhance competitiveness and EU integration.

Yet, Türkiye's innovation ecosystem continues to face challenges due to limited international exposure, inadequate commercialisation and entrepreneurial skills, affecting its global innovation performance and potential ability to engage in the European initiatives like the EIT. Turkish actors encounter obstacles in joining EU-funded projects due to networking and business-related constraints. To enhance Türkiye's presence and performance in the European innovation ecosystem, it is essential to showcase its innovations, improve entrepreneurial capabilities, and bolster internationalisation within the innovation ecosystem.

Although, Türkiye shows some progress aligning with the EU *acquis* in research, development, and innovation, slow growth in R&D funding, and disparities in the innovation ecosystem and support remain the main obstacles. Addressing these problems is crucial for harnessing advanced technologies for sustainable industrial development.

AoS 3

Despite Türkiye's economic growth and efforts to align with EU standards, there are still critical areas in need of improvement, particularly in resource use efficiency, innovation, and technology development to facilitate a successful transition of the Turkish economy and production towards a green economy and sustainable economic competitiveness. The industrial sector, a vital and predominant contributor to the Turkish economy, faces substantial challenges in resource efficiency, which contributes to higher costs, environmental degradation, and reduced competitiveness. While efforts to enhance resource efficiency have been made, more comprehensive strategies and actions are necessary to effectively address these issues.

The Turkish industry faces interconnected challenges involving outdated technologies and inefficient processes leading to high resource waste and energy consumption. Additionally, there is a lack of awareness and knowledge among industrial companies about the benefits of resource efficiency and sustainable practices. Industry associations and governmental bodies need to bolster their capacities to support businesses in adopting resource-efficient technologies and practices in line with European Green Deal, fostering a sustainability culture and adaptation of sustainable practices within the sector.

Moreover, sustainability is often not prioritised in business models, resulting in over-reliance on non-renewable resources and environmental degradation. Lastly, environmental concerns are insufficiently integrated into management perspectives in target sectors, leading to limited investment in efficient and cleaner production technologies at scale. Addressing these issues comprehensively is crucial for advancing resource efficiency and sustainability in Türkiye's industrial landscape.

Identification of main stakeholders and corresponding institutional and/or organisational issues (mandates, potential roles, and capacities) to be covered by the action

- Ministry of Industry and Technology (MoIT) - policy implementation and institutional coordination.
- Sectoral and industry associations and respective members - outreach, promotion and facilitation of actions.
- Other ministries and government institutions - policy cooperation and integration of actions.
- Non-governmental organisations and civil society organisations – policy dialogue, stakeholder representation and participation.
- Technology users and providers, innovative start-ups, new ventures, entrepreneurs, digital transformation and innovation centres, research labs – service providers and beneficiaries.

2.3 Lessons Learned

AoS 1:

- In terms of harmonisation with EU Regulations and standards, previous initiatives that integrated EU standards into local regulations successfully improved market access and competitiveness for Turkish manufacturers. These efforts facilitated smoother trade relations and compliance with international markets. Whereas in terms of stakeholder engagement, EU projects that actively involved stakeholders, including manufacturers, government bodies and industry associations, experienced higher levels of buy-in and successful implementation of sustainable practices. Furthermore, initiatives focusing on training and capacity building for government agencies and related industry associations, such as "Technical Assistance for Improving Product Safety Through Better Harmonisation and Implementation of EU Technical Legislation on Machinery Sector" project implemented under

Regulatory Reform and Acquis Alignment component of the sector operating programme of IPA II, have been one of the good examples of an intervention leading to an adoption of EU technical legislation, standards and green economy transition.

- This action aims to build upon these positive developments and leverage further the harmonisation through detailing the policy framework in line with EU regulations and improving the adaptation of the industry to sustainable practices at the field level.
- In several cases within the projects implemented in Türkiye that aimed to increase sustainable production in the industry, a resistance from industry players have been encountered due to a lack of understanding of the long-term benefits of sustainable practices. Limited understanding of industrial players on the advantages of sustainable practices and threats faced by not adapting to the EU Green Deal regulations, have restricted the scope and impact of projects implemented. The task of harmonisation of the ESPR is under the responsibility of the MoIT and the related actions in this area will be conducted directly by the MoIT. Drawing upon these lessons learned, the action aims to improve the ESPR understanding, capacities and awareness of economic actors and all relevant stakeholders with MoIT and effectively encourage sustainable implementations under strengthened national regulatory framework and guidance in collaboration with EU bodies.

AOS 2:

- Working in isolation has proven less effective than joining forces among the EIT Knowledge and Innovation Communities (KICs), therefore EIT has initiated a consolidation process under which all the offerings of the KICs will reach out to the local innovator community through a one-stop shop, an EIT Community RIS Hub. At the same time, having a place-based approach brings opportunities closer to the innovators. The EIT RIS is proof of that, since 41% of the EIT Grant went to RIS countries in 2021-2023, compared to 34% in the other Horizon Europe programmes on average. This success, the highest by far in terms of dedicated Horizon Europe innovation instruments, contributes to closing the innovation divide across Europe. Furthermore, some EIT KICs have noted that the success rate of start-up applications to KIC programmes which were supported by RIS Hubs stood at 56%, versus a 23% general success rate from countries without a physical local KIC presence, clearly highlighting the importance of having on-the-ground presence and having active EIT Community RIS Hubs in countries.

In parallel, connecting local innovation ecosystems across Europe generates a multiplier effect of opportunities for innovators to grow their ideas, develop and test concepts and upscale them in connection with clients and investors.

AOS 3:

- EU initiatives have raised awareness and built considerable capacity in climate change management, improvement of efficiency and industrial green transition. Projects such as ‘Productive SMEs of Trakya Region Project’, ‘Identification of Resource Efficiency Potential in Industry’, ‘Integrated Resource Efficiency in Agriculture and Agro-Based Industries in Southeast Anatolia Project’ have contributed to improving the efficiency and mitigate climate change risks in Türkiye and adaptation of industrial practices, fostering awareness and capacity building within key government institutions, NGOs, and ministries, and industries. They have also supported the development of national policies and strategies in key areas for carbon emissions and adaptation of national plans in line with EU priorities of green and circular economy.
- While investments at the organisational level aim to align with EU frameworks, addressing policy-level initiatives requires leadership from the central government. There is a lack of available data at the industrial sectors and at the national level to assess the feasibility of investments to increase resource efficiency. Although there are some collaboration platforms, there is a significant need for centralised coordination to facilitate sustainable methods and technologies to improve resource

efficiency in industrial facilities. This could be addressed through a network of experienced industrial assessment centres which will be established through enforcement of existing similar centres such as "Applied SME Capability Building Centre (Model Factory)", currently underway in collaboration with the Ministry of Industry and Technology and UNDP, and in co-operation with development agencies, universities and chambers of industry.

