



MINISTRY OF INDUSTRY
ETHIOPIAN ENTERPRISE DEVELOPMENT

National Manufacturing Industry Extension Service Strategy

(Final)



Construction Solutions PLC

in Joint Venture
with



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Preface and Acknowledgements

The National Manufacturing Industry Extension Service (MIES) Strategy represents a pivotal milestone in Ethiopia’s industrial development journey. Crafted through extensive consultations and rigorous research, this strategy responds to the critical need for a coherent and inclusive framework that supports Micro, Small, and Medium Enterprises (MSMEs) in the manufacturing sector. As Ethiopia aspires to transform its economy into one that is diversified, resilient, and innovation-driven, the strategic focus on MSMEs—who constitute the backbone of the national industrial base—is both timely and essential. This strategy underscores the importance of structured, demand-driven support services to boost productivity, competitiveness, and technological adoption across priority manufacturing sub-sectors.

This work would not have been possible without the generous financial support of the World Bank, provided through the Small and Medium Enterprise Finance Project (Program No. P148447). The World Bank’s contribution enabled the undertaking of in-depth assessments, broad-based stakeholder engagements, and technical analysis, all of which laid the foundation for the design of this strategy. We gratefully acknowledge the World Bank’s continued commitment to private sector development, enterprise growth, and industrialization in Ethiopia.

This document also reflects the collaborative efforts of public institutions, technical experts, academic stakeholders, development partners, and the private sector. It is the outcome of a participatory process that included field assessments, focus group discussions, key informant interviews, and benchmarking against global best practices. The strategy development was guided by a shared vision to bridge institutional gaps, integrate MSMEs into regional and global value chains, and ensure the sustainability of support mechanisms through targeted financing, innovation, and strong public-private partnerships. It aligns with Ethiopia’s Ten-Year Development Plan, the Homegrown Economic Reform Agenda, and industrial policies that champion inclusive growth and sustainable transformation.

We extend our sincere appreciation to all institutions and individuals who contributed to this effort—particularly the Ministry of Industry, the Ethiopian Enterprise Development, and the consultancy team from Construction Solutions PLC and Innovation Kurve Consulting Group. Their leadership, insight, and technical dedication were central to the completion of this strategy. It is our hope that this document will serve as both a practical guide and a strategic compass for policymakers, implementers, and all stakeholders dedicated to unlocking the full potential of Ethiopia’s manufacturing MSMEs.

The development of the National Manufacturing Industry Extension Service (MIES) Strategy has been a collaborative endeavor, made possible through the valuable contributions and commitment of a wide range of stakeholders. We would like to express our deepest gratitude to the Ministry of Industry (MoI) for its strategic leadership and vision in guiding this initiative. The Ministry’s consistent support and oversight were instrumental in aligning the strategy with Ethiopia’s broader industrialization and economic transformation goals.

Special appreciation goes to the Ethiopian Enterprise Development (EED) and the Small and Medium Enterprise Finance Project Office (SMEFP) for their technical guidance, coordination support, and provision of critical data throughout the strategy development process. Their close collaboration with regional bureaus, TVET institutions,

and development partners provided invaluable insights into the real needs, challenges, and aspirations of manufacturing MSMEs across the country.

We are also grateful to the consultancy team from Construction Solutions PLC and Innovation Kurve Consulting Group, whose dedicated efforts in research, stakeholder engagement, and strategy design ensured that this document is both evidence-based and contextually relevant. Their commitment to delivering a strategy that is practical, inclusive, and future-focused has been commendable. We further acknowledge the regional industry bureaus, TVET colleges, MSME operators, and development experts who generously shared their experiences and participated in interviews, focus group discussions, and validation workshops.

Finally, we extend our sincere thanks to the various public institutions, private sector actors, academic institutions, and development partners whose collaboration, feedback, and contributions shaped the content and direction of this strategy. Your shared commitment to empowering Ethiopia's manufacturing MSMEs and fostering a dynamic, resilient Manufacturing industrial sector has laid the foundation for a more inclusive and sustainable economic future.

Foreword

Ethiopia stands at a critical juncture in its economic development journey, where industrialization is no longer an option but a necessity. The government’s commitment to economic structural transformation through the development of the manufacturing sector is grounded in the recognition that Micro, Small, and Medium Enterprises (MSMEs) are vital drivers of inclusive growth, job creation, technology transfer and value addition. This National Manufacturing Industry Extension Service (MIES) Strategy is a major step forward in operationalizing this vision—by providing a structured, scalable, adaptable and demand-responsive support system for manufacturing MSMEs across the country.

This strategy is designed to address long-standing challenges that have constrained the productivity, competitiveness and sustainability of the Ethiopian MSMEs. These include limited access to technology, skills gaps, weak market linkages, and fragmented institutional support. By learning from own past experience and adopting best practices from international models, tailoring them to the Ethiopian context, the strategy provides a roadmap for delivering integrated industry extension services—encompassing technical support, technology transfer, innovation facilitation, financial access, market development, strengthening backward and forward linkage for the manufacturing enterprises’ development. It also reinforces the importance of decentralization, partnerships, and performance-based service delivery in reaching enterprises where they are most needed.

The development of this strategy has been inclusive and participatory, involving national and regional MSME supporting institutions, industry sectoral associations, academia, development partners, and most importantly—MSMEs operators themselves. This collaborative approach ensures that the strategy is grounded in reality and guided by the practical needs of the enterprises it is meant to serve. Furthermore, its alignment with Ethiopia’s Ten-Year Development Plan, the Homegrown Economic Reform Agenda, manufacturing Industry policy, subsequent strategies like import substitution, capacity development, export promotion, leather development, and the like ensures that MIES contributes directly to national priorities, including export growth, import substitution, job creation and environmental sustainability.

We call upon all stakeholders—government institutions at all levels, private sector actors, financial institutions, academic and research bodies, and development partners—to take collective ownership of this strategy and translate its vision into measurable results. With strong coordination, adequate resources allocation, and unwavering commitment, the MIES Strategy can unlock the full potential of Ethiopia’s manufacturing MSMEs and help to build a resilient, innovative, and inclusive industrial economy.

Executive Summary

The National Manufacturing Industry Extension Service (MIES) Strategy for Ethiopia is a comprehensive policy initiative designed to support the transformation of the country’s manufacturing sector, with a strong focus on Micro, Small, and Medium Enterprises (MSMEs). These enterprises are central to job creation, economic diversification, and inclusive development. However, despite their importance, MSMEs face deep-rooted structural challenges, including lack of access to finance, outdated technologies, limited market access, and weak integration into national and global value chains. They also suffer from critical infrastructure bottlenecks, such as working premises, unreliable electricity, poor transport and logistics, and inadequate working premises. In addition, recurring shortages of raw materials, weak quality control systems, and limited technical capacity have constrained their growth and competitiveness. Past industry extension efforts have been fragmented and lacked a strategic framework, resulting in limited outreach and impact.

The strategy was developed using a participatory and evidence-based mixed-methods approach. This included a comprehensive review of national policies, related strategies and global best practices to establish a robust foundation. To gather diverse perspectives, a survey was conducted with 132 Industry Extension Service (IES) providers and 266 Micro, Small, and Medium Manufacturing Enterprises. Additionally, qualitative data was collected through Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), and stakeholder meetings involving MSME operators, sectoral government representatives, industry sector associations, Technical and Vocational Education and Training (TVET) institutions, and development partners. This mixed-methods design ensured a holistic understanding of the ecosystem, integrating quantitative insights from surveys with rich, contextual qualitative data from consultations and questionnaire feedback. These engagements helped identify major challenges faced by MSMEs—such as limited finance, outdated technologies, raw material shortages, low skill capabilities, infrastructure gaps, and weak coordination. In response, the strategy proposes a demand-driven, scalable, adaptable to situations and decentralized industry extension framework to strengthen service delivery, institutional capacity, and innovation—positioning MSMEs as key drivers of Ethiopia’s industrial and economic transformation.

Strategic Alignment and Context:

The National Manufacturing IES Strategy for MSMEs in Ethiopia aligns with key national policies aimed at driving industrialization and private sector growth. It addresses long-standing challenges such as low productivity, weak market linkages, and poor institutional coordination by promoting a supportive ecosystem for MSMEs. Integrated with reforms like the Home-Grown Economic Reform Agenda, the new manufacturing industry policy, the subsequent strategies, and the manufacturing SME Development Roadmap, the strategy emphasizes demand-driven support, access to finance, streamlined regulations, coordinated approach and capacity building to help MSMEs grow into competitive and sustainable enterprises. It envisions a dynamic and inclusive manufacturing sector in Ethiopia, where Micro, Small, and Medium Enterprises (MSMEs) are empowered through innovative and sustainable support systems. By delivering tailored interventions—ranging from skills development and technology upgrading to market linkage and institutional collaboration—the IES aims to enhance the competitiveness, productivity, and resilience of MSMEs. This mission is rooted in the broader goal of driving industrial transformation, creating decent jobs, and fostering inclusive economic growth, in

alignment with Ethiopia’s national development priorities and the strategic mandate of the Ministry of industry and Ethiopian Enterprise Development (EED).

The strategy prioritizes key sub-sectors including agro-processing, textiles and garments, leather and leather products, metal and woodworking, production of construction inputs and chemical and chemical products manufacturing due to their high potential for value addition, import substitution, job creation and export promotion /growth.

Core Pillars and Strategic Objectives:

The strategy is structured around eight interconnected strategic pillars, each with specific objectives to address identified constraints and drive growth:

1. **Create Enabling Environment:** The Enabling Environment pillar is structured around two complementary areas: Foundations (Hardware), which focus on building stable rules, institutions, and governance structures by streamlining policies and regulations, clarifying institutional roles, strengthening accountability, rolling out sectoral master plans and standards, and ensuring inclusivity across regions and groups; and Services (Software), which emphasize the practical enablers mechanisms that operationalize and make the enabling environment system work, including one-stop service centers, trade facilitation and investment support, advisory and compliance services, digital information platforms, stakeholder coordination, and enterprise capacity-building to enhance the reach, efficiency, and sustainability of MIES.
2. **Promote Technology upgrading and Innovation,** aims to enhance MSME productivity and competitiveness through strategic adoption of technology, innovation, and digital transformation. Key priorities include establishing a national technology transfer framework, supporting innovation hubs and Lean Manufacturing Centers, and promoting Industry 4.0 technologies. Strengthening linkages between academia, R&D institutions, and industry is essential, alongside boosting digital readiness through ICT training and access to digital platforms.
3. **Development and access to Infrastructure:** Inadequate infrastructure remains a major barrier for Ethiopian manufacturing MSMEs. Challenges include limited access to land for construction, unreliable electricity, insufficient water and sewerage services, poor transport connectivity, and weak telecommunication systems. Addressing these, requires expanding industrial zones for MSMEs, improving utility reliability, developing shared production facilities, and enhancing road and digital infrastructure to support production and market access.
4. **Increasing Market Competitiveness:** Designed to enhance MSMEs' ability to access reliable inputs, enter and effectively compete in both domestic and global markets. This involves improving product quality and standards compliance (e.g., ISO, HACCP), strengthening market linkages and trade facilitation (e.g., participation in trade fairs, export readiness programs for AfCFTA), promoting industrial clusters, and enhancing market intelligence and digital connectivity.
5. **Strengthening Input supply system.** Reliable, affordable, and quality inputs are vital for the survival and competitiveness of Ethiopia’s manufacturing MSMEs, yet current supply chains remain fragmented, costly, and vulnerable to counterfeit and substandard products. This pillar of the MIES framework tackles these challenges by improving access to certified suppliers, promoting domestic production of key inputs, and strengthening certification and quality assurance systems. Through bulk procurement, supplier

linkages, regional distribution hubs, and digital supply chain platforms, the pillar aims to reduce costs and ensure MSMEs benefit from consistent, high-quality inputs that enhance productivity and competitiveness.

6. **Improving access to Finance:** Addresses the critical challenge of limited access to appropriate and affordable financial services. Strategies include designing and deploying inclusive financial instruments (concessional credit, blended finance, partial credit guarantees, lease financing), fostering Public-Private Partnerships (PPPs) for financial ecosystem development, institutionalizing Business Development Services (BDS) networks, and promoting financial inclusion for underserved MSMEs (women, youth, rural-based).
7. **Upgrading Knowledge and Skills:** Targets the development of a competent, knowledgeable, and adaptive industrial workforce. This involves aligning TVET and higher education curricula with industry needs, strengthening industry-academia linkages, establishing a National MSME Skills Development Framework, building capacity of trainers and extension agents, promoting entrepreneurial and managerial skills, and expanding access to lifelong learning and digital literacy.
8. **Ensuring Environmental and Social Safeguards:** Ensures that industrial development is environmentally sustainable and socially inclusive. It promotes green manufacturing and circular economy models, mainstreams climate-resilient industrial development, strengthens social inclusion and equity (targeting women, youth, PWDs, rural MSMEs), and embeds Environmental, Social, and Governance (ESG) principles and labor standards.

Implementation and Governance:

This strategy is developed through an inclusive and participatory process involving diverse stakeholders, including MSME operators, sectoral government agencies, Ministry of Education, Universities, TVET institutions, industry sector associations, and development partners. It advocates for decentralized service delivery through regional industry /MSME supporting bureaus and cluster-based models, reinforced by strong public-private partnerships. The MIES implementation will follow a structured, phased approach:

- **Phase 1 (Years 1):** Institutional strengthening and pilot implementation, including establishing federal and regional MIES coordination units and developing service delivery guidelines.
- **Phase 2 (Years 2-4):** National rollout, scale-up, and systems integration, expanding services and operationalizing partnerships.
- **Phase 3 (Year 5 and beyond):** Consolidation and sustainability, focusing on institutionalizing MIES within national frameworks and strengthening financial sustainability through diversified models.

Effective governance is ensured through a multi-tiered structure, including a National Steering Committee (co-chaired by the Ministry of Industry and Ministry of Labor and Skills), Regional Implementation Units, and Technical Working Groups. A robust Monitoring, Evaluation, and Learning (MEAL) framework will track performance using key indicators across all pillars, ensuring accountability, continuous learning, and adaptive management. This framework will rely on both primary data collection (SME surveys, digital dashboards) and secondary sources (government reports) to provide timely and reliable performance data.

Expected Impact:

The MIES Strategy is set to play a transformative role in Ethiopia’s journey toward industrialization by building a dynamic, resilient, and inclusive manufacturing ecosystem. It seeks to enhance the efficiency and productivity of MSMEs, improve product quality, reduce production costs, ensure workplace safety, substitute imports, and boost exports. By strengthening MSMEs’ integration into domestic and global value chains, the strategy aims to enhance employment, increase incomes, import substitution and promote value addition. Ultimately, it will elevate the manufacturing sector’s contribution to national development and position it as a key driver of Ethiopia’s long-term economic growth and sectoral competitiveness.

Acronyms

AfCFTA	Africa Continental Free Trade area
AfDB	African Development Bank
AGOP.	Access to Government Procurement Opportunities
AI	Artificial Intelligence
AU	African Union
B2B	Business to Business
BDS	Business Development Services
BMC	Business Model Canvas
BOLS	Bureau of Labor and Skills
BPR	Business Process Reengineering
CAD/CAM	Computer Aided Design/Computer aided Manufacturing
CFC	Common Facility Centers
CGS	Credit Guarantee Scheme
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises.
CIDC	Constituency Industrial Development Centres
COMESA	Common Market for Eastern and Southern Africa
CSA	Central Statistics Agency
CUFs	Common User Facility
DBE	Development Bank of Ethiopia
DFIs	Development finance institutions
EBC	Ethiopian Broadcasting Corporation
ECAE	Ethiopian Conformity Assessment Enterprise
EED	Ethiopian Enterprise Development
EEP	Ethiopian Electric Power
EFCCC	Environment, Forest and Climate Change Commission
EIC.	Ethiopian Investment Commission
ELIA	Ethiopian Leather Industries Association
ECC	Ethiopian Customs Commission
ESA	Ethiopian Standards Agency
ESG	Environmental and Social Governance
ETGMA,	Ethiopian Textile - and Garment Manufacturers Association
FDI	Foreign Direct Investment
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focused Group Discussion
FIAS	Facility for Investment Climate Advisory Services
FKE	Federation of Kenya Employers
FTVETI	Federal Technical and Vocational Educational Training Institute
GDP	Gross Domestic Product
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit

GMP	Good Manufacturing Practice
GTP	Growth and Transformation Plan
HACCP	Hazard Analysis and Critical Control Points
HCD	Human Centric Design
ICT	Information and Communication Technology
IDP	International Development Partners
IEC	Information Educational and Communication
IES	Industry Extension Service
IEAs	Industry Extension Agents
IESCU	Industry Extension Service Coordination Unit
IFC	International Finance Corporation
IoT	Internet of Things
IPDC	Industrial Parks Development Corporation
ISO	International Organization for Standardization
JICA	Japan International Cooperation Agency
KAM	Kenya Association of Manufacturers
KEPROBA	Kenya Export Promotion and Branding Agency
KII	Key informant Interview
KNCCI	Kenya National Chamber of Commerce and Industry
KPI	Key Performance Indicators
M&E	Monitoring and Evaluation
MEAL	Monitoring, Evaluation, and Learning
MESF	Manufacturing Extension Sustainability Fund.
MIDI	Manufacturing Industry Development Institute
MIES	Manufacturing Industry Extension Service
MInT	Ministry of Innovation & Technology
MITD	Mauritius Institute of Training and Development
MoA.	Ministry of Agriculture
MoE	Ministry of Education
MoF	Ministry of Finance
MoI	Ministry of Industry
MoLS	Ministry of Labor and Skills
MoTI	Ministry of Trade and Industry
MoTRI	Ministry of Trade & Regional Integration
MoU	Memorandum of Understanding
MoWSA,	Ministry of Women and Social Affairs
MSME	Micro, Small, and Medium Enterprises
MSME-DO	Micro, Small and Medium Enterprises Development Organization
NBE	National Bank of Ethiopia
NGOs	Non-Government Organization
NIS	National Industrialization Strategy
NSC	National Steering Committee

OECD	Organization for Economic Co-operation and Development
OHS	Occupational health and safety
OJT	On the Job Training
PESTEL	Political, Economic, Social, Technological, Environmental, and Legal
PPPs	Public-Private Partnerships
PSI	Policy Study Institutes
PWDs	Persons Living with Disability
Q&A	Questions and Answers
R&D	Research and development
RBIED	Regional Bureaus of Industry and Enterprise Development
SEZs.	Special Economic Zones
SME	Small, and Medium Enterprises
SMS	Short Message Service
SWOT	Strength Weakness Opportunity Threat
ToT	Training of Trainers
TQMS	Total Quality Management Systems
TVEs	Township and Village Enterprises model
TVET	Technical and Vocational Education and Training
UNIDO	United Nations Industrial Development Organization
US MEP-	United States, the Manufacturing Extension Partnership
VPC	Value Proposition Canvas
WB	World Bank
WRAP	Worldwide Responsible Accredited Production

SECTION 1: INTRODUCTION

1.1. Background

Many countries have advanced SME development through coordinated policy, the provision of finance, and technology support, offering practical lessons for Ethiopia. Kenya combines pro-SME policy reforms with financial inclusion programs and innovation hubs that expand entrepreneurship and credit access. India backs MSMEs through national flagship efforts such as *Make in India* and a network of MSME Development Institutes that deliver training, technology upgrading, and market linkages. South Korea leveraged sustained public investment in technology transfer, government-backed financing, and integration of smaller firms into global value chains, helping them scale into competitive exporters. These experiences underscore the value of clear policy direction, targeted finance, capacity building, and technology adoption as pillars of successful SME ecosystems (OECD, 2019).

Globally, Micro and Small Enterprises account for roughly 70% of employment and up to 90% in low- and lower-middle-income economies (ILO, 2021). Ethiopia reflects this pattern: Micro, Small, and Medium Enterprises make up well over 90% of registered businesses and are critical to job creation, value addition, and early-stage industrialization (MoI, 2022). Consistent with the country's Homegrown Economic Reform Agendas I & II, MSME development is central to inclusive growth, private-sector dynamism, and resilience. The emerging Manufacturing Industry Extension Services (MIES) strategy positions MSMEs as catalysts for economic diversification and structural transformation by boosting productivity, encouraging formalization, and deepening linkages with larger industries and export markets.

The previous Industry Extension Service (IES) model in Ethiopia was largely supply-driven. TVET trainers delivered four standardized service packages—technical skills, technology support, Kaizen/quality and productivity improvement, and entrepreneurship, with limited enterprise-specific diagnosis. This approach raised basic awareness and transferred foundational practices to many firms, but its one-size-fits-all structure often missed sectoral differences, growth constraints, and innovation opportunities at the firm level. Lessons learned point to the need for stronger demand assessment, modular service design, and performance follow-up.

Building on reform momentum, the IES strategy now seeks to provide targeted technical, managerial, and financial support that raises firm-level productivity and competitiveness. Priority actions include disseminating proven best practices such as Kaizen, accelerating technology adoption and digital enablement, and integrating MSMEs into domestic and global value chains (UNIDO, 2021). Alignment with Ethiopia's 10-Year Development Plan (2021–2030) and Industrial Development Strategy places added emphasis on capacity building, skills upgrading, research and development (R&D), and innovation systems that can transition low-productivity firms into competitive, growth-oriented enterprises. Government-identified priority subsectors—textiles and garments, leather and leather products, agro-processing, metal and wood fabrication, construction inputs and chemicals and chemical products—offer strong potential for employment, value creation, import substitution and exports (Geda & Shimeles, 2023). Cluster development, industrial parks, incubation centers, technology transfer offices, and sector-specific training partnerships with universities and TVET colleges are key delivery channels (MoE, 2021). Strengthening domestic production reduces import dependence and foreign-exchange pressure while export readiness initiatives, including standards compliance, certifications, trade facilitation, and export credit instruments, expand market reach (World Bank, 2022; UNCTAD, 2021).

Despite progress, MSMEs continue to struggle with limited finance, weak market linkages, low digitalization, and regulatory bottlenecks. The evolving IES framework promotes streamlined business registration, improved access to affordable credit via development banks and microfinance institutions, and investments in digital and physical infrastructure to raise productivity (Girma & Asnake, 2023). Expanding Industry Extension Services (IES), incorporating Business Development Services (BDS) is essential to offer holistic, demand-driven, sector-sensitive support.

Stakeholders play a pivotal role in the successful implementation of IES. The federal government and Ministry of Industry lead policy direction, resource mobilization, standards alignment, and national coordination. Regional governments and bureaus handle local implementation, enterprise outreach, and alignment with regional priorities. TVET colleges and universities provide frontline IES delivery through technical upgrading, Kaizen facilitation, entrepreneurship training, applied R&D, and incubation support. MSMEs and industry associations identify needs, adopt improvements, and share learning across clusters. Development partners, Sectoral associations and chambers of commerce, and NGOs contribute through capacity building, technology transfer, and advisory support. Financial institutions expand tailored financial products and investment finance for upgrading and export readiness. Standards and regulatory bodies offer certification services and compliance pathways, while industrial parks and clusters provide shared infrastructure, market linkages, and scaled service delivery nodes for IES teams.

1.2. Objectives of the National MIES Strategy

The general objective of the Manufacturing Industry Extension Service (MIES) Strategy is to strengthen the development, productivity, and competitiveness of Micro, Small, and Medium Manufacturing Enterprises (MSMEs) in Ethiopia by providing coordinated, demand-driven, adaptable and inclusive support services. The strategy aims to facilitate industrial transformation by addressing key challenges faced by MSMEs and promoting efficiency, quality improvement, cost reduction, innovation, technology transfer, market access, skills development, and enabling infrastructure—ultimately contributing to job creation, increased value addition, import substitution, and sustainable economic growth.

1.3. Scope and Target Beneficiaries

The National Manufacturing Industry Extension Service (MIES) Strategy is designed to exclusively support Micro, Small, and Medium Manufacturing Enterprises (MSMEs) in Ethiopia, which are recognized as key drivers of industrial growth, employment creation, import substitution and value addition. The strategy addresses critical challenges for enhancing the competitiveness and long-term sustainability of MSMEs.

While the strategy focuses on the manufacturing sector, it prioritizes sub-sectors with high potential for job creation, resource utilization, import substitution, technology transfer and export development. These include agro-processing, textiles and garments, leather and leather products, metal and woodworking, construction materials manufacturing, and notably, chemical and chemical products. By maintaining a clear emphasis on these manufacturing segments, the strategy aligns with Ethiopia's manufacturing industry policy and its broader strategies for economic transformation agenda.

Large enterprises and non-manufacturing sectors are not a priority of the MIES framework, though they have forward and backward linkages in the practical processes enabling resources, technical expertise, and institutional efforts to focus on manufacturing MSMEs that need targeted support. This focused approach fosters inclusive

industrial growth and encourages equitable regional development. It builds a strong foundation for Ethiopia's industrialization journey by empowering small-scale manufacturers and integrating them into domestic and global value chains.

1.4. Approaches and Methodology

The development of the National MIES Strategy followed a comprehensive, evidence-based, and participatory approach to ensure its alignment with Ethiopia's broader economic and industrial goals. The first step involved an in-depth situation analysis, which examined the current state of the manufacturing sector with a focus on MSMEs. This included identifying structural constraints such as limited access to finance, input supply constraints, working premises challenges, inadequate technology, skills gaps, and weak market linkages. Sectoral prioritization was conducted, identifying key manufacturing sub-sectors—such as agro-processing, textiles and garments, leather, metal, chemical and construction materials—as high-potential areas based on their job creation capacity, resource endowments, import substitution and alignment with national development priorities. Extensive stakeholder consultations were held with government bodies, MSME operators, private sector associations, and academia to capture practical insights and expectations from the field.

The second phase of strategy development focused on data collection and analysis to guide informed decision-making. A total of 17 Focus Group Discussions (FGDs) and 15 Key Informant Interviews (KIIs) were conducted with 5 Polytechnic Vice deans and representatives from 6 Regional SME Support Bureaus, 3 EED management bodies, and 2 officials from the Ministry and Bureau of Labor and Skills (MoLS). In addition, 72 participants took part in a national stakeholder consultation meeting. These qualitative engagements provided rich, context-specific insights from MSMEs, industry experts, and policy makers. To complement the qualitative data, a questionnaire survey was designed and administered to gather quantitative insights from Industry Extension Service (IES) providers and MSMEs. The survey targeted 132 Industry Extension Service providers across multiple regions and 266 MSMEs, aiming to capture their experiences, challenges, and perspectives on the current IES delivery model, achieved success and faced challenges. The questionnaire focused on key thematic areas such as industry extension service effectiveness, resource availability, capacity gaps, and stakeholder coordination. The process also included international benchmarking to draw lessons from successful industrial extension service models in comparable developing economies. A participatory approach was maintained throughout to ensure inclusivity and stakeholder ownership. Public-private partnerships (PPPs), regional workshops, continuous discussions with the experts and top management members of EED and SMEFP, and sectoral dialogues were key mechanisms used to incorporate the diverse views of local authorities, business support institutions, main participants of the extension service delivery and development partners.

In the third phase, a strategic vision, mission, and objectives were developed, aligning with Ethiopia's Ethiopia's 10-year Development plan, industrial development strategy, and job creation goals. Both short-term and long-term goals were established—balancing quick wins such as skills development and productivity gains with deeper systemic transformations like technology adoption, value chain integration, import substitution and export readiness. A well-defined implementation framework was designed, including a clear action plan, allocation of roles and responsibilities among stakeholders, and mobilization of financial, human, and institutional resources. Institutional capacity-building was a core component, with training programs for extension officers, MSME owners, and support staff in key areas such as lean manufacturing, digital tools, marketing, and compliance with quality standards.

The strategy also embeds a robust monitoring, evaluation, and learning (MEL) framework to ensure accountability, adaptability, and continuous improvement. Key performance indicators (KPIs) were established to track outcomes related to enhancing productivity, job creation, import substitution and export performance. Regular reporting, mid-term reviews, and impact assessments will be conducted to measure effectiveness and adjust implementation as needed. Feedback loops and knowledge-sharing platforms—including peer learning, mentorship programs, and benchmarking visits—enable MSMEs to continuously learn, improve and innovate. Finally, the strategy incorporates policy advocacy and integration mechanisms, ensuring alignment with national policy frameworks and enabling the reform of regulatory barriers that hinder MSME growth. A sustainability and scale-up plan ensures that the strategy remains relevant, scalable, and capable of transforming Ethiopia’s manufacturing MSME landscape over the long term.

SECTION 2: INDUSTRY EXTENSION CONTEXT AND RATIONALE

2.1. Manufacturing Sector Overview in Ethiopia

Ethiopia's 10-year development plan (2020/21–2029/30) places the manufacturing sector at the center of its industrialization agenda, aiming to transform it into a driver of structural economic change. One of the core focus areas is increasing production capacity utilization. At the start of the planned period, average manufacturing capacity utilization hovered on average around 44% reflecting significant underperformance. However, recent government efforts, particularly the implementation of the Ethiopia Tamrit Initiative, have pushed this figure upward to an average of 65% by mid of 2025, showing a marked improvement in production efficiency and plant operation rates (MOI, 2025).

Job creation is another critical pillar of the plan, which sets out to generate five million new jobs in manufacturing by 2029/30. Annual employment creation was projected to rise from 175,000 to 850,000. So far, the sector has created more than 156,000 jobs, with some sources reporting over 352,513 permanent jobs in 2024/25 FY, — evidence of growing momentum in employment generation through industrial revitalization (MoI, 2024; UNDP, 2022).

In terms of import substitution, the plan emphasizes the replacement of imported industrial goods with locally manufactured alternatives to increase domestic market share from 30% to 60%. Current figures suggest progress toward this goal, with local manufacturing now covering approximately 44% of domestic demand. Government reports indicate that this has resulted in over \$4.5 billion from import savings in 2024/25 fiscal year, signaling that the import substitution strategy is beginning to yield tangible economic benefits (MOI, 2025).

Export performance also features prominently in the 10-year plan, with the goal of generating USD 9 billion in cumulative manufacturing exports by 2030. While the sector has not yet reached the scale anticipated, steady growth has been recorded. In the 2024/25 fiscal year, manufacturing exports rose to 202, 729 metric tons, generating over \$318 million—an increase of 9.7% compared to the previous year (MoI, 2025). This reflects gradual improvements in both product competitiveness and market access.

The contribution of manufacturing sector to GDP has seen both setbacks and recent recovery. After falling from 5.9% in 2019 to 4.4% in 2022, recent policy reforms and capacity improvements have helped reverse this trend. By 2023/24, estimates suggest the sector's contribution has risen to 7.2% (MoPD, 2024). The long-term target remains ambitious, aiming for manufacturing to account for 17% of Ethiopia's GDP by 2029/30 (MoPD, 2021; MoTI, 2021). This positive trajectory, though encouraging, underscores the need for continued investment, institutional coordination, and policy alignment to meet the remaining goals of the decade.

2.2. The Goals of the MSME Manufacturing Sector

The Objectives of the MSMEs in the Manufacturing sector prioritized in the Ethiopia national development strategies and policies includes:

- i. Enhanced productivity, efficiency and reduce cost of production for MSMEs in Ethiopia
- ii. Improved Quality of MSMEs products and Increased access to local and international markets.
- iii. Increased exports of locally manufactured products and substitute imports of essential products
- iv. Increased value addition of primary products of Ethiopia

- v. Enhanced safety and sustainability in the operations of MSME manufacturing sector

The Impact and goals of the MSMEs is Job Creation, increased income from value addition and Industrial Competitiveness with an ultimate positive impact on national and household economics growth.

2.3. Regulatory and Policy frameworks in the MSME sector

The regulatory and policy landscape in Ethiopia plays a foundational role in shaping the success of manufacturing-led enterprise development. Over the past two decades, the government has enacted several policies and legal frameworks, such as the Micro and Small Enterprise (MSE) Development Policy, the MSME Strategy, the Industrial Development Strategy, and the Investment Proclamation, to promote enterprise growth, industrialization, and inclusive economic transformation. These frameworks aim to formalize the informal sector, facilitate access to finance and technology, enhance market linkages, and ensure enterprise participation in national value chains. However, implementation gaps, overlapping institutional mandates, and regulatory complexity continue to constrain effectiveness. As such, the MIES strategy seeks to align and streamline these frameworks to foster a more coherent, transparent, and responsive environment that supports MSME development, promotes competitiveness, and drives inclusive industrial growth aligned with GTP III and Ethiopia's Vision 2030.

2.3.1. Regulation No. 526 /2022 of Ethiopian Enterprise Development Regulation

Regulation No. 526/2022 establishes the legal and institutional foundation for the Ethiopian Enterprise Development (EED), defining its organizational mandate, powers, and enterprise classification system. It categorizes manufacturing enterprises by asset value and employee count, prioritizing asset value in cases of discrepancy, into micro, small, medium, and large enterprises. The regulation mandates EED, under the Ministry of Industry, to lead the implementation of industry extension services, including technical assistance, training, technology transfer, market facilitation, and innovation support tailored to enterprise needs. It also recognizes **sectoral associations** as key partners in delivering services and coordinating enterprise development efforts. Additionally, the regulation empowers EED to mobilize alternative finance, foster public-private partnerships, and strengthen linkages between MSMEs, large firms, academia, R&D institutions, and input/output markets, thereby enabling a more structured and supportive enterprise ecosystem across Ethiopia

2.3.2. MSME national Strategy

The 2011 Micro and Small Enterprise (MSE) Development Strategy outlines six key support areas, skills training, marketing, finance, production support, one-stop centers, and access to premises. However, its impact has been limited, with less than 3% of supported SMEs graduating to the next enterprise level. The weaknesses lie in implementation gaps, insufficient targeting, and weak institutional coordination. While foundational, the strategy requires integration into MIES through tailored, demand-driven support services, improved diagnostics, and performance tracking mechanisms.

2.3.3. Ethiopia's Micro and Small Enterprise (MSE) Development Policy

Ethiopia's Micro and Small Enterprise (MSE) Development Policy is a key driver of inclusive industrialization, targeting job creation, poverty reduction, and economic diversification by empowering small firms. Anchored in Regulations No. 373/2016 and 526/2022, the policy promotes MSE growth through decentralized support, improved access to finance, capacity building, and incentives such as export facilitation and industrial zone entry. It aims to increase participation in value-adding sectors, promote formalization, and align with national development priorities under GTP III (2025–2030), the Ethiopian 10-Year Development Plan, and align the Ethiopian 10-Year Development Plan, and Vision 2030. However, its impact is hindered by limited access to

finance, weak market linkages, complex regulations, fragmented institutional coordination, technology backwardness, inadequate infrastructure, and digital exclusion. Skills gaps—especially among youth and women—high informality, and urban-focused support structures further constrain scalability, rural inclusion, and equitable enterprise growth.

2.3.4. Home-Grown Economic Reform Agenda (HGERA)

The HGERA 1.0 and 2.0 aim to transform Ethiopia from an agrarian, low-income economy into an industrialized, middle-income country by 2030. It calls for overhauling the industrial policy incentive structure, prioritizing local content development, and strengthening domestic value chains. These goals align directly with MIES’s mandate to promote local input sourcing, enhance manufacturing linkages, and stimulate productivity and competitiveness among SMEs. MIES can serve as a critical implementation vehicle for HGERA by operationalizing its reform agenda at the enterprise level.

2.3.5. National Entrepreneurship Strategy (NES)

Launched in 2020, the NES focuses on creating inclusive entrepreneurial ecosystems through regulatory reform, education and skills development, technology exchange, and improved access to finance. It recognizes the vital role of MSMEs and start-ups in driving innovation, employment, and diversification. MIES can complement NES by embedding entrepreneurship development into manufacturing support programs, especially through incubators, technology transfer platforms, and youth- and women-focused initiatives. The strategies are mutually reinforcing in building a dynamic industrial base.

2.3.6. Ten-Year Development Plan (2021–2030)

This long-term plan projects a significant structural transformation of the Ethiopian economy, with the manufacturing sector expected to grow from 6.9% to 17.2% of GDP by 2030. Achieving this goal depends heavily on strengthening industrial capacity, especially among SMEs. The plan supports the need for an enabling legal framework and coordinated support systems, both of which are central to MIES. The KPIs and targets of the development plan are mirrored in the SME Roadmap and the MIES strategic framework, making alignment essential.

2.3.7. Manufacturing SME Development Roadmap

Prepared by the Ethiopian Enterprise Development (EED), the roadmap outlines the strategic role of EED as a national coordinator for manufacturing SME growth. It sets ambitious targets (e.g., increasing annually transitioned number of SMEs from 2,000 to 5,000 by 2030) and identifies key interventions, timelines, and institutional responsibilities. This roadmap is the operational basis for MIES, guiding the delivery of extension services, performance monitoring, and stakeholder collaboration. It provides the structural and strategic clarity required to support SME transformation.

2.3.8. Import Substitution Strategy

Ethiopia’s Import Substitution Strategy is a central pillar of its industrialization and Home-Grown Economic Reform Agenda, aimed at reducing dependency on imported goods by boosting domestic manufacturing capacity and competitiveness. In response to a persistent trade deficit averaging \$8 billion annually, the strategy targets 93 prioritized products across six key sub-sectors: food and beverage, textiles and garments, leather and leather products, chemicals and construction inputs, metal and engineering, and wood and wood products. It seeks to expand domestic market share, conserve foreign exchange, create sustainable jobs, and build a self-reliant industrial economy. However, challenges such as low-capacity utilization, limited access to inputs and finance, fragmented value chains, and weak institutional coordination constrain progress. To address these, the strategy is anchored in

five pillars: regulatory reform, market development, finance, infrastructure, and production efficiency. It promotes local procurement enforcement, national marketing platforms, targeted financing (e.g., Ethiopia Tamrit), industrial support centers, and performance-based incentives. The strategy is phased over five years and guided by data-driven planning, aligning closely with the Ten-Year Development Plan to drive inclusive, competitive, and resilient manufacturing-led growth.

2.3.9. Manufacturing SME Transition Strategy

Ethiopia's M-SME Transition Strategy provides a clear pathway for enterprises to evolve from micro to small, small to medium, and medium to large firms, thereby enhancing their contribution to GDP, driving inclusive economic growth, and supporting structural transformation. Closely aligned with the Manufacturing Industry Extension Service (MIES), the strategy is structured around eight strategic pillars, policy and institutional frameworks, access to finance, market competitiveness, Input supply system, technology and innovation, capacity building, infrastructure, and business development services, which offers a comprehensive blueprint for transforming the sector. It integrates cross-cutting priorities such as inclusivity, youth employment, green growth, and climate resilience. As the most directly aligned framework, the Transition Strategy positions MIES as the primary delivery platform, tasked with implementing technical support, shared facilities, digital tools, training hubs, and simplified regulatory systems to improve productivity and formalization. This integration enhances enterprise resilience, supports inclusive and competitive SME growth, and accelerates Ethiopia's broader industrial transformation agenda.

2.4. Challenges of the sector

Manufacturing Micro, Small, and Medium Enterprises (MSMEs) in Ethiopia continue to face a wide array of challenges that hinder their growth and contribution to the national economy. One of the most persistent obstacles is limited access to raw materials and essential inputs. Despite efforts to enhance local sourcing, many manufacturing MSMEs depend heavily on imports, which exposes them to foreign exchange shortages and global supply chain disruptions. These challenges have been particularly evident in sectors such as leather and textile, where the inconsistency in local raw material quality and quantity has forced producers to rely on costly imports (Tsega et al., 2023).

Moreover, infrastructure deficiencies significantly affect the operational efficiency of manufacturing MSMEs. Poor road networks, unreliable electricity supply, and limited access to water and communication services create a challenging environment for industrial productivity. These infrastructural gaps not only increase production costs but also lead to frequent downtime and inefficiencies (Maritz, 2023). Ethiopia's landlocked geography exacerbates the problem, as delays and high costs associated with port services—especially through Djibouti—complicate the importation of raw materials and export of finished goods (Maritz, 2023).

Financial constraints are another critical barrier to MSME development. Many enterprises struggle to access adequate and affordable financing due to strict collateral requirements and the perception of MSMEs as high-risk borrowers by financial institutions. This credit crunch limits their ability to invest in modern technologies, expand production, or cope with short-term liquidity challenges (Tsega et al., 2023). The situation is further aggravated by high inflation and currency devaluation, which reduces purchasing power and increase the cost of inputs and capital goods.

Human capital challenges also persist, particularly in terms of skills mismatch and limited availability of trained labor. The gap between academic training and practical industrial skills affects productivity and innovation capacity among MSMEs. Many firms report difficulty in finding adequately trained personnel, especially in technical and managerial roles (Maritz, 2023). This has implications for quality control, technology adoption, and the overall competitiveness of the sector.

MSMEs in Ethiopia's manufacturing sector face significant challenges due to poor business management and a weak entrepreneurial mindset. Many lack basic skills in financial planning, record-keeping, and strategic decision-making, while also showing limited willingness to innovate, take risks, or adapt to change. These issues undermine their productivity, competitiveness, and long-term growth potential.

In addition, lack of appropriate working premises remains a major barrier for MSMEs. Most operate in overcrowded, informal, or poorly equipped spaces that lack basic infrastructure such as electricity, water, sanitation, and waste disposal. This limits productivity, affects product quality, and makes it difficult for MSMEs to meet regulatory or market standards.

Moreover, limited access to innovation and modern technology continues to constrain the growth of MSMEs. Despite the government's emphasis on digital and industrial transformation under the 10-Year Development Plan and Homegrown Economic Reform Agenda II, many small manufacturers still rely on outdated machinery and manual processes. There is a significant gap in access to research and development (R&D), digital tools, and technical support systems that could enable innovation, product diversification, and process improvement. Bridging this gap requires coordinated efforts to expand technology transfer programs, strengthen partnerships with universities and industrial parks, and promote innovation hubs that cater specifically to MSMEs in the manufacturing sector.

Furthermore, the regulatory environment remains a significant challenge. While the Ethiopian government has introduced policies to support MSMEs, bureaucratic inefficiencies, weak implementation capacity, and inconsistent enforcement undermine policy effectiveness. Enterprises often face delays in licensing, taxation issues, and limited institutional support, which discourage formalization and growth (Tsega et al., 2023).

The challenges faced by Micro, Small, and Medium Enterprises (MSMEs) in Ethiopia, as highlighted in the report of MOI (2024), are multifaceted and significantly hinder their growth and contribution to import substitution (IS). A primary challenge is the underdeveloped infrastructure, particularly in electricity, transportation, and communication systems. The unreliable power supply, despite efforts to expand hydroelectric and renewable energy sources, leads to low-capacity utilization rates (49–55% in key manufacturing sectors like chemicals and leather). Logistical constraints, such as reliance on the congested Djibouti port and costly transportation, exacerbate delays and increase operational costs, forcing MSMEs to overstock raw materials, which strains cash flow. Additionally, access to finance is severely limited due to foreign exchange shortages, high borrowing costs, and restrictive lending practices, with 86–100% of surveyed MSMEs reporting difficulties in obtaining loans from local financial institutions. Bureaucratic hurdles, including complicated administrative procedures for licensing, customs clearance, and tax compliance, further burden MSMEs, with 86% of respondents noting these as significant obstacles. Political instability and ongoing conflicts in some parts of the country also undermine logistics and investor confidence, as reflected in Ethiopia's low ease of doing business ranking (159 out of 190) and a 'CCC' credit rating from Fitch, signaling high investment risks.

Furthermore, MSMEs face challenges related to raw material availability and human resource constraints. The documents indicate that 64% of MSMEs source less than half of their raw materials locally due to shortages, seasonal supply issues, and poor quality, necessitating costly imports that exacerbate trade deficits and foreign exchange pressures. This reliance on imported inputs undermines the goal of ISI to reduce dependence on foreign goods. Human resource challenges include significant skill and technological gaps, with 77–100% of surveyed SMEs identifying difficulties in recruiting and retaining skilled management and technical staff. These issues are compounded by a lack of coordination between educational institutions and industries, resulting in a mismatch between training programs and industry needs. These challenges collectively hinder MSMEs' ability to scale operations, improve productivity, and contribute effectively to Ethiopia's industrialization and economic self-sufficiency goals.

2.5. Concept of IES (Global and National)

Industrialization is increasingly seen as a vital pathway for inclusive and sustainable development in emerging economies. At the heart of this framework lies the Industry Extension Service (IES), a structured support mechanism designed to improve productivity, competitiveness, and technological readiness of MSMEs. IES integrates technical support, business advisory services, workforce development, and facilitation of access to finance and markets. These services are vital in enabling firms to overcome capacity constraints and meet domestic and international market requirements (UNIDO, 2021; World Bank, 2022).

Internationally, IES has been a successful development instrument in countries like Kenya, India, the United States, Germany, South Korea, and Japan, where MSMEs form the backbone of industrial economies. The U.S. Manufacturing Extension Partnership (MEP), Germany's Fraunhofer Institutes, and Japan's Kohsetsushi Centers exemplify how governments can institutionalize support mechanisms to build competitiveness among small manufacturers (OECD, 2021). These models provide evidence of how structured extension services—offering technology transfer, R&D support, quality assurance, and workforce training—can enhance productivity and facilitate integration into global value chains.

A common theme across these international experiences is the increasing emphasis on Industry 4.0 technologies, digital transformation, and green manufacturing. IES frameworks now include smart factory models, digital advisory services, and environmentally sustainable production practices to ensure MSMEs adapt to global trends in automation and circular economy principles (WEF, 2022).

In the broader international context, MSMEs are widely acknowledged as key players in achieving the Sustainable Development Goals (SDGs), particularly those related to inclusive economic growth and decent work. Ethiopia's integration into the African Continental Free Trade Area (AfCFTA) opens new opportunities for its manufacturing MSMEs to access regional markets but also exposes them to heightened competition and stringent quality standards. Thus, aligning national IES programs with international benchmarks and equipping enterprises with the tools to meet global norms is essential (UNCTAD, 2021).

Moreover, global experiences highlight the importance of a “triple helix” approach—linking government, industry, and academia—to strengthen innovation ecosystems. Ethiopia's recent emphasis on industry-university collaboration through HETRIIL Proclamation (1298, 2023), innovation hubs and business incubators echoes this

model and must be expanded to support scale-up and commercialization of MSME innovations (PDC, 2020; Geda & Shimeles, 2023).

The Home-Grown Economic Reform Agenda (HGERA) and associated national strategies emphasize a comprehensive approach to transforming Ethiopia’s manufacturing sector into a driver of economic growth and structural transformation. HGERA calls for revisiting industrial incentives, promoting local content industries such as agro-processing and leather, and strengthening domestic value chains and industrial relations. Aligned with this vision, the revised National Manufacturing Industrial Policy aims to diversify and develop complex industrial bases while enhancing private sector participation and attracting FDI. Complementing this, the National Manufacturing SME Development Roadmap and the Manufacturing SME Transition Strategy—led by the Ethiopian Enterprise Development (EED)—aim to strengthen support systems and scale the number of competitive manufacturing SMEs from 2,000 in 2019/20 to 5,000 by 2029/30. These efforts are supported by the National Entrepreneurship Strategy (2020–2025), which seeks to foster inclusive entrepreneurship, and the Ten-Year Development Plan, which projects a major shift in GDP composition toward industry and manufacturing (MOI,2023).

IES is being implemented by key institutions such as the Ministry of Industry (MoI), the Ministry of Labor and Skills (MoLS), and regional industry bureaus, in collaboration with development partners and higher educations and TVET institutions. The national IES seeks to upgrade MSME capabilities by promoting lean manufacturing practices, facilitating access to affordable financing, and supporting innovation and product development through partnerships with higher education and research institutions (MoI, 2022; MoLS, 2023).

2.6. Ethiopia's Experience with MIES

Industry Extension Services (IES) have been provided to Micro and Small Enterprises (MSEs) in Ethiopia for over a decade, mainly through TVET institutions, focusing on four core service packages: technical support, technology transfer, Kaizen (continuous improvement), and entrepreneurship development. These packages aimed to improve the productivity, quality, and competitiveness of enterprises across various sectors. However, with the growing need to better support the manufacturing sector, the mandate for delivering and coordinating the IES was legally transferred to the Ethiopian Enterprise Development (EED) through regulation No. 526/2022. This shift emphasizes targeted support for Small and Medium Enterprises (SMEs) in manufacturing and expands the scope of services beyond the previous four package contents. In collaboration with the relevant parties EED is now responsible not only for the four packages, but also for facilitating access to working premises, finance, market linkages, and other essential enterprise development services.

2.7. Rationale for a Renewed MIES Strategy

Ethiopia has long recognized the significance of Industry Extension Services (IES) in supporting micro, small, and medium manufacturing enterprises (MSMEs), which are central to industrial growth, job creation, and value addition. For decades, IES initiatives have been implemented by various government institutions and programs. However, the absence of a unified, comprehensive, and nationally coordinated framework has resulted in fragmented interventions, duplication of efforts, inconsistent service delivery, and limited impact on MSME growth and enhancing competitiveness. With the advent of new policy directions, the revised IES definition, and Ethiopia’s commitment to accelerated industrialization, there is a pressing need for a modern and coherent strategy that reflects these evolving priorities.

The development of a National Manufacturing Industry Extension Strategy (MIES) is both timely and essential. It addresses structural gaps while aligning with Ethiopia’s broader economic reform agenda, including the Homegrown Economic Reform, Industry 4.0 initiatives, Manufacturing Industry policy, Ethiopia Tamirt initiative and the Ten-Year National Development Plan. These frameworks and the recent Rural Industrialization movement emphasize industrial growth, technology adoption, digital transformation, and economic diversification as critical pathways to sustainable development. The MIES strategy aims to empower MSMEs with modern technologies, innovation-driven practices, and competitive working systems to thrive in an increasingly digital and globalized manufacturing landscape.

In addition, the requirements of regional and international agreements, such as the African Continental Free Trade Area (AfCFTA) and Ethiopia’s upcoming WTO membership, demand that the country prepare its manufacturing sector for fierce international competition. Equipping MSMEs with advanced technologies, efficient production systems, and globally recognized standards is imperative to enable them to seize export opportunities and withstand foreign competition.

The MIES strategy is designed to create a dynamic, resilient, and inclusive manufacturing ecosystem by enhancing MSME efficiency, productivity, and market readiness. It facilitates access to modern technologies, skilled extension agents, and business development services while promoting cleaner, safer, and more cost-effective production methods. Moreover, it seeks to overcome persistent challenges, including inadequate financing, outdated production systems, shortage of skilled professionals, weak market linkages, and fragmented institutional coordination, through systemic reforms and capacity-building measures.

Ethiopia’s vision to become a leading African manufacturing hub—focusing on priority sectors, such as agro-processing, textiles, garments, leather, chemicals, metal and wood works, and other strategic sub-sectors—requires a robust MSME base that serves as a driver of innovation and job creation. By strengthening MSMEs, the MIES strategy will position Ethiopia to compete effectively in domestic, regional, and global markets, contributing significantly to the country’s economic transformation by empowering MSMEs.

SECTION 3: SITUATIONAL ANALYSIS

3.1. Current Status of IES in Ethiopia

Industrial extension services in Ethiopia are designed to support micro, small, and medium manufacturing enterprises (MSMEs) by providing comprehensive, needs-based assistance to enhance their growth and contribution to industrialization. From the perspective of Technical and Vocational Education and Training (TVET) institutions, these services include entrepreneurship development, quality and productivity improvement through Kaizen, technical skills training, technology capacity building, and consultancy. Kaizen promotes continuous improvement, engaging all employees to elevate product quality, workplace safety, and competitiveness using tools like Kaizen boards to assess competencies and implement solutions. Technical skills training aligns with industry demands across Levels 3 to 5, delivered in collaboration with TVETs, universities, and research institutes to ensure global competitiveness. Technology capacity building focuses on adopting and adapting innovative technologies to drive economic transformation from agriculture to industry, emphasizing stakeholder partnerships and recipient readiness. Entrepreneurship support encourages innovative ideas to generate employment opportunities by addressing enterprise-specific needs.

Within Ethiopia's enterprise development framework, industrial extension services deliver tailored information, training, technology development, marketing, and quality enhancement while facilitating access to institutional resources. Business development services (BDS) aim to advance enterprises to higher operational levels, fostering market competitiveness through continuous support. Key BDS components include market opportunity expansion via linkages, trade fairs, and product promotion; raw material supply coordination through bulk purchasing and supplier empowerment; and modern technology provision, including leasing and prototyping. Training and technical services encompass business management, accounting, and professional skills development, while production and sales centers are tailored to enterprise capacities. Financial support streamlines loan access, and policy awareness ensures enterprises understand regulations and government incentives, creating a supportive environment for growth.

These services collectively empower MSMEs to scale operations, improve productivity, and contribute to Ethiopia's industrialization goals. By fostering entrepreneurship, enhancing technical and technological capabilities, and improving market access, industrial extension and BDS enable enterprises to meet quality standards, achieve global competitiveness, and support economic self-sufficiency. Coordinated efforts across TVETs, research institutions, and industry stakeholders ensure that support is needs-based and sustainable, driving long-term development in the manufacturing sector.

The service delivers a comprehensive suite of support services aimed at enhancing the productivity, competitiveness, and resilience of Micro, Small, and Medium Enterprises (MSMEs), particularly in the manufacturing sector. These services include technical assistance for production efficiency, promotion of appropriate technologies, the adoption of Kaizen-based continuous improvement methodologies, and entrepreneurship development focused on planning, marketing, and financial literacy (UNIDO, 2021; MoI, 2023). While these interventions are designed to address major constraints to enterprise growth, they often lack clear boundaries and operational coherence, leading to overlaps in delivery that reduce their practical effectiveness (World Bank, 2020).

The Industry Extension Service (IES) system in Ethiopia has evolved significantly since its introduction, transitioning from small-scale, fragmented initiatives to a more structured and institutionalized framework.

Initially, IES was delivered through TVET colleges using standardized packages such as technical training, technology support, Kaizen, and entrepreneurship, with limited customization to enterprise needs. Over time, lessons learned from these early supply-driven interventions led to reforms aimed at improving service relevance, expanding coverage, and strengthening institutional capacity.

Currently, The Ethiopian Enterprise Development (EED) serves as the principal agency responsible for implementing and coordinating IES to manufacturing-focused SMEs. It operates through regional and municipal trade and industry bureaus, targeting enterprises engaged in value-adding sectors with high potential for import substitution and export diversification (EED, 2024). Meanwhile, Technical and Vocational Education and Training (TVET) institutions—under the Ministry of Labor and Skills—focus on non-manufacturing and informal sectors such as construction and urban agriculture. These institutions aim to promote self-employment and income generation by providing hands-on training, business incubation, access to equipment, and linkage with microfinance services (MoLS, 2022; UNDP, 2022). This division of institutional roles offers a complementary framework that seeks to meet the diverse developmental needs of Ethiopia’s enterprise ecosystem.

Despite some measurable improvements, the overall impact of the IES system remains limited due to persistent structural and operational challenges. Research has found statistically significant positive relationships between MSME participation in extension services and enterprise outcomes, including growth and job creation (UNCTAD, 2022; World Bank, 2020). However, weak follow-up, poor contextualization of training content, and a lack of ongoing mentorship dilute the potential long-term benefits. Trainers—especially those affiliated with TVETs—often struggle to manage dual roles as instructors and extension agents, and many lack current industry exposure, which affects the relevance and quality of their support (UNIDO, 2021). Moreover, constraints such as inadequate transportation, field tools, and teaching materials frequently hinder the effective delivery of services.

The adoption of the Kaizen approach—although proven successful when implemented rigorously—remains superficial and poorly institutionalized due to limited awareness and lack of structured monitoring systems (JICA, 2019; MoI, 2023). Entrepreneurship development support is similarly constrained, often remaining theoretical and disconnected from real enterprise challenges, especially in its integration with financial systems and market linkages. Further compounding these challenges are governance inadequate coordination among agencies, and the absence of a dedicated budget line for IES. Monitoring and evaluation practices continue to focus more on counting activities rather than assessing impact, undermining efforts to ensure accountability and continuous improvement (UNDP, 2022).

3.1.1. Achievements in EIS Provision

The goals of MSMEs in the manufacturing sector, as prioritized in Ethiopia’s national development strategies and policies, focus on creating a competitive and sustainable industrial base. A key objective is to enhance productivity and efficiency while reducing the cost of production for MSMEs. This involves improving operational systems, promoting the adoption of modern technologies, and strengthening workforce skills to increase output and lower production overheads. Another important goal is the improvement of product quality and expanded access to both local and international markets. By ensuring that MSME products meet national and global standards, enterprises can enhance their market presence, build customer trust, and access new export opportunities.

The sector also aims to increase exports of locally manufactured products while substituting imports of essential goods. This approach reduces dependency on foreign products, saves foreign currency, and strengthens domestic

manufacturing capabilities. Furthermore, MSMEs are expected to increase value addition to Ethiopia’s primary products by engaging in processing and manufacturing activities that boost the economic value of raw materials. This contributes to industrial diversification and economic transformation.

Lastly, there is a strong emphasis on enhancing safety and sustainability in MSME operations. Promoting cleaner production methods, occupational safety, and environmentally responsible practices ensures long-term competitiveness and alignment with global sustainability trends.

The EED Industrial Extension Services (IES) report shows a significant overachievement in performance compared to its targets from 2021 through the first 9 months of 2025. The planned target across these years was to support a total of 24,600 enterprises (18,070 small and 4,517 medium), while the actual performance reached 53,274 enterprises (39,585 small and 13,689 medium), achieving over 216% of the plan.

In 2021, EED had planned to reach 5,736 enterprises but exceeded this by a wide margin, reaching 15,399 enterprises — nearly 2.7 times the target. This strong performance was repeated in 2023 and 2024, where the actual achievements were 16,826 and 25,096, respectively, far surpassing the annual plans of 4,457 and 4,915. Especially in 2024, the outreach to 17,189 small enterprises alone greatly exceeded the cumulative yearly target.

In contrast, 2022 showed more modest overachievement, with 5,199 actuals against a target of 4,060, mainly driven by a slight increase in outreach to small enterprises. For the first nine months of 2025, while the year was not yet completed, EED had already supported 6,153 enterprises, approaching the planned figure of 5,440. This indicates a strong likelihood of exceeding the annual plan again by year-end.

Overall, the trend clearly demonstrates EED’s enhanced implementation capacity, responsiveness to sectoral demands, and improved outreach mechanisms — particularly in supporting small enterprises, which alone made up more than 74% of total actuals. The consistently high performance against planned targets indicates strategic alignment with national MSME support goals and effective coordination at operational levels.

Though the Ethiopian Enterprise Development (EED) has reached a substantial number of enterprises through its Industrial Extension Services (IES), the overall coverage remains limited when viewed against the total number of Micro, Small, and Medium Enterprises (MSMEs) operating across the country. While more than 53,000 enterprises have reportedly benefited from IES support in recent years, this figure represents only a fraction of the hundreds of thousands of MSMEs active nationwide, particularly in manufacturing, services, and trade sectors (MoI, 2023; UNDP, 2022). The vast majority of enterprises, especially those in rural areas or operating informally, continue to lack access to tailored technical assistance, modern technologies, and enterprise development services. This gap highlights the need for scaling up service delivery, strengthening coordination among support institutions, and expanding the reach of IES to ensure more inclusive and equitable access to enterprise development opportunities.

Table 1: 5 years IES Performance

Year	Plan			Actual		
	Small	Medium	Total	Small	Medium	Total
2021	2972	743	5736	11453	3946	15399
2022	3248	812	4060	3892	1307	5199
2023	3566	891	4457	13724	3102	16826
2024	3932	983	4915	17189	7907	25096
2025(9 months)	4352	1088	5440	4780	1373	6153
Total	18070	4517	24600	39585	13689	53274

Source: (EED,2025)

Beyond the statistical accomplishments, the achievements of Ethiopia’s Industrial Extension Services (IES) program reveal a meaningful transformation in the performance of key manufacturing sectors. Despite persistent constraints such as limited access to finance, outdated machinery, and weak infrastructure (World Bank, 2020; UNIDO, 2021), the IES program has provided tailored support that strengthened the operational capacity and competitiveness of Micro, Small, and Medium Enterprises (MSMEs).

In the textile and garment sector, IES support has helped enterprises improve product quality, introduce basic quality control practices, and enhance workforce skills through hands-on technical assistance and training (EIC, 2022). These interventions have enabled firms to increase consistency in production and better respond to local market demands. In agro-processing, IES activities have focused on improving efficiency in raw material handling, promoting value addition, and supporting enterprises to meet food safety and hygiene standards, thereby enabling them to compete more effectively in the domestic market (MoI, 2023).

The metal and engineering sectors have also seen notable improvements. MSMEs in this sector have benefited from the introduction of lean production techniques, machinery troubleshooting, and technical diagnostics, which have led to cost savings and increased productivity (EED, 2024). In the leather and leather products sector, IES has supported improvements in product design, finishing quality, and basic marketing practices, which have allowed enterprises to diversify their offerings and appeal to a wider range of consumers (UNCTAD, 2022).

These sector-specific gains—realized despite structural and operational constraints—demonstrate the critical role of the IES program in strengthening Ethiopia’s manufacturing base and supporting the broader goals of industrialization and inclusive economic development (UNDP, 2022; MoI, 2023).

Table 2: Key Achievements of IES on Key Sectors

Subsector	Economic Contribution & Performance	Current MIES Offered to MSMEs
Agro-processing	<ul style="list-style-type: none"> • Dominant Role: Contributes over 50% of manufacturing GDP, led by food and beverage production (PDC,2021). • Employment: Major employer, especially in rural areas. • MSME Participation: High; significant value addition and import substitution potential. 	<ul style="list-style-type: none"> • Quality assurance and food safety training (e.g., HACCP, GMP) • Value chain and product development support • Access to shared processing facilities • Packaging and branding support • Market linkages and certifications

Textiles and Garments	<ul style="list-style-type: none"> • Export-Oriented: Key contributor to exports; • Employment: High, particularly for women and youth. • Challenges: Affected by shifts in global trade agreements and buyer preferences. 	<ul style="list-style-type: none"> • Technical training in sewing, dyeing, and finishing • Productivity improvement through lean manufacturing • Compliance training (e.g., WRAP, ISO standards) • Export readiness and logistics support
Leather and Leather Products	<ul style="list-style-type: none"> • Traditional Strength: Long-standing sector contributing to exports. • MSME Involvement: High, particularly in tanning, footwear, and artisanal products. • Growth Potential: Quality improvement and new market access. 	<ul style="list-style-type: none"> • Product design and quality improvement support • Skill upgrading in tanning and finishing techniques • Standardization and certification services • Trade fair participation and market intelligence
Metal Works and Engineering	<ul style="list-style-type: none"> • Industrial Backbone: Supplies machinery and tools for other sectors. • MSME Role: Active in fabrication, maintenance, and repair. • Needs: Upgrading technologies and technical skills. 	<ul style="list-style-type: none"> • Technical support in fabrication, welding, and machining • Access to engineering labs and design software • Equipment maintenance training • Occupational health and safety (OHS) compliance
Wood and Furniture Manufacturing	<ul style="list-style-type: none"> • Local Market Focus: Mostly domestic consumption with export potential. • MSME Dominance: Predominantly small-scale workshops. • Sustainability Concerns: Need for sustainable sourcing and production. 	<ul style="list-style-type: none"> • Design and finishing training • Standardization and quality improvement • Sustainable timber sourcing guidance • Access to modern tools and shared production spaces
Chemical Manufacturing	<ul style="list-style-type: none"> • Emerging Sector: Increasing importance in pharmaceuticals, paints, and industrial inputs. • Import Substitution: Potential to reduce imports. • MSME Opportunities: Niche production areas. 	<ul style="list-style-type: none"> • Technical support for formulation and quality control • Compliance with chemical safety and environmental standards • R&D linkages for product innovation • Licensing and regulatory compliance training • R&D linkage by MIDI

3.1.2. Key Challenges in NIES for Manufacturing MSMEs

Although the Industry Extension Service (IES) in Ethiopia was designed to follow a structured approach—beginning with gap identification, followed by customized training, enterprise-level intervention, and post-support evaluation—this methodology is rarely applied effectively in practice. Many TVET institutions and IES providers do not conduct thorough needs assessments or develop tailored content, which results in interventions that are poorly matched to enterprise realities and have minimal long-term impact (Chane, 2020).

One of the key shortcomings is the delivery of generic, one-size-fits-all services that are not responsive to the specific contexts and challenges faced by Micro, Small, and Medium Enterprises (MSMEs). Technical training, for instance, often lacks practical relevance and fails to address the actual bottlenecks limiting enterprise

performance (Wube, 2020). This reduces the perceived value and real-world effectiveness of the support provided.

Compounding this is the limited capacity of human resources engaged in IES delivery. Many TVET instructors lack updated industrial experience and are burdened with dual teaching and extension responsibilities. As a result, they struggle to provide effective field-level support to enterprises (Kassa, 2024). This constraint significantly undermines the impact and outreach of the extension system, particularly in rural and underserved areas.

Furthermore, the shortage of physical and financial resources remains a persistent barrier. Many implementing institutions operate with limited transport facilities, inadequate teaching aids, and insufficient operational budgets. These constraints severely hinder the ability of IES providers to conduct field visits, deliver hands-on training, and offer sustained enterprise-level coaching (Shiferaw, 2024).

Technology transfer, another core component of IES, faces major implementation hurdles. Although TVETs and the Ethiopian Enterprise Development (EED) are tasked with facilitating access to appropriate technologies, MSMEs often lack the financial capacity to adopt new equipment. Even when technologies are introduced, the absence of adequate training on usage and maintenance creates a gap between policy and practical application (Wube, 2020; Shiferaw, 2024).

The Kaizen approach, which aims to promote continuous improvement through lean production and efficiency-enhancing techniques, is often superficially adopted. Limited understanding among MSMEs, insufficient trainer expertise, and weak follow-up mechanisms result in poor implementation and minimal benefits (Chane, 2020). Many enterprises engage in Kaizen activities symbolically, without integrating its principles into their daily operations (Shiferaw, 2024).

Entrepreneurship development efforts under IES also face challenges. Trainings often focus on theoretical concepts such as business planning, marketing, and financial literacy, but they are not practically oriented. There is also a lack of linkage to financial institutions and post-training support systems, which restricts MSMEs from applying the knowledge gained and achieving tangible improvements in business operations (Kassa, 2024).

In addition to package-specific issues, the overall governance and institutional coordination of IES delivery is fragmented. EED, which now holds the IES mandate under Proclamation No. 526/2022, operates mainly at the regional and zonal levels. In contrast, the Ministry of Labor and Skills (MoLS) has TVET institutions that reach down to the woreda and kebele levels. This misalignment in administrative coverage leads to duplication, gaps in service delivery, and a lack of coordination, especially at the grassroots level (FDRE, 2022).

Another persistent issue is the lack of clear differentiation between the service packages. Technical support, technology transfer, and Kaizen are often delivered simultaneously by the same trainers, without clear boundaries or targeted content. This creates confusion among MSMEs regarding the purpose and outcomes of each intervention, resulting in diluted impact and engagement fatigue (Shiferaw, 2024).

Moreover, the monitoring and evaluation (M&E) mechanisms currently in place emphasize activity tracking rather than outcome-based impact assessment. This approach fails to capture the real effectiveness of interventions and does not provide feedback for continuous improvement. Without strong M&E systems, IES delivery remains output-focused rather than results-driven (Pinto, 2016).

Similarly, a study on industrial extension services in Ethiopia's manufacturing sector by MOI (2024) reveals critical challenges impacting their effectiveness. It is reported that IES providers have low educational attainment,

contributing to the limited impact of these services citing issues like impractical support, inadequate trainer skills, and lack of significant outcomes. Although services are provided across all regions, their delivery is inconsistent and insufficient, with Kaizen support being relatively effective in awareness and sustainability, while technology transfer, skill development, and entrepreneurship support lag. The study also found that SMEs view the support as beneficial, yet deficiencies in task-oriented assistance, trainer skill gaps, and poor coordination result in no significant sector progress of enterprises. Challenges include logistical issues, non-needs-based support, an unfavorable environment, and a lack of standardized procedures, accountability, and coordination, compounded by enterprises' reluctance to engage and trainers' limited capabilities.

3.1.3. IES providers' Insights

A survey of 132 Industry Extension Service (IES) providers in Ethiopia exposes widespread challenges in their support for Micro, Small, and Medium Enterprises (MSMEs). By grouping neutral and disagreeing responses together, the findings reveal significant dissatisfaction and gaps across key areas such as technical assistance, training, collaboration, infrastructure, financial support, market access, rural outreach, policy environment, feedback mechanisms, and monitoring systems. These deficiencies undermine MSME growth and competitiveness, pointing to a need for substantial improvements.

Service delivery is plagued by inconsistency and inadequacy. Notably, 43.5% of providers did not fully agree that their technical support is effective, reflecting uneven quality and limited reach. Similarly, 33.6% did not fully endorse the effectiveness of training programs in enhancing MSME operational capacities, indicating shortcomings in skill development efforts. Additionally, 36.3% expressed doubts about using structured methods to identify and address MSME challenges, underscoring a lack of systematic approaches.

The MSME support ecosystem suffers from poor collaboration and coordination. A substantial 38.5% of providers did not view partnerships with stakeholders as effective, while 60.5% questioned the adequacy of stakeholder communication and coordination. This fragmentation hampers the delivery of unified and impactful support to MSMEs.

Infrastructure and financial assistance are critically misaligned with MSME needs. Over 58.6% of providers did not agree that infrastructure adequately supports MSMEs, highlighting operational constraints. Even more concerning, 64.3% did not fully agree that financial assistance is sufficient, revealing a major barrier to MSME expansion and resilience.

Market access and technology adoption efforts fall short as well. A striking 55.1% of providers did not fully agree that they facilitate market access for MSMEs, and 51.2% did not fully support claims of enhancing product quality. Furthermore, 47.3% expressed reservations about aiding the adoption of new technologies, limiting MSME innovation and market competitiveness.

Rural areas face pronounced disparities, with 55.7% of providers not agreeing that services are equally accessible across urban and rural regions. This imbalance restricts inclusive growth and leaves rural MSMEs at a disadvantage.

The policy environment adds further complications, as 56.5% of providers did not find it supportive of their efforts. Coupled with this, 50% did not engage in policy advocacy, reducing their influence over regulatory improvements. These factors create an unsupportive framework for IES operations.

Feedback and client satisfaction mechanisms are notably weak. Over 53% of providers did not fully utilize MSME feedback to adjust services, and 51.2% did not believe MSMEs are satisfied with the support received. This disconnect from client needs erodes service relevance and effectiveness.

3.1.4. MSMEs' Insights

A questionnaire-based study of 266 Micro, Small, and Medium Enterprises (MSMEs) found that despite some challenges, Industry Extension Services (IES) are generally seen in a positive light, particularly for their impact on entrepreneurship, training, technology, consultancy, and market access. The study reveals that a significant 58.23% of respondents agree that IES entrepreneurship services help cultivate innovative ideas for business growth and job creation. However, a notable gap exists, with only 31.4% believing that providers are adequately equipped for effective training and mentorship, indicating potential resource or expertise gaps that need to be addressed.

The study also highlights mixed results in technology capacity building. While 42.7% of MSMEs report improvements in their production processes, only 33.7% feel that providers offer sufficient support for modern solutions like leasing or prototyping, suggesting a need for better technological resources within the services. A standout area is the positive perception of IES's Kaizen-driven services, which are credited with improving product quality, workplace safety, and competitiveness. Additionally, the financial support services are highly valued, with 49.2% of MSMEs reporting enhanced access to loans and funding.

Several areas for improvement were identified. The study notes that repetitive policy awareness services may overwhelm MSMEs, suggesting a need for more efficient communication strategies. Consultancy services are often not sufficiently tailored to the specific needs of businesses, and there is only moderate confidence in the expertise of providers and their collaborations with academic institutions like universities and TVETs. Strengthening these partnerships is viewed as critical to improving the overall effectiveness of IES. Similarly, while market facilitation services like trade fairs and raw material coordination improve market access, they require more robust implementation to truly maximize their impact. Overall, MSMEs clearly value IES for their role in fostering growth and sustainability, but addressing the gaps in expertise, technology, and collaboration is essential to unlocking their full potential.

3.1.5. Qualitative Analysis

Stakeholders meeting held in March 4, 2025, Interviews conducted on March 5 and 6, 2025, with MSME operators, TVET trainers, top level officials and a Focus Group Discussion (FGD) held on March 7, 2025, with key stakeholders—including enterprise development officers, polytechnic college leaders, and MSMEs' operators—revealed a comprehensive and multi-layered set of challenges facing the delivery and effectiveness of industry extension services in Ethiopia's manufacturing sector.

A central theme that emerged from both the interviews and the FGD was the consistent view among MSME operators that the support they receive through industry extension services is both technically inadequate and logistically inconsistent. Operators repeatedly expressed dissatisfaction with the quality of assistance, citing that while TVET trainers are supposed to deliver targeted interventions—such as technology transfer, Kaizen principles, and business advisory services, most of these efforts remain superficial and irregular. MSMEs reported that many of the trainers lack real industrial experience and provide generic advice that does not align with their specific operational challenges. While some support was acknowledged, particularly in the area of workplace organization, the broader expectations of technical improvement and sustained mentorship were not being met.

TVET trainers echoed these concerns, admitting that they are heavily burdened by their primary teaching responsibilities and lack both the time and resources to effectively support enterprises. Trainers stated that extension work is viewed as an add-on activity rather than a dedicated role, and they receive no financial compensation or institutional recognition for their efforts. In many cases, they incur personal expenses to travel to enterprise sites, which further diminishes their motivation. As a result, they are unable to provide consistent or high-quality support, and the value of the services they offer is compromised.