- Although there are various centres, institutions and consultancy companies operating in Türkiye, these companies serve mostly large enterprises and clustered in the Marmara region. Therefore, there is still a need to increase nationwide company-level analysis capacity on resource efficiency, in particular for primary and secondary energy resources, process energy needs, water usage, and other process gains. These efforts will enhance the company level profitability, de-carbonisation, water footprint decreasing efforts of SME and Midcap level companies in Türkiye.

3. DESCRIPTION OF THE ACTION

3.1 Intervention Logic

The Overall Objective/Impact of this action is to enhance the green and smart transformation of the Turkish industry.

The Specifics Objectives/Outcomes of this action are:

- 1- To enhance the adaptation of the Turkish industry and harmonisation with EU legislation within the context of green and circular economy.
- 2- To improve the innovation ecosystem in Türkiye and integration with EU industrial value chains and innovation networks.
- 3- To escalate the transition towards a green economy through improvement of resource efficiency in the industry sector.

The Outputs to be delivered by this action contributing to the corresponding Specific Objectives (Outcomes) are:

- Output 1.1 contributing to Outcome 1 (or Specific Objective 1) Policy framework and institutional capacities for ESPR awareness, sustainability reporting, due diligence requirements are enhanced.
- Output 2.1 contributing to Outcome 2 (or Specific Objective 2) Research, technological development and innovation facilities and network of the Turkish R&I stakeholders are strengthened.
- Output 3.1 contributing to Outcome 3 (or Specific Objective 1) Awareness, knowledge and capacities of private sector stakeholders on the green economy and resource efficiency are increased, leading to improved resource use efficiency at the industrial facilities.

The underlying intervention logic for this action is that:

To establish an effective system for adapting to a green economy, it is essential to enhance the institutional and policy alignment in line with ESPR and increase capacities of the private sector for resource efficiency and green production. This involves strengthening the capacity of national institutions and increasing awareness among companies about forthcoming EU regulations and requirements. It is anticipated that companies will boost their investments in reducing carbon emissions, transform their production processes, and thereby increase their competitiveness and export performance.

Additionally, Turkish participation in the EIT programmes can be ensured by increasing the capacity of Turkish research and innovation stakeholders to develop projects in policymaking, coordination, research, and innovation. Furthermore, enhancing information and knowledge exchange among stakeholders with European ecosystem is crucial. If Turkish researchers are encouraged to join European research networks, they will become part of projects/programmes, research and/or business initiatives that develop future technologies,

leading to their enhanced integration into the European Innovation Ecosystem. This integration will further advance scientific research and increase the technological capabilities of Türkiye's industrial sectors.

3.2 Indicative Activities

AoS 1:

Activities related to Output 1.1: Legislative, administrative, technical, technological etc. requirements, best-case scenarios and following steps on due diligence, green supply chain mechanisms, corporate sustainability, product-based sustainability, economic sustainability of green transition and green energy supply according to ESPR will be analysed. The study will cover the priority sectors selected under ESPR: chemicals, textiles, electrical & electronics, and machinery. In line with the ESPR requirements, specific, actionable, detailed roadmaps for each sector, which will include SDG oriented goals for these sectors and guidelines for the enterprises on sustainability reporting will be prepared.

EU Net Zero Industry Act requirements within the scope of “Fit for 55” initiative will be analysed and following steps specific to prioritised sectors will be determined taking the 8 technology areas of the EU Net Zero Industry Act into account. Roadmaps will be developed for MoIT and its affiliate institutions. EU-wide legislation will be analysed. Country specific (i.e. Germany) legislation will also be analysed where needed. Roadmap will include guidelines that consists of requirements varying on sector and enterprise size (i.e. small, medium and large).

For the sake of green growth and competitiveness of the textile, chemicals, electrical & electronics, machinery sectors, analysis and evaluation on these sectors' compliance with the Digital Product Passport requirements within the scope of ESPR will be conducted and compiled as a comprehensive report. Based on the reports, practical trainings will be organised to improve the capacity of both the sector and MoIT.

Activities related to Output 1.2:

Implementation methodology for industry and products/products group within EC Decision No. 2021/2279 will be analysed, lifecycle assessments on process and usage will be conducted in the selected sector enterprises which are provided to MoIT from NGOs that have wide product ranges from the prioritised sectors and reported. Guidelines will be developed for each prioritised sector for the utilisation of industrial enterprises and capacity development activities will be conducted for MoIT, related NGOs and the sector.

Green economy, ESPR and related EU Regulations-based test, inspection and verification needs analyses will be conducted with the enterprises that have wide product ranges from the prioritised sectors and reported. The analysis reports will be utilised to form guidelines on digital product passport requirements and conformity processes for the industry enterprises. The guidelines will be introduced to the industry and stakeholders through capacity development activities.

The guidelines will be elaborated for four sectors, and these will be technical documents to guide the policy-makers and economic actors on how to prepare a well-structured and an effective ESPR related policy applications in detail. It will include strategical, analytical and operational steps/activities in process. The guidelines will also have strong data pillar which guide policy makers and economic actors how to choose, collect-reach and analyse the sectors and products related implementations. The guidelines for each sector should indicatively include:

- EU Net Zero Industry Act implementation and technology transitions
- Extended Producer Responsibility for Products
- Product Environment Footprint according to EU Decision 2021/2279
- Green Public Procurement Implementations
- Verification and Conformity Assessment Procedures
- Unsold Products Implementations for economic operators

- Digital Product Passport Implementations
- Procedures for Mitigation and Use of Hazardous Chemicals in line with EU
- Sustainability Reporting and Due Diligence Process for SMEs
- Sustainable Packaging for Enterprises

Implementation of ESPR-oriented legislations will be reinforced by providing trainings to the selected sectors and relevant public institutions on the prepared guidelines above. Staff of MoIT, related public institutions, NGOs, manufacturers, Conformity Assessment Bodies (CABs) and Verification Bodies (VBs) will be trained according to ESPR requirements which are:

- Data Collection Methods
- The Duties of Sustainability Departments within enterprises
- Verification and Conformity Assessment Procedures with related EU Harmonised Standards
- Best Practices in EU
- Relationship with EU Implementations such as Digital Product Passport

AOS 2:

This area of support will encompass two core activities: supporting the implementation of EIT programs/initiatives for:

- Addressing the skills and finance gap of the SMEs through implementation of several initiatives including the Jumpstarter and Post Jumpstarter.
- Providing capacity building for representatives of scientific organisations that own research infrastructures and other local stakeholders through the implementation of EIT initiatives such as the InfraBooster.
- Within the scope of the EIT Jumpstarter, a dedicated Türkiye cohort will be established for Turkish participants across thematic categories, inter alia, offering prizes for top Turkish solutions.
- The EIT InfraBooster's extensions to Türkiye will offer free access to Foundation training and recruit expert teams from Turkish research institutions to develop business-oriented services.
- The action will also serve boosting the activities of the EIT Community RIS Hub in Türkiye only beyond its core tasks as outlined in the EIT RIS Hubs Minimum Standards and Guiding Principles to:
 - Organise appropriate outreach activities aimed at increasing local awareness of the EIT Community and its opportunities, build capacity aimed at increasing the success rate of Turkish applicants in EIT activities and, where appropriate, support consortium building, including towards the EIT Higher Education Initiative (HEI).
 - Undertake, in close cooperation with the EIT, an analysis of the potential for the establishment of the EIT labelled higher education programmes in Türkiye.
 - Support interested Turkish universities in potentially setting-up new EIT label Master and PhD programmes, as well as joint degree programme in Türkiye.
 - Conduct a Baseline Study and Gap Analysis to see where Türkiye stands in terms of benefiting from the EIT opportunities as well as the identify local needs linked to opportunities offered by the EIT.

It is pertinent to note that the activities of the EIT Community RIS Hub will be outlined in an Annual Activity plan, approved by the EIT Community, which will include details of the nature and scope of all planned activities.

AoS 3:

The establishment of a network of Resource Efficiency Assessment Centres in Türkiye will address the critical need for industrial resource optimisation, particularly among SMEs, which often lack the expertise and financial capacity to implement such practices.

The MoIT will be responsible for ensuring that the existing structures across the country will be harmonised with the new structure of REAC in a consistent and sustainable manner while ensuring the operationalisation and long-term budgeting of the REACs.

These centres will provide on-site assessments and tailored recommendations for improving energy, water, material efficiency and process optimisation, helping businesses reduce costs and enhance sustainability. The impact will be significant, leading to measurable resource reductions, increased competitiveness, and alignment with EU climate targets, ultimately driving widespread, lasting improvements in Türkiye's business sector.

The AoS consists of two core activities:

The first is the development of a strategic basis, including a strategic, fact-based framework and sustainability criteria for resource efficiency assessment centres. This framework will be built on data-driven insights from existing projects, such as "Applied SME Capability Building Centre" (referred in lessons-learned), and will consider industry resource use, sector needs, best practices, and financial support mechanisms. It aims to ensure the centres' effectiveness and alignment with long-term goals and EU environmental standards.

The second activity is the establishment and operationalisation of the Resource Efficiency Assessment Centres within a national network, along with the development of a national integrated resource efficiency database and sector-specific sustainable production roadmaps. The centres will be physical facilities that will conduct on-site evaluations at industrial plants, gather data, and deliver detailed recommendations on process improvements, cost-saving measures, and sustainability practices, contributing to the overall competitiveness and environmental performance of industries.

The sectors, centres and exact locations will be identified during the initial phase of the action. These centres will be operationalised preferably through prioritisation and enforcement of existing similar centres (such as digital innovation hubs, model factories, R&D centres, etc).

The establishment of a network of industrial assessment centres in Türkiye aims to create a unified approach among experts from various disciplines, promoting effective communication and collaboration through a standardised framework. This approach will enable comprehensive resource efficiency solutions that address energy, water, materials, and process optimisation, moving beyond the narrow focus of many consultancy firms. The centres will also collaborate with local universities, engaging MS and PhD students to provide hands-on experience in resource efficiency assessments. This integration will enhance students' practical knowledge and create a continuous education pipeline, fostering innovation and sustainable practices in the industrial sector. Additionally, the centres will produce standardised, fact-based reports analysing resource efficiency opportunities in industrial facilities. These reports will provide data-driven insights into energy, water, and material use, guiding producers in identifying optimisation areas. These reports will help secure financial incentives and grants, supporting the sustainable transformation of industries while aligning with national and regional development goals.

At the end of the action, sector-specific sustainable production roadmaps will be developed. The target of creating industry-specific sustainable production roadmaps in Türkiye through the establishment and operation of industrial assessment centres will involve gathering detailed data on resource efficiency, energy use, and sustainability practices across different sectors. These centres will conduct in-depth assessments, identifying unique challenges and opportunities within each industry. The data collected will be used to develop customised roadmaps that outline practical steps for businesses to improve resource use, reduce environmental impact, and adopt sustainable production methods.

Activities related to Output 3.1: First, a strategic fact-based framework and sustainability criteria will be built on data-driven insights into existing assessment and consultancy centres and projects, possibilities of

reinforcement of and co-operation with existing centres or projects, industry resource use, sector-specific needs, best practices in sustainability, and financial support mechanisms. The framework will guide the centres' operations, ensuring they focus on the most impactful areas, foster continuous improvement, and contribute to national sustainability goals, while maintaining alignment with EU environmental standards and industry trends. To develop the framework, meetings, workshops, surveys, and fact-finding studies will be conducted to review research, policies, and programs on resource efficiency in Türkiye's main industrial sectors, including machinery, automotive, textile, metal working, and furniture. The selected Development Agencies will coordinate the establishment and operationalisation of the centres.

These studies will assess current knowledge and institutional capacity, identify specific needs of stakeholders, and consider climate change impacts, gender-specific needs, and the role of gender equality in enhancing resource efficiency and conservation efforts.

Based on the review of available literature and baseline information, consultations with authorities, non-government organisations, civil society organisations, and focus group meetings, a consolidated survey results report will be prepared as the initial output. Based on the survey report, a policy framework report outlining the needs of key sectors and a nation-wide integrated resource efficiency assessment centres network model, will be developed. An action plan will be another output that contains roles and responsibilities, required resources, financing plans and estimated timeframes. The policy framework and the action plan will provide a structured, strategic approach to guide the organisational design, refurbishment, and operation of these centres.

Additionally, capacities of related institutions will be analysed, and the roles of government institutions, NGOs, and other stakeholders will be described. To establish resource efficiency assessment centres for SMEs, it is essential to analyse the capacities of various local institutions, including development agencies, industry associations, OIZs, chambers of industry and/or commerce, and academic institutions. This will help tailor the centres' services to local needs, ensure compliance with regional policies, and foster effective collaboration and support networks for SMEs. Then, an organisational schema for the network of centres will be developed, along with performance indicators for evaluating the action and individual centres.