Beyond the immediate issues related to trainer capacity and institutional commitment, the FGD revealed broader systemic constraints that hinder the development of manufacturing MSMEs in Ethiopia. Top government leaders and stakeholders who participated in the discussion emphasized that one of the most severe and persistent constraints faced by enterprises is the unreliable and often inadequate supply of raw materials and industrial inputs. Many MSMEs are unable to operate at full capacity due to shortages or erratic access to essential inputs, which not only limits productivity but also discourages investment in innovation and expansion.

Respondents in the FGD stressed that one key challenge in the delivery of Industry Extension Services (IES) in Ethiopia lies in the misalignment between the specific training backgrounds of service providers and the technical areas in which they are expected to operate. Many trainers within TVET institutions specialize in narrow disciplines such as Garment Engineering, yet they are often deployed to provide services in technically different areas like Textile Production. While these sectors may appear related, they require distinct technical knowledge, machinery expertise, and production methodologies. This mismatch results in generic and less effective support for MSMEs, undermining the quality and relevance of the extension services.

These deployment practices often stem from a shortage of trainers with the appropriate expertise, institutional pressure to fulfill service targets irrespective of staff specialization, and limited opportunities for professional development or skill diversification. As a result, the technical support extended to MSMEs frequently lacks depth and specificity, leading to limited impact on enterprise productivity and innovation.

Moreover, participants highlighted significant coordination problems among stakeholders involved in MSME support. There is often a lack of alignment between various government agencies, TVET institutions, enterprise development offices, and other actors such as financial institutions and cooperatives. This fragmentation results in duplicated efforts, missed opportunities for collaboration, and ineffective implementation of policies. For instance, while one office may offer technical training, another may be working on input facilitation or market linkage without any integration of efforts. MSMEs caught in this disconnected system find it difficult to navigate support services or build long-term development partnerships.

Another critical issue raised was the low level of institutional and societal commitment to the development of MSMEs. Key informants pointed out that there is a noticeable lack of positive attitude and ownership across different levels of government and within the broader community regarding the role of MSMEs in industrial transformation. Extension services are often seen as peripheral or temporary programs, not as strategic tools for enterprise development. This perception reduces the level of priority and investment directed toward improving the quality and impact of such services. As a result, MSMEs remain at the periphery of national development agendas despite their proven potential for job creation and economic growth.

The Focus Group Discussion with manufacturing SMEs highlighted both the strengths and challenges of Industry Extension Services (IES). Participants appreciated initiatives like Kaizen training, which improved operational efficiency and innovation, particularly through the involvement of TVET trainees. However, they also pointed out major shortcomings, such as inconsistent follow-up support, limited market-focused assistance, and

bureaucratic hurdles. Key suggestions for future improvement included enhancing expert alignment with sector needs, ensuring continuous technical and regulatory support, and fostering better communication among government agencies. Overall, the discussion underscored the need for holistic and responsive IES strategies that align with the realities and growth ambitions of MSMEs.

The stakeholder meeting on Industry Extension Services (IES), held on March 4, 2025, in Bishoftu, brought together key actors from government, academia, industry, and development partners to deliberate on creating a structured, effective, and sustainable IES framework in Ethiopia. Participants emphasized the need for institutionalizing IES with dedicated structures and adequate resources, comparable to existing health and agricultural extension systems. A multi-actor approach beyond Public-Private Partnerships (PPP) was recommended, involving universities, financial institutions, and international partners. The meeting stressed the importance of skilled IES experts, a tiered institutional structure from federal to kebele level, and drawing lessons from successful global models tailored to Ethiopia's context.

A significant portion of the responses from stakeholders focuses on the primary challenges facing the IES and its effective implementation. Key issues identified include a general lack of awareness among stakeholders, including SME operators and trainers, regarding available support services. Furthermore, insufficient infrastructure, particularly a lack of suitable premises and poor land quality, poses a significant obstacle to SME expansion. Other critical challenges include the limited capacity of extension agents, inadequate market access for MSMEs, high taxation burdens, and a perceived insufficiency of comprehensive training programs.

The responses also highlight systemic and structural issues that impact IES effectiveness, including weak linkages between research institutions, extension agencies, and SMEs, which hinder the flow of information and feedback. This lack of integration, coupled with a high turnover rate of experts at sub-city and woreda levels, disrupts the consistency and implementation of industry extension programs. Addressing these multifaceted challenges is crucial for enhancing the impact and reach of IES in supporting MSMEs' growth and profitability in Ethiopia.

Discussions also addressed sustainability, recommending a cost-sharing model and a clear exit strategy to reduce long-term dependency. Stakeholders advocated for continuous capacity building of IES providers, stronger coordination among key institutions, and a clear distinction between IES (technical support) and BDS (business skills). Other key points included integrating educational and training institutions into IES delivery, establishing a national IES advisory board, standardizing service packages, and promoting digitalization and green manufacturing practices. The meeting concluded with a call for piloting the strategy before nationwide rollout, enhancing TVET's role, ensuring inclusivity, and encouraging regulated private sector participation to make the system more responsive, efficient, and aligned with the industrial development goals of the country.

Interviews conducted with Vice Deans from polytechnic colleges across multiple regions, provided key insights into the current state of Industry Extension Services (IES) provided to Micro, Small, and Medium Enterprises (MSMEs). In the Amhara region, Vice Deans strongly supported a unique structure where IES is separated from the core educational responsibilities of trainers. They highlighted a rotational system, where selected trainers dedicate a year exclusively to IES, as particularly effective in enhancing the relevance and quality of support delivered to MSMEs. This arrangement allows trainers to focus on industry needs without compromising their teaching roles. However, MSMEs in Amhara expressed concerns about disruptions caused by the frequent turnover of IES providers due to this rotational system. This separation model is specific to Amhara and not implemented in other regions.

Despite regional efforts, stakeholders across all regions identified several systemic challenges. The lack of a uniform IES structure nationwide leads to inconsistencies in implementation and service delivery, exacerbated by the absence of Amhara’s separation model in other regions. Coordination among key stakeholders—government bodies, colleges, and industries—remains weak, hindering the development of a cohesive IES framework.

At both federal and regional levels, IES receives insufficient attention and support, limiting its integration into broader educational and industrial development strategies. IES providers, many of whom are TVET trainers, often face low motivation due to inadequate incentives and minimal recognition for their extension work. The lack of regular, structured capacity-building programs further restricts staff professional development, undermining the quality and sustainability of IES delivery across regions.

Operational challenges also constrain IES effectiveness. Limited access to input supplies, poor working conditions, and inadequate selling premises for MSMEs hinder providers’ ability to offer consistent, practical support. Additionally, attitudinal barriers among MSMEs, including skepticism and lack of awareness about IES benefits, pose significant obstacles to collaboration and impact in all regions.

Table 3: Summary of Challenges

Category	Challenges
1. Problems from MSMEs	• Resistance to Change: Some MSMEs are reluctant to adopt new productivity practices
	• Limited Raw Materials Access: Bureaucratic hurdles, monopolies.
	• Financial Barriers: High collateral, unsuitable loan terms.
	• Infrastructure Deficits: Poor utilities, workspace, and transport.
	• Low Awareness: Unfamiliarity or distrust of IES.
	• Skill Gaps: Technical/managerial deficits, esp. in digital tools (CAD/CAM).
2. Problems from Service Providers / TVET/EED	• Capacity Shortages: Trainers lack updated skills and practical exposure.
	• Mismatched Services: Irrelevant training, limited follow-up
	• Dual Roles: Trainers split time between teaching and extension.
	• Resource Constraints: Lack of transport, tools, and incentives.
	• High Turnover: Staff changes disrupt services.
	• Supply-Driven Services: Generic, not tailored to enterprise size/type.
3. Government-Level Challenges	• Weak Feedback Mechanisms: Lack of structured input and follow-up.
	• Fragmented Governance: Poor coordination across ministries and regions.
	• Policy Inconsistency: Weak implementation at local level.
	• Underfunding: No dedicated budget; dependency on donor funds.
	• Weak M&E Systems: Focus on activity counts, not outcomes.
	• Bureaucracy: Delays in licensing, tax, and regulations.
4. Other / Cross-Cutting Issues	• Private Sector Exclusion: Lack of private service incentives or accreditation.
	• Poor Stakeholder Coordination: Weak collaboration among MSMEs, govt., banks, NGOs.

	<ul style="list-style-type: none"> • Structural Misalignment: National policies poorly adapted to regional contexts.
	<ul style="list-style-type: none"> • Cultural Resistance: Low adoption of productivity-enhancing methods (e.g., Kaizen).

1. SWOT and PESTEL Analysis

SWOT and PESTEL analyses provide a comprehensive understanding of both internal capacity and external conditions, supporting evidence-based improvements to make IES more responsive and impactful for MSME development.

Table 4: SWOT Analysis

Category	Analysis	Strategic Actions
Strengths	<ul style="list-style-type: none"> • Strong government commitment to industrialization (e.g., "Made in Ethiopia," "Tamrit Initiative"). 	<ul style="list-style-type: none"> • Leverage government support to attract international partnerships for technology transfer.
	<ul style="list-style-type: none"> • Established TVET infrastructure for skills delivery. 	<ul style="list-style-type: none"> • Expand specialized TVET programs aligned with industry needs.
	<ul style="list-style-type: none"> • Functional value chains in key sectors (e.g., textiles, leather). 	<ul style="list-style-type: none"> • Strengthen SME-large firm linkages in functional value chains.
	<ul style="list-style-type: none"> • Institutes and training programs in place(e.g.MIDI). 	<ul style="list-style-type: none"> • Scale successful entrepreneurship models to underserved regions.
	<ul style="list-style-type: none"> • High youth population (demographic dividend). 	<ul style="list-style-type: none"> • Develop Youth-Focused IES Programs
Weaknesses	<ul style="list-style-type: none"> • Overlapping institutional mandates (e.g., overlapping roles of EED, TVETs, regional bureaus). 	<ul style="list-style-type: none"> • Establish a centralized IES coordination unit with clear federal/regional roles.
	<ul style="list-style-type: none"> • Over-dependence on government funding; no dedicated IES budget. 	<ul style="list-style-type: none"> • Develop demand-driven service models with SME feedback loops.
	<ul style="list-style-type: none"> • Shortage of skilled trainers with industry experience. 	<ul style="list-style-type: none"> • Introduce "Training of Trainers" (ToT) programs for practical skills.
	<ul style="list-style-type: none"> • Supply-driven services with poor SME feedback integration. 	<ul style="list-style-type: none"> • Upgrade digital tools for service delivery and monitoring.
	<ul style="list-style-type: none"> • Outdated training tools and methods. 	<ul style="list-style-type: none"> • Stablish a National IES Innovation and Learning Hub
Opportunities	<ul style="list-style-type: none"> • Growing regional interest in African markets (e.g., AfCFTA). 	<ul style="list-style-type: none"> • Forge international partnerships for funding and knowledge exchange.
	<ul style="list-style-type: none"> • Funding for automation/green tech (e.g., climate finance). 	<ul style="list-style-type: none"> • Launch innovation hubs for youth in high-potential sectors.

	<ul style="list-style-type: none"> Digitalization potential (e.g., mobile-based advisory tools). 	<ul style="list-style-type: none"> Promote eco-friendly tech adoption (e.g., waste recycling in leather).
	<ul style="list-style-type: none"> University-industry partnerships for R&D. 	<ul style="list-style-type: none"> Strengthen incubation centers in universities/TVETs and research Institutes.
	<ul style="list-style-type: none"> Lease financing options 	<ul style="list-style-type: none"> Develop and Promote Tailored Lease Financing Packages through Strategic Partnerships with Local Financial Institutions
	<ul style="list-style-type: none"> Youth entrepreneurship potential. 	<ul style="list-style-type: none"> Promote Youth Entrepreneurship Role Models and Awareness Campaigns
Threats	<ul style="list-style-type: none"> Political instability and policy inconsistency. 	<ul style="list-style-type: none"> Institutionalize policy dialogues for stability.
	<ul style="list-style-type: none"> Limited SME access to finance (high collateral, volatile interest rates). 	<ul style="list-style-type: none"> Expand credit guarantee schemes and risk-sharing with banks.
	<ul style="list-style-type: none"> Rapid technological changes outpacing local capacity. 	<ul style="list-style-type: none"> Invest in ICT/digital literacy for SMEs.
	<ul style="list-style-type: none"> Environmental degradation (e.g., unregulated industrial waste). 	<ul style="list-style-type: none"> Enforce green manufacturing standards and compliance.
	<ul style="list-style-type: none"> Complex regulations and bureaucratic challenges. 	<ul style="list-style-type: none"> Introduce a Regulatory Impact Assessment (RIA) System

Table 5: PESTEL Analysis

Category	Threats	Strategic Actions
Political	<ul style="list-style-type: none"> Limited structure of EED to federal and regional level. 	<ul style="list-style-type: none"> Create a national IES coordination unit under the Ministry of Industry.
	<ul style="list-style-type: none"> Bureaucratic delays in policy implementation. 	<ul style="list-style-type: none"> Introduce performance-based contracts for service providers.
	<ul style="list-style-type: none"> Weak enforcement of IES standards. 	<ul style="list-style-type: none"> Strengthen federal-regional policy alignment forums.
Economic	<ul style="list-style-type: none"> Heavy reliance on donor funding; limited domestic financing for IES. 	<ul style="list-style-type: none"> - Mobilize public-private financing (e.g., SME credit guarantees).
	<ul style="list-style-type: none"> High tax burdens on SMEs. 	<ul style="list-style-type: none"> Streamline tax incentives for SME modernization.
	<ul style="list-style-type: none"> Inflation and forex shortages. 	<ul style="list-style-type: none"> Promote cost-sharing models (e.g., phased fee-for-service).
Social	<ul style="list-style-type: none"> Resistance to productivity practices (e.g., Kaizen). 	<ul style="list-style-type: none"> National awareness campaigns on productivity culture.
	<ul style="list-style-type: none"> Skill mismatches in labor force. 	<ul style="list-style-type: none"> Align TVET curricula with industry needs via stakeholder boards.

	<ul style="list-style-type: none"> Weak market linkages for SMEs. 	<ul style="list-style-type: none"> Facilitate SME linkages to export markets/large firms.
Technological	<ul style="list-style-type: none"> Outdated production technologies (e.g., manual vs. automated). 	<ul style="list-style-type: none"> Develop tech-transfer partnerships with global institutions.
	<ul style="list-style-type: none"> Lack of digital infrastructure (e.g., CAD/CAM in leather). 	<ul style="list-style-type: none"> Invest in ICT infrastructure (e.g., digital training platforms).
	<ul style="list-style-type: none"> Cybersecurity risks. 	<ul style="list-style-type: none"> Integrate real-time M&E tools for tech adoption tracking.
Environmental	<ul style="list-style-type: none"> Unregulated industrial waste (e.g., leather sector exports 90% unprocessed waste). 	<ul style="list-style-type: none"> Integrate green industry principles into IES guidelines.
	<ul style="list-style-type: none"> Climate vulnerability (e.g., water scarcity). 	<ul style="list-style-type: none"> Mobilize climate finance for eco-tech adoption.
		<ul style="list-style-type: none"> Enforce environmental compliance audits.
Legal	<ul style="list-style-type: none"> Complex regulations (e.g., licensing, raw material monopolies). 	<ul style="list-style-type: none"> Simplify regulatory frameworks for SME support.
	<ul style="list-style-type: none"> Inconsistent quality standards enforcement. 	<ul style="list-style-type: none"> Strengthen inter-agency collaboration (e.g., EED, MoLS, TVETs).
	<ul style="list-style-type: none"> Tax Burden 	<ul style="list-style-type: none"> Incentivize compliance through tax breaks.

3.2. International Best Practices and Case Studies

The best practices are selected relevant to the key challenges identified in the situational analysis, SWOT analysis, PESTEL analysis for the Ethiopia manufacturing industry and MSME Extension Service Ecosystem. As regards the following summary of key constraints were identified: weak coordination and institutional capacity, inadequate technology transfer, low productivity, poor infrastructure, low knowledge and skills transfer, limited market access and competitiveness, restricted access to finance, and insufficient attention to environmental and social sustainability. The international Best Practices were analyzed, mapped and identified to respond to the key challenges, weaknesses and threats in the sector through the Manufacturing Industry Extension Strategy. The countries which have successfully adopted the identified international best practices were mapped out and prioritized. Kenya and South Africa from Africa, South Korea and India from Asia and German from Europe and USA were prioritized to consolidate global and intercontinental experience.

The objective of the international Best Practice strategy is to enhance institutional capacity and decentralize coordinated SME support; Promote continuous quality and productivity improvement; Bridge the skills and knowledge gap; Accelerate technology transfer and innovation; Improve market competitiveness and embed financial inclusion and sustainability. A summary of the international best practices includes but not limited to SMEs Incubation and technology transfer centers; Research & Development Labs; Common User Facilities; Industrial parks or centers; Export Processing Zones; Dual Vocational Trainings; Product Standardization, Branding and certifications; Innovative SME financing and credit schemes; One stop shop business center;

Centers of industrial excellence; Industry Associations or Clusters and public private partnerships. The practices are not clearcut stand-alone, but are more integrated than stand alone. These practices will inform Ethiopia's phased and context-responsive implementation of the MIES strategy, ensuring alignment with global trends, while addressing local development needs. Although there is political goodwill and supportive policy frame in Ethiopia to implement international best practices, challenges may be encountered in adapting and scaling them to regional and ward-level governments, mainly due to structural differences between the federal governance system and the local governance contexts where these practices were successfully implemented.

3.2.1. International Best Practices

i. International Best Practices for Weak Coordination and Institutional Capacity

Challenge: Fragmented institutional mandates, duplication of functions, low institutional efficiency, lack of integrated SME support and weak decentralized service delivery systems.

Best International Practices:

- **Enterprise Singapore (Singapore):** Centralized coordination across SME policy, export promotion, and innovation under one agency: -ideal for guiding Ethiopia's multi-agency SME strategy.
- **Biashara Centers (Kenya):** Integrated service points offering one stop shop services on business registration, advisory, and technical support at the sub-national level.
- **Manufacturing Extension Partnership – MEP (USA):** Offers a federal-local networked delivery model bridging national policy with local enterprise support and providing manufacturing advice, productivity tools, and innovation support.
- **Centers of Excellence for Technology Transfer (Global Practice, India, South Korea etc.):** Institutions that act as regional hubs for R&D commercialization, knowledge transfer, industrial advisory, firm-level training, innovation scaling across regions, and coordination between academia and industry, critical for scaling Ethiopia's innovation ecosystem across all regions.
- **Strength and Weakness:** The International best practices highlight the strength of integrated and well-coordinated support systems for MSMEs, as seen in Enterprise Singapore and Kenya's Biashara Centers, which offer streamlined, centralized services that Ethiopia could emulate to strengthen its fragmented institutional landscape. However, a key weakness in applying these models to Ethiopia lies in limited local institutional capacity and uneven decentralization, which may hinder the effective adaptation and delivery of such comprehensive support systems, particularly in rural and underserved area

ii. International Best Practices for Inadequate Technology Transfer and Innovation Uptake

Challenge: Limited uptake of industrial technology and innovations among SME's due to weak linkages between research, enterprise, and technical institutions.

Best International Practices:

- **Technology Transfer Units (Germany, Kenya):** Facilitate the flow of innovations and industrial solutions to enterprises. Bridge institutions enabling SMEs to adopt relevant technologies and innovations.
- **R&D Labs (Germany – Fraunhofer, Kenya – KIRDI):** Focused on applied research, these labs work directly with firms to prototype and adapt technologies. Provide customized, sector-based prototyping and testing services for SMEs.

- **Centers of Excellence (India, Rwanda):** Provide access to cutting-edge tools, demonstration labs, and mentorship on technology adoption. Catalyze advanced technology adoption, skills development, and industrial linkages.
- **Industry 4.0 Tools (India, Germany):** Phased digitalization through IoT, robotics, and AI enhances productivity, Ethiopia can pilot in priority sectors. Adoption of Automation and Advanced Manufacturing Technology (Germany, China, India): Use of robotics, smart sensors, Computer Numerical Control (CNC), and AI to modernize production and improve consistency, speed, and scalability.
- **Kaizen (Japan, Ethiopia):** A proven quality and productivity improvement approach already piloted successfully in Ethiopia; scalable across manufacturing clusters. Drives incremental improvement in workplace organization, product quality, and operational efficiency

Strength and Weakness: A key strength of the above international best practices is their strong focus on applied technology transfer and firm-level innovation, with models like Germany’s Fraunhofer Institutes, Kenya’s KIRDI, and India’s Centers of Excellence demonstrating how targeted R&D, prototyping, and Industry 4.0 tools can significantly boost SME productivity and competitiveness. However, a major weakness in applying these models in Ethiopia is the limited infrastructure and technical capacity within local institutions, which poses a challenge for effectively scaling such advanced technologies and sustaining firm-level innovation, particularly outside major urban centers.

iii. Best International Practices for Low Productivity and Quality

Challenge: High input-output inefficiency, lack of process control, poor quality assurance, and limited adoption of global standards. Labor inefficiency, poor process optimization, and inconsistent quality outputs.

Best International Practices:

- **Lean Manufacturing and Six Sigma (Japan, USA):** Systematic approaches to improve value delivery, reducing waste, improving efficiency, and standardizing production.
- **Kaizen (Japan, Ethiopia):** Already institutionalized in Ethiopia, Kaizen is essential to embed continuous improvement and workplace quality management. Reinforces a quality-first culture and workplace discipline
- **Global Certifications (ISO, HACCP, etc.):** Necessary for domestic and export market trust; requires certification support through MIES.
- **Dual Vocational Training Models with TVETS-Industry Linkages (Germany, South Korea):** Strengthen productivity by aligning skill development with enterprise needs. Integration of TVETs with manufacturing enterprises ensures real-time, demand-driven skills enhancement.
- **Adoption of Automation (South Korea, China):** Enhances throughput and reduces defects in repetitive and precision-driven operations.
- **Product Standards and Certification Schemes (ISO, HACCP, CE):** Support enterprises in meeting quality, health, and safety benchmarks that are prerequisites for accessing formal and export markets.

Strength and Weakness: A key strength of these international best practices is their emphasis on quality, efficiency, and skills alignment, with approaches like Lean Manufacturing, Kaizen, and dual vocational training models effectively improving productivity, product standards, and workforce readiness—critical for enhancing the global competitiveness of Ethiopian enterprises. However, a notable weakness in applying these practices is Ethiopia’s limited capacity for certification, automation, and industry-TVET integration, which can impede widespread adoption of quality standards and demand-driven skills development, especially among smaller firms and in rural areas.

iv. International Best Practices for Poor Infrastructure and Lack of Shared Facilities

Challenge: Lack of affordable infrastructure, limited access to utilities, and inadequate industrial workspace.

Best International Practices:

- **Common User Facilities – CUFs (India):** Reduce capital costs by enabling SMEs to use shared machinery and production spaces.
- **Industrial Parks and Special Economic Zones (China, Ethiopia):** Enable clustering, cost-sharing, and integration into global value chains.
- **Constituency Industrial Development Centers (Kenya):** Provide local-level industrial support and incubation with community engagement.

Strength and Weakness: A key strength of these best practices is their ability to lower entry barriers for SMEs through shared infrastructure and localized industrial support, as seen in India's Common User Facilities and Kenya's Constituency Industrial Development Centers, which promote cost-efficiency, clustering, and grassroots enterprise growth. However, a major weakness is that without strong governance, maintenance, and demand-responsive services, such facilities risk underutilization and becoming disconnected from actual SME needs, as has been observed in some industrial parks in Ethiopia.

v. Best International Practices for Low Knowledge and Skills Transfer

Challenge: Skills mismatch, limited exposure to modern industrial practices, and weak vocational-industry linkages.

Best International Practices:

- **Technical, Vocational Education and Training (TVETs)- Industry Partnership:** Dual systems (e.g., Germany, South Korea) and competency-based models improve industrial skills relevance. It Create responsive curricula and practical placements aligned with real-time industry needs.
- **On-the-Job Training (Global Practice):** Practical, firm-level training boosts employee productivity and retention.
- **Mentorship Programs (India, Rwanda):** Connect experienced entrepreneurs and technical experts to emerging MSMEs. Builds SME leadership capacity through structured business development support.
- **Customer Journey Mapping & Human-Centered Design (USA):** Help MSMEs build products/services that directly respond to user needs. Helps firms refine user experiences and product design.
- Equip entrepreneurs with creative tools for innovation and customer-centric solutions.
- **Design Thinking (Silicon Valley-USA, Finland, EU):** Equips businesses to innovate around constraints and develop adaptive solutions.

Strength and Weakness: A key strength of these international practices is their focus on human capital development and innovation, combining industry-aligned TVET systems, on-the-job training, mentorship, and design thinking to build a skilled, adaptive, and customer-focused MSME sector. However, a key weakness in applying these models in Ethiopia is the limited institutional capacity to scale practical training and innovation frameworks, along with weak industry-academia linkages, which hampers widespread, demand-driven skill development and entrepreneurial support.

vi. International Best Practices for Poor Market Access and Low Product Competitiveness

Challenge: Limited domestic and export market integration, weak product branding, and low visibility in global value chains.

Best International Practices:

- **KEPROBA (Kenya), Export Compliance Centers (India):** Support SMEs to meet technical, packaging, Labelling, branding, certification, export market intelligence, and regulatory requirements for export.
- **Global Product Certification (ISO, HACCP, CE, etc.):** Enables access to regulated markets and enhances product trust and credibility.
- **Market Access and Branding Support (Singapore, EU, Kenya's AGOA strategy):** Offers market linkages, trade missions, and promotional platforms for SMEs. Guide MSMEs in product-market matching, certification, and buyer linkages.
- **Global SME Exchange Programs (EU, China, ASEAN):** Facilitate peer learning, joint ventures, and exposure to global value chains. Provide cross-border exposure and benchmarking for Ethiopian enterprises to improve standards and forge partnerships.

Strength and Weakness: A key strength of these international best practices is their comprehensive support for export readiness and market access, offering SMEs essential tools such as product certification, branding, packaging, and regulatory compliance—critical for integration into global value chains and enhancing competitiveness. However, a major weakness in applying these models to Ethiopia is the limited institutional capacity and export infrastructure, which constrains SMEs' ability to consistently meet international standards, access market intelligence, and sustain participation in cross-border trade initiatives.

vii. Best International Practices for Inadequate Access to Finance for MSMEs

Challenge: High collateral requirements, limited risk appetite of lenders, and weak institutional mechanisms for SME finance.

Best International Practices:

- **Blended Finance Platforms (India, SIDBI, Singapore):** Combine grants, loans, blended finance and guarantees tailored to different enterprise growth stages.
- **Cluster-based Financing (India):** Reduces transaction costs by targeting finance to business groups within clusters or cooperatives. Pools risk and facilitate group lending within production clusters.
- **Green Finance & Public Guarantee Schemes (South Africa, EU):** Enable high-impact SMEs to access affordable credit for clean production and social enterprises
- **Public-Private SME Guarantee Schemes (South Africa, Ghana):** Enable risk-sharing and incentivize financial institutions to lend to SMEs.
- **Hustler Fund (Kenya):** A digital, low-collateral micro-credit facility targeting informal sector businesses, start-ups, and nano-enterprises. Its integration of mobile money platforms, credit scoring, and savings components offers a replicable model for Ethiopia to support financial inclusion at the base of the pyramid.

- **Public-Private Micro and Small Enterprise Funds (Vietnam, Rwanda):** Co-financed by government, development partners, and private institutions, these funds provide grants, concessional loans, and business development support, especially in rural areas and for youth/women-led businesses.

Strength and Weakness: A key strength of these international best practices is their diverse and inclusive financing mechanisms, such as blended finance, public-private guarantee schemes, and digital microcredit platforms, which expand access to affordable capital across enterprise sizes and stages, particularly for informal, rural, and women- or youth-led businesses. However, a major weakness in applying these models in Ethiopia is the underdeveloped financial infrastructure and limited risk appetite among local financial institutions, which hinder effective implementation, especially in reaching underserved segments and ensuring sustainability of public-private financing models.

viii. **Best International Practice for Inadequate Environmental and Social Sustainability.**

Challenge: Low integration of green technologies, weak gender and youth inclusion, and limited social impact orientation.

Best International Practices:

- **Green Manufacturing Extension Models (Germany, Sweden):** Offer technical assistance for clean production, energy efficiency, and waste reduction. Deliver energy audits, waste reduction, and eco-efficiency training to SMEs.
- **Social Inclusion Frameworks (India, South Africa):** Promote gender equity, youth enterprise development, and affirmative procurement. Integrate women and youth into value chains through preferential access to public procurement and enterprise support.
- **Circular Economy Approaches (EU):** Encourage eco-design, reuse, recycling, reduced carbon footprints and sustainable production practices at the enterprise level in MSME operations.

Strength and Weakness: A key strength of these international best practices is their integration of sustainability and social inclusion into MSME development, combining green manufacturing, circular economy approaches, and affirmative frameworks to promote eco-efficiency, gender equity, and youth participation in value chains. However, a key weakness in applying these models in Ethiopia is the limited technical capacity, awareness, and incentives for SMEs to adopt green and inclusive practices, which constrains widespread implementation and impact at scale.

3.3. Case Study of Selected Counties on International Best Practices

Box 1: Case study of Kenya MSME Industry Extension Service

Kenya presents a strong and practical model for delivering decentralized, inclusive, and coordinated manufacturing industry extension services. Its approach is highly relevant to Ethiopia, given the similarities in federal governance structures and national ambitions for inclusive industrial transformation. Kenya's system demonstrates how localized support platforms, combined with integrated technical, business, and financial services, can effectively drive the growth and competitiveness of micro, small, and medium enterprises (MSMEs), especially among youth and women.

The Kenyan model operates through a multi-platform delivery system anchored by several key institutions. Constituency Industrial Development Centers (CIDCs), currently numbering 188 across the country, provide shared production equipment, technical skills training, and business development services at the grassroots level. Centers of Excellence and Biashara Centers, operated by the Micro and Small Enterprise Authority (MSEA), offer specialized vocational training, ICT-enabled services, and common user facilities for trades such as welding, tailoring, and auto mechanics. Industrial parks located within Special Economic Zones and Export Processing Zones developed through Public-Private Partnerships (PPPs), create favorable environments for manufacturing investment. Additionally, the Kenya Industrial Research and Development Institute (KIRDI) operates a manufacturing incubation center that supports innovation and the growth of new enterprises.

These platforms deliver an integrated suite of services, including access to production equipment, technical and managerial skills development, market advisory, compliance with quality standards, and digital enablement. Financial inclusion is supported through the Hustler Fund, a mobile-based microloan facility that has extended credit to over one million informal and small enterprises. This fund directly addresses a key constraint facing MSMEs, limited access to capital, while encouraging enterprise growth and formalization.

Kenya's success has been driven by several strategic factors: decentralization of services to ensure national coverage, integration with broader government programs such as the Access to Government Procurement Opportunities (AGPO) initiative, co-location of extension services within existing institutions like Technical and Vocational Education and Training (TVET) centers to maximize resource use, and bundling of technical, digital, and financial services to amplify outreach and impact.

For Ethiopia, Kenya's experience offers a valuable framework to guide the development of its own Manufacturing Industry Extension Service Strategy. Establishing Regional Industrial Development Centers (RIDCs), aligned with local TVETs and woreda-level institutions, can bring services closer to enterprises and support MSME competitiveness and formalization. Integrating financial inclusion mechanisms and digital tools into these centers will further enhance access, effectiveness, and sustainability. Kenya's model underscores the importance of a locally rooted, institutionally coordinated, and service-bundled approach, one that aligns well with Ethiopia's goals of inclusive growth, job creation, and decentralized industrial development.

Box 2: Case study of India MSME Industry Extension Service

*India offers a well-coordinated and scalable model for manufacturing extension services that presents valuable insights for Ethiopia. At the heart of this model is the **MSME Development Organization (MSME-DO)**, which ensures national policy consistency through a centralized yet regionally implemented network. For Ethiopia, this highlights the need to strengthen **FeSMMIPA** as a national coordinating agency with adequate resources to lead MSME development across regions.*

*A key feature of India's model is its **Technology Centres (Tool Rooms)**, which provide MSMEs with access to advanced training, product design, testing, and prototyping. Ethiopia can adapt this by establishing **Sectoral Excellence Centres** in key industries such as leather, agro-processing, and textiles, to foster innovation, quality, and competitiveness.*

*India has also promoted **cluster-based development**, creating over 1,000 industrial clusters that support localized value chains, shared infrastructure, and enterprise collaboration. Ethiopia can adopt this model by*

leveraging its existing industrial parks, cooperatives, and MSE associations to build competitive and resilient industrial hubs.

India's digital tools, particularly the **Udyam Registration Portal**, have formalized over 60 million MSMEs and simplified access to finance, training, and procurement. Ethiopia can build a **Digital MSME Support Portal** to integrate registration, finance, training, and local service delivery, improving efficiency and inclusion.

Inclusive growth is supported through **affirmative procurement policies**, reserving 25% of public procurement for MSMEs with specific targets for women, youth, and marginalized groups. Ethiopia can reinforce its **AGPO framework** by introducing enforceable quotas and ensuring implementation at all government levels.

India's model also thrives on **public-private collaboration**, with industry associations co-managing training and innovation services. Ethiopia can replicate this by involving chambers of commerce, federations, and TVETs in managing excellence centers and delivering business support services.

The expansion of plug-and-play industrial parks integrated multimodal logistics networks, and targeted investments in MSME productivity are driving India's manufacturing growth and enhancing its competitiveness in the global market.

Finally, India's **Credit Guarantee Fund** has expanded MSME access to finance by de-risking lending. Ethiopia can develop similar schemes with the **Development Bank of Ethiopia** and microfinance institutions to improve credit access and investment opportunities.

India's experience underscores critical lessons for Ethiopia: strong institutional coordination, digital transformation, cluster-based development, inclusive procurement, financing innovation, and public-private partnerships. By adapting these elements, starting with high-priority sectors and pilot regions, Ethiopia can build a dynamic MSME ecosystem that supports industrial growth, job creation, and inclusive development.

Box 3: Case study of Singapore MSME Industry Extension Service

Singapore's model of manufacturing industry extension offers valuable insights for Ethiopia's MIES strategy, particularly in addressing gaps in institutional coordination, technology transfer, productivity, and skills development. At the center of Singapore's system is Enterprise Singapore (ESG), a national agency that coordinates SME support across technology transfer, financing, capability development, and market access. This centralization ensures consistent and scalable delivery of services, highlighting the importance for Ethiopia to establish a strong national coordination platform for its MIES. Innovation is driven through the Agency for Science, Technology and Research (A*STAR), which links research institutions with industry by providing R&D, prototyping, and commercialization support. Ethiopia can replicate this model by establishing centers of excellence for industrial R&D and technology upgrading in key sectors like agro-processing and textiles.

To ensure workforce alignment with industrial goals, Skills Future Singapore (SSG) and Workforce Singapore (WSG) deliver lifelong, industry-aligned training and reskilling programs. Ethiopia's TVET system can benefit from a similar approach that embeds competency-based, demand-driven learning across career stages. Singapore's use of Sectoral Industry Transformation Maps (ITMs) ensures that extension services are tailored to the unique growth needs of each sector by integrating policies on skills, innovation, productivity, and global competitiveness. Developing similar sector-specific roadmaps would help Ethiopia structure and prioritize its MIES roll-out. In terms of financing, Singapore's co-funding and productivity grants de-risk SME investment in automation, digital tools, and lean manufacturing. Ethiopia can introduce comparable co-financing

schemes, supported by the Development Bank of Ethiopia and microfinance partners, to drive SME modernization.

A defining strength of Singapore's model is its public-private collaboration—industry associations such as the Singapore Business Federation, sector councils, and multinational corporations co-design, co-finance, and co-implement services alongside the government. Ethiopia can replicate this by engaging chambers of commerce, federations, and TVETs in the joint delivery of training, innovation, and enterprise support.

Overall, Singapore's model underscores the importance of institutional coordination, targeted co-financing, lifelong learning, and shared governance. For Ethiopia, adapting these mechanisms, through a phased approach starting with high-potential sectors and regions, can significantly strengthen the delivery, impact, and sustainability of its Manufacturing Industry Extension Service and accelerate inclusive industrial transformation.

Box 4. Case study of South Africa MSME Industry Extension Service

South Africa's manufacturing industry extension system provides a relevant and inclusive model for Ethiopia as it works to strengthen its own MIES framework. Anchored in coordinated, sector-driven, and regionally distributed support mechanisms, South Africa's approach emphasizes the development of MSMEs and the integration of historically disadvantaged groups into the industrial economy.

A key institution in this system is the **Small Enterprise Development Agency (SEDA)**, which delivers non-financial support, including incubation, mentorship, and technical training across all provinces, ensuring accessibility and inclusivity. Complementing this is the **Technology Transfer Assistance Program (TTAP)**, which supports innovation by enabling MSMEs to adopt modern technologies. Ethiopia can draw on this approach by building a decentralized network of incubation centers and technology hubs focused on small manufacturers and rural enterprises. The **Department of Trade, Industry and Competition (DTIC)** plays a central policy role by designing inclusive industrial policies that target black-owned, youth-led, and women-owned enterprises. For Ethiopia, this underscores the importance of integrating equity objectives into national MIES policy design and implementation.