Activities related to Output 3.2: To establish resource efficiency centres, feasibility analyses will be conducted to identify opportunities for cooperation with existing services, such as The Clean Production Centre, established by TÜBİTAK, and model factories operated under the "Applied SME Capability Building Centre (Model Factory) Project". The goal is to complement and enhance current initiatives through strategic partnerships and utilize existing structures. Key inputs needed for establishing the centres include physical infrastructure like office spaces and diagnostic (measurement and test) equipment necessary for conducting assessments, access to specialized knowledge in energy efficiency and sustainability from industry experts and academic institutions, and practical methodologies for data collection and optimization strategies.

Skilled professionals, such as engineers and environmental scientists, will be essential for conducting assessments and providing tailored advice. Additionally, access to industry-specific data and best practices will aid in designing effective assessment tools and delivering relevant recommendations. The analysis will review current resources and services from similar institutions, evaluate the specific needs of local SMEs, and ensure the centres address these needs without overlapping existing efforts. Centres will be set up with input from universities, research institutions, and local stakeholders, with roles and responsibilities defined in a gender-sensitive manner. Technical specifications for measurement and test equipment necessary to conduct resource efficiency assessments and laboratory infrastructure will be developed and implemented.

The REACs will conduct comprehensive resource efficiency analyses across various sectors, identifying opportunities for optimising energy, water, materials, and processes. Based on the findings of these assessments, detailed reports will be generated, outlining specific areas for improvement. These reports will then guide the implementation of pilot projects (for improving resource efficiency) within the selected SMEs, allowing for the practical application of resource efficiency strategies. The pilot projects will serve as models

for best practices, demonstrating the potential benefits of resource optimisation and providing a framework for wider adoption across the industrial landscape.

A nation-wide resource efficiency database will be generated and maintained, alongside sector-based sustainable production roadmaps. Data will be collected during resource efficiency assessments conducted by expert teams, who will gather information on energy use, water consumption, material flows, and process efficiency at industrial facilities. The assessment teams will use digital tools and monitoring systems to capture real-time data, which will be standardised and fed into the database. Continuous updates will be made by the assessment centres as they conduct further analyses, ensuring that the database reflects the latest resource efficiency trends and opportunities across industries. This centralised repository will serve as a critical tool for benchmarking, analysis, and strategic decision-making for sustainability efforts nationwide. Once the integrated resource efficiency network is established, a central coordinator (main hub) will be designated to manage the system. All data will be consolidated and stored in the database at this hub. For instance, as recommended during the consultation meetings, if the TÜBİTAK Clean Production Center joins the project, it could assume the role of coordinator.

The action, furthermore, includes capacity-building activities aimed at equipping enterprises with the skills to implement sustainable practices. This will involve practical training on conducting resource usage assessments, identifying efficiency improvement opportunities, and applying the latest sustainability techniques and technologies. Study tours abroad will provide participants with exposure to best practices and innovations in resource efficiency, fostering a culture of continuous learning.

3.3 Mainstreaming

Environmental Protection, Climate Change and Biodiversity

This Action will include numerous dissemination and support activities to enable action stakeholders and final beneficiaries to collaborate more effectively with their European counterparts within the Green Deal Agenda. Through institutional and policy alignment in line with ESPR and adaptation to new techniques and technologies and increasing awareness of carbon footprint reduction and Green Deal topics, companies will experience a smoother and faster transition to a green economy.

EIT Knowledge and Innovation Communities contribute their expertise and assets towards general mission of addressing key societal and environmental challenges for European societies with innovative solutions generating positive impact. Environment-friendly materials and equipment will be used throughout the implementation of the Action. Wherever possible, the documents are delivered in online format, used standard e-learning platforms and digital tools. Vocational workshops will be set-up using environmentally friendly materials, to the extent possible. Whenever possible, hybrid and/or online events/workshops will be organised to avoid unnecessary travel.

Gender equality and empowerment of women and girls

As per OECD Gender DAC codes identified in section 1.1, this action is labelled as G1. This implies that the activities implemented within this Action will align with the priorities and guidelines of the EU Gender Equality Strategy and policies aimed at supporting the participation of women. Measures to ensure gender equality during the Action's implementation include:

- Identification of the role of gender equality and women's empowerment in improving resource efficiency, conserving natural resources, and benefiting from ecosystem services;
- Emphasising the notable role of young women have played in leading actions related to climate change;
- Setting and monitoring specific gender targets for women researchers and entrepreneurs/industrial facility owners,
- Involving women researchers, entrepreneurs, and employees in decision-making processes for strategic initiatives;

- Enhancing the visibility of support for women researchers and entrepreneurs through tailored communication campaigns via press, television, radio, and social media;
- Ensuring equal participation of women and men in all capacity building activities.

The action will enhance the participation of women. Through examples and success stories from the EIT programmes previous editions, the action will encourage an entrepreneurial mindset change and having more women in deep-tech environments, more women entrepreneurs growing and getting funded, and more women becoming active and leading investments in innovation, and hence shaping the innovations available in the market. The programme’s experts, mentors and jury members will also be selected in accordance with gender balance and gender mainstreaming.

EIT programs are following diversity, equity and inclusiveness (DEI) principles in program implementation, highlighting the benefits of gender balance in innovation management during events and meetings organised in the program framework, ensuring gender diversity in implemented actions, showcasing both female and male role models in scientific activities (e.g. ensuring balanced representation among trainers and mentors, in used testimonials, success stories, visuals developed for communication). Program undergoes regular internal audit of educational and training materials to ensure inclusive and gender balance conscious communication. DEI training for staff involved in training delivery is foreseen. Following a common practice for EIT Food (leading EIT KIC for this initiatives), a minimum quote (of at least 35% of all supported) was set up for the female experts selected to join events and co-funded with sub-grants if foreseen in the activity. The effectiveness of the undertaken measures is confirmed and so far, the participation of women in the program exceeds 55%.

3.4 Risks and Assumptions

Category	Risks	Likelihood	Impact	Mitigating measures
AOS 1				
4 - Legality and regularity aspects	Delay in harmonisation of national legislation with EU regulations	Medium	High	Ensure continuous dialogue and coordination with EU bodies; establish a dedicated task force to monitor and accelerate legislative alignment efforts.
1- External environment	Increased costs for SMEs to comply with new eco-design and energy labelling requirements	High	High	Offer training and information resources to help SMEs adapt to new requirements.
2 - Planning, processes and systems	Lack of technical expertise and infrastructure to implement eco-design and energy labelling standards	Medium	High	Develop capacity-building programs and technical training for stakeholders; invest in upgrading necessary infrastructure and technology.
3 - People and the organisation	Resistance from consumers and industry stakeholders to adopt new standards and practices	Medium	Medium	Conduct awareness campaigns highlighting the benefits of eco-design and energy-efficient products; engage stakeholders through consultations and feedback.
1- External environment	Unintended negative environmental impacts during the transition phase	Low	Medium	Implement rigorous environmental impact assessments and monitoring during the transition phase; develop guidelines for environmentally responsible practices.
1-External environment	Risk of perpetuating economic inequalities by disproportionately affecting smaller enterprises	High	Medium	Implement targeted support measures for smaller enterprises; ensure equitable access to resources and information.

3-People and the organisation	Interference with participation rights or other human rights risks	Low	Low	Ensure transparent and inclusive stakeholder engagement processes; monitor and address any human rights concerns promptly.
AOS 2				
2 - Planning, processes and systems	Low number of quality applications in EIT Jumpstarter and post-Jumpstarter	High	High	Involving the EIT Community RIS Hub in scouting activities, especially during the recruitment phase. Exploring a possibility of the national government support in promotion / an official endorsement of the programme
2 - Planning, processes and systems	Disengagement of the participants in the EIT Jumpstarter due to length of the programme and the expected commitment	Medium	Low	Activities will be planned in hybrid format to allow easier participation and flexibility in delivering assignments throughout the programme.
3-People and the organisation	Low participation of women in the EIT Jumpstarter and women-led start-ups in post-Jumpstarter	Medium	Low	Enhancing women through promotional campaigns and showcasing successful female innovators; Exploring the possibility of engaging female advocates on the ground who could entice more women to the programme
3-People and the organisation	A low number of applications to EIT InfraBooster due to the first editions of the implemented programs	Medium	High	EIT Community Hub and existing EIT KICs RIS Hubs promotion support. Involvement of local partners recognised in the ecosystem in activity delivery.
4 - Legality and regularity aspects	The delayed signing of the grant agreement between EIT and the EIT Community Strategic Regional Innovation (SRI) Cluster and uncertainty regarding the formal procedures of involvement of KICs educational partners in EIT InfraBooster	High	High	The continuation of the other cohorts of the program under EIT Community SRI Cluster should not affect the implementation and is supposed to be confirmed in 2025 Q3. Multiple editions of EIT InfraBooster Foundation allows engaging individual participants in different parts of the year, but significant delay in finalising grant agreement may postpone the Practitioner level implementation to the next year in line with typical academic year calendar. Careful planning and monitoring in the programming phase are necessary and is foreseen.
1-External environment	Political turbulences or changes in legislation may negatively influence recruitment of researchers and administrative staff in InfraBooster	Low	High	Activities will be co-created with local collaborators and consultations are planned to make necessary adjustment in activity format to allow easy participation of local stakeholders. Such changes would affect any other EIT initiatives, therefore EIT RIS Hubs in Türkiye are tasked to monitor any obstacles to involve local.
2- Planning, processes and systems	High drop off rate among participants of EIT InfraBooster	Medium	Medium	Regular intakes for EIT InfraBooster Foundation allow to secure participation in Practitioner level. Qualifying teams and requiring confirmation from applying institutions authorities proved to lower significantly drop off rate.
AOS 3				
3-People and the organisation	Lack of interest of central level institutions in activities.	Low	Medium	Effective communication and timely updates on project activities to secure the participation of all relevant stakeholders.
3-People and the organisation	Lack of participation of industrial facilities in pilot activities, including resource	Medium	Medium	The action will develop an outreach (including communication, visibility and etc activities) strategy that is covering the direct dissemination of project activities

	efficiency assessments and applications for improvement			at local level. In addition, the development agencies will closely work with local industrial facilities.
1-External environment	Lack of commitment and financial capacity of institutions which will facilitate collaboration between industrial sectors and the resource efficiency assessment centres to ensure sustainability of outcomes	Low	Medium	While strong communication will be ensured the development agencies will closely work with local institutions (e.g. universities, chambers of industries, NGOs and OIZs).
2-Planning, processes and systems	Delay in the implementation of project activities	Low	Medium	Continuous communication with all relevant stakeholders will ensure all risk mitigation measures are in place. In addition, the Project Steering Committee (PSC) will also be informed about risks of delays and necessary actions will be identified by the PSC.
5-Communication and information	Lack of participation of the target groups to the capacity development activities.	Low	Medium	Awareness raising campaigns will be designed and implemented to ensure the participation of the target groups to the capacity development activities.

External Assumptions

AOS 1:

- Effective communications and collaborations with the Union of Chambers and Commodity Exchanges of Türkiye (TOBB).
- Effective communications and collaborations with the ministries and Union of Municipalities of Türkiye.
- Effective communications and collaborations with Ministry of Environment, Urbanisation and Climate Change and Ministry of Trade.
- Effective communications and collaborations with Turkish Accreditation Institution and Technoparks.
- Adequate cooperation and data sharing between Turkish and EU institutions to develop accurate and comprehensive road maps.
- Turkish industries are willing and able to adopt sustainable and resource-efficient practices.
- Relevant authorities in European countries are cooperative and supportive of onsite inspections.

AOS 2:

- Teams participating in EIT incorporate their ideas into registered companies.
- Sufficient start-up alumni from EIT programs survive the first year.
- Research infrastructure institutions prioritise private market income over public grants.
- Start-ups don't discard growth through capital investment versus organic growth.
- Excellent dissemination and engagement of course opportunity through local R&I stakeholders.

AoS 3:

- Stable political climate and macro-economic situation.
- Continued commitment to the EU accession process.
- Sufficient data which will be collected at industrial facilities through test and measurement devices to run the techno-economic resource efficiency analyses.
- Efficient stakeholder commitment, dedication to participate and cooperate throughout action.
- Convergent views and decisions among the stakeholders and relevant institutions.
- Sufficient number of assigned personnel in charge of the action within relevant ministries/institutions.
- Sufficient number of high qualified experts with satisfactory knowledge and experience.
- Targeted beneficiaries show interest on capacity development programmes and trainings.