To enhance industrial financing, South Africa's **Industrial Development Corporation (IDC)** provides targeted funding to support innovation, production capacity, and job creation, an approach Ethiopia could replicate through the Development Bank of Ethiopia and other financial institutions. South Africa also utilizes **Sectoral Master Plans** in priority industries such as automotive and clothing & textiles, aligning public support, investment, and policy to industrial goals. Ethiopia could adopt similar industry-specific blueprints to guide extension services and resource allocation. Importantly, **preferential procurement policies** in South Africa reserve public contracts for SMEs and historically disadvantaged groups, ensuring their inclusion in industrial value chains, mirroring Ethiopia's need to strengthen its own AGPO framework.

South Africa's model is further strengthened by robust **public-private partnerships**, with organizations such as **Business Unity South Africa (BUSA)**, the **Black Business Council (BBC)**, and national chambers of commerce playing active roles in shaping policy, promoting inclusive enterprise development, and facilitating SME access to skills, markets, and procurement opportunities. These partnerships highlight the value of shared governance in designing and implementing industrial extension services.

For Ethiopia, South Africa's experience offers clear lessons in decentralizing support services, targeting equity in industrial participation, aligning policies with sectoral priorities, and institutionalizing public-private

collaboration. By adapting these mechanisms, Ethiopia can build a more inclusive, regionally responsive, and sector-aligned MIES capable of driving equitable industrialization and MSME growth across the country.

Box 5. Case study of Germany MSME Industry Extension Service

Germany's manufacturing extension system provides a model of structured, innovation-driven support for small and medium enterprises (SMEs), offering valuable lessons for Ethiopia's Manufacturing Industry Extension Service (MIES) strategy. Central to Germany's approach is a well-integrated ecosystem that links applied research, vocational training, industry financing, and SME-oriented policy.

The **Fraunhofer Institutes** play a pivotal role in facilitating applied research and technology transfer, especially for SMEs, having supported over 4,000 firms in adopting advanced technologies such as automation and precision engineering. Ethiopia can draw on this model by establishing **applied research and innovation centers** connected to priority sectors and industrial parks. The **Handwerkskammer (Chambers of Crafts)** provide practical, sector-specific technical training and are legally mandated to co-deliver vocational education through Germany's renowned **dual training system**. With more than 50% of German youth entering vocational training programs, this system has created a highly skilled workforce aligned with SME and industry needs. Ethiopia's TVET reforms can benefit by embedding **dual training structures**, co-managed with industry bodies, to ensure labor market relevance and quality.

Germany's **KfW Development Bank** offers SME-friendly financing and green industry incentives, which Ethiopia can replicate through its own financial institutions to support manufacturing transformation, particularly in environmentally sustainable sectors. The **Mittelstand Policy Framework** provides targeted support to small and medium manufacturers, promoting digitalization, innovation, and export competitiveness. Ethiopia can adapt a similar framework to guide MSME upgrading and international market integration.

Germany's success is anchored in **strong collaboration between public institutions, industry associations, universities, and private enterprises**. Organizations such as the **Chambers of Commerce and Industry (IHK)** and **Mittelstand Associations** are legally mandated to co-deliver training, certification, and SME services, while actively contributing to policy advocacy, export promotion, and R&D support. This institutionalized model of public-private partnership is highly relevant for Ethiopia's MIES, as it seeks to build shared governance in the design and implementation of extension services.

Overall, Germany's experience offers Ethiopia a long-term vision for industrial modernization rooted in applied research, structured vocational training, SME financing, and coordinated stakeholder engagement—key pillars for building a competitive, innovation-ready manufacturing ecosystem.

Box 6. Case study of Germany MSME Industry Extension Service

Vietnam's manufacturing industry extension model provides Ethiopia with valuable insights into how targeted SME support, decentralization, and export-oriented policies can drive industrial transformation. Anchored in its broader export-led development strategy, Vietnam's system is coordinated by the **Agency for Enterprise Development (AED)** under the Ministry of Planning and Investment, which oversees SME policy and support frameworks. A key financing mechanism is the **SME Development Fund (SMEDF)**, which offers concessional loans and co-financing to promote productivity, innovation, and modernization among small enterprises. At the local level, **Industrial Promotion Centers** operate across provinces to deliver technical extension services,

training, and cluster development, providing a model Ethiopia can emulate through woreda- and region-based service delivery hubs.

Vietnam's approach strongly supports **export-oriented SMEs** through trade facilitation, product standardization, and digitalization, enabling small manufacturers to integrate into global value chains. Ethiopia, particularly within its industrial parks and light manufacturing zones, can draw from this by developing targeted export-readiness programs and supplier upgrading services. Vietnam's industrial extension success is further enhanced through **public-private partnerships and proactive foreign investment policies**, which drive local supplier development, technology transfer, and workforce upskilling. Integration with **TVET institutions** ensures that workforce development remains responsive to industry needs a model Ethiopia could strengthen through deeper alignment between MIES programs and technical training institutions.

The **Vietnam Chamber of Commerce and Industry (VCCI)** and various sector associations play a central role in co-delivering training, facilitating compliance with standards, and engaging in SME policy dialogue. Private firms are also actively involved in delivering industrial services and building supplier networks. Notably, Vietnam's SMEs contribute over 30% to national exports, particularly in textiles and electronics, while its **300+ industrial parks** serve as vibrant nodes for MSME growth, regional development, and employment. More than 5,000 firms have benefited from SME fund programs to modernize and access global markets.

For Ethiopia, Vietnam's transition from an agrarian economy to a manufacturing hub, achieved through decentralized industrial promotion, financial incentives, and strong public-private coordination, offers a highly relevant pathway. Adapting these mechanisms can help Ethiopia improve SME export capacity, strengthen industrial park ecosystems, and deliver localized extension services that drive inclusive industrialization.

SECTION 4. STRATEGIC FRAMEWORK

4.1. Strategic Issues from Situational Analysis

The strategic Issues from situational analysis, SWOT and PESTEL analysis included the following

- i. *Inadequate Coordination of Industry Extension Services across ministries, regional institutions and service providers.*
- ii. *Low institutional capacity and collaborations to deliver high-impact inclusive, and sustainable industrial support services to MSMEs*
- iii. *Lack of operational frameworks for and limited understanding of technology transfer & innovations*
- iv. *Poor Infrastructure, inadequate workspaces and high cost of production for SMEs in manufacturing*
- v. *Low productivity and product competitiveness in local and global markets.*
- vi. *Poor market competitiveness and weak linkages or integration into local & global VCs, including inadequate supply of quality raw materials.*
- vii. *Lack of access to suitable finance and business support, limiting their growth, resilience, adoption of efficient technologies and contribution to industrial development*
- viii. *TVET curricula are poorly aligned with industry needs, coupled with inadequately skilled trainers in industry-specific and emerging needs*
- ix. *Limited integration of green practices and resource-efficient production methods in manufacturing industries. Additionally, current support systems inadequately target women, youth, and rural enterprises, hindering inclusive and sustainable industrial growth*

4.2. Vision and Mission, Values, and Principles

Vision

To be a globally competitive manufacturing industry and leading exporter in Africa, fostering sustainable economic growth and improving livelihoods in Ethiopia.

Mission

To provide comprehensive, tailored, and effective industry extension services to MSMEs in the manufacturing sector, enhancing their capacity, productivity, and market access through skill development, technology adoption, and strategic partnerships, thereby contributing to Ethiopia's industrialization and economic development goals.

Core Values

- iii. **Inclusivity and Equity**
 - We believe in promoting equal opportunities for all MSMEs, ensuring that women, youth, and marginalized groups have access to the support and resources needed to succeed in the manufacturing sector.
- iv. **Collaboration and Partnership**
 - We value cooperation among stakeholders, including government agencies, private sector, development partners, and industry associations, to create a synergistic environment that drives sustainable growth and innovation.

- v. **Integrity and Transparency**
 - We are committed to maintaining high ethical standards, transparency in decision-making, and accountability in all our actions to build trust and ensure effective service delivery.
- vi. **Sustainability**
 - We strive for long-term, environmentally sustainable solutions that foster the growth of MSMEs while minimizing ecological impact, ensuring that future generations benefit from a thriving manufacturing sector.
- vii. **Innovation and Adaptability**
 - We embrace technological advancements and encourage creative, forward-thinking solutions that help MSMEs stay competitive in a rapidly changing global marketplace.
- viii. **Excellence in Service Delivery**
 - We are dedicated to providing high-quality, professional, and impactful extension services that are relevant, accessible, and meet the diverse needs of MSMEs in Ethiopia’s manufacturing sector.

Core Principles

- i. **Demand-Driven and Context-Specific**
MIES is designed to respond to the specific needs of MSMEs, recognizing the diversity in enterprise type, industry, geography, and value chain stage. It emphasizes flexibility and responsiveness to ensure that services remain relevant and impactful.
- ii. **Holistic and Integrated Support**
The strategy offers a full suite of services—technical assistance, training, advisory support, access to finance, and market linkages—addressing the multidimensional needs of MSMEs throughout the manufacturing lifecycle.
- iii. **Participatory and Empowering Approach**
MSMEs, workers, and industry actors actively participate in identifying challenges and designing solutions. This inclusive approach enhances ownership, practical learning, and long-term self-reliance among enterprises.
- iv. **Capacity and Leadership Development**
MIES prioritizes human capital by building the skills, knowledge, and leadership abilities of entrepreneurs, managers, and workers. Empowering local leaders strengthens the overall industrial ecosystem and supports peer learning.
- v. **Flexibility and Adaptability**
Acknowledging dynamic market and environmental conditions, the extension service promotes adaptive programming—allowing continuous adjustments based on evolving needs, lessons learned, and new opportunities.
- vi. **Public-Private Collaboration**
The strategy actively fosters co-creation, co-financing, and co-delivery of services between government, private sector actors, associations, academia, and development partners. This shared responsibility enhances reach, quality, and sustainability.
- vii. **Market-Responsive and Privatized Delivery**
MIES promotes a blended model of public and certified private extension service providers. Enterprises are encouraged to gradually co-finance specialized, high-value services, promoting efficiency, innovation, and ownership.
- viii. **Stakeholder Integration and Collaboration**
Strong alignment and coordination among stakeholders—public agencies, private sector, academia, development partners, and communities—are essential to harmonize efforts, reduce duplication, and scale impact effectively.

- ix. **Monitoring, Evaluation, and Learning (MEL)**
MIES adopts a rigorous MEL framework to track implementation, measure impact, and generate evidence for decision-making. Emphasis is placed on outcomes—knowledge, skills, productivity, and behavioral change—not just outputs.
- x. **Sustainability and Efficient Resource Use**
The strategy champions sustainable manufacturing practices by promoting the responsible use of natural and human resources, adoption of green technologies, and waste reduction for long-term environmental and economic gains.
- xi. **Customer Satisfaction and Service Excellence**
Success is measured by the tangible improvements experienced by MSMEs, employees, and communities. MIES strives to deliver reliable, high-quality services that build trust, satisfaction, and advocacy.
- xii. **Prioritization and Strategic Focus**
To optimize impact, MIES focuses on high-potential regions, sectors, and value chains. Prioritization ensures efficient use of resources, supports early wins, and enables scalable models for broader rollout.

4.3. Strategic Objectives of the Industry Extension Service

The National Manufacturing Industry Extension Strategy is a comprehensive and forward-looking initiative designed to empower MSMEs to become more productive, innovative, and globally competitive, aligned with Ethiopia’s industrial development roadmap and the Homegrown Economic Reform Agenda. The Outcome of the strategy is to position MSMEs to be competitive, increase employment or income and Drive Economic Growth.

The MIES Strategy is designed around eight Specific Objectives including.

1. To Institutionalize a coordinated, demand-driven Manufacturing Industry Extension Service (MIES) system
2. To Strengthen Strategic Partnerships and Institutional Capacity
3. To accelerate access to cutting-edge technologies by strengthening innovation ecosystems and enhancing linkages with research and development (R&D) institutions.
4. To expand availability of serviced industrial spaces and improve access to enabling infrastructure, capital assets, and shared production facilities.
5. To Enhance market competitiveness of MSMEs and strengthen their integration into local, regional, and global value chains
6. To strengthen input supply systems and ensure reliable, affordable, and quality supply of raw materials, tools, equipment, and technologies to manufacturing MSMEs through coordinated extension services.
7. To Expand access to inclusive, affordable, and tailored financial services and integrated business development support to unlock MSME growth, resilience, and competitiveness in Ethiopia’s manufacturing sector.
8. To Build a competent, knowledgeable, and adaptive industrial workforce, including skilled extension agents, entrepreneurs, and MSME leaders, that meets the evolving demands of Ethiopia’s manufacturing sector.
9. To promote inclusive, climate-resilient, and environmentally sustainable industrial development by supporting green manufacturing, circular economy models, and equitable access to industry extension service, especially for women, youth, PWDs, and rural MSMEs.

4.4. Strategic Fit and Alignment

The strategy places particular emphasis on targeted, high-potential MSME industries that are central to Ethiopia’s industrialization and economic transformation agenda, specifically in the areas of job creation, value addition, and industrial competitiveness.

4.4.1. Strategic FIT

This strategic framework presents a coordinated approach to enhancing the competitiveness of Small and Medium Enterprises (SMEs) through the deployment of Manufacturing Industry Extension Service (MIES) packages. Jointly supported by the Ministry of Industry and the Ministry of Labour, in collaboration with institutional partners and stakeholders, these packages aim to address systemic challenges faced by SMEs. The framework is anchored on eight key pillars: Infrastructure; Technology and Innovation; Social and Environmental Safeguards; Enabling Environment; Market Competitiveness; Input supply system; Finance; and Knowledge and Skills. These pillars act as critical enablers of SME growth and are reinforced by Technical and Vocational Education and Training (TVET), Business Development Services (BDS) and Service Providers (SPs), alongside robust partnerships and stakeholder engagement. The integrated approach is designed to yield tangible outcomes including increased SME competitiveness, expanded job creation, and greater value addition, ultimately contributing to sustained globally competitive manufacturing industry and inclusive economic growth.

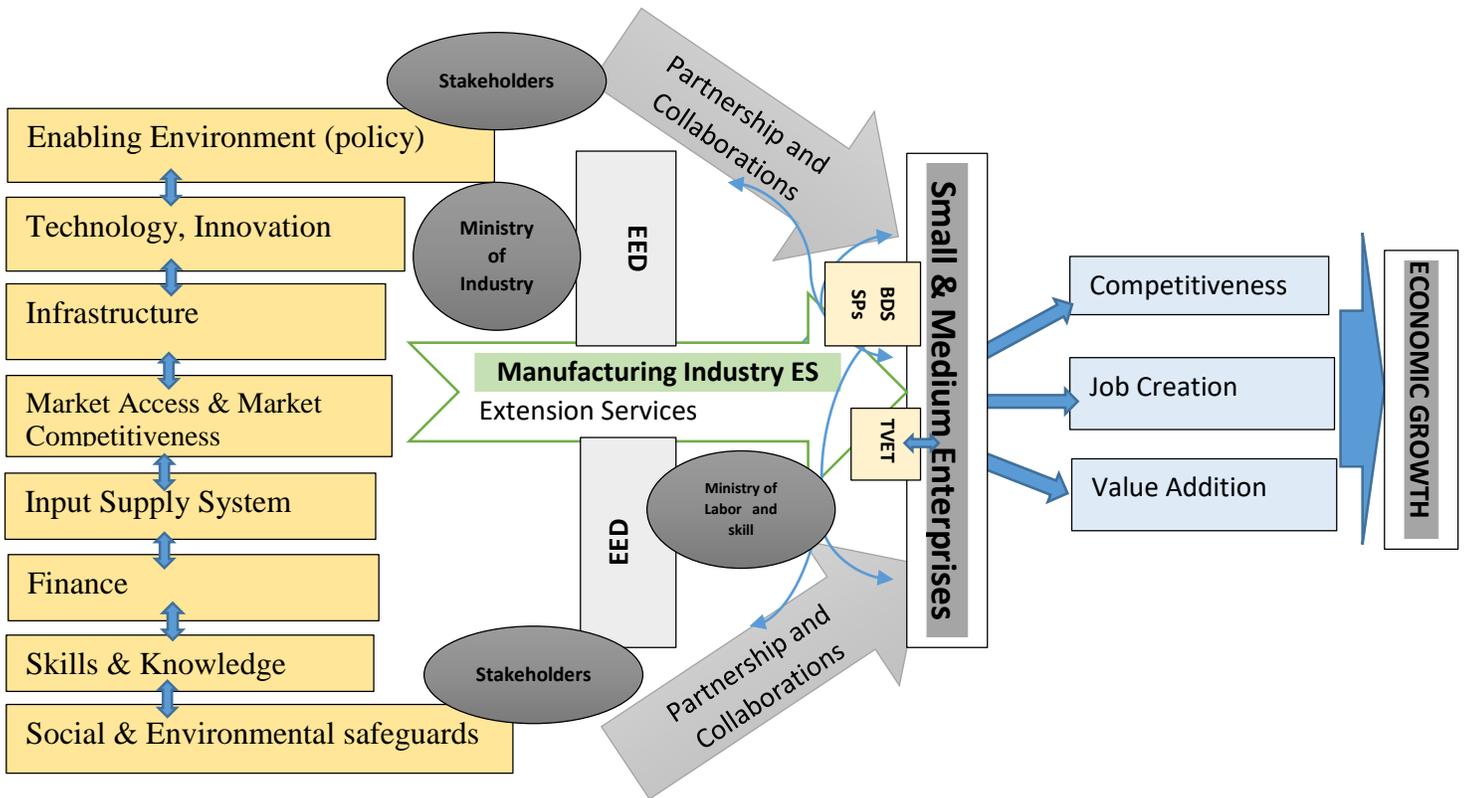


Figure 1: Strategic Fit

4.4.2. Theory of Change for enhancing SME Competitiveness through Industry Extension services

The MIES Strategy aims to boost the competitiveness of Ethiopia’s manufacturing MSMEs by delivering coordinated, demand-driven industry extension services that drive productivity, innovation, and inclusive industrial growth.

It is grounded in the belief that a robust enabling environment, founded on harmonized policies, institutional coordination, and stakeholder engagement, will unlock MSME potential. The strategy integrates public and private service providers through formal and informal lifelong learning systems, ensuring continuous and inclusive enterprise support.

Built around eight strategic pillars, Enabling Environment, Technology and Innovation, Infrastructure, Market Competitiveness, Input supply system, Finance, Skills and Knowledge, and Environmental & Social Safeguards—MIES promotes lean manufacturing, Kaizen, applied R&D, and adoption of green and smart technologies.

It strengthens institutional capacities, aligns Industry Extension Services, TVET curriculum and higher education with industry needs, and expands access to customized financing, infrastructure, technology and recognition of prior learning. With a strong emphasis on inclusion of women, youth, persons with disabilities, and underserved regions, MIES fosters a resilient and dynamic industrial ecosystem, positioning MSMEs as key drivers of job creation, value addition, and national industrialization goals.

4.4.3. Alignment of the MIES Objectives with the National priority Objectives

The strategic aim of the MIES strategy in Ethiopia's Industrialization goal is to support key national objectives by:

- a) Accelerating the structural shift from agriculture to industry, thereby supporting economic diversification and long-term transformation;
- b) Enabling import substitution and export diversification by strengthening the capacity of MSMEs to produce high-quality, globally competitive goods;
- c) Catalyzing inclusive job creation, particularly for youth and women, through the development of local manufacturing and value chains;
- d) Promoting technological upgrading and modernization of MSMEs to enhance productivity, efficiency, and integration into domestic and global markets;
- e) Enhancing resilience and adaptability to economic shocks, supply chain disruptions, and technological change, thereby safeguarding industrial progress.

At the core of the Import-Substitution-Strategy_Final-Draft_271123 (1) is the identification of 93 prioritized commodities across five key manufacturing sub-sectors, chosen based on a ten-year analysis of import volumes, domestic productivity, and enterprise capacity.

The MIES is designed to support Ethiopia's national development goals, such as industrialization, economic growth, and job creation, as outlined in the Growth and Transformation Plan (GTP) and the Homegrown Economic Reform Agenda. By aligning with these plans, the MIES ensures that its initiatives contribute to the broader objectives of national development. This alignment helps to create a cohesive approach to industrial development, ensuring that efforts are focused on achieving the country's long-term economic and social goals by:

- **Supporting Industrialization:** The MIES initiatives aim to accelerate industrialization by promoting advanced manufacturing technologies, enhancing workforce skills, and improving infrastructure. This supports Ethiopia's goal of becoming a leading industrial hub in Africa.

- **Fostering Economic Growth:** By improving productivity, quality, and market access, the MIES contributes to economic growth by increasing the competitiveness of Ethiopian manufacturers and expanding their market reach.

Creating Job Opportunities: The MIES focuses on workforce development and capacity building, which are essential for creating job opportunities and reducing unemployment in the manufacturing sector.

4.5. Strategic Pillars

To address the challenges of the current MIES Strategy and establish a well-structured and coordinated MIES Strategy, the following eight Pillar forms the foundation of the Strategy around which strategic Objectives and actions are anchored.

1. Enabling Environment.
2. Technology, Innovation
3. Infrastructure
4. Market Competitiveness
5. Input Supply system
6. Finance
7. Knowledge and Skills
8. Environmental & Social Safeguards



Figure 2. Strategic Pillars

Ethiopia's Manufacturing Industry Extension Services (MIES) strategy is built on eight strategic pillars that collectively serve as a comprehensive framework to accelerate industrial transformation, strengthen MSME development, and foster inclusive, sustainable growth. The Manufacturing Industry Extension Service (MIES) Strategy is designed to enhance the competitiveness of Micro, Small, and Medium Enterprises (MSMEs), generate decent jobs, and increase value addition in manufacturing, in alignment with Ethiopia's Industrial Development Roadmap, the MSME Development Strategy, and the Homegrown Economic Reform Agenda. The strategy recognizes that sustainable industrial development requires an integrated ecosystem that empowers MSMEs, promotes technology adoption, strengthens institutional capacities, ensures environmental sustainability, and enables inclusive economic participation.

The first pillar of the MIES Strategy, Enabling Environment, establishes the foundation for delivering coordinated and demand-driven extension services across Ethiopia's manufacturing sector. It focuses on building a coherent and coordinated institutional architecture underpinned by harmonized policy and regulatory frameworks. This pillar promotes effective governance through the institutionalization of national and regional MIES units, streamlined implementation mechanisms, and robust Monitoring, Evaluation, and Learning (MEL) systems. Central to this pillar is the creation of a responsive extension delivery system (Objective 1), reinforced by institutional capacity building and the development of strategic partnerships (Objective 2), particularly through

public-private collaboration and multi-stakeholder engagement at both national and regional levels. It also seeks to strengthen the implementation capacity of intermediary institutions and foster innovation diffusion through peer learning and South-South cooperation. By anchoring these efforts in a strong enabling environment, the strategy aims to unlock the full potential of Ethiopia's manufacturing MSMEs and lay the groundwork for inclusive industrial transformation.

Second pillar, Technology, Innovation, aims to accelerate Ethiopia's industrial transformation by facilitating the adoption of productivity-enhancing tools and technologies such as KAIZEN, lean manufacturing, modern equipment, automation and digitalization. It incorporates interventions previously housed under the "productivity and competitiveness" agenda, including tailored capacity-building and sector-specific technology upgrading for high-potential manufacturing sectors. The pillar also prioritizes technology transfer, smart manufacturing, investment in innovation infrastructure, and applied R&D, thereby laying the foundation for a modern, innovative-driven industrial ecosystem.

Third pillar, Infrastructure. The infrastructure pillar of Ethiopia's MIES Strategy aims to enhance SME competitiveness by providing affordable industrial spaces, shared production facilities, and reliable utilities. It promotes digital infrastructure for Industry 4.0, improves transport and logistics, and supports innovation through tech hubs linked to academia. Public-Private Partnerships (PPPs) will be leveraged to finance and sustain these infrastructure investments, creating an enabling environment for inclusive industrial growth.

Fourth Pillar: Market Competitiveness: Enhancing market competitiveness is vital for Ethiopia's MSMEs to thrive locally and internationally. Currently constrained by high production costs, weak branding, limited quality standards, and poor integration into formal trade systems, MSMEs struggle to compete with imports and access export markets. This pillar focuses on reducing costs, improving quality and certification, strengthening branding and marketing, and expanding access to regional and global value chains, thereby enabling MSMEs to grow, innovate, and contribute meaningfully to industrial transformation.

Fifth Pillar: Strong Input Supply System. The Strengthening Input Supply Systems pillar aims to ensure MSMEs in Ethiopia have access to reliable, affordable, and quality inputs essential for productivity and competitiveness. Its objective is to lower input costs, curb counterfeit and substandard materials, and reduce over-dependence on imports by promoting local production, bulk procurement, and certification systems. By building stronger supplier linkages, enhancing logistics, and improving efficiency in input use, the pillar seeks to increase MSME productivity, innovation, and integration into domestic, regional, and global value chain

Sixth pillar, Finance, addresses the critical challenge of limited access to appropriate and affordable financial services for MSMEs. It promotes the development of inclusive and innovative financial instruments, including blended finance models and asset lease models that enhances the delivery of business development services (BDS), with a particular focus on underserved groups such as women, youth, and persons with disabilities.

The seventh pillar of the MIES Strategy, Knowledge and Skills, targets the development of a work-ready industrial workforce, the empowerment of start-up entrepreneurs, and the strengthening of industry extension service providers. It supports a comprehensive and inclusive lifelong learning ecosystem that combines formal training methodologies with informal and non-formal learning approaches to build relevant technical, leadership, managerial, and innovation capacities. This includes the modernization of TVET systems, promotion of STEM education, and implementation of dual training programs that integrate industry placements directly into the curriculum. The strategy also promotes informal learning through centers of excellence, incubation hubs, mentorship, and coaching by experienced entrepreneurs, providing real-world exposure and entrepreneurial

guidance. Learning is delivered through blended methods, including face-to-face interactive training, digital platforms, and structured formal education, ensuring accessibility, flexibility, and relevance. By advancing a public-private extension services model, this pillar enhances the ecosystem’s capacity to deliver continuous, demand-driven skills development, positioning Ethiopia’s MSMEs, workforce, entrepreneurs and service providers for sustainable industrial growth.

Eighth pillar, Environmental and Social Safeguards, ensures that industrial development is environmentally sustainable and socially inclusive. It integrates MSMEs into green and circular economy value chains, promotes climate-resilient practices, and addresses disparities related to gender, youth, disability, and regional development.

Together, these eight pillars represent a harmonized, forward-looking approach that positions Ethiopia’s MIES strategy as a key driver of inclusive industrial growth and national transformation. Illustration of the Strategic Pillars

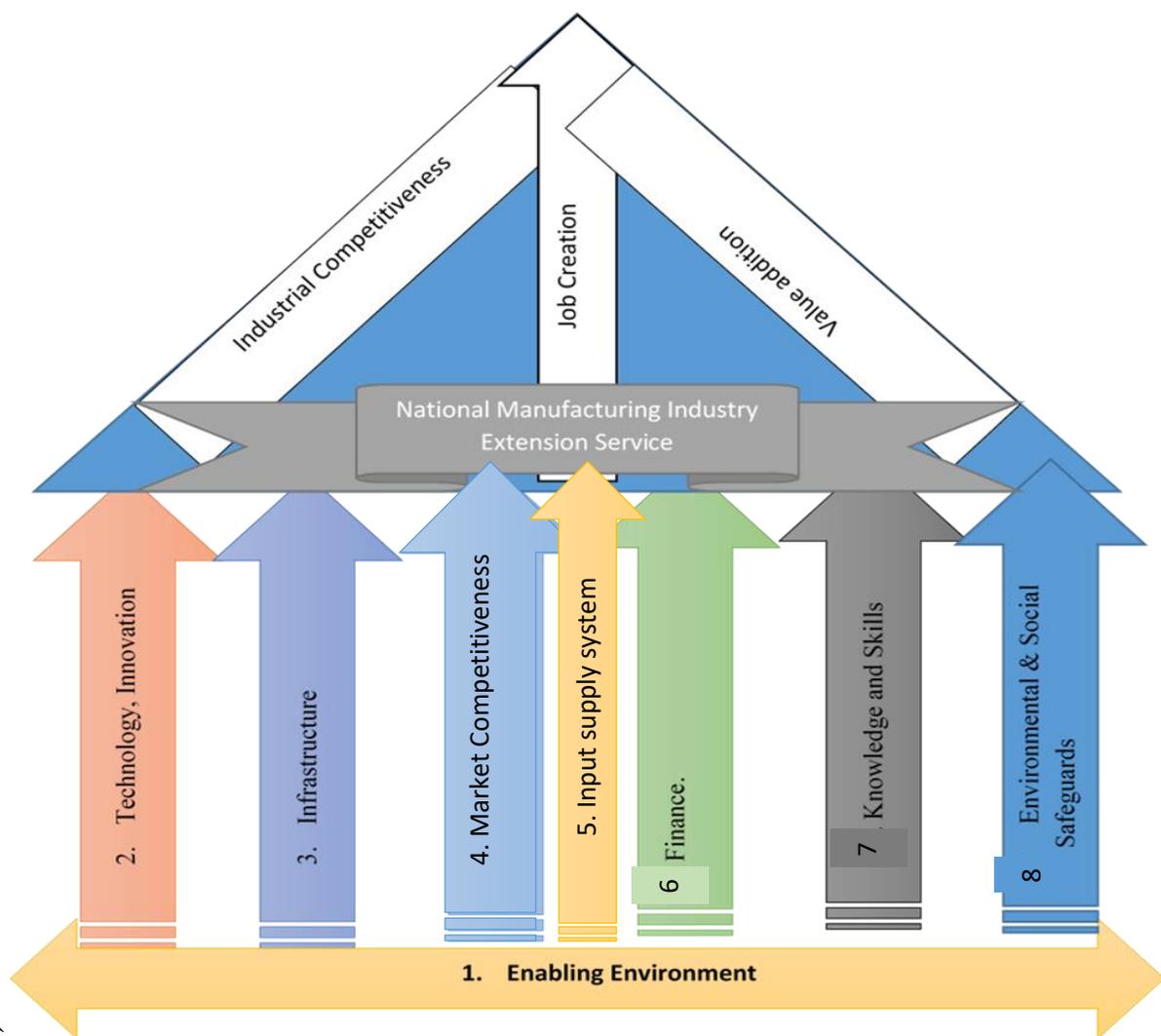


Figure 3: MIES strategic pillars

4.6. Strategic pillars and Interventions of the MIES

The current extension packages are developed around training modules and include KAIZEN, Technical Skill Development, Technology Development and Transfer, and Entrepreneurship.

The extension packages derived from the eight extension pillars form the foundation and the scope of the manufacturing industry extension service. The Packages includes. The paradigm shifts in the new implementation framework establish a broader extension packages and tailored training Packages.

The Extension Pillars will cover eight pillars: Enabling Environment; Technology and Innovation, Infrastructure; Market Competitiveness; Input supply system; Finance; Skills; and Environmental & Social Safeguards. Every extension package or pillar has a component of Training with skills and knowledge transfer.

4.6.1. Enabling Environment for MSMEs

A robust enabling environment is foundational to the effective implementation and sustainability of the Manufacturing Industry Extension Services (MIES) in Ethiopia. It ensures MSMEs operate within a predictable, fair, and supportive ecosystem, underpinned by coherent policies, efficient regulatory frameworks, institutional coordination, and supportive legal and administrative systems. This reduce barriers to entry, improve the ease of doing business, and foster investor confidence. The strategy aims to streamline industrial regulations, harmonize standards, and enhance inter-agency collaboration to improve service delivery to MSMEs. It also prioritizes decentralization and capacity-building at regional levels, digitalization of public services, and anti-corruption safeguards to ensure transparency, predictability, and accountability. A strong enabling environment will ensure that all other pillars of MIES, finance, technology, infrastructure, skills, innovation, and market access, operate within a conducive and supportive ecosystem that drives inclusive and sustainable industrial transformation. The Enabling Environment pillar focuses on two strategic thrust: Weak institutional coordination and overlapping mandates across government institutions result in fragmented and inefficient MIES service delivery; and Limited institutional capacity and weak partnerships constrain the scale, quality, and sustainability of MIES services

The Enabling Environment is structured into two strategic areas:

- 1) Foundations (Hardware): Rules, institutions, and frameworks that provide long-term stability and governance.
- 2) Services (Software): Facilitation mechanisms and practical support that operationalize the foundations.

Strategic Area: Foundations (Hardware)

Strategic Issue 1:

Lack of institutional structures for coordination and overlapping roles among federal, regional, and local institutions lead to fragmented, inconsistent, and inefficient delivery of MIES services.

Strategic Objective 1:

Establish a coordinated, demand-driven, and accountable MIES system by 2030.

Key Strategies:

- i. **Strengthen National and Sectoral Policies:** Conduct policy reviews every 5 years; integrate MSME priorities into 100% of national policies and 80% of sectoral plans by 2028.
- ii. **Promote Enabling Regulatory and Legal Frameworks:** Reform at least 3 major regulatory areas by 2029; reduce MSME compliance costs and time by 30%.
- iii. **Reinforce Institutional Arrangements:** Complete institutional mapping by 2027; establish a national MIES coordination framework eliminating all duplications.
- iv. **Strengthen Governance and Internal Controls:** Enforce compliance audits in 12 regions by 2027; train 1,000 officials on accountability by 2028; achieve 90% compliance with transparency standards by 2030.
- v. **Develop and Implement Industrial Standards and Plans:** Roll out 5 sectoral master plans by 2029; update all outdated standards; certify 70% of MSMEs in priority sectors.
- vi. **Align Extension Services with Development Plans:** Integrate MIES into 100% of national policies and 80% of regional plans by 2030; establish joint monitoring frameworks by 2028.
- vii. **Mainstream Inclusivity and Equity:** Introduce inclusive models in all 12 regions by 2030; ensure 40% of MIES beneficiaries are women, youth, or marginalized groups.

Strategic Area 2: Services (Software)

Strategic Issue 2:

Limited institutional capacity, weak partnerships, and inadequate funding hinder the reach, quality, and sustainability of MIES services.

Strategic Objective 2:

Strengthen **institutional capacity and partnerships** to scale and sustain MIES delivery.

Key Strategies:

1. **Establish One-Stop Service Frameworks:** Deliver integrated registration, licensing, standards, and compliance services; 70% of MSMEs accessing services within 5 days by 2028.
2. **Promote Trade Facilitation and Investment Services:** Operationalize trade frameworks; establish 5 industrial parks/trade facilitation centers by 2030.
3. **Institutionalize Advisory and Compliance Services:** Establish advisory hubs by 2027 serving at least 60% of registered MSMEs.
4. **Facilitate Stakeholder Dialogue and Coordination:** Organize annual multi-stakeholder forums in all regions from 2026; ensure 40% participation from women- and youth-led MSMEs.
5. **Expand Information Sharing and Digital Knowledge Services:** Launch a national MSME portal by 2027; reach 100,000 enterprises annually.
6. **Strengthen Enterprise Capacity-Building Services:** Provide tailored training, peer learning, and digital tools to enhance resilience and competitiveness.

Expected Outcomes (By 2030)

- A **coordinated, transparent, and efficient governance system** for MIES.
- Strong **institutional capacity** at national and regional levels.
- **Active partnerships** driving innovation, investment, and expanded MIES reach.
- A robust **MEL system** enhancing accountability and performance.
- **Broader, equitable, and demand-responsive services** accessible to MSMEs.
- Improved **competitiveness, resilience, and sustainability** of Ethiopia's manufacturing MSMEs.

4.6.2. Technology and Innovation for MSMEs

Technology and innovation are key drivers of industrial productivity, competitiveness, and structural transformation. For Ethiopia's manufacturing sector, particularly its MSMEs, limited access to appropriate technologies, weak innovation ecosystems, and inadequate support for technology adoption hinder growth and resilience. This pillar aims to accelerate the diffusion of proven technologies, promote indigenous innovation, and strengthen the national system for industrial research, development, and commercialization. The strategy supports the establishment of technology incubation centers, common user facilities, industrial innovation hubs, and Centers of Industrial Excellence that serve as platforms for co-creation, testing, and scaling of new solutions. It also encourages partnerships between industry, academia, and research institutions, alongside targeted incentives to promote technology upgrading, digital transformation, and Industry 4.0 readiness. By mainstreaming innovation into extension services, this pillar positions MSMEs to adapt to evolving market demands and climate challenges, while enhancing their long-term competitiveness and value addition.

This pillar aims to accelerate Ethiopia's industrial transformation by enhancing the **technological capabilities**, **innovation capacity**, and **digital readiness** of micro, small, and medium enterprises (MSMEs). It focuses on two strategic thrusts: (1) expanding technology adoption and digital transformation, and (2) strengthening innovation systems and R&D linkages to support the development and diffusion of locally relevant industrial solutions.