3.5 Indicative Logical Framework Matrix

Results	Results chain: Main expected results [maximum 10]	Indicators [it least one indicator per expected result]	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	To enhance the green and smart transformation of the Turkish industry	WIPO Global Innovation Index ranking Implementation level of the actions of the GDAP	39th (2024) 1 0 (2024)	>39 th (2030) 1 60% (by the end of the implementation)	World Intellectual Property Organisation, GDAP Annual Reports of Türkiye	<i>Not applicable</i>
Outcome 1	Enhanced adaptation of the Turkish industry and harmonisation with EU legislation within the context of green and circular economy.	Environmental impacts, including carbon footprint and environmental footprint in the target group enterprises [Decrease in $\sum(\text{Activity Data} \times \text{Emission Factors})$] Energy efficiency in the target group enterprises (Decrease in total energy consumption/total production output). Water efficiency in the target group enterprises (Decrease in total water consumption/total production output) Resource efficiency in the target group enterprises (Decrease in total material input/total production output)	2024 (100%)	- 10% (2030) + 10% (2030) + 10% (2030) + 10% (2030)	International Energy Agency Database TURKSTAT Climate Change Bi-Annual Reports of Türkiye Data from enterprises and sectoral NGOs, and Project Reports	Companies are investing in sustainable production and reducing carbon emissions. Transformation of production processes increase companies' competitiveness and export performance. Private sector support and interest in the carbon emission reduction by consumers is high.
Outcome 2	Improved innovation ecosystem in Türkiye and integration with EU industrial value chains and innovation networks promoted.	Number of new ventures created. Amount of capital funds attracted by start-ups supported.	2 (2024) EUR 1 700 000 (2024)	34 (2028) EUR 1 940 000 (2028)	EIT Databases and Reports	There will be no major national & international policy change affecting the official participation of Türkiye in the EU Programmes. Turkish researchers are willing to participate in those consortia which will provide them to be a part of projects determining the future technologies.

Outcome 3	Increased awareness, knowledge and capacities of private sector stakeholders on the green economy and resource efficiency, leading to improved resource use efficiency at industrial facilities.	Türkiye's Score in Resource Efficiency Index.	5.00 (2020)	6.5 (2030)	World Bank Resource Efficiency Index	Stable political climate and macro-economic situation. Continued commitment to the EU accession process and EU Green Deal. Commitment of the stakeholders to efficiency improvements.
Output 1.1	Institutional and policy alignment in line with ESPR achieved via actionable roadmaps.	Industry policy frameworks harmonised with EU industrial regulations. Number of comprehensive actionable roadmaps defined in line with industry specific ESPR requirements.	0 (2024) 0 (2024)	1 (2030) 4 (2030)	TURKSTAT and Ministry of Industry and Technology databases	Sufficient number of assigned personnel in charge of the project within relevant ministries/institutions. Continued commitment of the Ministry for the implementation of policy frameworks.
Output 1.2	Prioritised sectors' set of measures defined, capacities to meet the Green Deal requirements increased and adaptation enhanced.	Number of industrial enterprises received support and reduced their carbon footprint. Number of environmental sustainability facilitators increased their green growth support effectiveness. Number of civil society stakeholders harmonised their action plans with SDGs and ESPR.	0 (2024) 0 (2024) 0 (2024)	40 (2030) 40 (2030) 10 (2030)	Interim and final reports of the Project Project M&E system Institutional databases	Targeted beneficiaries show interest on capacity development programmes and trainings. Sufficient number of high qualified experts with satisfactory knowledge and experience.
Output 2.1	Participation and integration to EIT programmes and innovation ecosystem enhanced.	Number of start-ups supported. Number of new products/services launched to the market. Number of graduates from EIT-labelled courses.	32 (2024) 3 (2024) 224 (2024)	60 (2030) 15 (2030) 324 (2030)	EIT Databases and Reports Progress Reports	EIT RIS Hub will be established and its core activities will be conducted via EIT's own resources. Sufficient start-up alumni from Jumpstarter will survive the first year. Research infrastructure institutions will prioritise private market over public grants. Course opportunities will be effectively disseminated and

						engaged through local R&I stakeholders.
Output 3.1	Strategic fact-based framework and sustainability criteria for resource efficiency assessment centres developed.	Number of survey and fact-finding reports in key sectors.	0 (2024)	At least 4 (2030)	Analysis Reports	Efficient stakeholder dedication to participate and cooperate throughout action. Convergent views and decisions among the stakeholders and relevant institutions.
		Number of policy framework reports and action plans at local levels.	0 (2024)	At least 4 (2030)	Policy Framework Reports and Action Plans Progress Reports	
Output3.2	Resource Efficiency Assessment Centres and network established, pilot application and resource efficiency services provided.	Number of resource efficiency assessment centres established	0 (2024)	At least 4 (2030)	Co-operation Protocols	Targeted beneficiaries show interest on capacity development programmes and trainings. Sufficient number of assigned personnel in charge of the project within relevant ministries/institutions and qualified experts.
		Number of facilities at which pilot actions conducted, including resource efficiency assessments and applications for improvement	0 (2024)	45 (2030)	Resource Efficiency Assessment Reports	
		Number of national integrated resource efficiency database set	0 (2024)	1 (2030)	Communication Plans	
		Number of sustainable production roadmaps	0 (2024)	4 (2030)	Training and Dissemination Activities	
		Number of established sustainability sub-structures (co-operations)	0 (2024)	At least 4 (2030)	Progress Reports	
		Number of people received training in resource efficiency improvement	0 (2024)	150 (2030)		

4. IMPLEMENTATION ARRANGEMENTS

4.1 Financing Agreement

In order to implement this action, it is envisaged to conclude a financing agreement with the Republic of Türkiye.

4.2 Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements implemented, is 72 months from the date of conclusion of the financing agreement.

Extensions of the implementation period may be agreed by the Commission's responsible authorising officer by amending this Financing Decision and the relevant contracts and agreements.

4.3 Implementation Modalities

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures⁷.

4.3.1 Indirect Management with a pillar-assessed entity

A part of this Action (AOS 2) may be implemented in **indirect management with the European Institute of Innovation and Technology (EIT)**. This implementation entails the improvement of innovation ecosystem in Türkiye and integration with EU innovation networks. The envisaged entity has been selected using the following criteria: demonstrated track record in creation of start-ups, experience in advancing innovation and in supporting regional innovation actors, expertise in the development of training programmes tailored for strengthening local capacities for entrepreneurship, proven work record in empowering local innovation ecosystems in modern and emerging innovation countries.

The EIT stands out as an ideal implementing partner as it is the institution that implements and coordinates the EIT programs. As Europe's largest innovation ecosystem, the EIT comprises over 3,200 partners and operates through more than 70 innovation hubs. This vast reach ensures that the EIT can mobilise a diverse and effective range of stakeholders to achieve project goals.

The EIT strongly promotes entrepreneurship and the scaling of start-ups across Europe. Its EIT Jumpstarter programme and other initiatives help entrepreneurs bring innovations to market by providing access to funding, mentoring, and networking opportunities. This startup-centric approach fills a critical gap in Europe's innovation landscape. The KICs' track record, including the creation of successful start-ups like Northvolt and the support of several unicorn companies, underscores their ability to foster impactful innovation. Moreover, the EIT's focus on sustainable and green innovation aligns well with the priorities of many current initiatives, making it a strategic partner in advancing these goals.