Strategic Issue

MSMEs in Ethiopia face limited access to appropriate technologies, weak linkages with R&D institutions, and an underdeveloped innovation ecosystem. The absence of structured mechanisms for technology transfer, joint innovation, and industrial modernization impedes their productivity and global competitiveness.

Strategic Objective: Enhance the productivity and competitiveness of MSMEs by promoting the adoption of modern industrial technologies, digital transformation, and innovation-led manufacturing growth.

Key Strategy 1: Accelerate Technology Adoption and Digital Transformation

Objective: Facilitate structured access to modern technologies, productivity tools, and digital platforms for MSMEs through national-level technology transfer infrastructure and targeted support programs.

Specific Strategies:

1. **Equip 10 Common User Facilities (CUFs) in major manufacturing regions:**
Equip/Provide 10 sector-specific, with shared facilities of advanced machinery, equipment, technologies and essential utilities in Major priority clusters by 2027 to allow MSMEs to prototype, test, and scale production without heavy capital investment. *(Modeled after India's Tool Rooms and Cluster Development Programme)*
2. **Set Up Industrial Technology Transfer Centres in 6 regions:**
Establish and operationalize technology transfer centers in 6 regions by 2027 to facilitate access to affordable, proven industrial technologies; offer demonstration services, technical support, and post-installation assistance. *(Inspired by Korea's KOTEC and Germany's Fraunhofer Institutes)*
3. **Launch Digital Manufacturing Starter Packs to reach 5000 MSMEs:**
Provide subsidized access to essential digital tools (ERP, cloud storage, data analytics, etc.) and customized training to support digital transition among small manufacturers.
4. **Operationalize Lean Manufacturing and Productivity Excellence Centres:**

Offer structured consulting and hands-on training to at least 2000 MSMEs on waste reduction, energy efficiency, and process improvement, modeled after Japan’s Kaizen and Singapore’s EnterpriseSG productivity schemes by 2027

5. **Promote Regional Manufacturing Technology Parks:**

Establish and launch 3 regional industrial parks/hubs integrating CUFs, labs, and logistics platforms to accelerate technology diffusion, prioritizing underserved regions by 2027

Key Strategy 2: Strengthen Innovation Capacity and R&D-Industry Linkages

Objective: Build a robust national innovation system that connects MSMEs with academia, R&D institutions, and the private sector to drive product development and industrial competitiveness.

Specific Strategies:

1. **Establish Industrial Innovation Hubs and Incubation Centres:** Support development of 10 industrial innovation hubs within universities and industrial R&D offering start-ups and MSMEs access to prototyping labs, mentoring, seed funding, and technology commercialization support by 2028. (*Adapted from Singapore’s ASTAR and South Africa’s Technology Innovation Agency*)
2. **Create Centers of Industrial Excellence:** Strengthen and operationalize capacities 5 priority sector-specific centers to lead applied research, standards development, and technology adaptation for key manufacturing value chains (e.g., leather, textiles, metals).
3. **Facilitate Industry-Academia Innovation Platforms:** Establish Industry – Academia platforms in all 12 regions by 2026 for regular collaboration between technical universities, TVETs, and MSMEs for co-designing solutions, internships, and commercializing research outputs.
4. **Implement National Innovation Financing Mechanisms:** Provide innovation grants, matching funds, and tax incentives to stimulate R&D investments, product development, and collaborative projects with research institutions.
5. **Promote Green and Circular Innovation:** Support at least 1500 MSMEs in adopting eco-innovation, recycling technologies, and cleaner production methods by 2028 to align with global sustainability standards and open up green market opportunities.

Expected Outcomes:

- Expanded access to appropriate industrial technologies and shared facilities for MSMEs.
- Widespread adoption of digital and smart manufacturing tools across the MSME landscape.
- Strengthened local capacity for product and process innovation.
- Institutionalized linkages between R&D, academia, and industry.
- Greater integration of MSMEs into high-value, sustainable industrial value chains.
- Emergence of regional innovation hubs and centres of excellence driving inclusive industrial transformation.

4.6.3. Infrastructure for MSMEs

Adequate and accessible industrial infrastructure is foundational enabler to efficient, scalable, and competitive manufacturing. Many MSMEs in Ethiopia face challenges related to lack of serviced industrial land, inadequate utilities (power, water, transport), and limited access to shared production spaces and facilities. This pillar seeks to expand and improve industrial infrastructure through the development of industrial parks, common user facilities, shared service centers, and cluster-based workspaces. This pillar promotes efficient, inclusive, and

affordable industrial, logistics, and digital infrastructure which are essential to support the growth, productivity, and market readiness of MSMEs. International experience shows that dedicated SME infrastructure, such as shared production spaces, incubators, and innovation clusters, significantly boosts competitiveness and innovation. Drawing on international best practices, such as Singapore's one-stop industrial estates and India's plug-and-play industrial clusters, the strategy promotes infrastructure solutions tailored to the needs of MSMEs. It also fosters collaboration between public and private actors to mobilize investment in climate-resilient, affordable, and innovation-enabling infrastructure. By addressing spatial and operational constraints, this pillar enables MSMEs to improve productivity, reduce costs, and integrate into local and global value chains.

Strategic Issue:

MSMEs in Ethiopia face significant barriers due to limited availability of serviced industrial land, high cost of utilities and equipment, inadequate transport and logistics systems, and absence of shared manufacturing and digital infrastructure.

Strategic Objective:

Improve access to reliable, inclusive, and affordable industrial, logistics, and digital infrastructure to support MSME productivity, innovation, and growth.

Key Strategies

1. Develop MSME-Dedicated Industrial Parks and Clusters

- Establish and expand 8 **SME-focused industrial parks by 2027 tailored to regional sectors**, modeled after **India's MSME Industrial Estates** and **Vietnam's Industrial Clusters**, which provide modular, serviced plots with access to electricity, water, sanitation, and waste systems.
- Tailor infrastructure to local value chains and sectoral strengths (e.g., textiles, leather, agro-processing), ensuring inclusive access for rural and regional MSMEs.

2. Establish Common Manufacturing Facilities (CMFs) and Shared Spaces

- Construct or renovate 15 **Common Facility Centres (CFCs)** to industrial grade infrastructures by 2028 similar to India's cluster development model, offering MSMEs shared access to production Spaces, machinery, fabrication tools, testing labs, and quality assurance systems.
- Benchmark on **Germany's Fraunhofer Institutes** and **Singapore's Centres of Innovation** which provide MSMEs with prototyping services, applied R&D support, and access to industrial-grade infrastructure.

3. Strengthen Logistics, Transport, and Utility Infrastructure

- Upgrade feeder roads, last-mile connectivity, and internal logistics systems in 20 industrial zones to reduce production and transportation costs.
- Ensure reliable and affordable supply of utilities, especially power and water, in 20 industrial zones by integrating renewable energy options and resilient infrastructure design, as seen in **South Korea's Techno Parks**.

4. Expand Digital Infrastructure and Smart Connectivity

- Invest in and roll out broadband infrastructure and mobile connectivity in 80% of industrial areas and rural growth centers by 2028 to enable MSMEs to adopt digital solutions.
- Facilitate 100% access to cloud platforms, e-commerce infrastructure, and smart factory tools, by 2030 inspired by **Singapore’s Smart Industry Readiness Index (SIRI)** initiative.

5. Develop Business Incubators and Innovation Spaces

- Establish 20 **business incubation centers, technology parks, and maker hubs** offering affordable workspaces, digital tools, mentorship, and market linkages by 2027, modeled on **Enterprise Singapore’s One-Stop SME Centres** and **South Korea’s SME Innovation Centres**.
- Position these hubs near industrial clusters to support start-ups and early-stage manufacturing MSMEs.

6. Promote Green and Sustainable Infrastructure

- Pilot 3 eco-industrial park with circular systems and solar integration by 2027. Practiced in **China and the EU**, integrating circular economy models, renewable energy, efficient water management, and waste recycling systems.

7. Facilitate Public-Private Partnerships (PPPs) for Infrastructure Financing

- Mobilize and Secure \$100M PPPs and blended finance to scale infrastructure projects by 2027, following models like **Germany’s Mittelstand support programs** and **Kenya’s Biashara Centres**, which combine public investment with private sector operation and technical support.

Expected Outcomes:

- 100,000 MSMEs accessing improved extension, tech, or infrastructure support
- 15 regional hubs operating across technology, skills, and innovation
- 80% of extension services delivered through coordinated, accountable systems
- Digital infrastructure expanded to > 80% of industrial areas
- \$160M+ mobilized through public, donor, and private sector partnerships.

4.6.4. Market Competitiveness for MSMEs

Market competitiveness is central to the transformation of Ethiopia’s manufacturing MSMEs. Competitiveness encompasses productivity, efficiency, product quality, differentiation, and the ability to secure and expand market share both locally and internationally. For MSMEs, building competitiveness requires strengthening capabilities to serve the domestic market reliably and cost-effectively, while also positioning themselves for participation in regional and global value chains.

Currently, MSMEs face high production costs, weak branding, limited quality assurance, and poor integration into structured trade systems. These constraints undermine their ability to compete with imports locally and to export successfully. This strategic pillar aims to close these gaps by improving productivity, upgrading quality, lowering transaction costs, and enhancing market access through trade facilitation, fiscal incentives, and proactive promotion.

Strategic Issue

Ethiopian MSMEs are not fully competitive because of:

- Low productivity and inefficient processes.
- High costs of inputs, energy, and logistics.
- Weak product quality, certification, and branding.
- Difficulty competing with imports in local markets.
- Limited exposure to export markets and weak participation in trade fairs, missions, and agreements.
- Gaps in trade facilitation, customs, and fiscal policies that disadvantage MSMEs.

Strategic Objective

To enhance the competitiveness of MSMEs in both **domestic and international markets** by boosting productivity, improving quality, reducing costs, and strengthening access to markets through trade facilitation, branding, fiscal incentives, and export readiness initiatives.

Key Strategies

1. Strengthen Productivity and Efficiency (Local & Global Competitiveness)

- Train 10,000 MSMEs in lean manufacturing, Kaizen, digitalization, and green technologies by 2027.
- Establish 10 shared industrial production centers with common user advanced machinery, prototyping, and digital tools by 2026.
- Support 2,000 MSMEs to modernize production facilities through concessional loans, equipment leasing, and grants by 2028.
- Link 500 MSMEs with universities and research institutions for R&D and product innovation by 2028.

2. Enhance Product Quality, Standards, and Branding

- Enable 1,500 MSMEs to obtain quality certifications (ISO, HACCP, CE, etc.) by 2030.
- Strengthen Ethiopian Standards Authority and regional labs to provide cost-effective certification and testing services by 2026.
- Support 3,000 MSMEs with branding, packaging, and digital marketing to compete with imports in domestic markets.
- Establish 5 regional brand development hubs for MSMEs by 2027.

3. Deepen Local Market Competitiveness

- Facilitate MSME participation in **domestic trade fairs and exhibitions** (at least 1,000 MSMEs annually).
- Link MSMEs to supermarkets, e-commerce platforms, and institutional buyers (schools, hospitals, government procurement) to expand local demand.
- Implement fiscal and policy incentives that favor local MSME products in government procurement.
- Support import substitution by scaling local production of packaging, components, and semi-processed raw materials.

4. Strengthen Export Readiness and International Market Access

- Establish two MSME Export Support Centers (logistics, export packaging, compliance, documentation) by 2026.
- Facilitate participation of 2,500 MSMEs in international trade fairs, missions, and B2B platforms by 2027.
- Promote MSME products in regional blocs (AfCFTA, COMESA, IGAD) and beyond.

- Negotiate at least 10 trade agreements or preferential access arrangements that explicitly support MSMEs by 2028.
- Create an online MSME export market platform showcasing products and linking them to buyers globally.

5. Leverage Fiscal and Policy Incentives

- Reduce tariffs on imported technologies critical for MSME upgrading by 2026.
- Introduce targeted tax incentives for MSMEs investing in productivity, quality upgrading, or exports.
- Mobilize USD 15 million in blended finance (through PPPs, development banks, donors, and private investors) by 2027.
- Provide export rebates or guarantees to MSMEs that enter and sustain exports by 2027.

Expected Outcomes

- Productivity per unit input increased by 25% among supported MSMEs by 2027.
- At least 1,500 MSMEs certified for international standards and quality assurance.
- 30% increase in MSME participation in **domestic retail chains, procurement, and e-commerce platforms** by 2027.
- Over 2,500 MSMEs represented in **international trade fairs, missions, and exhibitions** by 2027.
- MSME exports increased by 20% and import substitution strengthened in key sectors.
- 10 trade facilitation agreements leveraged to benefit MSMEs by 2028.
- Reduced production costs, improved product differentiation, and stronger branding for MSMEs.
- Ethiopian MSMEs become more visible, competitive, and integrated into both local and global markets.

4.6.5. Strengthening Input Supply Systems

Access to reliable, affordable, and quality inputs is fundamental to the survival and competitiveness of manufacturing MSMEs. Yet, enterprises in Ethiopia face persistent challenges: high input costs, irregular and fragmented supply chains, limited domestic production capacity, over-dependence on imports, and the widespread circulation of counterfeit or substandard materials. These bottlenecks significantly undermine productivity, innovation, and competitiveness in both domestic and export markets.

Within the Manufacturing Industry Extension Services (MIES) framework, strengthening input supply systems is therefore recognized as a critical pillar. By facilitating access to certified suppliers, supporting local production of key inputs, introducing aggregation and bulk procurement mechanisms, and reinforcing certification and quality assurance systems, MIES ensures that extension services function not only as technical support mechanisms but also as catalysts for inclusive, competitive, and resilient industrial development.

Strengthening the input supply pillar under MIES will require an integrated, multi-agency approach that leverages both public and private sector capacities. The Ministry of Industry, Regional Industry Bureaus, and MSME Extension Units will serve as lead implementing agencies, working closely with MSME cooperatives, private input suppliers, chambers of commerce, and industry associations to ensure reliable supply networks. Technical and quality assurance will be provided in partnership with the Ethiopian Standards Authority, research institutions, and academia. Financial support will be mobilized from development banks, public-private partnerships (PPPs), donors, and private investors to sustain and scale interventions.

Strategic Issue

Manufacturing MSMEs are constrained by unreliable, costly, and low-quality inputs, as well as weak linkages with suppliers and limited local production. These constraints inflate production costs, reduce productivity, and restrict integration into domestic and global value chains. Without structured intervention, Ethiopia's industrial growth and MSME competitiveness will remain severely limited.

Strategic Objectives

- **Improve Access and Affordability of Inputs** – Ensure reliable and affordable supply of raw materials, tools, equipment, and technologies through coordinated extension services.
- **Strengthen Supplier Linkages and Market Information Systems** – Build functional linkages between MSMEs, certified suppliers, cooperatives, and industrial clusters, supported by real-time market information.
- **Promote Local Production and Quality Assurance of Inputs** – Encourage domestic production of critical inputs while reinforcing certification and quality control to curb counterfeit and substandard products.
- **Enhance Productivity per Unit of Input** – Improve efficiency and competitiveness of MSMEs through adoption of lean manufacturing, modern technologies, and skills upgrading.

Key Strategies

1. Improving Access and Affordability

- Establish national and regional supplier/input databases and bulk procurement pilots by 2025–2026:
- Facilitate aggregation schemes and bulk procurement through MSME cooperatives.
- Develop 5 regional input aggregation and distribution hubs by 2027 to lower average costs by 20%.
- Propose tariff reductions on 5 critical imported inputs and streamline customs by 2025.

2. Strengthening Linkages and Market Information Systems

- Facilitate at least 500 supplier–MSME linkages by 2026.
- Develop and operationalize an online/offline input supply platform nationwide.
- Upgrade logistics (transport, storage, energy) in 10 key MSME zones and pilot 3 digital supply chain systems by 2027.
- Operationalize distribution hubs, logistics upgrades, and R&D partnerships by 2026–2027

3. Promoting Local Production and Quality Assurance

- Support MSMEs, cooperatives, and clusters to produce packaging, spare parts, and semi-processed raw materials.
- Launch 3 applied R&D partnerships with research institutions to develop local input substitutes by 2026.
- Partner with the Ethiopian Standards Authority to certify inputs and reduce counterfeit risks.
- Mobilize \$10 million in concessional loans and guarantees for input producers by 2027.
- Scale up certified local input production, training programs, and productivity-enhancing technologies by 2027–2028

Expected Outcomes by 2027

- At least 60% of MSMEs supported under MIES report improved access to affordable and quality inputs by 2028.
- Average input costs reduced by 20% through aggregation, procurement, and logistics improvements.
- Over 500 functional supplier linkages and at least 5 regional distribution hubs operational by 2027.
- At least 30% of critical inputs produced locally, with 70% certified for quality by 2027.
- Productivity per unit input among participating MSMEs increased by 25% by 2027.
- Stronger, more transparent, and resilient input markets.
- Reduced dependence on imports and counterfeit materials.
- Lower production costs and higher productivity for MSMEs.
- Increased availability of locally produced, certified, and quality-assured inputs.
- Enhanced competitiveness, innovation, and sustainability of Ethiopia's manufacturing sector.

4.6.6. Finance for MSMEs.

Finance is a cornerstone for unlocking the growth, productivity, and competitiveness of Ethiopia's manufacturing MSMEs. Despite their importance to the economy, many MSMEs lack access to affordable, timely, and fit-for-purpose financial services, particularly women-, youth-, and rural-led enterprises. This strategy prioritizes the development of a resilient and inclusive financial ecosystem, combining innovative financing instruments with integrated business development support to enhance MSME investment, resilience, and participation in industrial transformation.

Strategic Issue

MSMEs in Ethiopia's manufacturing sector face persistent financing constraints due to limited financial instruments, inadequate collateral frameworks, weak linkages with business advisory services, and underdeveloped financial infrastructure. These barriers prevent MSMEs from expanding, adopting new technologies, and effectively managing risk. Underserved groups, including women, youth, and rural enterprises, remain especially excluded, reinforcing inequality and limiting the country's industrial potential.

Strategic Objective

Expand access to diversified, inclusive, and affordable financial services, integrated with targeted business development support, to catalyze MSME growth, innovation, and competitiveness in Ethiopia's manufacturing sector.

Key Strategies

1. Deploy Inclusive and Diversified Financial Instruments.

- Disburse \$10 million in concessional loans, innovation grants, and export finance by 2027.
- Introduce 5 new financial instruments tailored to MSMEs by 2026 such as leasing, venture capital, equity crowdfunding, partial credit guarantees, and results-based innovation grants.
- Launch a national de-risking facility to support \$100 million in MSME loan portfolios by 2026
- Reach 15,000 MSMEs with tailored financial products by 2027 such as innovation funds, matching grants, export finance, and startup capital with a target disbursement of \$10M in innovation grants and tax incentives by 2027.

2. Strengthen Public-Private Partnerships (PPPs) for Financial Ecosystem Development

- Mobilize \$50 million in private sector co-financing by 2027.

- Sign 20 partnership agreements with financial actors by 2026 to expand service delivery and outreach.
- Launch 5 region-specific co-financing schemes by 2026 with Leverage on DFI and impact investor resources for underserved areas.
- Mobilize private investment through PPPs to fund market-driven MSME development services.

3. Institutionalize Business Development Services (BDS) for Financial Readiness

- Set up 50 BDS service centers nationwide by 2027.
- Deliver BDS to 15,000 MSMEs and embed services into 100% of public financing programs by 2025.
- Digitally enable 75% of BDS services through apps or virtual tools by 2026.

4. Expand Shared Business Infrastructure and Incubation Support

- Establish 15 incubation hubs with access to equipment and technical support by 2027.
- Provide full post-financing technical support to 100% of MIES-funded startups
- Support 1,500 MSMEs and startups with business development and scale readiness services by 2027

5. Promote Inclusive and Digital Financial Solutions

- Develop gender-responsive, youth-friendly, and rural-oriented financial products and outreach programs and launch targeted financial products in all 12 regions by 2026
- Onboard 100,000 MSMEs onto digital financial platforms by 2027 to expand the use of mobile money, agent banking, and fintech platforms and deliver low-cost financial services to underserved MSMEs.
- Pilot a regulatory sandbox for inclusive digital finance with the National Bank by 2025 to promote regulatory innovation (e.g., sandboxes) that accelerate adoption of inclusive, digital finance models.
- Raise financial access for women-, youth-, and rural-led MSMEs by 50% by 2027

Expected Outcomes

1. Greater access to diversified and affordable financial services for MSMEs across the manufacturing value chain.
2. Improved financial capability and credit readiness of MSMEs through embedded BDS and mentorship.
3. Nationwide availability of high-quality BDS delivering tailored investment, compliance, and financial advisory.
4. Increased financial inclusion of women, youth, and rural entrepreneurs through targeted and digital finance solutions.
5. Stronger public-private financing partnerships that de-risk MSME investment and expand outreach.
6. Enhanced productivity, innovation, and resilience of MSMEs enabled by improved access to capital.
7. Expanded MSME contributions to employment creation, industrial value addition, and inclusive economic growth

4.6.7. Knowledge and Skills for Industrial Transformation

The Knowledge and Skills pillar is central to Ethiopia's industrial transformation, aiming to address critical gaps such as the shortage of industry-ready entrepreneurs, outdated TVET curricula, and limited exposure to modern manufacturing systems. It builds a robust talent pipeline through industry-aligned, competency-based training, targeting a work-ready industrial workforce, the empowerment of entrepreneurs, including start-ups, and the professionalization of industry extension service providers. The strategy promotes a comprehensive and inclusive learning ecosystem that blends formal, informal, and non-formal approaches, supported by face-to-face

interactive training, digital platforms, and structured technical education to ensure accessibility and relevance. Key interventions include the modernization of TVET systems, dual training programs with industry placements, and the development of modular programs in operations, product development, and financial planning. It also establishes Entrepreneurship Development Centers offering incubation, mentorship, and coaching by experienced entrepreneurs, and embeds green manufacturing, digital innovation, and export-readiness into curricula. To ensure quality and accountability, the pillar introduces a national training framework, certification for extension agents, and promotes public-private-academic partnerships. It further expands inclusive and lifelong learning through mobile and digital platforms, micro-certifications, and targeted support for women, youth, and informal MSMEs, aligning with GTP III employment goals. Together, these efforts position Ethiopia's MSMEs, workforce, and service providers for sustainable, innovation-led industrial growth.

Strategic Issue

Despite Ethiopia's commitment to industrialization, the manufacturing sector faces a critical deficit in technical, entrepreneurial, and managerial skills. Existing Industry extension through TVET and technical education systems remain outdated, poorly aligned with industry needs, and lacking practical exposure. Industry extension service providers, both public and private, are under-resourced and undertrained. As a result, MSMEs struggle with low productivity, weak innovation, poor and operational efficiency, challenges that directly impedes global competitiveness of MSMEs, undermine the country's MSE Development Policy goals and GTP III's aspirations for inclusive, export-led industrial growth.

Strategic Objective

To build a responsive, skilled, and entrepreneurial workforce capable of driving industrial productivity, value addition, and innovation, through competency-based training of entrepreneurs, workforce, and MIES providers aligned with Ethiopia's MSE Development Policy and GTP III targets.

Key Strategies

1. Competency-Based Training for Entrepreneurs and MSME Managers

- Design and deliver modular, sector-specific training programs (operations, product development,
- Establish 20 Entrepreneurship Development Centers (EDCs) across all regions by 2026, integrating incubation, mentorship, and green/digital innovation training.
- Incorporate green manufacturing, digital tools, and export-readiness into all MSME curricula in EDCs by end of 2025, aligned with GTP III goals.

2. Professionalize Public and Private Industry Extension Service Providers

- Launch a National Training Framework for MIES Providers, covering diagnostics, technology transfer, productivity tools, and market systems development by 2027
- Certify and license 1,000 extension service providers (public and private) by 20267 to ensure federal and regional coverage for increased service quality.
- Develop and roll out standardized MIES training materials with input from academia, TVETs, and industry by early 2026.

3. Workforce Skills Development for Production, Operations, and Maintenance

- Revise 15 TVET curricula to align with manufacturing sector competencies (automation, maintenance, production systems) by end of 20228.
- Operationalize dual training programs in collaboration with 50 industries and TVETs to train 5,000 Manufacturing-based apprentices by 2027.
- Establish 10 Production Simulation Labs and Technology Centers in regional clusters by 2028 to provide hands-on technical skills.

4. Expand Access to Inclusive and Lifelong Learning

- Launch a national digital learning platform for MSMEs by mid-2026, with reach to 20,000 users in rural and underserved areas by 2027.
- Develop and roll out 50 micro-certification courses in digital skills, green manufacturing, and financial literacy by 2025.
- Train 15,000 women, youth, and informal MSMEs through customized, mobile-friendly content by 2027, promoting inclusion and formalizations.

Expected Outcomes

1. 10,000 MSME leaders trained in modern business and management practices.
2. 1,000 nationally certified MIES providers delivering professional support services.
3. 5,000 technically skilled workers placed in manufacturing jobs via dual training.
4. 20 functional Entrepreneurship Development Centers supporting startup growth.
5. 20,000 MSMEs accessing digital and mobile training tools for continuous learning.
6. 15,000 women, youth, and informal entrepreneurs upskilled and linked to formal MSME support programs.
7. Improved MSME productivity and competitiveness, contributing to value chain integration and GTP III industrial transformation goals.

4.6.8.Environmental and Social Safeguards

As Ethiopia accelerates its industrialization agenda, ensuring that growth is environmentally sustainable and socially inclusive is paramount. The manufacturing sector faces growing pressure to reduce its environmental footprint, adopt circular economy models, and safeguard vulnerable groups from exclusion. This strategy pillar promotes climate-resilient and green manufacturing while embedding social equity and governance standards across the industry extension system. It aims to institutionalize safeguards, expand access for women, youth, persons with disabilities (PWDs), and rural enterprises, and ensure compliance with environmental, labor, and safety regulations. By integrating green incentives, ESG principles, and social accountability into MSME support, this strategy supports long-term industrial competitiveness while protecting people and the planet.

Strategic Issue:

Ethiopia's manufacturing sector is characterized by inefficient resource use, limited adoption of green technologies, and minimal integration of climate risk and environmental safeguards. Simultaneously, women, youth, persons with disabilities (PWDs), and MSMEs in remote regions face exclusion from industrial development opportunities. This undermines equitable growth, environmental integrity, and long-term sector resilience.

Strategic Objective:

To embed environmental sustainability, social inclusion, and climate resilience into Ethiopia’s manufacturing sector by promoting green industrial practices, enforcing safeguards, enabling access to climate-smart finance, and ensuring inclusive participation in extension services.

Key Strategies:

1. Drive Green Manufacturing and Circular Economy Models

- Support 5,000 MSMEs to adopt energy-efficient machinery, waste recycling systems, and pollution control equipment by 2027
- Introduce a national green certification and eco-labeling scheme aligned with ISO 14001 and cradle-to-cradle principles by 2025.
- Award green production grants or tax incentives to at least 1,000 certified MSMEs meeting set environmental performance standards by 2026

2. Embed Environmental and Climate Risk Safeguards

- Conduct climate risk screening and ESIA’s for 100% of MIES-supported projects starting 2025.
- Develop and implement minimum green infrastructure and adaptation standards in all new industrial parks and 50 MSME clusters by 2026.
- Disseminate climate risk toolkits to 2,000 manufacturers and extension agents by 2025 to guide climate-smart operations.

3. Expand Access to Green Finance and Climate-Linked Incentives

- Facilitate \$30 million in green and climate finance access for MSMEs through green bonds, carbon markets, and sustainability-linked loans by 2027 (e.g., green bonds, carbon credits, blended finance instruments, sustainability-linked loans).
- Launch 3 green investment guarantee schemes in partnership with financial institutions by 2026 to reduce MSME lending risk.
- Onboard 50,000 MSMEs, including women- and youth-led firms—onto digital platforms for sustainability funding access by 2027.

4. Ensure Social Inclusion and Equity in Industrial Support

- Roll out inclusive MIES models targeting all 12 regions, prioritizing women, youth, persons with disabilities (PWDs), and lagging areas by 2027.
- Integrate gender, disability, and youth considerations in 100% of training manuals, MIES curricula, and policy tools by 2027.
- Implement affirmative action (e.g., 30% procurement quota) for marginalized groups and train 10,000 youth, women, and PWD-led MSMEs by 2027.

5. Institutionalize ESG Compliance and Decent Work Standards

- Develop and roll out MSME-specific ESG guidelines by mid-2025, aligned with international labor and environmental standards.
- Conduct 2,000 workplace audits annually from 2026, promoting health, safety, and fair labor compliance across manufacturing MSMEs.

- Support 1,500 MSMEs to adopt voluntary ESG reporting frameworks and sustainability disclosures by 2027.

6. Build Institutional Capacity for Inclusive and Climate-Smart MIES

- Train 2,500 industry extension agents, TVET instructors, and MSME officers on green, inclusive manufacturing approaches by 2026.
- Equip all 12 regional bureaus with standardized tools, disaggregated data systems, and operational funds to mainstream green and inclusive MIES by 2025.
- Operationalize a national MEL framework by 2025 to track environmental, climate, and social outcomes across all MIES activities.

Expected Outcomes

1. 5,000 MSMEs using clean technologies and circular economy models.
2. 100% of MIES interventions screened for environmental and climate risk.
3. \$30 million mobilized in green and climate-linked finance.
4. 10,000 marginalized entrepreneurs (women, youth, PWDs) trained and supported.
5. 2,000 MSMEs audited annually for ESG and labor standard compliance.
6. Nationwide M&E system operational for tracking green, inclusive manufacturing outcomes.

4.5. Identified Industrial Extension and Training Packages

Table 6. Identified Industrial Extension and Training Packages

Key Priority Areas for MIES	Training and Knowledge Transfer Components:
Enabling Environment	<ul style="list-style-type: none"> ▪ Institutional coordination and governance for a demand-driven MIES service. ▪ Strengthening strategic partnerships and institutional capacity for MIES service delivery, including Public-Private Partnerships (PPPs) and knowledge exchange. ▪ Development and operationalization of monitoring, evaluation, and learning (MEL) systems. ▪ Capacity building for intermediary institutions.
Technology and Innovation	<ul style="list-style-type: none"> ▪ Accelerating industrial transformation through technology upgrading, innovation, and digital transformation. ▪ Establishment and operationalization of MSME-focused innovation hubs and Lean Manufacturing Centers of Excellence. ▪ Promotion and adoption of Industry 4.0 technologies and smart manufacturing models. ▪ Fostering partnerships between industry, academia, and research institutions for applied R&D12. ▪ Boosting productivity and competitiveness in strategic manufacturing industries through tailored skilling and training interventions. ▪ Embedding productivity-enhancing tools such as lean manufacturing, Kaizen, and Total Quality Management Systems (TQMS).
Infrastructure	<ul style="list-style-type: none"> ▪ Accelerating industrial transformation through infrastructure development ▪ Investment in expanding digital infrastructure and access points.

Market Competitiveness	<ul style="list-style-type: none"> ▪ Improving product standards and quality infrastructure. ▪ Expanding certification systems. ▪ Facilitating access to structured market platforms and export readiness programs. ▪ Support for MSME branding, market intelligence services, and digital platforms for market trends and buyers.
Input Supply System	<ul style="list-style-type: none"> ▪ Strengthening low cost input access, reliability and availability ▪ Strengthening backward and forward value chain integration.
Finance	<ul style="list-style-type: none"> ▪ Expanding access to inclusive and tailored financial services, including blended finance, concessional credit, leasing, equity financing, grants, and guarantees. ▪ Enhancing the delivery of business development services (BDS), with a focus on underserved groups. ▪ Capacity building for MSMEs in financial management and business planning.
Knowledge and Skills	<ul style="list-style-type: none"> ▪ Modernization of TVET systems and aligning curricula with industry needs. ▪ Promoting STEM education. ▪ Strengthening industry-academia linkages to foster continuous learning and innovation. ▪ Developing a skilled and adaptable workforce aligned with the demands of a modern industrial economy. ▪ Implementing a National MSME Skills Development Framework with standardized and accredited training modules, certification schemes, and licensing systems. ▪ Scaling up lifelong learning initiatives, apprenticeships, mentorship programs, and digital literacy enhancement. ▪ Establishing dedicated Entrepreneurship Training Centers for MSME owners and industry extension professionals. ▪ Training of Trainers (ToT) systems for industry extension professionals.
Environmental & Social Safeguards	<ul style="list-style-type: none"> ▪ Promoting green manufacturing, circular economy models, and cleaner production technologies. ▪ Supporting MSMEs to adopt resource-efficient practices and shift towards climate-smart production systems. ▪ Integrating MSMEs into climate-resilient, low-carbon value chains. ▪ Mainstreaming inclusive growth and promoting equitable access to industry extension services, particularly for women, youth, persons with disabilities, and underserved regions. ▪ Championing safe & decent work environments, fair trade, labor standards, social responsibility, and shared value creation within MSME industrial ecosystems.

SECTION 5: IMPLEMENTATION FRAMEWORKS

5.1. Institutional and Organizational Arrangements

The institutional capacity of Ethiopia's Manufacturing Industry Extension Services (MIES) is foundational to the successful implementation and sustainability of the national industrial transformation agenda. Building robust institutional capacity, across human, physical, financial, technological, and legal dimensions, is critical to ensuring that MIES is responsive, coordinated, and capable of delivering high-quality support to manufacturing enterprises at all levels. This strategy prioritizes the establishment of a well-trained, adequately resourced, and empowered extension workforce supported by modern infrastructure, sustainable financing mechanisms, and enabling legal frameworks.

By investing in skilled personnel, equipping service centers, leveraging digital tools, and clarifying institutional mandates, the strategy seeks to transform MIES into an agile, demand-driven, and results-oriented system. Strengthening institutional capacity will not only enhance service delivery but also foster accountability, innovation, and long-term resilience, thereby accelerating Ethiopia's industrial competitiveness, job creation, and inclusive value addition.

This ensures that Ethiopia's MIES system becomes efficient, demand-driven, and resilient, supporting the broader goals of industrial competitiveness, job creation, and inclusive value addition.

Although the specific data on numbers or staff levels within Ethiopia's Manufacturing Industry Extension Services (MIES) are limited, the structure indicates a multi-tiered system involving federal, regional, and local personnel, as well as collaboration with Technical and Vocational Education and Training (TVET) institutions. The following information is from a broader Industrial Extension Services (IES) system study.

Table 7: Human Resource Plan regime for Ethiopia's Industrial Extension Services (IES)

Administrative Level	Personnel Type	Responsibilities
Federal	IES Coordinators and Experts	Responsible for policy direction, coordination, oversight and implementation of IES.
Regional	IES Managers and Technical Staff	Coordinate and Implement Industry extension services at the regional level, coordinate with TVET institutions and MSMEs.
Woreda (District)	Extension Agents and Facilitators	Provide direct support to MSEs, including training and follow-up.
TVET Institutions	Trainers and Extension Service Providers	Deliver training and technical support to MSEs as part of the IES package.

The Summary of institutional capacity and strategic actions is illustrated below.

Table 8: Manufacturing Industry Extension Institutional Capacity Assessment and Strategic Actions

Capacity Dimension	Current Challenges / Gaps	Proposed Strategic Actions
Human (Staffing)	<ul style="list-style-type: none"> • Inadequate number of qualified extension agents at federal, regional, and woreda levels. • Lack of continuous professional development. • Limited incentives and high turnover. 	<ul style="list-style-type: none"> • Conduct Comprehensive national Staffing Assessment or detailed evaluation to determine current staffing levels, identify gaps, and plan for future needs across all administrative or industry extension units levels. • Employ and/or deploy adequate MIES personnel at all levels. • Develop a standardized staffing framework with clear roles and career pathways • Develop targeted training/capacity building programs for extension agents, focusing on the eight pillars of the IES model to ensure effective service delivery • Develop and Launch a competency-based continuous training and certification system and programs for extension agents or service providers • Introduce performance-based incentives such as career progression framework and performance for results incentive schemes to retain talented and skilled staff. • Implement robust M&E systems to track the performance of extension.
Physical	<ul style="list-style-type: none"> • Limited office space, mobility tools, and demonstration sites. • Poor logistics support for field-level services. 	<ul style="list-style-type: none"> • Invest in regional and woreda-level MIES centers with basic infrastructure (offices, labs, tools, etc.). • Provide vehicles, motorcycles, and mobile kits for outreach activities.
Financial	<ul style="list-style-type: none"> • Heavy reliance on government funding. • Unpredictable and inadequate operational budgets. 	<ul style="list-style-type: none"> • Introduce co-financing models involving private sector, development partners, and regional governments. • Establish a dedicated MIES Fund to support innovation, expansion, and capacity building.
Technological	<ul style="list-style-type: none"> • Limited digital tools and monitoring systems. • Outdated technology support for SMEs. 	<ul style="list-style-type: none"> • Develop and deploy an integrated M&E digital dashboard for real-time service tracking. • Promote digital tools and platforms (e.g., mobile apps) for service delivery and SME support. • Strengthen partnerships with innovation hubs and universities for tech transfer.
Legal / Regulatory	<ul style="list-style-type: none"> • Overlapping mandates between institutions. • Weak legal framework for service standards and accountability. 	<ul style="list-style-type: none"> • Review and streamline MIES-related legal and institutional mandates. • Establish a national MIES coordination framework with clear roles and accountability. • Develop regulations that set service quality standards and grievance redress mechanisms.

5.1.1. Stakeholder Involvement

The table below categorizes governance or administrative structures and operational levels implementing the Manufacturing Industry Extension Services (MIES) in Ethiopia from federal to local and enterprise levels. It provides clarity on their respective roles and how responsibilities cascade down to ultimately serve MSMEs and individual enterprises.

Table 9: Administrative levels implementing the Manufacturing Industry Extension Services

Level	Stakeholder / Institution	Primary Role in MIES & MSME Support	Key Responsibilities
Federal	Ministry of Industry (MoI)	National Lead and Policy Coordinator- MIES Coordination Unit	Develops MIES strategies, coordinates national implementation, mobilizes resources, and monitors performance.
	Ministry of Labor and Skills (MoLS)	Skills Development and TVET Oversight	Aligns TVET with industrial needs, promotes dual training, and supports workforce development.
	Ministry of Innovation and Technology (MinT)	Innovation and Technology Transfer	Supports digitalization, tech hubs, Industry 4.0, and R&D partnerships.
MoE, Universities, Cooperatives Commission,	Ministry of Women and Social Affairs	Inclusive Industrial Development	Promotes gender and social inclusion in MSME support and MIES programs, especially among women and vulnerable groups.
Mo Finance,	Ethiopian Investment Commission (EIC)	Investment Promotion and Support	Links MSMEs with industrial parks/SEZs, supports aftercare, aligns investment with MIES.
Banks, FI	Ethiopian Standards Agency (ESA)	Quality and Standards Authority	Develops and promotes standards, provides certification and quality assurance.
	Ethiopian Conformity Assessment Enterprise (ECAE)	Quality Compliance and Testing	Provides product testing, inspection, calibration, and compliance services.
	Manufacturing Industries Development Institute (MIDI)	Sectoral Technical Support	Offers on-site advisory, cluster facilitation, productivity improvement support.
	Federal Technical and Vocational Education and Training Institute (FTVETI)	Curriculum and ToT Development	Designs industry-responsive training materials, supports TVETs and trainers.
	Ethiopian Enterprise Development (EED)	MSME Development and BDS Coordination	Delivers integrated support including finance, market access, training, incubation.
	Industry Development Institute (IDI)	Technology and Industrial Development Support	Offers technical support, technology transfer, and Kaizen implementation

			services to MSMEs and manufacturing clusters.
	Bio and Emerging Technology Institute (BETIn)	Innovation and Technology Diffusion	Promotes use of biotechnology and emerging technologies in industrial processes and manufacturing enterprises.
	Ethiopian Industrial Input Development Enterprise (EIIDE)	Input Supply and Value Chain Development	Facilitates availability and access to quality industrial inputs for MSMEs to strengthen competitiveness.
	Industrial Parks Development Corporation (IPDC)	Infrastructure and Cluster Development	Develops and manages industrial parks, supports MSME integration into clusters, and promotes industrial linkages.
Regional	Regional Bureaus of Industry and Enterprise Development	Decentralized Implementation of MIES	Adapt MIES to local priorities, supervise local providers, and coordinate MSME clusters.
	Regional TVET Institutions	Training and Capacity Building	Deliver tailored training, facilitate apprenticeships, support local innovation.
	Capital Goods Finance Business Share Companies (Regional)	Access to Finance – Equipment Leasing	Provides capital goods leasing and financial services to enhance MSMEs' access to production equipment.
Woreda / Sub-City	Local Industry and Enterprise Offices	Community-Level MSME Support	Register MSMEs, facilitate land permits, and coordinate with TVETs and service providers.
	Local TVET Colleges	Modular and Applied Training Delivery	Provide sector-specific skills training and re-skilling programs.
Sectoral / Cluster	Centers of Excellence in Industrial Parks	Innovation and Technical Support	Offer prototyping, incubation, skills upgrading in park-based industries.
	Research Institutes	Applied Research and Tech Support	Conduct R&D, develop industrial solutions, support tech adoption for MSMEs.
	Industry Associations (ETGMA, ELIA, etc.)	Private Sector Representation and Services	Advocate for members, deliver training, enable market linkages, support cluster development.
	Employers' Association	Private Sector Engagement	Represents employers' interests, ensures industry-driven service delivery, and supports capacity building of MSMEs.
	Confederation of Ethiopian Trade Unions (CETU)	Labor Rights and Workforce Representation	Advocates for decent work conditions, worker rights, and tripartite dialogue in industrial development.
	Ethiopian Chamber of Commerce and Sectoral Associations (ECCSA)	Business Advocacy and Market Linkages	Facilitates MSME access to markets, provides business development services, and links enterprises to industry opportunities.
	Ethiopian Economics Association (EEA)	Policy Research and Advisory	Provides research, policy analysis, and evidence-based recommendations to

			improve MIES implementation and MSME development.
Enterprise-Level	Certified Providers	BDS	Direct Business Advisory Support
	Anchor Firms		Supply Chain Development
	Individual MSMEs		Beneficiaries and Implementation Partners
Cross-Cutting	Development Partners (UNIDO, GIZ, World Bank, etc.)		Technical and Financial Assistance
	NGOs and Innovation Hubs		Inclusive Outreach and Incubation
			Offer legal, marketing, financial, and operational support to MSMEs.
			Mentor MSMEs, subcontract production, share technology and standards.
			Participate in training, invest in upgrading, adopt innovations, report outcomes.
			Fund MIES pilots, support innovation and greening, provide international expertise.
			Support women/youth entrepreneurs, run accelerators and innovation platforms.

At the federal level, the successful implementation of Ethiopia’s Manufacturing Industry Extension Services (MIES) relies on a network of institutions working in a coordinated and complementary manner to support MSME development and industrial transformation. The Ministry of Industry (MoI) serves as the national lead and coordinator of the MIES strategy, responsible for designing policy frameworks, overseeing implementation, mobilizing resources, and monitoring overall performance. The Ministry of Labor and Skills (MoLS) plays a central role in aligning skills development and TVET programs with industry needs, with a focus on promoting dual training systems and enhancing workforce capabilities.

Supporting innovation and digital transformation, the Ministry of Innovation and Technology (MinT) facilitates technology transfer, digitalization initiatives, and the establishment of tech hubs and Industry 4.0 capabilities. The Ethiopian Investment Commission (EIC) strengthens the connection between MSMEs and industrial infrastructure such as industrial parks and Special Economic Zones (SEZs), ensuring that investments align with MIES objectives and providing aftercare services.

Ensuring quality and compliance, the Ethiopian Standards Agency (ESA) and the Ethiopian Conformity Assessment Enterprise (ECAE) are responsible for developing and enforcing national standards, providing certification services, and ensuring conformity through testing, inspection, and calibration. Meanwhile, the Manufacturing Industries Development Institute (MIDI) offers specialized technical support, on-site advisory services, and facilitates cluster-based productivity enhancements for manufacturing SMEs.

For skills and curriculum development, the Federal Technical and Vocational Education and Training Institute (FTVETI) is tasked with creating industry-relevant training materials and conducting training of trainers (ToT) to improve TVET delivery. Finally, the Ethiopian Enterprise Development (EED) plays a critical role in MSME support, coordinating business development services (BDS) that include access to finance, training, incubation, and market linkage services.

Together, these federal institutions form a comprehensive and integrated support system that enables effective MIES implementation, drives MSME competitiveness, and supports Ethiopia’s broader industrialization agenda.

5.2. Delivery Models and Approaches

5.2.1. MIES extension Delivery approaches

A strategic, demand-responsive extension service model, enhance growth, innovation, and competitiveness in the MSME manufacturing sector especially among SMEs. Structured, coordinated, and delivered to maximize impact: These tools enable seamless continuous industry extension support and inclusivity, especially for remote or underserved manufacturers

Collaborative Networks and Partnerships

Build strong multi-actor partnerships involving government agencies, industry associations, research institutions, development partners, and private sector actors. These networks enable resource pooling, joint planning, and shared infrastructure for effective delivery of training, technical support, and technology transfer.

Tailored Training and Capacity Building Programs for skills and Knowledge transfer

Develop and deliver industry specific, specialized training programs tailored to the needs of different manufacturing sub-sectors and SMEs. This training will be delivered through modular programs, practical workshops, and partnerships with TVET institutions. This Industry extension model will focus on delivery of advanced manufacturing technologies, Lean manufacturing and process efficiency, Quality control and assurance systems, Supply chain and logistics management e.t.c.

Mentoring and coaching approach

Experienced and skilled industry professionals will be engaged to provide one-on-one or group-based mentoring. The Mentorship and coaching will focus on delivery of operational improvement, Adoption of new technologies and Export readiness and market development. This practical guidance accelerates learning and enables participating MSMEs to apply solutions directly to their operations.

Demand-Driven and Participatory for skills, and technology transfer

Adopt a participatory planning model where extension services are co-designed with manufacturers, industry associations, and local stakeholders. This ensures that interventions are business-led and relevant, focused on solving real challenges and flexible to adapt to sector dynamics

Common User facilities, Incubation and Demonstrations for Technology Transfer

Promote the uptake of innovative technologies and international best practices through Establishment Technology Demonstration Centers (Centers of Excellence), Supporting incubation hubs, common user facilities, and online platforms, facilitating access to capital financing, equipment grants, and advisory support, creating research and technology liaison networks to bridge manufacturers with R&D institutions and tech providers.

Value Chain Approach to Extension Services through industry clusters

Provide integrated support across the full manufacturing value chain, from raw material or inputs sourcing to product distribution. Services include Process and product optimization, Supplier and logistics development and

Branding, packaging, and market linkages. This model enhances the competitiveness of manufacturing clusters and ecosystems.

The value chain approach has been adopted as a core delivery strategy, particularly in relation to input supply. The strategy recognizes that some SMEs serve as both producers and consumers within the value chain, where the output of one SME becomes the input for another. However, addressing constraints in the primary industries that supply raw materials, such as agriculture, forestry, and livestock, may fall outside the direct mandate of the EED or the Ministry. For instance, enhancing agricultural production, tree farming, or leather and hide production would typically involve collaboration with other sectoral ministries, such as the Ministry of Agriculture or the Department of Livestock.

To avoid mandate overlaps and address systemic challenges, a coordinated value chain approach is essential. This includes fostering vertical and horizontal partnerships and integration along the value chain to strengthen the linkage between input producers, SMEs and service providers. Such an approach can help integrate local input suppliers into national and global value chains and enhance efficiency and reduce transactional cost along the value chain.

Business Counselling, Clinics and Advisory Services

This model delivers structured business counselling clinics and tailored business advisory support to meet the unique needs of individual manufacturers. It targets key drivers of enterprise growth and competitiveness, including strategic planning, operational efficiency, product innovation, financial management, investment readiness, market access, regulatory compliance, and expansion strategies. Advisory services are provided through a blend of onsite visits, virtual consultations, peer-learning forums, and Business Development Service (BDS) centers. This integrated approach ensures manufacturers receive practical, hands-on guidance from seasoned professionals, empowering them to overcome challenges, capitalize on new opportunities, and improve their overall performance within the industry extension program.

Digital Extension Platforms and Mobile Applications

This model leverages digital technologies to enhance the reach, cost-efficiency, accessibility, and overall impact of extension service delivery in the manufacturing sector. By utilizing tools such as e-learning platforms, virtual training centers, webinars, digital resource hubs, expert Q&A sessions, and mobile applications, the extension system provides manufacturers with timely and flexible access to critical knowledge and support. These platforms deliver a diverse range of multimedia learning resources tailored to different learning styles and needs. This includes video and audio content for engaging visual and auditory learning; pictorial guides, infographics, and illustrations to simplify technical concepts; and text-based content such as articles, manuals, and digital publications for more in-depth and structured learning.

In addition to technical training and skills development, these digital platforms also play a crucial role in providing **real-time market information and digital marketing extension services**. Manufacturers can access updates on market trends, pricing, consumer behavior, and export opportunities, helping them to make informed business decisions. Furthermore, the platforms support capacity building in **digital marketing techniques**, including social media marketing, e-commerce integration, online branding, and customer engagement strategies, enabling manufacturers to expand their market reach and improve competitiveness in the digital economy.

Through these digital channels, especially in remote or underserved areas, manufacturers can access expert insights, industry updates, best practices, and interactive learning modules on demand. This approach ensures inclusive, scalable, and sustainable extension service delivery that supports continuous learning, innovation, and market-driven growth across the sector.

Enhancing Ethiopia’s Manufacturing Industry Extension Strategy through a Structured IEC Materials Delivery Model

To enhance the effectiveness of Ethiopia’s Manufacturing Industry Extension Strategy, a structured and responsive delivery model for industry-specific Information, Education, and Communication (IEC) materials must be implemented. This model is designed to address the diverse needs of the country’s key manufacturing sub-sectors, such as textiles and garments, agro-processing, leather and footwear, and pharmaceuticals, through a tailored, data-driven approach that improves knowledge dissemination and practical skills across the industry.

The foundation of this model lies in a comprehensive needs assessment for each manufacturing sub-sector. This assessment will identify specific knowledge gaps, skills deficiencies, and training needs, which will inform the development of targeted IEC materials. These materials should be modular and presented in varied formats to cater to different learning preferences and operational contexts. Formats may include printed manuals, illustrated posters, audiovisual content, and interactive digital platforms such as e-learning modules and mobile applications.

To ensure accessibility and engagement across Ethiopia’s linguistically and culturally diverse workforce, the IEC materials must be localized and translated into major national languages, including Amharic, Afaan Oromo, and Tigrinya. Incorporating culturally relevant examples, practical case studies, and local success stories will make the content more relatable and easier to understand, particularly for workers with varying literacy levels or technical backgrounds.

Once developed, the IEC materials will be pilot tested within selected industrial clusters to assess their relevance and usability. Stakeholder validation will follow, involving industry associations, Technical and Vocational Education and Training (TVET) institutions, manufacturers, and extension officers. This collaborative review process ensures that the materials align with real-world conditions and meet the expectations of both employers and workers.

Following validation, the materials will be disseminated through multiple channels, including industrial parks, training centers, digital platforms, and on-site factory visits. These materials will be integrated into the routine delivery service of extension agents, enabling consistent access to knowledge and skill-building resources. To support this, extension agents will undergo capacity-building programs that equip them not only to deliver IEC content effectively but also to monitor its impact and gather feedback from users.

Feedback mechanisms such as mobile-based data collection tools and QR-coded surveys will be embedded into the delivery process, allowing for real-time evaluation and adjustment. A formal biannual review cycle will be established to ensure that the IEC materials remain current, relevant, and responsive to emerging industry trends and challenges. This iterative process will foster a culture of continuous improvement within the extension service framework.

Finally, the success and sustainability of this IEC delivery model will depend on strong partnerships. Collaboration with the Ministry of Industry, development collaborations like UNIDO and GIZ, and industry associations will be crucial for scaling the model nationally. These partnerships will support resource

mobilization, content development, capacity building, and the integration of IEC materials into broader industrial development initiatives.

This structured IEC delivery model positions information and education as critical tools for transforming Ethiopia’s manufacturing sector. By embedding IEC materials into an adaptive, inclusive, and performance-oriented extension service framework, the model promotes enhanced productivity, safety, quality, and innovation contributing to the long-term competitiveness and resilience of the country’s industrial landscape.

Approach to the design of the Manufacturing industry extension service delivery

The Manufacturing IES Delivery Strategy provides targeted support to manufacturing MSMEs through a structured three-phase approach: **Assessment, Customized Support, and Impact Evaluation.**

It defines clear roles for **Industry Extension Agents (IEAs)**, who work directly with enterprises, and **Industry Extension Service Coordination Units (IESCUs)**, which oversee program management. This ensures that each MSME receives tailored, hands-on assistance while the overall program remains strategic, data-driven, and aligned with industry needs. The table shows the Three phased Approach MIES Delivery Strategy – Roles and Responsibilities

Table 10: Three phased Approach MIES Delivery Strategy – Roles and Responsibilities

Phase	Individual Enterprise Level (IEAs)	Programme Level (IESCUs)
1. Assessment (Diagnosis)	<ul style="list-style-type: none"> - Engage MSMEs and raise awareness - Support application intake - Conduct enterprise diagnostics - Identify gaps and prioritize needs - Collaborate with sector experts for deeper insight 	<ul style="list-style-type: none"> - Promote IES program - Manage application systems - Develop and standardize diagnostic tools - Analyze trends across sectors - Assign IEAs to enterprises based on needs
2. Customized Support (Guide)	<ul style="list-style-type: none"> - Deliver tailored IES packages - Provide technical and advisory support - Conduct follow-ups and site visits - Collect enterprise feedback and adjust support as needed 	<ul style="list-style-type: none"> - Coordinate overall IES delivery strategy - Provide technical backstopping and resources - Facilitate partnerships and specialized services - Monitor quality of agent interventions
3. Impact Evaluation (Impact)	<ul style="list-style-type: none"> - Track changes in productivity, market access, capital, and employment - Report outcomes and lessons learned - Gather enterprise testimonials and case studies 	<ul style="list-style-type: none"> - Aggregate data for sector-wide evaluation - Analyze program impact indicators - Refine strategies and tools - Inform policy and future programming decisions

5.3.Resource Mobilization and Financing

A sustainable and diversified financing model is essential for the successful implementation of Ethiopia’s Manufacturing Industry Extension Service (MIES) strategy. Since MIES interventions cover a wide range of activities, including skills training, productivity improvement, market access, and adoption of technology, the funding approach must combine government support, private-sector investment, and international assistance. It must also encourage cost sharing by beneficiaries to ensure long-term sustainability.

This integrated financing approach aims to balance short-term implementation needs with long-term financial viability. It does so by promoting collaboration across stakeholders, encouraging shared investment, and aligning incentives for impact. Instruments such as **Credit Guarantee Schemes**, embedded within Public-Private Partnerships (PPPs), can help unlock private financing for SMEs. At the same time, **cost-sharing models** will strengthen SME ownership and reduce over-reliance on government funding. With this approach, Ethiopia can build a resilient, inclusive, and results-driven MIES system to support industrial transformation.

5.3.1. Government Budget Allocation and Subsidies

Government budgetary support remains foundational to MIES implementation, especially in its early phases. Allocations should prioritize core infrastructure, staffing, training development, and regional delivery mechanisms. Time-bound **subsidies** can help reduce the cost of services for SMEs, particularly for the adoption of productivity enhancing technologies like Kaizen, digital tools, and clean energy solutions. To ensure efficiency and prevent dependency, subsidies should be performance-based and aligned with measurable development outcomes, such as increased SME productivity or job creation.

5.3.2. Public-Private Partnerships (PPPs) with Banks, Investors, and Financial Institutions

Public-Private Partnerships are central to expanding the reach and sustainability of MIES. These partnerships can include **co-financing arrangements with commercial banks and microfinance institutions**, enabling SMEs to access affordable credit for technological upgrades, working capital, and service fees. A key mechanism within this framework is the **Credit Guarantee Scheme (CGS) developed through Public private partnerships**. This is a public-private risk-sharing instrument that reduces the perceived risk of lending to SMEs. Under a CGS, the government or a donor-backed institution guarantees a portion of the loan (typically 50–80%), thereby encouraging banks and investors to support SMEs that lack traditional collateral. These guarantees can be linked to specific extension service outcomes, such as adopting modern manufacturing practices, upgrading technologies or improving energy efficiency.

In addition to CGSs, PPPs may involve venture capital firms, leasing companies, and private-sector training providers co-investing in SME upgrading initiatives, innovation hubs, or industrial cluster facilities. These partnerships not only inject financial resources but also bring in technical know-how, market access, and governance innovations that can enhance MIES impact on a scale and accountability.

5.3.3. International Donor Support

Development partners such as the African Development Bank (AfDB), UNDP, World Bank, GIZ, and others play a catalytic role in financing MIES. Their support may come in the form of grants, technical assistance, concessional loans, capacity-building programs, and digitalization initiatives. International financing can help strengthen institutional infrastructure, pilot innovative financing mechanisms like blended finance or impact bonds and scale up successful extension models. Coordinated donor engagement aligned with Ethiopia’s industrial transformation agenda will be critical to avoid duplication and maximize impact.

5.3.4. Cost-Sharing Models with SMEs

To ensure ownership and long-term viability, MIES should gradually implement Cost-Sharing Models with SME beneficiaries. While highly subsidized or free services may be necessary for start-ups and micro-enterprises, medium and growth-stage firms can contribute through sliding-scale payments or membership-based models. Pay-as-you-benefit mechanisms, voucher systems, or output-based repayment schemes can be tailored to the financial capacity of different enterprise segments. Such models will foster demand-driven service uptake, build accountability, and enhance the financial sustainability of extension programs.

5.3.5. Sustainable Financial Models

Over the long term, Ethiopia must institutionalize sustainable financing for MIES through the creation of mechanisms like a **Manufacturing Extension Sustainability Fund**. This fund, capitalized by a blend of public and donor resources, can support innovation grants, revolving loans, matching fund schemes, and ecosystem-building activities. Integrating MIES into national development and financing strategies, such as Ethiopia's 10-Year Development Plan and Industrial Policy, will ensure continuity and alignment. Additionally, applying **performance-based budgeting**, strong financial tracking systems, and periodic audits will foster transparency and attract continuous support from both public and private actors.

5.4. Collaboration and Stakeholders Engagement

5.4.1. Stakeholders mapping and their roles

Key service providers and stakeholders involved in delivering extension services to manufacturing MSMEs in Ethiopia. Through Collaborations, Partnerships and participatory stakeholder engagements, Industry extension service providers are able to deliver extension messages to the Manufacturing MSMEs. In addition, Delegated roles will enhance capacity of national Coordination unit and the EED in building critical mass of extension service providers across various ministries, departments and agencies including TVETS.

Table 11: Key service providers and stakeholders involved in delivering extension services

Stakeholder	Expectations/ Interest	Impact of Non-Engagement	Engagement Strategy
Small and Medium Enterprises	Growth, access to resources	Limited growth, lack of feedback	Regular consultations, workshops, and surveys
Industry extension worker/expert	Job security, professional development	Ineffective IES support	Regular training, feedback sessions
Ministry of Industry Ethiopian Enterprise Development	<ul style="list-style-type: none"> • Building the capacity of key role players. • Developing necessary infrastructures, • Enhancing coordination and collaboration among various players. 	Fragmented efforts, weakened coordination	Consult regularly to align agendas; clarify roles to avoid overlaps.

	Manufacturing Industry Development Institute and Industry Research and Development Centers	Support in research and development, product and technology development, market development, training and consulting, Market linkages, and Training	Slow technology adoption and innovation, fragmented market linkages, reduced competitiveness and skills gaps	Partner on R&D, align training with demand, and secure funding.
	Kaizen Excellence center	Providing training and consulting services on Kaizen methodology, which focuses on continuous improvement.	Stagnant productivity, resistance to continuous improvement	Implement training and workshops, provide incentives for adoption, and establish award programs to recognize achievements.
Minister of Labor and skill	FDRE TVTI:	Create tailored capacity development training programs for SMEs and enhance the skills of industry extension workers.	Inadequate SME capacity and skill gaps among extension service workers in the industry.	Collaborate on curriculum design; partner with industry for tailored training programs.
	TVT Colleges	Provide a workforce (Technical Expert) for industry extension service.	Shortage of technical experts for industry extension	Facilitate advisory committees, Joint Research Initiatives and Recognition Programs.
	Entrepreneurship Development Institute:	Enhance the capacity of industry extension service providers through training in entrepreneurship and business development services.	Limited entrepreneurial skills among service providers, slower SME growth	Integrate entrepreneurship training into extension programs; link with funding interventions for practical support.
Minister of innovation and	“InnoBiz-K” business incubation and acceleration center.	Offer essential resources, including workshops and facilities like 3D printing, along with services such as mentorship, funding access, training programs, and networking opportunities.	limited access to digital growth, funding/networks	Partner to provide mentorship/resources and conduct workshops

	ICT Park	Support digitalization of IES through platforms, tools, and innovation for MSMEs.	Missed digital transformation, weak service delivery, and low MSME competitiveness.	Formal partnerships, joint projects, tech integration, and policy collaboration.
Ministry of Water and Energy	Ethiopian Electric Utility (EEU)	Facilitate access to electricity and provide energy efficiency training.	Delayed business operations, energy inefficiency, increased costs for SMEs	Collaborate on energy access initiatives, integrate energy efficiency training into business development programs.
Ministry of Trade and Regional Integration	Ethiopian Commodity Exchange	Provides a platform for trading goods, which can enhance market access and improve pricing transparency.	Limited market access, opaque pricing, reduced SME competitiveness	Integrate SMEs into ECX platforms, provide training on trading mechanisms, advocate for SME-friendly policies.
	Ethiopian Stand Institute	Assist to Meet quality standards, Creating standards, and Providing training.	Non-compliance risks, reputational damage, loss of export opportunities	Collaborate on compliance workshops and align standards with international norms.
	Ethiopian Conformity Assessment Enterprise (ECAE)	Providing certification to meet standards, offering compliance guidance, assisting with legal requirements, and helping SMEs gain exposure to laboratories and processes.	Legal non-compliance, restricted market entry, missed export certifications	Streamline certification workflows, subsidize compliance costs for SMEs, and co-develop compliance toolkits.
Research Institute	FDRE Policy Studies Institute (PSI)	Conduct high quality and objective economic, social and governance research and policy analysis	Misaligned policies, inefficient resource allocation, reduced evidence-based governance	Collaborate on research; integrate findings into policy design; establish feedback loops for iterative improvement.

Financial Institutes	Development bank of Ethiopia	Provides low-interest loans and credit facilities, Offers training programs on financial management, business planning, and compliance.	Limited access to affordable financing for SMEs	Regularly assess SME needs for financial products and Enhance training programs to cover emerging business topics.
	National Bank of Ethiopia (NBE)	Access to financing and Business development support	Limited growth and sustainability	Host workshops to educate on financing options and Provide tailored advisory services.
	Banks	Collaborate to create a more supportive ecosystem for SMEs.	Increased loan defaults and financial instability	Develop tailored financial products for SMEs and Host financial literacy workshops.
	Microfinance Institutions	Client retention and Portfolio growth	Limited access to finance for underserved SMEs	Offer specialized training and support for SMEs and Create flexible loan products tailored for small businesses.
International Development partners	International Development Partners (e.g., World Bank, UNIDO, GIZ)	Provide funding, technical expertise, and policy influence	Funding gaps, stalled projects, limited technical expertise transfer	Align projects with their mandates, ensure transparency and co-design initiatives for sustainability.
Minister of Education	Higher Education	Research and innovation	Limited knowledge transfer and innovation	Collaborate on research projects focused on SMEs and workshops.
Ministry of Revenue(MOR)		Providing tax incentives to MSEs having better performance	Challenges in accessing necessary financial support and resources	Conduct outreach to educate SMEs on tax compliance and provide tax incentives

Ministry of Agriculture	Provide support to SME by its institutions and guide the supply of agricultural input	Challenges in production capacity and supply chain disruptions	Collaborate on initiatives to support manufacturing SMEs and Provide resources and training related to input sourcing.
Ethiopian Machinery and Equipment Manufacturers Association	Sharing of experience in creating a versatile and high-quality product portfolio	Fragmented innovation, reduced product quality, weakened industrial competitiveness	Facilitate knowledge-sharing forums; co-develop R&D initiatives; advocate for supportive policies (e.g., tax incentives for innovation).

Table 12: Stakeholder and role in the MIES

Category	Stakeholder / Institution	Role in MIES and MSME Support
Government Agencies	Ministry of Industry (MoI)	Leads MIES strategy development and national implementation.
	Ministry of Labor and Skills (MoLS)	Overseas TVET systems, workforce skills development, and MSME capacity building.
	Ministry of Innovation and Technology (MinT)	Supports innovation systems, digitalization, and technology transfer.
	Ethiopian Investment Commission (EIC)	Promote investment and links MSMEs to industrial parks and SEZs.
	Ethiopian Standards Agency (ESA)	Provides standardization, certification, and quality infrastructure services.
	Ethiopian Conformity Assessment Enterprise (ECAE)	Delivers product testing, calibration, inspection, and compliance services.
	Manufacturing Industries Development Institute (MIDI)	Provides technical extension, on-site advisory support, and cluster facilitation.
	Federal Technical and Vocational Education and Training Institute (FTVETI)	Develops industry-responsive training curricula and supports ToT programs.
	Ethiopian Enterprise Development (EED)	Lead the implementation of MIES, access to finance facilitation, MSME growth support, and regional service coordination.
Regional & Local Governments	Regional Bureaus of Industry and Enterprise Development	Deliver localized MIES services, MSME registration, advisory support, and cluster coordination.
Academic & Research Institutions	TVET Colleges and Universities	Deliver modular, sector-specific training aligned with industrial needs.
	Research Institutes	Collaborate on R&D, innovation, and product development for MSMEs.
Private Sector Actors	Industry Associations (e.g., ETGMA, ELIA)	Provide technical training, market access support, and advocacy.
	Anchor Firms	Support MSMEs through supply chain partnerships, mentorship, and subcontracting.
	Certified BDS Providers	Deliver legal, financial, marketing, and business advisory services.
Development Partners & NGOs	Multilateral/Bilateral Agencies (e.g., UNIDO, GIZ, World Bank, EU)	Finance and implement MSME programs focusing on skills, finance, greening, and innovation.
	NGOs and Innovation Hubs	Support incubation, entrepreneurship training, digital innovation, and inclusive outreach.

5.4.2. Stakeholder's Coordination and Governance

Effective stakeholder coordination and governance are fundamental to the success of Ethiopia's Manufacturing Industry Extension Service (MIES). The strategy emphasizes the establishment of a robust governance framework that ensures clear roles, responsibilities, and effective collaboration among all key stakeholders involved in MIES implementation. This includes the central and regional government institutions, private sector actors, development partners, industry associations, financial institutions, and educational and training bodies.

The coordination mechanism will ensure alignment between federal and regional levels of government, facilitating a seamless flow of information, resources, and support services across the various manufacturing sectors. A dedicated coordination unit, under the Ministry of Industry (MoI), will be responsible for overseeing the implementation, monitoring, and evaluation of MIES activities at both the national and regional levels. The Effective execution will require strong governance, with clear accountability structures as follows

- **National Steering Committee:** Chaired by the Ministry of Industry, this body will provide strategic oversight, policy and resource alignment. The National Steering Committee is Co- Chaired by the Ministry of Labor and Skills (MoLS).
- **Regional Implementation Units:** Sub national units Responsible for rolling out services on the ground, managing stakeholder coordination, and feeding data into national monitoring systems.
- **Technical Working Groups:** Comprising experts from TVETs, academia, private sector, and development partners to provide technical support, research liaison, support and sector specific innovation.

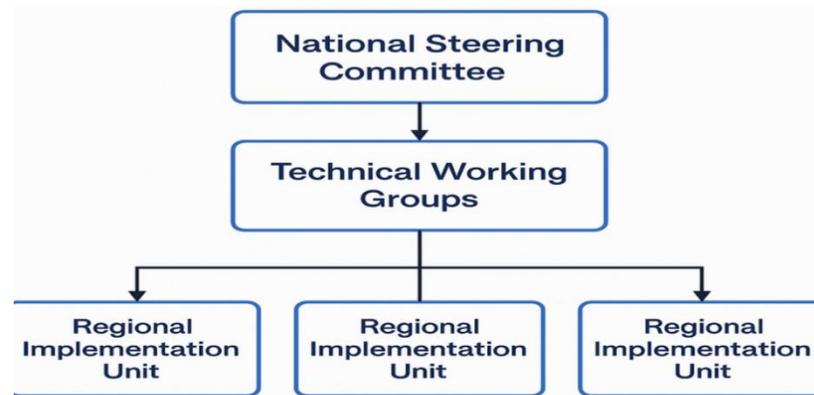


Figure 4: Stakeholder steering and governance structure

Furthermore, stakeholder engagement will be institutionalized through periodic consultation forums, working groups, and joint task forces that promote cross-sectoral collaboration. These platforms will encourage dialogue, foster partnerships, and allow for the joint identification of challenges and opportunities within the manufacturing sector.

The governance structure will be based on a clear accountability system, which includes annual performance contracting systems (PCs), regular reporting mechanisms, and transparent decision-making processes. It will also ensure that the interests of diverse stakeholders, including marginalized groups such as women, youth, and persons with disabilities, are integrated into the MIES framework.

By strengthening stakeholder coordination and governance, Ethiopia will create an enabling environment for collaborative problem-solving, innovation, and the efficient delivery of services, thereby advancing the objectives of industrial competitiveness, job creation, and value addition within the manufacturing sector.

5.5.Risk Management and Mitigation

To ensure the successful implementation of Ethiopia’s Manufacturing Industry Extension Service (MIES) Strategy, a proactive risk management approach has been adopted. This strategy recognizes that identifying

potential risks, validating key assumptions, and establishing targeted mitigation measures are critical for maintaining resilience and adaptability. By systematically addressing institutional, financial, technical, and external risks, the MIES framework will be equipped to respond to emerging challenges and ensure sustained impact across the manufacturing sector.

Table 13: Risk Analysis

Risk	Underlying Assumptions	Mitigation Measures
1. Political and institutional instability	Continued government commitment and coordination across federal and regional bodies.	Establish a multi-stakeholder steering committee to insulate MIES from political transitions. Institutionalize MIES within national industrial policy frameworks for continuity.
2. Insufficient or delayed financing	Assumes timely budget allocation, donor funding, and private sector co-investment.	Develop a diversified financing model (government, PPPs, donors, SMEs). Create a MIES Fund with clear disbursement rules and financial tracking systems. Promote credit guarantee schemes to leverage private finance.
3. Limited skilled workforce	Assumes TVETs and extension personnel will be able to meet growing skill demands.	Strengthen trainer certification, update TVET curricula, and enhance partnerships with industries for demand-driven training. Offer continuous professional development.
4. Low private sector engagement	Assumes private firms will actively participate in PPPs and service co-financing.	Provide incentives (e.g., tax benefits, recognition programs). Launch awareness campaigns. Design services that deliver measurable ROI for participating firms.
5. Resistance to technology and system change	Assumes willingness of SMEs and service providers to adopt Kaizen, digital tools, etc.	Introduce phased adoption, pilot programs, and capacity-building. Showcase success stories. Embed change management in training modules.
6. weak inter-agency coordination and overlapping roles	Assumes institutions will collaborate effectively under a unified framework.	Define clear roles and responsibilities in policy/legal instruments. Develop a centralized digital coordination platform (one-stop SME support system).
7. Weak monitoring and accountability systems	Assumes M&E tools will track performance and inform decision-making.	Develop robust M&E frameworks with KPIs and feedback loops. Digitize data collection and reporting. Allocate dedicated M&E units at fed

5.6. Communication Strategy

5.6.1. Objectives of the Communication Strategy

The Communication strategy will increase awareness, trust, and engagement in the Manufacturing Industry Extension Services among Micro, Small, and Medium Enterprises (MSMEs), while facilitating effective coordination between federal institutions, regional states, industrial parks, and development actors.

Specifically, the Communication Strategy will:

- Improve access to extension services among urban and rural MSMEs, especially youth- and women-led enterprises.
- Strengthen visibility and credibility of MIES as a tool for inclusive industrial development.
- Promote intergovernmental and public-private coordination.
- Facilitate learning, feedback, and continuous improvement in service delivery.

Strategically, proper communication will increase

- **Awareness:** *"Enhance national and regional visibility of manufacturing extension services with a focus on high-potential SME sectors, including textiles, leather, metalworks, woodworks, chemicals, and agro-processing."*
- **Uptake & Access:** *"Promote equitable access to tailored extension services for SMEs in priority sectors, especially targeting women, youth, and enterprises in regional industrial clusters."*
- **Stakeholder Alignment:** *"Foster coordinated communication between federal, regional, and local government institutions, industry associations, and development partners to ensure harmonized support and messaging."*
- **Learning & Adaptation:** *"Establish dynamic two-way communication systems to capture feedback from SME beneficiaries and integrate lessons into service refinement."*

5.6.2. Elements of Communication strategy

i. Target Audience and Stakeholders

The Key Stakeholders & Target Audiences for the communication strategy will include the following as illustrated in the table below.

Table 14: Target Audience and Stakeholders

<i>Audience</i>	<i>Communication Needs</i>	<i>Suggested Channels</i>
<i>MSMEs</i>	Service access, eligibility, business support tools	Local radio, community meetings, flyers, MSE Bureaus
<i>Regional Bureaus (Industry, TVET, Enterprise Dev.)</i>	Roles and responsibilities in MIES delivery	Circulars, inter-bureau workshops
<i>Federal Ministries (MoI, MoLS, MoE)</i>	Program harmonization and policy coherence	Policy briefs, technical roundtables
<i>Industrial Parks and Eco-Industrial Zones</i>	Linkages with local MSMEs	Newsletters, stakeholder forums
<i>Youth & Women Groups</i>	Opportunities, training access, fair participation	Social media, youth clubs, women cooperatives
<i>Development Partners (UNIDO, GIZ, WB, AfDB)</i>	Visibility, co-financing alignment, reporting	Donor updates, progress reports
<i>Chambers & Sector Associations</i>	Engagement in service delivery, co-regulation	Business forums, MOU platforms

ii. Sample Key Messages

The following is a sample of Key messages developed in the local context that may be considered for communication of the Extension programmes

- “Your Business, Our Service – Industrial Support for All.”
- “From Informal to Formal – Extension Services That Grow Your Enterprise.”
- “Youth and Women Are at the Centre of Ethiopia’s Industrial Future.”
- “Together with Regions – Building an Inclusive Manufacturing Ecosystem.”