⁷ [EU Sanctions Map](#). Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.

In case the envisaged entity would need to be replaced, the Commission's services may select a replacement entity using the same criteria. If an entity is replaced, the decision to replace it needs to be justified.

A part of this action (AoS3) may be implemented in **indirect management with a pillar assessed entity**, which will be selected by the Commission's services using the following criteria:

- Track record in the formulation, advocacy, and implementation of policies aimed at fostering the green economy, particularly in Türkiye.
- Proven ability to engage with government, private sector, and civil society stakeholders to drive sustainable development initiatives.
- Technical proficiency in energy efficiency practices and the development of programmes that promote sustainable energy use.
- Experience with integrated resource efficiency strategies
- Hands-on experience in the establishment and operationalisation of resource efficiency centres
- Proven ability to manage projects aimed at improving industrial processes, reducing waste
- Demonstrated commitment to empowering youth through vocational education and capacity-building programmes focused on the green economy
- Ability to build strategic partnerships with various stakeholders, including state agencies, international organisations, and the private sector, to advance green economy initiatives.

The implementation by this entity entails the improvement of resource efficiency for sustainable production and services (AoS 3 – outcome 3).

4.3.2 Indirect Management with an IPA III beneficiary

A part of this action (AOS 1) will be implemented under indirect management by the Republic of Türkiye. This implementation entails the harmonisation of the Turkish industry with EU sustainable industry practices.

The Managing Authority responsible for the execution of the action is the Ministry of Industry and Technology, Directorate General for EU and Foreign Affairs. The Managing Authority shall be responsible for legality and regularity of expenditure, sound financial management, programming, implementation, monitoring, evaluation, information, visibility and reporting of IPA III activities.

The Managing Authority shall rely on the sectoral expertise and technical competence of the following **intermediate body for policy management: Ministry of Industry and Technology - Directorate General for Industry.** It shall ensure sound financial management of the action.

Budget implementation tasks such as calls for tenders, calls for proposals, contracting, contract management, payments and revenue operations, shall be entrusted to the following intermediate body for financial management: Ministry of Industry and Technology.

4.3.3 Changes from indirect to direct management (and vice versa) mode due to exceptional circumstances

In case AoS2 and AoS 3 cannot be implemented under Indirect Management with Entrusted Entities, due to circumstances beyond the control of the Commission, Outcome 3 (increased awareness, knowledge and capacities of private sector stakeholders on the green economy and resource efficiency, leading to improved resource use efficiency at industrial facilities and Outcome 2 (Improved innovation ecosystem in Türkiye and integration with EU industrial value chains and innovation networks promoted) may also be achieved if implemented either under direct management (procurement) or under indirect management with the beneficiary country.

4.4 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation).

4.5 Indicative Budget

Indicative Budget components	EU contribution (amount in EUR)
Methods of implementation – cf. section 4.3	
Outcome 1 ‘Turkish industry adapted and harmonised with EU legislation within the context of green and circular economy’ , composed of	3 600 000
Indirect management with Beneficiary Country, cf, section 4.3.2	3 600 000
Outcome 2 ‘Improved innovation ecosystem in Türkiye and integration with EU industrial value chains and innovation networks promoted’ composed of	1 300 000
Indirect management with entrusted entity (EIT) cf, section 4.3.1	1 300 000
Outcome 3 ‘Increased awareness, knowledge and capacities of private sector stakeholders on the green economy and resource efficiency, leading to improved resource use efficiency at industrial facilities’ composed of	4 500 000
Indirect management with entrusted entity cf, section 4.3.1	4 500 000
Evaluation – cf. section 5.2	May be covered by another Decision
Audit – cf. section 5.3	
Strategic Communication and Public Diplomacy – cf. section 6	will be covered by another Decision
Totals	9 400 000

4.6 Organisational Set-up and Responsibilities

Each activity defined in this action document will establish its management unit for a smooth implementation of the activities. Day-to-day management and coordination of the activities will be carried out by the Action Coordination Units (ACU). Activities will be coordinated with the ACU which is a body bringing the IBPMs, IBFM, and together with the TA team, regarding all project activities.

A Steering Committee (SC) will be established for each activity and will be mainly composed of the representatives of the Managing Authority (MA), Intermediate Bodies for Policy Management (IBPM), IBFM, the stakeholders of the activities, National IPA Coordinator (NIPAC), Presidency of Strategy and Budget as well as Delegation of the European Union to Türkiye (EUD). The SC will act as the advisory body that will provide high-level strategic guidance and oversight on activity implementation. SC will be gathered at regular intervals and additionally whenever deemed necessary.

Furthermore, a Sectoral Monitoring Committee (SMC) which is one of the highest decision taking platforms in terms of effective management of the funds provided by the EU, will meet regularly to solve the problems encountered during the programming, implementation and monitoring and give recommendations for effective utilisation of funds. SMC will be mainly composed of the representatives of the Commission/EUD, MA, IBPMs, IBFM, the stakeholders of the activities, the Presidency of Strategy and Budget, NIPAC and if necessary relevant line ministries especially.

The functions of Sectoral Monitoring Committee are as follows:

- Review at each meeting the progress made towards achieving the specific targets of the Programme on the basis of the basic documents
- Examine at each meeting the results of implementation, particularly the achievement of the targets set for each priority axis and measures and interim evaluations.
- Examine the sectorial annual and final reports on implementation.

SMC will meet at least twice a year at the initiative of NIPAC. The issues to be followed up will cover the period between two Committee meetings and the Committee Members will be informed about the current situation with regards to those issues.

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action.