Messages will be translated into **Amharic, Afan Oromo, Tigrinya, Somali**, and other key regional languages.

iii. Communication Channels & Tools.

For effective communication, the communication channels, platforms and tools to be applied include the following

PLATFORM	COMMUNICATION TOOLS
Traditional Media	Regional radio (e.g., Fana FM, Radio Ethiopia), TV programs on EBC, newspapers
Community Engagement	Kebele meetings, town hall sessions, Wereda business fairs
Digital Media	Facebook (high usage in Ethiopia), Telegram groups, SMS outreach (Ethio Telecom)
Institutional Platforms	MSME support centers, Industrial Parks, Technical Vocational Colleges (TVETs)
Publications	Bilingual brochures, posters, factsheets at Woreda & Zone levels
Feedback Mechanisms	Suggestion boxes, SMS polls, M&E hotline

iv. Implementation Roadmap

The Implementation of The Communication Strategy Will Be Conducted in Five Phases As indicated

Phase	Activity	Lead Actor(s)	Timeline
Phase 1	Develop MIES visibility materials (national + regional branding)	MoI, MoLS, MSE Agency	Q1
Phase 2	Conduct MSME awareness campaigns across regions	Regional Bureaus, Industry	Q1–Q2
Phase 3	Train frontline communicators (Wereda MSE officers, TVET staff)	MoE, MoLS	Q2
Phase 4	Establish feedback & grievance redress systems	MoI, M&E Units	Q2–Q3
Phase 5	Document and share success stories & case studies	MoLS, Communication Unit	Bi-annually

v. Monitoring and evaluation of the communication strategy implementation

The following indicators will be applied for monitoring and evaluation of the communication strategy during the implementation of the MIES

Indicator	Disaggregation/Tools
# MSMEs reached	Gender, youth, region, sector
# Inquiries received & processed	Regional-level dashboards
Level of stakeholder satisfaction	Feedback surveys, social listening
Reach of media messages	Radio/TV audience ratings, digital analytics

vi. Risk analysis of communication strategy

The following risks are identified, and appropriate measures integrated in the strategy to enhance impact and achieve the intended objectives

Risk	Mitigation Strategy
Language Barriers in Diverse Regions	Translate materials into local languages
Low Awareness in Rural Areas	Work with agricultural extension agents and cooperatives
Inconsistent Messaging Across Tiers	Develop centralized communication guidelines
Digital Access Limitations	Prioritize radio and face-to-face channels

Expand Geographic & Linguistic Adaptation Strategy the key “Messages will be adapted to local languages (Amharic, Afan Oromo, Tigrinya, Somali) and cultural contexts, ensuring relevance in each industrial corridor, from Oromia’s agro-processing hubs to Tigray’s leather and garment zones.”

Enhance Digital & Grassroots Integration, *“While leveraging digital platforms (SMS, Facebook, Telegram, WhatsApp), outreach efforts will prioritize face-to-face communication, radio, and regional forums to reach informal, rural, and low-literacy SMEs in targeted sectors.”*

5.6.3. Strategic Communication Messages for Ethiopia's Manufacturing Industry Extension Service

Targeted to Priority Manufacturing Sectors: Textile & Garments, Leather, Metalworks, Woodworks, Chemicals, and Agro-processing SMEs

i. Positioning & Brand Identity

“MIES: Driving Competitiveness, Innovation, and Inclusivity in Ethiopia’s Manufacturing Sector.”

The extension service will be positioned as a national driver of industrial transformation through localized, inclusive, and sector-specific support for priority SME sub-sectors.

ii. Sector-Specific Key Messaging Themes

Sector	Strategic Messaging Theme
Textile & Garments	<i>“From Local Fabric to Global Fashion – Tailored Support for Ethiopia’s Textile SMEs.”</i>
Leather & Footwear	<i>“Value from Every Hide – Strengthening Leather-Based SMEs through Quality and Design Support.”</i>
Metalworks & Engineering	<i>“Precision, Power, Potential – Empowering Metalworking SMEs for Local Industrial Solutions.”</i>
Woodworks & Furniture	<i>“Crafting Quality – Supporting Ethiopia’s Timber and Furniture MSMEs with Tools, Safety, and Standards.”</i>
Chemicals & Formulation	<i>“Innovate Safely – Providing Guidance and Compliance Support for Chemical SMEs.”</i>
Agro-processing	<i>“From Farm to Factory – Boosting Rural Agro-processing with Modern Technology and Market Access.”</i>

iii. Key messaging themes and Priorities by Audience

Target Audience	Key Message
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4.1 SME Enterprises	<i>“We bring services closer to your workshop – Get skilled, certified, and connected to new markets.”</i>
4.2 Regional Industry & MoLS/BoLS	<i>“Your role is pivotal – Deliver integrated, responsive, and sector-specific support to local manufacturers.”</i>
4.3 Industrial Parks & Clusters	<i>“Connect SMEs to opportunities – Ensure backward linkages and upgrade local suppliers.”</i>
4.4 Youth & Women Entrepreneurs	<i>“You belong in industry – Dedicated extension and financing pathways for inclusive growth.”</i>
4.5 Development Partners & Investors	<i>“Partnering for impact – Communicate results and scale tested models of industrial support.”</i>

5.6.4. Realigned Communication Strategy for Ethiopia’s Manufacturing Industry Extension Service

Targeting Priority SME Sectors & Aligned to Core Strategic Objectives

i. Strategic Communication Vision

“To position MIES as a nationally trusted, demand-driven service that empowers priority manufacturing SMEs through coordinated, inclusive, and innovation-led communication.”

ii. Communication Objectives Aligned to Strategic Priorities

Strategic Objective	Communication Focus	Key Messages	Channels
1. Institutionalize a Coordinated, Demand-Driven MIES System	Promote the existence, structure, and roles of the MIES system at federal, regional, and woreda levels.	<ul style="list-style-type: none"> • <i>“A unified national system tailored to local manufacturing needs.”</i> • <i>“MIES is where local demand meets responsive public support.”</i> 	Circulars, stakeholder forums, joint communiqués, explainer videos
2. Strengthen Strategic Partnerships and Institutional Capacity	Build awareness and collaboration among industry associations, TVETs, financial institutions, and development partners.	<ul style="list-style-type: none"> • <i>“Together for transformation: MIES connects institutions to SME needs.”</i> • <i>“Your institution matters: let’s co-deliver for Ethiopia’s industrial future.”</i> 	Stakeholder newsletters, inter-agency meetings, MoUs with joint press releases
3. Enhance Access to Technology, Innovation & R&D Linkages	Promote tech hubs, incubation centers, and research partnerships targeting MSMEs.	<ul style="list-style-type: none"> • <i>“Innovation is within reach – connect with labs, tech parks, and problem solvers.”</i> • <i>“Your SME deserves smarter solutions.”</i> 	Social media demos, mini-documentaries, university showcases, SMS alerts for innovations
4. Improve Access to Serviced Industrial Spaces and Infrastructure	Increase awareness of available industrial sheds, shared equipment, and cluster spaces.	<ul style="list-style-type: none"> • <i>“Spaces that work – industrial zones for every SME.”</i> • <i>“Grow your business in ready-to-use facilities.”</i> 	Local radio ads, GIS-enabled maps online, flyers at one-stop centers, industrial fair booths
5. Enhance Market Competitiveness	Promote programs supporting standards,	<ul style="list-style-type: none"> • <i>“Stand out in your sector – MIES supports quality, design,</i> 	Success story booklets, B2B match-making

& Value Chain Integration	market linkages, and product branding.	<i>and exports.”</i> • <i>“Be part of bigger value chains, access buyers, clusters, and distributors.”</i>	events, sector WhatsApp groups, e-market portals
6. Expand Access to Finance & Business Development Services (BDS)	Inform SMEs of credit programs, grants, guarantee schemes, and mentorship services.	• <i>“Your growth deserves capital – learn how to access finance and expert help.”</i> • <i>“From startup to scale-up – BDS is your next step.”</i>	Public service announcements, simplified BDS guides, call-in radio shows, finance forums
7. Build a Competent & Adaptive Industrial Workforce	Promote skills development programs, apprenticeships, and TVET-MIES linkages.	• <i>“Learn. Apply. Prosper – skills for the modern manufacturer.”</i> • <i>“Upgrade your workforce – hands-on training for real results.”</i>	TVET open days, SMS campaigns for training intakes, community theatre, video testimonies
8. Promote Inclusive, Climate-Resilient & Sustainable Industrial Development	Sensitize SMEs on cleaner production, circular economy, gender inclusion, and green technologies.	• <i>“Profit with purpose – cleaner, greener manufacturing.”</i> • <i>“Women and youth are the future of Ethiopia’s industry.”</i>	Green certification drives, community-based campaigns, environmental radio series, female role model features

iii. Integrating Cross-Cutting Tools & Mechanisms in the communication strategy to enhance inclusivity

- **Languages:** Amharic, Afan Oromo, Tigrinya, Somali, and other regional languages.
- **Inclusive Access:** Visuals for low-literacy groups; community-level town halls, PWDs.
- **Digital Hub:** Central MIES information portal and social media presence.
- **Feedback Loop:** Mobile surveys, suggestion boxes, focus group sessions, M&E reporting.

iv. Example of Communication Activity Calendar (Quarterly Snapshot)

Quarter	Key Activities
Q1	Launch national awareness campaign on MIES services and institutional map
Q2	Sector-based regional roadshows (Textiles in Hawassa, Leather in Modjo, etc.)
Q3	Innovation showcase and exhibitions linking SMEs with R&D institutions
Q4	Annual impact storytelling campaign + multi-stakeholder MIES summit

5.7. Sustainability Plan

Sustaining Ethiopia’s Manufacturing Industry Extension Services (MIES) is critical to fostering long-term industrial growth, inclusive economic development, and enhanced competitiveness among micro, small, and medium enterprises (MSMEs). This strategy aims to build resilience across institutional, financial, operational, and environmental dimensions, ensuring consistent and responsive service delivery nationwide. By doing so, MIES will evolve into a nationally coordinated, locally anchored, and financially robust system—capable of driving innovation, strengthening MSME performance, and advancing Ethiopia’s broader industrial transformation agenda.

5.7.1. Enabling Environment for Manufacturing Industry Extension Services (MIES) in Ethiopia

A. Policy and institutional enablers

The enabling environment is a critical component of the Manufacturing Industry Extension Services (MIES) strategy, providing the foundational support necessary for industrial growth and the effective implementation of MIES initiatives. A well-established, inclusive, and conducive environment—comprising favorable policies, institutional frameworks, regulatory clarity, and access to key resources, creates the ideal conditions for manufacturing industries, particularly MSMEs, to thrive.

Ethiopia's strategy for MIES aims to cultivate an enabling environment that strengthens the alignment between federal, regional, and local governance structures, ensuring policy coherence and streamlined regulatory processes. By improving legal and regulatory frameworks, simplifying bureaucratic procedures, and enhancing coordination between government agencies and private sector actors, MIES will become more agile and responsive to the needs of manufacturing enterprises.

Furthermore, the strategy will focus on enhancing access to essential services such as infrastructure, technology, and finance, while promoting an innovation-friendly ecosystem that encourages industrial modernization and digital transformation. This environment will not only support the growth of manufacturing industries but also contribute to greater inclusivity and sustainability, ensuring that the benefits of industrialization are widely shared and contribute to the long-term economic resilience of Ethiopia.

Table 15: Summary of the current policies, institutional frameworks, and regulatory mechanisms.

Policy/Framework	Overview	Relevance to MIES	Weaknesses	Opportunities for Strategic Actions
Industrial Development Policy (IDP)	Aims to transform Ethiopia's industrial base, focusing on promoting manufacturing, industrial growth, and export-oriented industries.	Provides a foundation for enhancing competitiveness in the manufacturing sector and supports MIES goals of boosting productivity and industrial growth.	<ul style="list-style-type: none"> • Slow implementation of key policy elements. • Insufficient integration with local capacity building. 	<ul style="list-style-type: none"> • Strengthen local capacity building initiatives. • Streamline implementation processes and monitor progress more closely.
National Industrialization Strategy (NIS)	A strategy for industrializing Ethiopia's economy, focusing on export-oriented industries, linkages between agriculture and	Supports MIES by improving industrial infrastructure, technology adoption, and workforce development, which are crucial	<ul style="list-style-type: none"> • Limited sector-specific coordination. • Insufficient focus on inclusive growth, particularly for MSMEs. 	<ul style="list-style-type: none"> • Increase cross-sector coordination for holistic industrial growth. • Expand MSME-focused support initiatives within the strategy.

	industry, and sector-specific growth (e.g., textiles).	for enhancing competitiveness in the manufacturing sector.		
Micro and Small Enterprises Development Strategy	Supports the growth of micro and small enterprises (MSEs) with technical support, financial access, and market linkages.	Complements MIES by addressing the inclusion of MSMEs in the manufacturing sector, improving competitiveness, and facilitating access to finance and technology.	<ul style="list-style-type: none"> • Limited reach of financial support to SMEs. • Insufficient infrastructure for MSEs in rural areas. 	<ul style="list-style-type: none"> • Strengthen financial support mechanisms for MSEs. • Improve rural infrastructure and logistics for MSEs.
Ethiopian Investment Code (Revised in 2021)	Provides incentives and guidelines for domestic and foreign investment in manufacturing and industrial sectors.	Facilitates investment in the manufacturing sector, promoting technology transfer, infrastructure development, and job creation, which align with MIES objectives.	<ul style="list-style-type: none"> • Bureaucratic delays in processing investments. • Lack of incentives for local investors. 	<ul style="list-style-type: none"> • Simplify the investment approval process. • Design incentives tailored to local investors and small manufacturers.
Technology and Innovation Policy	Focuses on technological development, innovation, and technology transfer to enhance industrial development in Ethiopia.	Promotes technology upgrading and innovation, which is critical to the success of MIES in boosting productivity and improving competitiveness.	<ul style="list-style-type: none"> • Slow pace of technology adoption. • Insufficient collaboration between industries and tech providers. 	<ul style="list-style-type: none"> • Foster public-private partnerships for faster tech adoption. • Promote tech incubators and innovation hubs for local industries.
National Export Strategy	Aims to increase Ethiopia's exports by improving product quality and gaining better access to	Supports the competitiveness of Ethiopian manufactured goods in the global market, contributing to	<ul style="list-style-type: none"> • Limited diversification of export products. • Poor market access in some regions. 	<ul style="list-style-type: none"> • Promote export diversification strategies. • Strengthen market access efforts for SMEs and

	international markets.	MIES's objectives of market access and industrial transformation.		underrepresented industries.
Environmental Protection Proclamation	Framework for ensuring sustainable industrial practices and reducing environmental impact.	Aligns with MIES's goal of fostering environmentally sustainable industrial development by promoting green technologies and practices.	<ul style="list-style-type: none"> • Inconsistent enforcement of environmental standards. • Lack of clear green incentives for SMEs. 	<ul style="list-style-type: none"> • Strengthen regulatory enforcement mechanisms. • Design green technology incentives for manufacturers, especially SMEs.
Industrial Parks Development Corporation (IPDC)	Responsible for establishing and managing industrial parks that provide modern infrastructure and services for manufacturing enterprises.	Industrial parks provide critical infrastructure and services that support MIES by enhancing technology adoption, market access, and resource efficiency in manufacturing.	<ul style="list-style-type: none"> • Limited access to industrial parks for rural or small-scale manufacturers. • Insufficient infrastructure support for technology-based industries. 	<ul style="list-style-type: none"> • Expand the accessibility of industrial parks to rural SMEs. • Integrate tech-focused infrastructure and innovation hubs into industrial parks.
National Skills Development Program (NSDP)	Aims to address the skills gap in Ethiopia's labor market by offering training in key sectors, including manufacturing.	Supports MIES by developing a skilled and adaptable industrial workforce, ensuring that the labor force meets the evolving needs of the manufacturing sector.	<ul style="list-style-type: none"> • Skills mismatch between training programs and industry needs. • Limited access to training for rural workers. 	<ul style="list-style-type: none"> • Align TVET curriculum more closely with manufacturing industry needs. • Expand TVET access to rural and underserved communities.
Trade and Industry Development Proclamation	Regulates the trade and industry sectors in Ethiopia, fostering fair competition,	Provides a legal framework for trade facilitation and fair competition, contributing to a	<ul style="list-style-type: none"> • Over-complex regulatory processes for SMEs. • Lack of clarity in enforcement 	<ul style="list-style-type: none"> • Simplify regulatory frameworks for SME support. • Strengthen quality standards

	export promotion, and industrial development.	favorable environment for the manufacturing sector under MIES.	of industry standards.	enforcement and provide clearer guidance for SMEs.
Bank of Abyssinia's Credit and Loan Facilities	Offers financing facilities specifically for small and medium manufacturing enterprises to improve their access to finance.	Enhances access to finance for SMEs, a key component of MIES, facilitating modernization, expansion, and capacity building in the manufacturing sector.	<ul style="list-style-type: none"> • Limited reach of credit facilities to SMEs outside major urban areas. • High interest rates deterring SMEs from taking loans. 	<ul style="list-style-type: none"> • Expand credit facility outreach to rural and underserved areas. • Negotiate lower interest rates and more flexible repayment options.

The Ethiopian Enterprise Development (EED) is anchored in the Council of Ministers Regulation No. **526/2022**, titled "*Definition of Organization, Powers and Duties of the Ethiopian Enterprise Development*". This regulation issued pursuant to Article 49(2) of Proclamation No. 1263/2021, outlines the powers and duties of executive organs in Ethiopia. The regulation establishes the legal framework for EED, detailing its organizational structure, responsibilities, and authority. EED is tasked with promoting enterprise development, supporting small and medium-sized enterprises, and facilitating economic growth through various initiatives.

B. Legislative and Regulatory Enablers for MIES

Ethiopia's legislative and regulatory framework forms a vital pillar for advancing the country's manufacturing sector and supporting the growth of micro and small enterprises (MSEs). Proclamation No. 1263/2021 establishes the powers and duties of executive organs, thereby laying the institutional foundation for bodies such as the Ethiopian Enterprise Development (EED). EED plays a central role in delivering enterprise development initiatives, including capacity building, technical support, and facilitating access to markets and finance. Through this framework, MIES implementation gains legitimacy, coordination, and a clearly defined operational mandate.

The modernization of Ethiopia's commercial legal environment through the Commercial Code Proclamation No. 1243/2021 strengthens investor confidence and creates an enabling setting for manufacturing businesses. By updating outdated provisions and introducing contemporary business governance standards, this legal reform facilitates more efficient and transparent commercial practices. This predictable and structured environment is essential for attracting investment, enhancing competitiveness, and encouraging informal enterprises to formalize, key goals of MIES.

Complementing this is the Council of Ministers Regulation No. 392/2016, which streamlines the processes for commercial registration and business licensing. Simplified and standardized procedures are critical for reducing entry barriers and administrative burdens faced by emerging manufacturers and small enterprises. A well-

functioning licensing system also facilitates better targeting and outreach of manufacturing extension services to eligible firms, ensuring legal clarity and accessibility.

The institutionalization of MSE support through the Micro and Small Enterprises Development Agency Establishment Regulation plays a pivotal role in technology dissemination and capacity building. This agency is strategically positioned to bridge the gap between policy and practice by providing tailored services and acting as a conduit for MIES delivery at the grassroots level. Its coordination with sector ministries and local governments ensures that extension services reach underserved areas and marginalized groups.

Furthermore, the Micro and Small Enterprise Development Policy & Strategy provides a coherent national vision to promote entrepreneurship, inclusive economic participation, and employment generation. This policy aligns with the broader goals of the MIES strategy, reinforcing enterprise development as a catalyst for industrial transformation. Its strategic emphasis on inclusivity—particularly for women, youth, and persons with disabilities—mirrors the social objectives embedded within the MIES framework.

Together, these laws, regulations, and policies form a cohesive and mutually reinforcing foundation for delivering effective manufacturing industry extension services. They not only create an enabling environment for enterprise growth but also institutionalize support mechanisms that are essential for achieving Ethiopia’s goals of industrial competitiveness, job creation, and equitable development.

5.7.2. Institutional Sustainability

- **Policy Alignment and Institutionalization:** MIES will be embedded within national industrial policies and regional development strategies to secure its long-term relevance and institutional legitimacy.
- **Capacity Strengthening:** Continuous training and certification of extension officers, TVET instructors, and SME advisors will ensure high-quality service delivery. A national MIES coordination unit will guide implementation and knowledge sharing across sectors and regions.
- **Decentralized Delivery Models:** Strengthening regional extension hubs and linking them to industrial parks, clusters, and local value chains will create sustainable, localized ownership of services.

5.7.3. Financial Sustainability

- **Diversified Financing:** MIES will adopt a mixed financing model that combines government budget allocations, Public-Private Partnerships (PPPs), international donor support, and SME contributions through cost sharing.
- **Credit Guarantee Schemes (CGSs):** These schemes will mobilize private financing for SMEs by reducing lending risks and enabling access to credit for productivity-enhancing investments.
- **Gradual Cost Recovery:** A tiered cost-sharing model will be implemented, where SMEs contribute based on size, stage, and ability to pay, promoting service ownership and reducing dependency on public funds.

5.7.4. Operational Sustainability

- **Demand-Driven Services:** Services will be customized based on real-time market data, SME feedback, and evolving sectoral demands to ensure relevance and impact.

- **Monitoring, Evaluation, and Learning (MEL):** A robust MEL system will guide performance tracking, outcome measurement, and adaptive learning, allowing continuous improvements in service delivery.
- **Digital Integration:** The use of digital tools for diagnostics, advisory services, and coordination will increase efficiency, reduce costs, and extend reach, especially to underserved regions.

5.7.5. *Environmental and Social Sustainability*

- **Green Manufacturing and Circular Economy Practices:** MIES will promote energy-efficient technologies, waste reduction methods, and environmentally friendly production processes aligned with Ethiopia's climate commitments.
- **Inclusivity and Equity:** Special provisions will ensure that women, youth, persons with disabilities (PWDs), and rural-based micro-enterprises have equitable access to extension services, finance, and market opportunities.
- **Climate Resilience:** Services will incorporate strategies for climate risk mitigation, including support for resource-efficient technologies and training on climate-smart manufacturing practices

5.8. Implementation Roadmap and Timeline.

5.8.1. *Planning*

The successful implementation of Ethiopia's Manufacturing Industry Extension Service (MIES) Strategy depends on well-coordinated planning, phased execution, and adaptive management. The strategy will be rolled out in a structured manner, ensuring alignment with national industrial policies, stakeholder needs, and regional development priorities. Strategic Planning and execution at Enterprise and at Programme level enhances the quality of service

The planning phase involves strategic multi-stakeholder consultations, institutional alignment, and clear prioritization of sectors and interventions. Key components of the planning process include:

- **Needs Assessment and Baseline Studies:** Sector-specific diagnostics to identify gaps in productivity, technology adoption, market access, and skills.
- **Target Sector Selection:** Prioritization of high-impact manufacturing sectors such as agro-processing, textiles and garments, leather and footwear, pharmaceuticals, and basic metals.
- **Stakeholder Mapping and Engagement:** Identifying roles and responsibilities across government, private sector, academia, and development partners to foster collaboration.
- **Phased Action Plan Development:** Defining short-, medium, and long-term interventions with realistic timelines and resource allocations.

5.8.2. *Execution Strategy*

The execution of the strategy will follow a phased, results-oriented approach, ensuring accountability, flexibility, and impact:

- **Phase 1: Institutional Strengthening and Pilot Implementation (Year 1–2)**
 - Establishment of a Federal and Regional MIES coordination unit under the Ministry of Industry.
 - Development of Service Delivery Guidelines/tools, manuals and Capacity-Building Programs/ Training Curriculums for Extension Agents.

- Launching the strategy and Pilot interventions in selected regions and sectors to test the model and collect feedback.
- **Phase 2: National Rollout, Scale-Up and Systems Integration (Year 3–4)**
 - Expansion of MIES services across prioritized industries and regions.
 - Integration of digital tools for monitoring, service delivery, and MSME engagement.
 - Operationalization of partnerships with TVET institutions, financial institutions and industrial parks.
- **Phase 3: Consolidation and Sustainability (Year 5 and beyond)**
 - Institutionalization of MIES within national and regional development frameworks.
 - Strengthening of financial sustainability through PPPs, cost-sharing models, and credit guarantee schemes.
 - Continuous monitoring, evaluation, and policy feedback loops to adapt to evolving industry needs.

5.9. Establishment of Coordination and Governance Mechanism

Effective execution requires strong governance, with clear accountability structures:

- **National Steering Committee:** Chaired by the Ministry of Industry, this body will provide strategic oversight, policy and resource alignment.
- **Regional Implementation Units:** Subnational units Responsible for rolling out services on the ground, managing stakeholder coordination, and feeding data into national monitoring systems.
- **Technical Working Groups:** Comprising experts from TVETs, academia, private sector, and development partners to provide technical support, research liaison, support and sector specific innovation.

SECTION 6: MONITORING, EVALUATION, AND LEARNING (MEAL)

6.1. MEAL Framework and Indicators

The objective of this Monitoring and Evaluation (M&E) plan is to systematically track the implementation, effectiveness, and overall impact of the National Manufacturing Industry Extension Services (MIES) Strategy, with a focus on Ethiopia has prioritized high-impact manufacturing sectors. This M&E plan is designed to support evidence-based decision-making, strengthen accountability among stakeholders, and foster a culture of continuous learning and adaptive management throughout all levels of implementation. By providing timely and reliable performance data, the plan will enable strategic adjustments, improve service delivery, and enhance the overall efficiency and responsiveness of the MIES system.

The Monitoring and Evaluation (M&E) system for Ethiopia’s Manufacturing Industry Extension Services (MIES) will rely on a mix of primary tools and secondary data sources to ensure comprehensive, accurate, and timely performance tracking. Primary tools will include field surveys conducted with SMEs and extension agents, SME self-reporting forms to capture service outcomes, digital dashboards for real-time data visualization, and mobile-based monitoring applications to facilitate on-the-ground data collection and reporting. Complementing these tools, secondary sources such as official reports from the Ministry of Industry (MoI), the Central Statistics Agency (CSA), the Ethiopian Investment Commission (EIC), and the National Bank of Ethiopia (NBE) will provide critical macro- and sector-level insights. Together, these data sources and tools will enable effective monitoring of progress, impact, and gaps in the implementation of the MIES strategy.

The key components of the M&E plan are outlined as follows.

Table 16: M&E Plan

Component	Description
Performance Framework	A results-based framework will track inputs, activities, outputs, outcomes, and long-term impact across targeted industries.
Key Performance Indicators (KPIs)	Industry-specific, gender- and region-sensitive indicators will be used to measure progress.
Data Collection & Management	Standardized digital tools and templates will ensure consistent data capture from local to national levels.
Baseline & Target Setting	Baseline data will be established during the inception phase; annual and mid-term targets will be defined in alignment with national industrial goals.
Reporting Mechanisms	Quarterly, bi-annual, and annual reporting cycles will ensure timely feedback loops.
Learning & Adaptation	Findings will be used to inform strategy adjustment, policy dialogue, and capacity-building efforts.

In the development of Key Performance Indicators, the following template will be applied or as shall be improved from time to time

Table 17: Sample KPIs for Prioritized High-Impact Manufacturing Industries

Domain	Key Indicator	Disaggregation	Frequency
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Input	Budget allocated to MIES by sector	By region, industry	Annual
Activity	Number of extension visits/trainings conducted	By gender, SME size, sector	Quarterly
Output	Number of firms adopting new or upgrading technologies	By sector, firm size	Bi-annually
Outcome	% increase in productivity in supported firms	By sector, baseline-adjusted	Annually
Outcome	% of SMEs accessing finance through PPP/credit schemes	By sector, firm size	Bi-annually
Impact	Jobs created in targeted sectors due to MIES support	By gender, youth, region	Annually
Impact	Export growth or market expansion for supported firms	By sector	Annually

The effective execution of the Monitoring and Evaluation (M&E) framework for Ethiopia’s Manufacturing Industry Extension Services (MIES) strategy requires clearly defined roles and collaborative engagement across multiple actors. The **Ministry of Industry (MoI)** serves as the lead institution, overseeing national-level M&E, ensuring alignment with industrial policy, and steering strategic refinements based on performance data. **Regional Industry Bureaus** play a critical role in coordinating M&E activities at the sub-national level, including data collection, analysis, and timely reporting of outcomes. **MoLS** and **Ministry of Education** contribute by providing data on workforce development, monitoring the integration of MIES-aligned curricula, and generating feedback on the relevance and quality of skills training. At the frontline, **Extension Agents** are responsible for collecting field-level service delivery data and capturing direct feedback from SMEs to inform continuous improvement. **Development Partners** offer valuable support through technical assistance, independent evaluations, and capacity building for M&E systems. Lastly, the **Private Sector and SMEs** are essential contributors, participating in feedback mechanisms and reporting on the results and effectiveness of services received, thereby closing the loop between service provision and outcome measurement. This coordinated multi-actor approach ensures that M&E is both participatory and performance-driven. The Roles and Responsibilities in M&E frameworks is illustrated as under.

Table 18: Institutional Roles and Responsibilities

Actor	Role
Ministry of Industry (MoI)	National oversight, lead National M&E, policy alignment, and strategy refinement, coordination, and reporting to policymakers
Regional Industry Bureaus	Data collection, performance monitoring, and M&E coordination at subnational level
TVET and Extension Service Providers	Skills data, TVET integration, curriculum feedback, Routine data entry, client feedback collection, and technical reporting.
National MIES Steering Committee	Annual performance review, strategic adaptation, and resource alignment
Independent Evaluators	Mid-term and final evaluations to ensure objectivity and learning
Extension Agents	Field-level service data reporting and client feedback capture
Development Partners	Technical assistance, external evaluations, and capacity support
Private Sector / SMEs	Participation in feedback loops, reporting service outcomes

Table 19: Sample M&E Framework Structure for the MIES

Strategic Objective	Key Indicators	Data Source	Frequency/ Timeline	Responsible Entity
1. Institutionalize a Coordinated, Demand-Driven MIES System	<ul style="list-style-type: none"> Number of regions implementing harmonized MIES systems Percentage of demand-driven service packages delivered 	Ministry of Industry Reports SME Surveys	Quarterly Annually	MoI, Regional Bureaus
2. Strengthen Strategic Partnerships and Institutional Capacity	<ul style="list-style-type: none"> Number of partnerships signed with public/private institutions Number of trained extension agents 	Partnership Logs Training Records	Semi-annually	MoI, MoE, PPP Coordinators
3. Boost Productivity and Competitiveness in Strategic Manufacturing Industries	<ul style="list-style-type: none"> Percentage of increase in productivity of supported firms Number of firms adopting quality standards 	Baseline & Follow-up Surveys CSA Reports	Annual	MoI, EIC, Sector Associations
4. Accelerate Industrial Transformation through Tech, Innovation & Infrastructure	<ul style="list-style-type: none"> Number of firms adopting digital tools or upgraded tech Number of infrastructure facilities supported 	Extension Reports Industrial Park Data	Quarterly	MoI, MITD, IPDC
5. Enhance MSME Competitiveness and Market Integration	<ul style="list-style-type: none"> Percentage increase in MSME sales/export revenues Number of MSMEs accessing new markets 	MoTI Trade Reports SME Panel Surveys	Annually	MoTI, MoE, Chamber of Commerce
6. Expand Access to Finance, Credit and BDS	<ul style="list-style-type: none"> Percentage of SMEs accessing credit or BDS Volume of credit disbursed through MIES-linked schemes 	NBE, BDS Providers, Bank Reports	Quarterly	MoF, NBE, Financial Institutions
7. Build a Skilled, Knowledgeable and Adaptive Industrial Workforce	<ul style="list-style-type: none"> Percentage of trainees completing MIES-related programs percentage of employers satisfied with workforce skills 	TVET Reports Employer Feedback Surveys	Semi-annually	MoE, TVET Agency, Industry Partners
8. Foster Inclusive and Environmentally Sustainable Industrial Development	<ul style="list-style-type: none"> Percentage of MIES beneficiaries who are women/youth/PWDs Number of firms adopting green practices 	Gender Reports Environmental Audits	Annual	MoWCA, EFCCC, MoI

6.2. Reporting and Learning Mechanisms

Effective reporting, documentation, and knowledge management are integral to the success of the Monitoring and Evaluation (M&E) framework for Ethiopia’s Manufacturing Industry Extension Services (MIES). A structured reporting system will enable timely, accurate, and consistent communication of progress, challenges, and outcomes at all levels of implementation. **Monthly reports** from extension agents will document field-level service delivery, SME feedback, and operational bottlenecks. Regional Industry Bureaus will aggregate these into quarterly regional reports, which are then submitted to the Ministry of Industry (MoI) for national consolidation. The MoI will produce an Annual MIES Performance Review Report, summarizing national-level performance, highlighting trends, and identifying areas for strategic refinement.

To enhance transparency and accessibility, all reports and evaluation outputs will be archived in a centralized digital knowledge management system. This platform will serve as a repository for implementation tools, case studies, training materials, and best practices—promoting institutional memory and continuous learning across regions and sectors. In addition to structured documentation, knowledge management strategies will include learning workshops, peer-learning exchanges among extension agents, and periodic knowledge briefs that synthesize insights from M&E data.

Learning strategies will be embedded into the MIES cycle through annual multi-stakeholder review forums, where SMEs, extension personnel, policymakers, academia, and development partners will reflect on findings and co-develop adaptive responses. These learning loops will ensure that MIES evolves as a responsive and evidence-driven system, capable of integrating feedback, scaling innovations, and continuously improving service quality and impact.

6.3. Documentation and Knowledge Management

Effective documentation and knowledge management are integral to the success of the Manufacturing Industry Extension Services (MIES) framework in Ethiopia. A structured approach to capturing, organizing, and disseminating information will ensure that progress is tracked, lessons are learned, and best practices are shared across all levels of MIES implementation. This section outlines the strategies for robust reporting, comprehensive documentation, and dynamic knowledge management to foster continuous improvement and accountability within Ethiopia’s industrial development agenda.

Reporting System

A structured reporting system is essential to enable timely, accurate, and consistent communication of progress, challenges, and outcomes across all levels of MIES implementation. This system will ensure transparency, accountability, and adaptive management.

- **Field-Level Reporting:** Monthly reports from Industry Extension Agents (IEAs) will document specific field-level service delivery activities, capturing direct feedback from Micro, Small, and Medium Enterprises (MSMEs) and identifying operational bottlenecks.
- **Regional Consolidation:** Regional Industry Bureaus will aggregate these monthly reports into quarterly regional reports, which will then be submitted to the Ministry of Industry (MoI) for national consolidation.

- **National Performance Review:** The MoI will produce an Annual MIES Performance Review Report. This report will summarize national-level performance, highlight key trends, identify areas requiring strategic refinement, and inform future policy adjustments.

Documentation and Archiving

Comprehensive documentation and systematic archiving are critical for preserving institutional memory, facilitating learning, and ensuring accessibility of information for all stakeholders.

- **Centralized Digital Knowledge Management System:** All reports, evaluation outputs, implementation tools, case studies, training materials, and best practices will be archived in a centralized digital knowledge management system. This platform will serve as a single repository, promoting institutional memory and continuous learning across various regions and sectors.
- **Standardized Templates and Formats:** The development and use of standardized digital tools and templates will ensure consistent data capture and reporting from local to national levels. This standardization will facilitate data aggregation and comparative analysis.

Knowledge Sharing and Learning

Knowledge management strategies will be designed to actively foster a culture of continuous learning and adaptation within the MIES framework.

- **Learning Workshops and Exchanges:** Periodic learning workshops and peer-learning exchanges will be organized among extension agents, policymakers, academia, and development partners to synthesize insights from Monitoring and Evaluation (M&E) data and facilitate shared problem-solving.
- **Knowledge Briefs and Publications:** Regular knowledge briefs will be developed to synthesize key findings, best practices, and innovative approaches emerging from MIES implementation. These publications will serve to disseminate valuable insights to a wider audience.
- **Adaptive Learning Loops:** Learning strategies will be embedded into the MIES cycle through annual multi-stakeholder review forums. These forums will encourage reflection on findings and the co-development of adaptive responses to evolving industry needs. This iterative process ensures that MIES remains a responsive and evidence-driven system.
- **Success Stories and Case Studies:** Documenting and disseminating success stories and detailed case studies of MSMEs that have benefited from MIES will serve as a powerful tool for advocacy, motivation, and demonstrating the tangible impact of the strategy. These examples will also highlight practical applications of technologies and improved practices.