The Managing Authority and IBPMs/Co-Beneficiaries/Stakeholders of the activities are given below

Outcomes	Managing Authority	IBPM/Co-Beneficiaries/Stakeholders	IBFM
Outcome 1	Ministry of Industry and Technology (MoIT)	Ministry of Industry and Technology, General Directorate of Industry	Ministry of Industry and Technology (MoIT)
Outcome 2	Ministry of Industry and Technology (MoIT)	Co-beneficiaries: Ministry of Foreign Affairs-Directorate for EU Affairs, General Directorate for Financial Cooperation and Project Implementation and Turkish Scientific and Technological Research Council (TÜBİTAK) Stakeholder: The Ministry of Industry and Technology- the International Programmes and Funding Directorate and Project Management Directorate	IMEE
Outcome 3	Ministry of Industry and Technology (MoIT)	Ministry of Industry and Technology, Directorate General of Development Agencies, Stakeholder: Directorate General for Strategic Research and Productivity	IMEE

5. PERFORMANCE MEASUREMENT

5.1 Monitoring and Reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (Outputs and direct Outcomes) as measured by corresponding indicators, using as reference the log frame matrix (for project modality). The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

Roles and responsibilities for data collection, analysis and monitoring:

- Monitoring tasks undertaken by the implementing partners/ beneficiary country, under the coordination of NIPAC Office, and NAO Office for financial monitoring, will consist of collecting and analysing data aiming at informing on the use of resources and progress towards planned results, feeding the management of the action's decision-making processes.
- Monitoring tasks undertaken by the EU Delegation shall complement the implementing partners'/ beneficiary country's monitoring system, especially in key moments of the action cycle. It will also support follow-up of recommendations stemming out of external monitoring and will be used for informing EU management. This monitoring could take different forms and methodologies (meetings with implementing partners, action steering committees, on the spot checks ...), to be decided based on specific needs and resources at hand. Reporting will be done according to methodologies and tools included in DG NEAR guidelines on linking planning/programming, monitoring and evaluation, including the use of standard checklists.

Both types of internal monitoring are meant to inform and provide support to external monitoring:

- External monitoring / Results Oriented Monitoring (ROM)
The Commission and/or NIPAC may undertake additional project monitoring in line with the European Commission rules and procedures set in the Financing Agreement through independent consultants recruited directly by the Commission/NIPAC for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission/NIPAC for implementing such reviews). These reviews might be composed of monitoring of the action, results data collection or any other task that is identified in the most recent EC guidelines.

The Steering Committees will be established at activity level in order to steer the implementation of activities, achievement of results against indicators in the action document, to discuss monitoring findings (including ROM findings) and agree on corrective actions as appropriate. The Steering Committees will be composed of the representatives of end beneficiaries, Lead Institution, NIPAC Office, Contracting Authority and the EU Delegation.

5.2 Evaluation

Having regard to the nature of the action, evaluation(s) may be carried out for this action or its components by the beneficiary via independent consultants. The evaluations will be carried out as prescribed by the DG NEAR guidelines on linking planning/programming, monitoring and evaluation.

The evaluation reports shall be shared with the partner country and other key stakeholders following the best practice of evaluation dissemination⁸. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

5.3 Audit and Verifications

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

6. STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

⁸ See best [practice of evaluation dissemination](#)

All entities implementing EU-funded external actions have the contractual obligation to inform the relevant audiences of the Union's support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. To that end they must comply with the instructions given in the 2022 guidance document [*Communicating and raising EU visibility: Guidance for external actions*](#) (or any successor document).

This obligation will apply equally, regardless of whether the actions concerned are implemented by the Commission, the partner country, service providers, grant beneficiaries or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU Member States. In each case, a reference to the relevant contractual obligations must be included in the respective financing agreement, procurement and grant contracts, and contribution agreements.

7. SUSTAINABILITY

AoS 1:

Sustainability is paramount to ensure that the benefits and results achieved continue beyond the implementation period. The following key factors contribute to sustainability:

The AoS is designed with strong involvement and commitment from all key stakeholders, including government agencies, industry bodies. The Ministry of Industry and Technology (MoIT) and other relevant governmental bodies have demonstrated a high level of ownership by actively participating in the planning and stages. The establishment of a dedicated task force and technical committee, which includes representatives from both the public and private sectors, ensures continuous stakeholder engagement and ownership. The institutional capacity of the beneficiaries has been strengthened through comprehensive training programmes and capacity-building activities. Inspectors and enforcement personnel in MoIT have received specialised training to ensure they are well-equipped to enforce ESPR effectively. Additionally, the detailed guidelines and best practice manuals have been developed to support ongoing compliance and enforcement activities.

Strong partnerships between Turkish institutions and their EU counterparts have been fostered. These partnerships will continue to be a key factor in sustaining the benefits of the project. Regular dialogues, study visits, and exchange programs will be maintained to ensure continuous alignment with EU standards and best practices. Additionally, collaboration with industry associations and non-governmental organisations will ensure that the private sector remains engaged and committed to sustainable practices. This regulatory framework provides a solid foundation for the continued enforcement and improvement of eco-design and energy labelling standards. The commitment to ongoing legislative review and updates ensures that Turkish regulations remain aligned with evolving EU standards and best practices.

AoS 2:

This area of support is designed with strong involvement and commitment from all the relevant parties in Türkiye. The strong partnerships and bonds between Turkish institutions with their European counterparts will be fostering our capacity building in science, technology and innovation areas. Additionally, the EIT headquarter has launched strong initiative to structure and established of the EIT Community RIS HUB Türkiye with their own resources. And the project will boost the RIS HUB activities by providing all related parties direct involvements and in-kind contributions.

AoS 3:

The sustainability of the National Integrated Resource Efficiency Assessment Centres Network is critical for its long-term success and impact. The sustainability of REACs will be ensured through a comprehensive strategy that includes developing business plans and ensuring financial sustainability. These business plans will outline operational models, including service offerings, pricing structures, and potential revenue streams. The financial sustainability of the centres will be supported by identifying diverse funding sources, such as grants from Development Agencies, central programmes, and partnerships with industry stakeholders.

The resource efficiency assessment centres will generate standardised, fact-based reports that provide a detailed analysis of resource efficiency improvement opportunities at industrial facilities. These reports will offer data-driven insights into energy, water, and material use, helping producers identify specific areas for optimisation. As the reports adhere to a standardised format, they may be recognised by funding bodies, enhancing their credibility and utility. These documents will not only guide producers in implementing efficiency improvements but also serve as critical support for securing financial incentives, grants, and funding aimed at promoting sustainable industrial practices. Therefore, the centres, in return, will receive more demand from the industry, with the possibility of receiving a certain percentage of the grants and/or credits for implementation of the identified resource efficiency improvement opportunities, which will strengthen the long-term financial sustainability of the action.

Capacity development activities will be conducted which will be directly linked to the needs of the industrial and service sectors, fostering strong engagement and practical application. By creating clear value for industry, these activities will generate ongoing opportunities, ensuring the long-term sustainability and relevance of the network. The resource efficiency assessment centres, in collaboration with local universities, will also actively involve MS and PhD students in their operations, offering them valuable hands-on experience in conducting resource efficiency assessments. This integration will not only enhance the students' practical knowledge but also create a continuous education pipeline for the industrial sectors, fostering innovation and the adoption of sustainable practices. By bridging academia and industry, the centres will ensure that emerging professionals are well-equipped to contribute to resource efficiency improvements while providing ongoing support to industries seeking advanced, research-based solutions, thereby increasing demand to the services provided by the centres.