6.4. The Performance Metrics for each Pillar

These metrics as presented in table below are designed to systematically track progress, assess effectiveness, and ensure accountability, contributing to evidence-based decision-making for Ethiopia's industrial transformation.

6.4.1. Performance Metrics by Pillar

Table 20: Performance metrics for each pillar

Pillar 1: Enabling Environment - This pillar is foundational, focusing on creating a supportive and coordinated institutional, policy, and regulatory landscape for manufacturing Micro, Small, and Medium Enterprises (MSMEs) and the MIES itself.

Key Indicator	Disaggregation	Frequency	Description
Stakeholder Engagement Level	By sector	Annual	<ul style="list-style-type: none"> - This indicator assesses the breadth and depth of active participation and collaboration from key stakeholders (e.g., government bodies, private sector associations, academia, development partners, individual MSMEs) within each priority-manufacturing sub-sector (e.g., agro-processing, textile, leather). - It can be measured through surveys, attendance at MIES coordination meetings, joint initiatives undertaken, and feedback mechanisms. A high engagement level signifies effective communication, shared ownership, and aligned efforts, which are crucial for the seamless implementation and sustainability of MIES. - Annual measurement allows for tracking the evolution of partnerships and addressing any declines in participation.
Regulatory Compliance Rate	By sector	Quarterly	<ul style="list-style-type: none"> - This metric measures the percentage of manufacturing MSMEs within each sector that successfully comply with relevant national and local business regulations, licensing requirements, and industry-specific standards. - Regular (quarterly) tracking helps to identify persistent bureaucratic hurdles, areas where regulatory clarity is lacking, or where MSMEs require more targeted support to navigate the legal framework. - Improved compliance suggests a more streamlined and accessible regulatory environment, reducing the burden on enterprises and facilitating formalization.
Business Climate Index	By region	Annual	<ul style="list-style-type: none"> - This is a composite index that provides a comprehensive overview of the perceived ease and favorability of doing business for manufacturing MSMEs in different administrative regions of Ethiopia. - It could incorporate factors like ease of business registration, access to essential utilities (electricity, water), consistency of policy implementation, and the overall perception of governance and stability. - An increasing index in a region indicates a more attractive environment for investment and growth, directly impacting MSME establishment and expansion. Annual measurement is appropriate for assessing macro-level policy impacts

Institutional Capacity Development	By region	Annual	<ul style="list-style-type: none"> - This indicator assesses the progress in strengthening the capacity of MIES-delivering institutions at the regional level. - This includes improvements in human resources (e.g., number of trained extension agents, staff retention), physical infrastructure (e.g., equipped MIES centers, mobility tools), financial resources allocated, and the operationalization of regional MIES coordination units. It reflects the capability of regional bodies to effectively and sustainably deliver high-quality extension services. - Annual evaluation provides a consistent benchmark for capacity building efforts.
Pillar 2: Technology - This pillar focuses on accelerating industrial transformation by facilitating the adoption of modern, productivity-enhancing technologies and investing in the necessary supporting infrastructure.			
Key Indicator	Disaggregation	Frequency	Description
Number of Firms Adopting Productivity Tools	By sector, firm size	Bi-annually	<ul style="list-style-type: none"> - This counts the actual number of manufacturing MSMEs that have successfully adopted specific productivity-enhancing tools and methodologies, such as Kaizen, lean manufacturing principles, or Total Quality Management Systems (TQMS). Disaggregating by sector (e.g., textile, agro-processing) and firm size (micro, small, medium) allows for a granular understanding of adoption patterns and the effectiveness of targeted interventions. - Bi-annual measurement provides regular updates on the pace of technology diffusion.
Technology Transfer Success Rate	By sector	Annual	<ul style="list-style-type: none"> - This metric assesses the effectiveness of initiatives aimed at transferring new technologies (e.g., machinery, software, production techniques) to MSMEs. It measures the percentage of transfer efforts that result in successful integration and sustained use of the technology by the recipient firms within each sector. - Success implies not just acquisition but also operationalization and observable benefits. - Annual tracking captures the long-term impact of technology transfer programs.
Investment in Innovation Infrastructure	By region	Annual	<ul style="list-style-type: none"> - This tracks the total public and private investment directed towards physical infrastructure that supports innovation, such as MSME-focused innovation hubs, common user facilities, shared production centers, and technology parks. - Disaggregation by region allows for assessing equitable distribution of such investments and identifying areas needing more development.

			- Annual reporting monitors the growth of the innovation ecosystem.
Applied R&D Projects	By sector	Annual	<ul style="list-style-type: none"> - This counts the number of research and development projects initiated or supported by MIES that are specifically focused on developing applied solutions, processes, or products relevant to the needs of manufacturing MSMEs within each sector. - It highlights the collaboration between industry, academia, and research institutions in driving practical innovation. - Annual measurement shows the vibrancy of the R&D linkage.
Pillar 3: Innovation - While closely related to technology, this pillar specifically emphasizes fostering a culture of continuous improvement, upgrading existing capabilities, and embracing digital transformation within MSMEs.			
Key Indicator	Disaggregation	Frequency	Description
Number of Firms Upgrading Technologies	By sector, firm size	Bi-annually	<ul style="list-style-type: none"> - This indicator measures the number of MSMEs that have upgraded their existing technologies, rather than adopting entirely new ones. - This could include upgrading machinery models, updating software versions, or improving specific components of their production line. Disaggregation helps understand the incremental improvements occurring across different firm types and sectors. - Bi-annual updates provide a good pulse on continuous modernization efforts.
Peer Learning Initiatives	By sector	Annual	<ul style="list-style-type: none"> - This measures the number of established and actively participating peer-learning groups, networks, or platforms within each manufacturing sector. - These initiatives facilitate informal knowledge exchange, shared problem-solving, and the diffusion of best practices among MSMEs. Tracking these initiatives, helps determine the strength of collaborative learning environments.
Adoption of Digitalization Strategies	By sector	Bi-annually	<ul style="list-style-type: none"> - This assesses the extent to which MSMEs are implementing and utilizing digital tools and strategies across various business functions. Examples include adopting e-commerce platforms, using digital marketing, integrating CAD/CAM software, or employing basic data analytics for production. - This metric indicates the progress towards a more digitally enabled manufacturing sector. - Bi-annual checks ensure timely monitoring of this rapid transformation.

Pillar 4: Market Competitiveness and Access - This pillar aims to enhance the ability of MSMEs to enter and effectively compete in both domestic and global markets by improving product quality, compliance, and strengthening market linkages.

Key Indicator	Disaggregation	Frequency	Description
Market Expansion (new markets entered)	By sector	Annually	<ul style="list-style-type: none"> - This measures the number of new domestic, regional (e.g., within the AfCFTA or COMESA), or international markets that MSMEs from a particular sector have successfully entered. - This is a direct measure of enhanced competitiveness and export readiness. - Annual tracking captures significant market shifts and successes.
Product Standards Compliance Rate	By sector	Quarterly	<ul style="list-style-type: none"> - This tracks the percentage of MSME products that consistently meet relevant national and international quality, safety, and performance standards. - High compliance is paramount for market access, especially in regulated or export markets. - Quarterly monitoring allows for rapid identification of issues and targeted support.
Access to Certification Systems	By sector	Annual	<ul style="list-style-type: none"> - This measures the number or percentage of MSMEs within each sector that have successfully gained access to and undergone the process for obtaining relevant certifications (e.g., ISO, HACCP, WRAP). - These certifications often act as a gateway to larger markets and value chains, demonstrating product credibility and process quality
Value Chain Integration Success Rate	By sector	Annual	<ul style="list-style-type: none"> - This indicator assesses the effectiveness of MIES interventions in helping MSMEs integrate more deeply and successfully into domestic and global value chains. Success can be measured by sustained contractual relationships with larger firms, increased participation in subcontracting, or improved access to inputs and distribution channels. - It reflects stronger linkages and reduced isolation of MSMEs.

Pillar 5: Finance - This pillar addresses the critical challenge of limited access to appropriate and affordable financial services for MSMEs, promoting the development and utilization of inclusive financial instruments and business development services.

Key Indicator	Disaggregation	Frequency	Description
Loan Approval Rate	By sector, firm size	Quarterly	<ul style="list-style-type: none"> - This tracks the percentage of loan applications from manufacturing MSMEs that are successfully approved by financial institutions (banks, microfinance institutions). - Disaggregation provides insights into which sectors and firm sizes face the greatest financial barriers.

			<ul style="list-style-type: none"> - A rising approval rate suggests improved creditworthiness, effective MIES facilitation, or better-tailored financial products.
Development of Inclusive Financial Instruments	By region	Annual	<ul style="list-style-type: none"> - This measures the number or type of new or adapted financial products and services that are specifically designed to be inclusive and accessible to MSMEs. Examples include blended finance instruments, concessional credit lines, asset-leasing mechanisms, or tailored grants. - Regional disaggregation helps assess the spread of these new instruments.
Financial Literacy Improvement	By sector, firm size	Bi-annually	<ul style="list-style-type: none"> - This assesses the measurable improvement in the financial literacy and management capabilities of MSME owners and managers. This can be done through pre- and post-training assessments, surveys on financial practices, or indicators like improved record keeping. - Enhanced financial literacy empowers MSMEs to better manage their finances and access funding.
Business Development Services Utilization	By underserved groups	Annual	<ul style="list-style-type: none"> - This tracks the percentage of MSMEs belonging to specific underserved groups (e.g., women-led businesses, youth entrepreneurs, enterprises owned by persons with disabilities, rural MSMEs) that actively utilize Business Development Services (BDS) provided or facilitated by MIES. - This ensures that the strategy effectively reaches and supports those who traditionally face greater barriers.
<p>Pillar 6: Knowledge and Skills - This pillar targets the development of a skilled, knowledgeable, and adaptive industrial workforce, aligning education and training systems with the evolving demands of the manufacturing sector.</p>			
Key Indicator	Disaggregation	Frequency	Description
Training Completion Rate	By sector, firm size	Quarterly	<ul style="list-style-type: none"> - This measures the percentage of MSME employees and owners who successfully complete MIES-related training programs (e.g., technical skills, business management, quality control). - A high completion rate indicates the relevance, accessibility, and quality of the training interventions.

Skill Application Rate	By sector, firm size	Bi-annually	<ul style="list-style-type: none"> - This crucial indicator goes beyond training completion to assess whether the skills and knowledge acquired are actually being applied in the workplace. - It can be measured through follow-up surveys, observational assessments, or documented changes in production processes. - It signifies the practical impact of skills development on enterprise performance.
Online Training Participation Rate	By region	Annual	<ul style="list-style-type: none"> - This tracks the percentage of MSMEs or individuals participating in online or digital training modules and platforms offered by MIES. - It highlights the effectiveness of digital outreach in expanding access to knowledge and skills, particularly for remote or geographically dispersed enterprises.
MSME – Technical Institutions Collaboration Initiatives	By sector	Annual	<ul style="list-style-type: none"> - This measures the number and nature of formal collaborations (e.g., joint R&D projects, apprenticeship programs, curriculum co-development, student internships) between MSMEs and Technical, Vocational Education and Training (TVET) institutions or universities. - Strong collaboration ensures that training aligns with industry needs and fosters an innovation ecosystem.
<p>Pillar 7: Environmental and Social Safeguards - This pillar ensures that industrial development is environmentally sustainable and socially inclusive, promoting green manufacturing practices and addressing disparities to foster equitable growth.</p>			
Key Indicator	Disaggregation	Frequency	Description
Compliance with Environmental Standards	By sector	Quarterly	<ul style="list-style-type: none"> - This tracks the percentage of manufacturing MSMEs within each sector that comply with national environmental regulations, pollution control standards, and waste management protocols. - Improved compliance is a direct measure of progress towards environmentally responsible industrialization.
Integration of MSMEs into Green Economy	By sector	Annual	<ul style="list-style-type: none"> - This measures the extent to which MSMEs are adopting practices and technologies associated with a green economy. Examples include switching to renewable energy sources, implementing significant waste reduction and recycling programs, or developing environmentally friendly products. - It signifies their active contribution to a more sustainable economic model.

Climate-Resilient Practices Adoption Rate	By region	Annual	<ul style="list-style-type: none"> - This tracks the percentage of MSMEs in each region that adopt practices aimed at enhancing their resilience to climate change impacts. - This could include water-efficient production methods, energy-saving technologies, or adaptations to supply chains to mitigate climate risks.
Addressing Disparities in Development	By gender, youth, region	Annual	<ul style="list-style-type: none"> - This broad but critical indicator assesses the progress in ensuring equitable access to MIES benefits and opportunities for historically marginalized groups. - It can be measured by tracking the percentage of MIES beneficiaries who are women, youth, or persons with disabilities (PWDs), as well as the equitable distribution of services and resources across different regions. - This ensures that the MIES strategy promotes inclusive growth.

TERMINOLOGIES

Terminologies	Meaning
Biashara Centre	A Biashara Centre is a decentralized service facility managed by the Micro and Small Enterprises Authority (MSEA) under the Ministry of Cooperatives and Micro, Small and Medium Enterprises Development. The word “ <i>biashara</i> ” means “business” in Kiswahili, and the centers are literally “business support centres.”
Business Development Services (BDS)	Non-financial services such as business planning, mentorship, and market access support, provided to help MSMEs grow and succeed.
Cluster-Based Delivery Mechanism	A strategy to deliver extension services through MSME clusters to improve efficiency, reduce duplication, and encourage collaboration.
Demand-Driven Extension Services	Services designed in response to the real needs of MSMEs, co-created with enterprises rather than imposed from the top-down.
Eco-Industrial Development	Industrial development that integrates environmental sustainability by reducing emissions, recycling waste, and conserving resources.
Enterprise Maturity Stages	The phases of business growth—start-up, scaling, and maturity—used to tailor extension services and support strategies.
Entrepreneurship Development	Programs and activities aimed at cultivating entrepreneurial mindsets, business skills, and innovation capacity among MSMEs.
Ethiopian Enterprise Development (EED)	A government organization operating under the Ministry of Industry, mandated to support the growth and competitiveness of manufacturing enterprises. Its core role is to facilitate and provide a comprehensive range of enterprise development services tailored to the specific needs and challenges of enterprises. These services include access to organized business information, training, counseling, technology development, market linkage support, quality and productivity improvement, and other related interventions. EED works by identifying the barriers faced by manufacturing enterprises and delivering targeted, need-based support to enhance their performance and sustainability.
Graduation Model	A service delivery approach in which MSMEs move through phases of support—from basic to advanced—based on progress and capacity.
Green Manufacturing	Eco-friendly and resource-efficient production practices aimed at minimizing environmental impact and promoting climate resilience.
Inclusive Industrial Development	Ensuring all societal groups—especially women, youth, and rural communities—benefit from industrial growth and MSME development.

Incubation Centers	Facilities that provide early-stage MSMEs with resources like mentorship, shared tools, office space, and access to technology.
Industrial Parks	Government- planned zones offering infrastructure, services, and incentives to promote industrial development and investment.
Industry Extension Services (IES)	The provision and facilitation of organized information, training, counseling, technology development, marketing, quality and productivity improvement and other similar supports by identifying the challenges faced by manufacturing enterprises and based on their needs.
Industry 4.0	is the fourth industrial revolution marked by the integration of digital technologies—IoT, AI, automation, big data, and smart manufacturing—into production systems to improve efficiency and competitiveness.
Informal Sector	Enterprises not formally registered with government systems, often lacking access to finance, training, and legal protections.
KAIZEN	A continuous improvement methodology focused on reducing waste and enhancing quality and productivity, widely adopted in Ethiopian manufacturing.
M&E (Monitoring and Evaluation)	Systems used to track the performance and impact of MIES programs, ensuring accountability and continuous improvement.
Maker Spaces and Innovation Hubs	Collaborative environments equipped with tools and technology that allow MSMEs and entrepreneurs to prototype and innovate.
Manufacturing Industry Extension Services (MIES)	Structured, government-supported services aimed at boosting productivity, competitiveness, innovation, and sustainability of MSMEs in manufacturing.
MSMEs (Micro, Small, and Medium Enterprises)	Micro Manufacturing Enterprise: an enterprise that has 10 permanent employees and a total asset worth up to Birr 600,000; Small Manufacturing Enterprise: an enterprise with 11 up to 50 permanent employees and a total asset worth between Birr 600,001 and 10,000,000; Medium Manufacturing Enterprise: an Enterprise with 51 up to 100 permanent employees and a total asset worth between Birr 10,000,001 and 90,000,000 however, if there is ambiguity between human resource and total assets, a total asset shall prevail.
Performance-Based Extension Model	A results-driven approach where service delivery is evaluated through measurable outcomes and enterprise performance improvements.
Public-Private Partnership (PPP)	A collaborative model where government, private sector, and civil society co-design and implement development programs.

Smart Factory	Digitally integrated manufacturing environments where systems automate production and monitor performance in real-time.
Smart Specialization	A development strategy that builds on regional strengths to promote competitive advantage in specific sectors or industries.
Standardization and Certification	The process of aligning products and processes with national or international standards to ensure market access and quality assurance.
Supply-Driven Services	Services are designed based on what providers can offer rather than the specific needs of beneficiaries. In IES for MSMEs in Ethiopia, this means delivering pre-set training or solutions without proper needs assessment, which often leads to low relevance and impact compared to demand-driven approaches.
Technology Transfer	The process of introducing, adapting, and applying technologies—such as machinery, software, or practices—to improve enterprise competitiveness.
TVET (Technical and Vocational Education and Training)	Institutions offering hands-on, industry-aligned skills training that supports workforce development for MSMEs.
Value Chain Approach	A framework that addresses the entire production-to-market process, aiming to strengthen MSMEs' roles within broader industrial ecosystems.
Cluster Development	Organizing MSMEs into regional or sectoral groups to foster collaboration, innovation, shared services, and market access.

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ANNEXES:

Annex 1: Interview Questions

Interview Questions for MSMEs on Industry Extension Services and Business Development Services (BDS) in the Manufacturing Sector of Ethiopia

Objective:

This interview aims to gather information from MSMEs in Ethiopia's manufacturing sector about their experiences with industry extension services and Business Development Services (BDS). It aims to understand the effectiveness, challenges, and impact of these services on MSMEs' growth and development.

Instructions:

1. Begin by introducing yourself and explaining the purpose of the interview.
2. Inform the interviewee that their responses will be treated confidentially and used only for research purposes.
3. Encourage the interviewee to provide honest and detailed answers based on their experiences.
4. Allow for open-ended responses and follow up with clarifying questions if necessary.
5. The interview is expected to last between 30 to 45 minutes.

Interview Questions

1. Overview of Business and Support Services

Can you briefly describe your business and the type of manufacturing activities you engage in? What kind of support services (BDS or industry extension) have you accessed in the past?

2. Experience with Industry Extension Services

Have you received any industry extension services (such as technical support, technology transfer, or advisory services) from government agencies or other organizations? How has this impacted your business?

3. Accessibility of Services

How accessible are the industry extension and BDS services to your business? Do you find it easy or difficult to obtain the services you need? Why?

4. Quality of Support Provided

How would you assess the quality of the BDS and industry extension services provided to your business? Were the services effective in addressing your specific challenges?

5. Financial Management and Access to Finance

What kind of financial management support have you received through these services? Has it helped you manage your business finances more effectively or access funding opportunities?

6. Skills Development and Training

Have you participated in any training programs related to business development, financial management, or manufacturing skills? How useful were these programs for enhancing your business operations?

7. Challenges in Service Utilization

What challenges have you faced in utilizing the industry extension services or BDS offered to MSMEs? (For example, issues with service delivery, relevance, timeliness, or capacity of service providers.)

8. Impact on Business Growth

How have the services and support you received influenced the growth or development of your business? Could you share specific examples of improvements in production, sales, or market access?

9. Gaps in Services Provided

Do you think there are any gaps in the current services provided to MSMEs in the manufacturing sector? What additional services or improvements would you like to see?

10. Recommendations for Improvement

Based on your experience, what recommendations would you give to improve the delivery and effectiveness of industry extension services and BDS for MSMEs in Ethiopia's manufacturing sector?

Annex 2: Interview Checklist for the Manufacturing Industry Extension Service Providers

Objective:

This interview aims to assess the capacity, experience, challenges, and opportunities of Industry Extension Service Providers (IESPs) in delivering technical assistance to small and medium-sized enterprises (SMEs) and industries. The focus is on understanding the effectiveness of their current services, identifying areas for improvement, and evaluating their alignment with the needs of the industries, they support. The information gathered will help to enhance Industry Extension Programs and inform future development initiatives.

Instructions for the Interviewer:

- Begin by introducing the purpose of the interview and how the information will be used.
- Ensure the interviewee feels comfortable and encourage them to provide detailed responses.
- Take detailed notes and record examples, anecdotes, and specific feedback where possible.
- Thank the interviewee for their time and contributions at the end of the session.

Interview Questions

1. Can you describe your role as an Industry Extension Service Provider and the types of support you offer to industries, particularly SMEs?
2. What key challenges do you encounter when delivering extension services to industries and SMEs?
3. How do you assess the needs of the industries you support, and how do you customize your services to meet those needs?
4. How do you measure the impact or success of your services on the industries or SMEs you work with?
5. What opportunities do you see for improving the industry extension services that you provide?
6. Can you share a success story where your services had a significant positive impact on an industry or SME?
7. In your opinion, how can collaboration between Industry Extension Service Providers and other stakeholders (e.g., government, private sector, academic institutions) be strengthened to support industries?

Annex 3: Interview Questions for the EED

Objective:

To gather insights from EED management regarding the structure, mandates, financing, service providers, leadership, and monitoring & evaluation of the National Industry Extension Service (IES). This will help identify challenges, opportunities, and areas for improvement.

General Instructions:

- Introduce the purpose of the interview and the significance of the responses.
- Assure confidentiality and encourage detailed, honest feedback.
- Allow open-ended discussions and ask follow-up questions for clarity.

1. Structure of the National Industry Extension Service (IES)

- Can you describe the role of EED in the development and implementation of Industry Extension Services?
- What are the key objectives and priorities of EED regarding the National IES strategy?
- What major initiatives has EED implemented in industry extension services so far?
- Can you highlight any successful programs or models that have shown significant impact?
- What is the organizational structure of the National IES under EED?

2. Mandates and Responsibilities of Key Stakeholders

- What are the key mandates of EED in overseeing and managing IES?
- What are the roles of government institutions, industry associations, and the private sector?
- How are mandates distributed among different stakeholders (policy formulation, implementation, evaluation)?
- Are there legal frameworks or policies that govern the operation of IES?

3. Financing of Industry Extension Services

- What are the primary sources of funding for the National IES?
- Is there a dedicated government budget for IES programs?
- How much financial support is available for MSMEs to access IES services?
- Are there partnerships with donors, private sector, or financial institutions for funding IES?
- What are the major financial challenges in sustaining and scaling IES programs?

4. Service Providers (Who Delivers IES?)

- Who are the key service providers delivering industry extension services (public, private, NGOs, universities)?
- How does EED select and accredit service providers?
- What capacity-building initiatives exist to enhance the skills and effectiveness of service providers?

- What challenges do service providers face in delivering quality extension services?
- How do service providers coordinate with MSMEs to ensure their needs are met?

5. Leadership and Governance of IES

- Who are the key leaders responsible for managing and overseeing IES at the national level?
- What decision-making structures are in place to guide IES implementation?
- How does EED ensure coordination among different stakeholders and government bodies?
- Are there leadership gaps affecting the effectiveness of IES?
- What improvements are needed to strengthen governance and leadership within IES?

6. Monitoring & Evaluation (M&E) of IES Programs

- What M&E mechanisms are in place to assess the performance and impact of IES?
- What key performance indicators (KPIs) are used to track the success of IES initiatives?
- How does EED collect and use feedback from MSMEs and service providers to improve IES?
- Are there challenges in data collection, reporting, and measuring impact?
- What strategies are being considered to improve the M&E system of IES?

7. Challenges and Areas for Improvement

- What are the most significant challenges currently facing the National IES?
- What gaps exist in service delivery, funding, leadership, or stakeholder collaboration?
- What strategies can be implemented to improve accessibility, efficiency, and impact of IES?

8. Future Plans and Strategic Direction

- What are EED's long-term goals for the National Industry Extension Service?
- How does EED plan to scale up IES and make it more sustainable?
- Are there upcoming policy changes or reforms aimed at strengthening IES?

Closing Remarks:

- Summarize key points from the interview and ask for any final thoughts or recommendations.
 - Thank the interviewee for their valuable time and insights

Annex 4: Stakeholders Focus Group Discussion guiding questions

Focus Group Discussion (FGD) Questions for Manufacturing Industry Extension Services and Business Development Services (BDS) for MSMEs in the Manufacturing Sector of Ethiopia

Participants: Stakeholders

Objective:

The objective of this FGD is to gather insights from various stakeholders involved in industry extension services and Business Development Services (BDS) to enhance support for Micro, Small, and Medium Enterprises (MSMEs) in Ethiopia's manufacturing sector. This discussion will focus on understanding the challenges, opportunities, and effectiveness of the current services and gather recommendations for future improvements.

Instructions:

1. Introduce yourself and explain the purpose of the discussion.
2. Ensure participants understand that their responses will remain confidential and that there are no right or wrong answers.
3. Encourage everyone to share their perspectives freely, as the goal is to collect diverse insights.
4. Remind participants to speak one at a time and allow others to share their views.
5. Allocate approximately 1.5 to 2 hours for the entire session.

Discussion Questions

1. Understanding the Role of Stakeholders

What do you believe is the primary role of your organization in supporting MSMEs in the manufacturing sector? How do you collaborate with other stakeholders?

2. Effectiveness of Current Industry Extension Services

How effective are the current industry extension services in addressing the needs of MSMEs in manufacturing? Can you share specific examples of successful interventions or areas where improvements are needed?

3. Challenges Faced by MSMEs

In your experience, what are the main challenges MSMEs face in accessing support services like financial management, marketing, or technical assistance? How do these challenges vary between small and medium enterprises?

4. Gaps in Business Development Services (BDS)

Are there any gaps in the current BDS provided to MSMEs in the manufacturing sector? If so, what specific services or resources are missing or insufficient?

5. Customization of Support for MSMEs

How well are industry extension and BDS services tailored to the specific needs of MSMEs in different manufacturing sub-sectors? Do you feel the services take into account regional or sector-specific differences?

6. Capacity of Service Providers

Do you think the organizations or institutions delivering BDS and industry extension services have the necessary capacity (in terms of expertise, resources, and infrastructure) to effectively support MSMEs? What areas need strengthening?

7. Role of Financial Institutions in Supporting MSMEs

What is the role of financial institutions in supporting MSMEs within the manufacturing sector? How accessible are financial services like loans, grants, or subsidies to MSMEs, and what challenges exist in this regard?

8. Collaboration Among Stakeholders

How effective is the collaboration and communication between government bodies, industry associations, financial institutions, and MSMEs? Are there any recommendations for improving collaboration to support MSMEs better?

9. Impact of Policies and Regulations

What are the key government policies or regulations that have either supported or hindered MSMEs in the manufacturing sector? What changes in policy or regulation would you recommend to improve the environment for MSMEs?

10. Future Directions and Recommendations

Based on your experience, what recommendations would you give to improve industry extension services and BDS for MSMEs in the manufacturing sector? What innovations or new approaches do you believe could make a significant impact?

Annex 5: Industry Extension Service Providers Questionnaire

Business Development Services and Technical Support to Small & Medium Enterprises and Major Stakeholders in Ethiopia Questionnaire to assess Industry Extension Services to MSMEs Participants: Industry Extension Service Providers

Dear Respondent,

Thank you for taking the time to participate in this survey. Your responses are vital to assessing the effectiveness and challenges of delivering industry extension services to MSMEs in the manufacturing sector. This data will help improve service delivery and better meet the needs of MSMEs in Ethiopia.

Your responses will be kept anonymous, and the data will be used for research purposes only.

A. DEMOGRAPHIC INFORMATION

1. **Gender:** 1. Male 2. Female
2. **Age:** 1. Under 25 2. 25-35 3. 36-45 4. 46-55 5. Above 55
3. **Years of Experience in Extension Services:**
 1. Less than 1 year
 2. 1-5 years
 3. 6-10 years
 4. More than 10 years
4. **Education Level:**
 1. Diploma
 2. Bachelor's Degree
 3. Master's Degree
 4. PhD

B. INDUSTRY EXTENSION SERVICE DELIVERY

Please read each question carefully and select the response that best reflects your experience. This survey uses a **5-point Likert scale** to measure your level of agreement with each statement.

1 = Strongly Disagree **2** = Disagree **3** = Neutral **4** = Agree **5** = Strongly Agree

S.No.	Items	1	2	3	4	5
1.	I provide effective technical assistance tailored to the specific needs of MSMEs in the manufacturing sector.					
2.	The training programs I offer help MSMEs in the manufacturing sector improve their operational capacity.					
3.	I have a clear process in place for identifying and addressing the key challenges faced by MSMEs in the manufacturing sector.					
4.	I collaborate effectively with other stakeholders in the MSME ecosystem to deliver integrated support.					
5.	The infrastructure support I offer is aligned with the needs of MSMEs in the manufacturing sector.					
6.	I help MSMEs establish access to markets and expand their market reach.					
7.	I provide sufficient financial support (such as grants, loans, or subsidies) to MSMEs in the manufacturing sector.					
8.	I offer services that assist MSMEs in improving product quality and meeting industry standards.					
9.	I provide MSMEs with access to new technology and innovation relevant to the manufacturing industry.					
10.	The services I offer are easily accessible to MSMEs in both urban and rural areas.					
11.	The policy environment in Ethiopia is conducive to the successful implementation of industry extension services for MSMEs.					
12.	MSMEs often express satisfaction with the quality of the services I provide.					
13.	I regularly update and adjust the support services I offer based on feedback from MSMEs.					
14.	I actively engage in policy advocacy that benefits MSMEs and supports their growth in the manufacturing sector.					

15.	The collaboration between industry extension service providers and MSMEs effectively addresses their growth challenges.					
16.	I provide MSMEs with the necessary tools and knowledge to improve their financial management practices.					
17.	The MSME ecosystem in Ethiopia is well-coordinated, and information is easily shared among stakeholders.					
18.	My extension services help MSMEs in Ethiopia access critical resources such as financing and raw materials.					
19.	There are sufficient mechanisms for monitoring and evaluating the impact of the extension services I provide to MSMEs.					
20.	I encourage MSMEs to adopt sustainable and eco-friendly manufacturing practices.					

Annex 6: Questionnaire to Assess the Impact of Industry Extension Services on MSMEs

This questionnaire evaluates the impact of Industry Extension Services (IES) on Micro, Small, and Medium Enterprises (MSMEs) in Ethiopia's manufacturing sector, focusing on their effectiveness in enhancing growth, competitiveness, and sustainability through key service packages: entrepreneurship development, Kaizen-driven quality and productivity improvement, technical skills training, consultancy, market linkage, raw material supply coordination, modern technology utilization, business management training, financial support, and policy awareness. It also assesses the capacity of IES providers to deliver these services. The survey uses a 5-point Likert scale to measure respondents' agreement with statements.

Instructions:/

- Please read each statement carefully and select the response that best reflects your experience or perspective.
- Use the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.
- Your responses will remain confidential and will be used for research purposes only.

No.	Statement	1	2	3	4	5
1	IES entrepreneurship development services foster innovative ideas that enhance my MSME's growth and job creation.					
2	IES providers are well-equipped to deliver effective entrepreneurship training and mentorship to MSMEs.					
3	IES Kaizen-driven services improve my MSME's product quality, workplace safety, and competitiveness.					
4	IES providers have adequate expertise to implement Kaizen tools for quality and productivity improvement.					
5	IES technical skills training aligns with MSMEs' demands, enhancing my operational capacity.					
6	IES providers have the capacity to deliver high-quality technical skills training in collaboration with universities and TVETs.					
7	IES technology capacity building enables my MSME to adopt innovative technologies, improving production efficiency.					
8	IES providers have sufficient resources to support MSMEs in adopting and adapting modern technologies.					
9	IES consultancy services provide tailored solutions that address my MSME's specific operational challenges.					
10	IES providers are adequately trained to deliver customized consultancy services to MSMEs.					
11	IES market opportunity expansion services enhance my MSME's access to markets through linkages, trade fairs, and promotion.					
12	IES providers effectively facilitate market linkages and trade opportunities for MSMEs.					
13	IES raw material supply coordination improves my MSME's access to quality inputs through bulk purchasing or supplier networks.					
14	IES providers are well-coordinated with suppliers to ensure reliable raw material access for MSMEs.					

15	IES modern technology provision enables my MSME to upgrade production processes.					
16	IES providers have access to resources to provide modern technology solutions, such as leasing or prototyping, to MSMEs.					
17	IES business management training improves my MSME's operational and financial practices.					
18	IES providers have sufficient expertise to deliver effective business management and accounting training to MSMEs.					
19	IES financial support services streamline my MSME's access to loans and other funding opportunities.					
20	IES providers are capable of facilitating financial support mechanisms, such as loan access, for MSMEs.					
21	IES policy awareness services help my MSME understand regulations and leverage government incentives.					
22	IES providers effectively communicate policy and regulatory information to support MSME compliance and growth.					
23	IES promote environmentally sustainable practices, enabling my MSME to adopt green manufacturing techniques.					
24	IES providers are trained to support MSMEs in implementing eco-friendly and sustainable production practices.					
25	IES facilitate collaboration with stakeholders (e.g. industry associations, academia) to enhance my MSME's competitiveness.					
26	IES providers demonstrate effective coordination among institutions (e.g., TVETs, universities, industry associations) to deliver cohesive support to my MSME.					
27	The content and quality of IES packages (entrepreneurship, Kaizen, technical skills, technology capacity building) are well-designed to meet my MSME's specific needs.					
28	IES consultancy services offer practical and actionable solutions to address my MSME's operational and market-related challenges.					
29	My MSME was adequately prepared and willing to adopt IES offerings, such as training, technology, or process improvements.					
30	I have a positive overall attitude toward IES due to their value in supporting my MSME's growth, competitiveness, and sustainability.					

Annex 7: FGD Guide to Assess the Impact of Industry Extension Services on MSMEs

Objective:

This Focus Group Discussion (FGD) aims to gather in-depth insights from Micro, Small, and Medium Enterprises (MSMEs) in Ethiopia's manufacturing sector to assess the impact of Industry Extension Services (IES) on their growth, competitiveness, and sustainability. The discussion centers on four IES packages: Kaizen, Entrepreneurship, Capacity Building, and Technology Transfer.

Participants:

MSME operators from priority manufacturing sub-sector (agro-processing, textiles, leather, metal, chemical manufacturing and others) in Ethiopia.

1. What strengths have you identified in IES that positively impact your MSME's growth and operational efficiency?
2. What weaknesses or challenges have you encountered with IES offerings, and what improvements would you suggest to enhance their effectiveness?
3. What future trends do you envision for IES services that could better support your MSME's innovation and competitiveness?

Annex 8: የባለድርሻ አካላት መጠይቅ

አገር አቀፍ የማኑፋክቸሪንግ ኢንዱስትሪ ኤክስቴንሽን አገልግሎት (IES) ስትራቴጂ

ክፍል 1: አጠቃላይ መረጃ

- ድርጅት/ተቋም _____
- የእርስዎ ሚና/ኃላፊነት _____
- ክልል/አካባቢ _____

ክፍል 2: ዋና ዋና ተግዳሮቶች

1. በአካባቢዎ ያለውን የማኑፋክቸሪንግ ኢንዱስትሪ ኤክስቴንሽን አገልግሎት (IES) ወቅታዊ ሁኔታ በአጭሩ ይግለጹ።

- (አደረጃጀት፣ ተደራሽነት፣ ጥራት፣ እና ለአነስተኛና ጥቃቅን ኢንተርፕራይዞች (MSMEs) ያላቸው ጠቀሜታ) _____

2. ከእርስዎ እይታ፣ የብሔራዊው IES ስትራቴጂ ሊፈታቸው የሚገቡ አምስት ዋና ዋና ተግዳሮቶች ምንድን ናቸው?

- ተግዳሮት 1: _____
- ተግዳሮት 2: _____
- ተግዳሮት 3: _____
- ተግዳሮት 4: _____
- ተግዳሮት 5: _____

3. በኢትዮጵያ ውስጥ የIES ውጤታማ ትግበራ ላይ ተጽዕኖ የሚያሳድሩ ዋና ዋና ተቋማዊ ወይም መዋቅራዊ ችግሮች ምንድን ናቸው?

- (እንደ ቅንጅት፣ የሰው ኃይል፣ በጀት፣ ሥልጣን፣ ወይም የክልላዊ ልዩነቶች ያሉ ጉዳዮችን ያስቡ።) _____

ክፍል 3: ምክረ ሃሳቦች

- ከላይ የተዘረዘሩትን ተግዳሮቶች ለመፍታት ምን ዓይነት የተለዩ ምክረ ሃሳቦችን ይጠቁማሉ?